



BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
(UGC Recognized 2(f) & 12(B) Institution)
THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : DESIGN & ANALYSIS OF ALGORITHM - P16CS13
COURSE OUTCOME

CO1	To study the concepts of algorithms and analysis of algorithms.
CO2	Understanding the concepts of analysis of algorithm using divide & conquer method.
CO3	Describes the concepts of analysis of algorithm using greedy method.
CO4	Understanding the concepts of analysis of algorithm using dynamic programming method.
CO5	Understanding the concepts of analysis of algorithm using backtracking and branch & bound techniques.



PO → CO ₁	PO1	PO2	PO3	PO4	PO5
CO1	2	3	2	2	2
CO2	2	3	2	1	2
CO3	2	3	2	1	2
CO4	2	3	2	2	2
CO5	2	3	2	1	2
AVERAGE	2	3	2	1.4	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 17272001	ANAMIKA. V	5	5	5	5	5	25	100
2	P 17272002	CHANDRAMOHAN. S	5	4	5	5	5	24	96
3	P 17272003	DEVAYANI. R	5	5	5	5	5	25	100
4	P 17272004	DHIVYA. K	5	5	4	5	4	23	92
5	P 17272005	KAYATHRI. D	4	4	5	4	5	22	88
6	P 17272006	NARMADHA. C	5	5	4	5	5	24	96
7	P 17272007	SAMYTHURAL. V	5	4	5	5	4	23	92
8	P 17272008	SOWMIYA. R	4	4	5	5	4	22	88
9	P 17272009	VIGNESH. C	5	4	4	5	5	23	92
AVERAGE			4.78	4.44	4.67	4.89	4.67		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.78	75	79.78	93.859
CO2	4.44	75	79.44	93.459
CO3	4.67	75	79.67	93.729
CO4	4.89	75	79.89	93.988
CO5	4.67	75	79.67	93.729

COURSE ATTAIMENT FOR M.Sc. COMPUTER SCIENCE

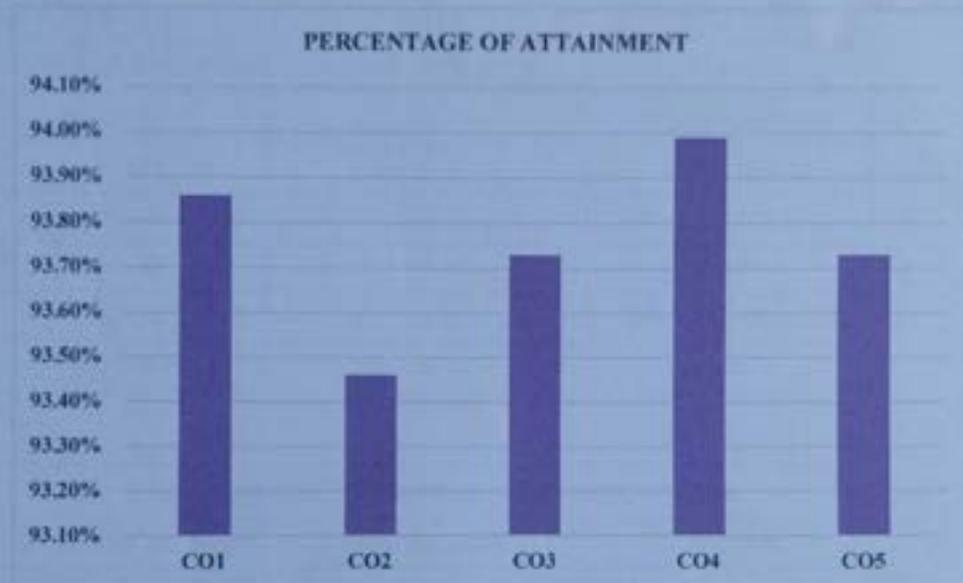
SUBJECT NAME: DESIGN & ANALYSIS OF ALGORITHM

SUBJECT CODE: P16CS13

NO. OF STUDENTS: 9

COURSE OUTCOME	PERCENTAGE OF ATTAIMENT
CO1	93.86%
CO2	93.46%
CO3	93.73%
CO4	93.99%
CO5	93.73%





COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: DESIGN & ANALYSIS OF ALGORITHM

SUBJECT CODE: P16CS13

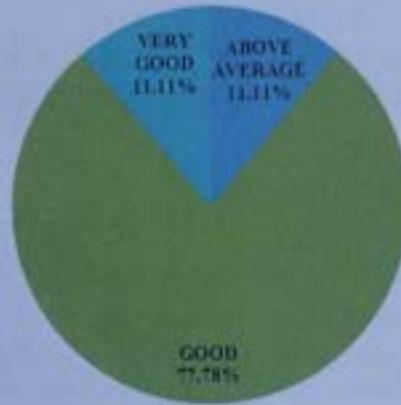
NO. OF STUDENTS: 9

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	1	VERY GOOD
60 - 69	7	GOOD
50 - 59	1	ABOVE AVERAGE
BELOW 50	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	11.11%	VERY GOOD
60 - 69	77.78%	GOOD
50 - 59	11.11%	ABOVE AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 70 - 79 ■ 60 - 69 ■ 50 - 59



PRINCIPAL

Bharath College of Science and Management
Bharath Avenue (Near New Bus Stand),
THANJAVUR-612 005.



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PG DEPARTMENT OF COMPUTER SCIENCE
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PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
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PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : CLOUD COMPUTING - P16CS41

COURSE OUTCOME

CO1	Understanding the Layers, Features, Types, Seven step model, SaaS, Integration Scenarios, Methodologies, The Enterprise Paradigm.
CO2	Describes about the Migration Services, Infrastructures, Design types, Cloud Storage ,Technologies, Challenges.
CO3	Explains the Technologies and Tools, Aneka Cloud Platform, Hybrid Cloud Implementation – CometCloud.
CO4	Introduction – Enterprise Demand, Dynamic ICT Service , Quality and Security, Data Centre Producing Business, The MapReduce Programming.
CO5	Understanding the Principles, A Federated Cloud Computing Model, Security Considerations, SLA, SLO Management, HPC on CloudsGrid.



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	2	2
CO2	3	2	1	2	3
CO3	3	2	2	3	2
CO4	3	3	2	2	2
CO5	3	1	2	2	3
AVERAGE	3	2.2	2	2.2	2.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 16271551	BHUVANESHWARI. M	5	5	5	5	5	25	100
2	P 16271552	GAYATHRI. P	5	5	5	5	5	25	100
3	P 16271553	GURU PRASATH. S	5	5	5	5	5	25	100
4	P 16271554	KALAIVANAN. S. G	5	5	5	5	5	25	100
5	P 16271555	PRADEEPA. C	5	5	5	4	4	24	96
6	P 16271556	PRADEEPA. P	5	5	5	5	5	25	100
7	P 16271557	SOUMIYA. B	5	5	5	5	5	25	100
8	P 16271558	SWATHILAKSHMI. S	5	5	5	5	5	25	100
9	P 16271559	VENNILAVU. A	4	4	5	5	5	23	92
AVERAGE			4.889	4.889	5	4.889	4.889		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.89	75	79.89	93.988
CO2	4.89	75	79.89	93.988
CO3	5	75	80	94.118
CO4	4.89	75	79.89	93.988
CO5	4.89	75	79.89	93.988

COURSE ATTAIMENT FOR M.Sc. COMPUTER SCIENCE

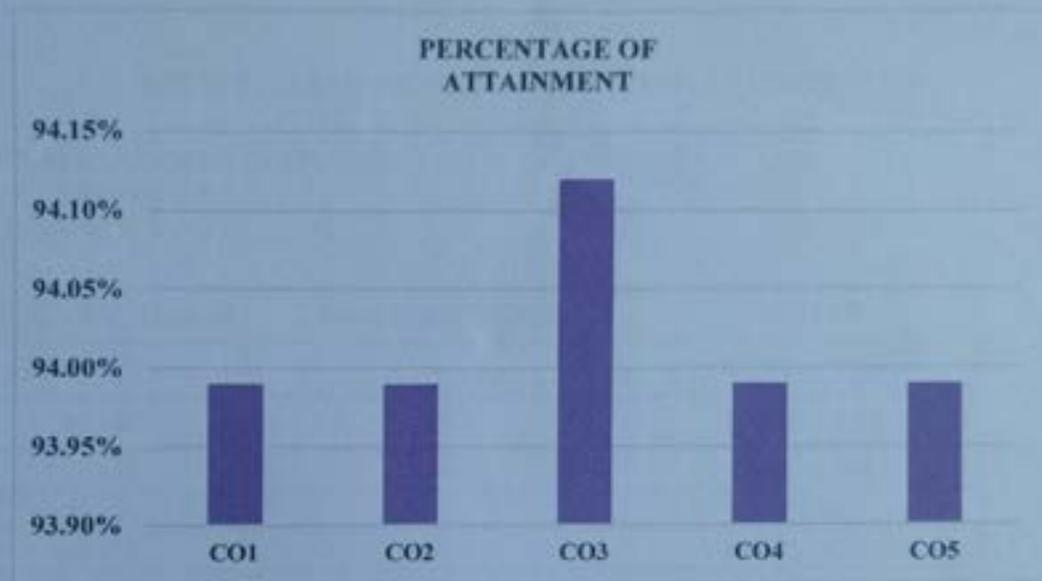
SUBJECT NAME: CLOUD COMPUTING

SUBJECT CODE: PI6CS41

NO. OF STUDENTS: 9

COURSE OUTCOME	PERCENTAGE OF ATTAIMENT
CO1	93.99%
CO2	93.99%
CO3	94.12%
CO4	93.99%
CO5	93.99%





COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: CLOUD COMPUTING

SUBJECT CODE: P16CS41

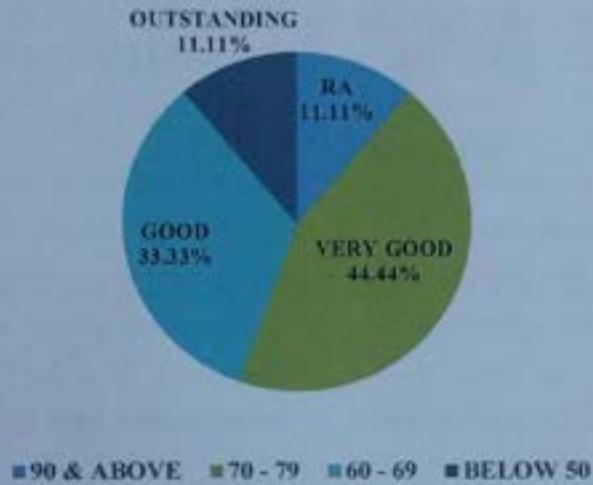
NO. OF STUDENTS: 9

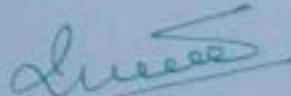
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	1	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	4	VERY GOOD
60 - 69	3	GOOD
50 - 59	0	ABOVE AVERAGE
BELOW 50	1	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	11.11%	OUTSTANDING
70 - 79	44.44%	VERY GOOD
60 - 69	33.33%	GOOD
BELOW 50	11.11%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE




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Bharath College of Science and Management
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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : DATABASE SYSTEMS - RCCS10CS6
COURSE OUTCOME

CO1	It provides the basic concepts of the database systems including Data Models, Storage Structure.
CO2	Describes the Structure of relational databases, Database schema, Relational operations , Relational algebra operations.
CO3	Understanding the concepts of Basic structure of SQL queries, Set operations, Transactions, Authorization.
CO4	Provides the concepts of Relational languages, Entity-relationship design issues, aspects of Database design.
CO5	Understanding about Features of good relational designs, normalization and more normal forms.



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	2
CO2	3	3	3	3	2
CO3	3	3	3	3	3
CO4	3	2	2	3	2
CO5	3	3	3	3	1
AVERAGE	3	2.8	2.8	3	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB15S 172137	ABISHA. B	5	5	5	5	5	25	100
2	CB15S 172138	AJITHKUMAR. M	4	3	4	4	4	19	76
3	CB15S 172139	AMIRTHA. J	5	4	5	4	5	23	92
4	CB15S 172140	ARUN KUMAR. A	3	3	3	3	3	15	60
5	CB15S 172141	BAKKIYALAKSHMI. J	4	5	4	5	4	22	88
6	CB15S 172142	BALAMURUGAN. S	3	4	3	4	4	18	72
7	CB15S 172143	BANUPRIYA. R	5	4	5	5	5	24	96
8	CB15S 172144	BHARATHI SESHAN. P	3	3	3	3	3	15	60
9	CB15S 172145	BHARATHIRAJA. E	3	4	4	3	3	17	68
10	CB15S 172147	DIVAACHAR. K	4	3	4	4	4	19	76
11	CB15S 172148	GOWRI. P	5	4	5	4	5	23	92
12	CB15S 172149	GUGANATHAN. S	4	5	4	4	5	22	88
13	CB15S 172150	GUNASEKAR. K	2	2	2	2	2	10	40
14	CB15S 172151	GURU BHARATHI. S	4	4	4	4	5	21	84
15	CB15S 172152	HARI VINOTH. S	5	5	5	5	5	25	100
16	CB15S 172153	HARISHKUMAR. U	4	4	3	3	4	18	72
17	CB15S 172154	KALIMUTHU. A	3	3	4	3	3	16	64
18	CB15S 172155	LIVINGSTON. D	3	4	3	4	4	18	72
19	CB15S 172156	MADHUBALAN. D	3	3	3	4	3	16	64
20	CB15S 172158	MANIKANDAN. M	5	5	5	5	5	25	100
21	CB15S 172159	MANIMARAN. M	4	3	4	3	4	18	72
22	CB15S 172160	MOHAMED GANI. J	3	4	4	3	3	17	68
23	CB15S 172161	NITHYA NANTHAM. K	3	4	4	3	4	18	72
24	CB15S 172162	NOORUL PARVEEN. G	4	5	5	5	5	24	96
25	CB15S 172163	PARTHIPAN. R	3	3	3	3	3	15	60
26	CB15S 172164	PRAGADEESH. R	5	5	5	5	5	25	100



27	CB15S 172165	RAJESH. S	3	4	4	4	4	19	76
28	CB15S 172167	SOUNDARYA. B	5	4	5	4	5	23	92
29	CB15S 172168	SUBASH. J	4	4	4	3	4	19	76
30	CB15S 172169	SURESH. A	3	4	3	4	4	18	72
31	CB15S 172170	SYED NASRUDEEN. A	5	4	5	4	5	23	92
32	CB15S 172171	VEERAMANI. G	2	2	2	3	2	11	44
33	CB15S 172172	VETRI SELVAN. S	3	4	4	3	3	17	68
34	CB15S 172173	VIGNESH. K	4	3	4	3	4	18	72
35	CB15S 172174	VIGNESH. K	5	4	5	4	5	23	92
36	CB15S 172175	VINITH. A	3	4	4	3	3	17	68
AVERAGE			3.778	3.833	3.972	3.75	4		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.78	75	78.78	92.68
CO2	3.83	75	78.83	92.74
CO3	3.97	75	78.97	92.91
CO4	3.75	75	78.75	92.65
CO5	4	75	79	92.94

COURSE ATTAIMENT FOR B.Sc. COMPUTER SCIENCE

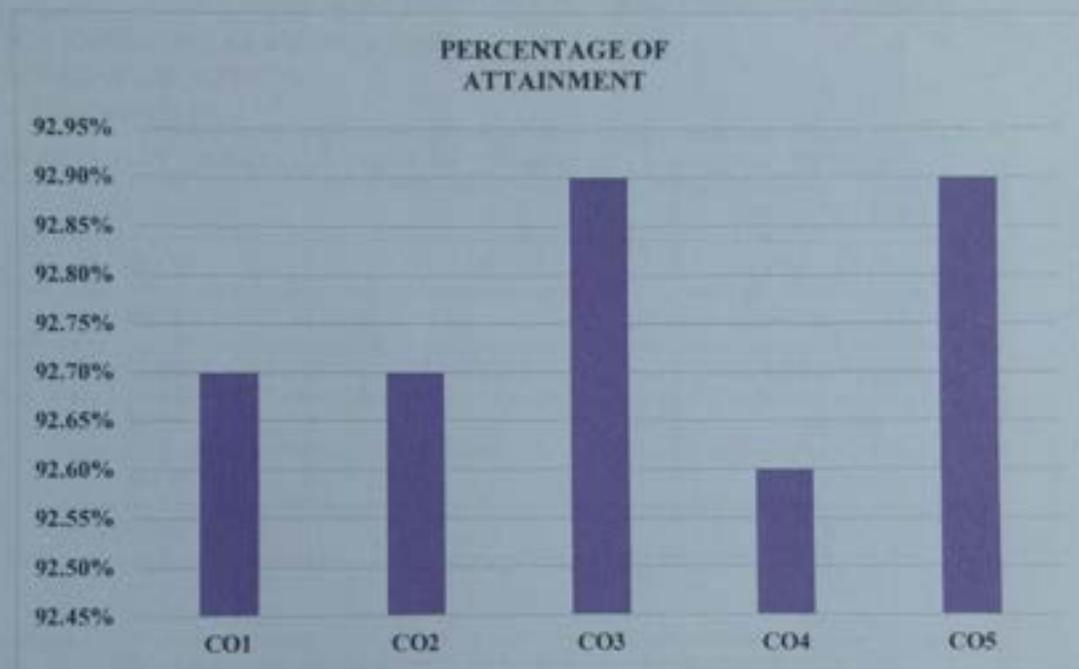
SUBJECT NAME: DATABASE SYSTEMS

SUBJECT CODE:RCCS10CS6

NO. OF STUDENTS: 36

COURSE OUTCOME	PERCENTAGE OF ATTAIMENT
CO1	92.70%
CO2	92.70%
CO3	92.90%
CO4	92.60%
CO5	92.90%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATABASE SYSTEMS

SUBJECT CODE: RCCS10CS6

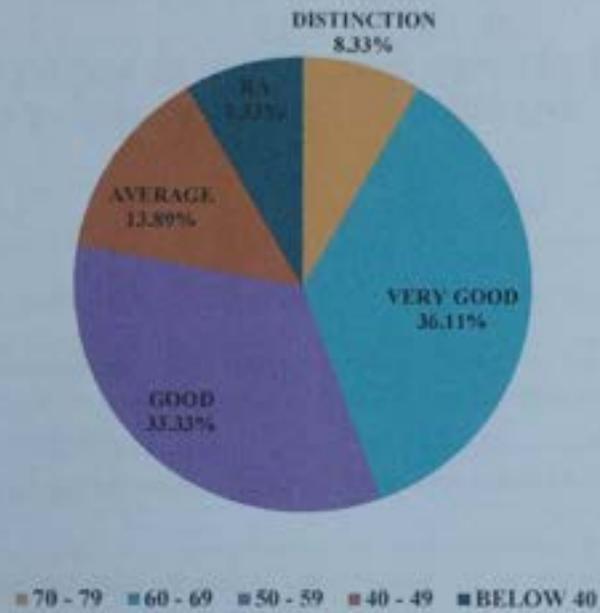
NO. OF STUDENTS: 36

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	3	DISTINCTION
60 - 69	13	VERY GOOD
50 - 59	12	GOOD
40 - 49	5	AVERAGE
BELOW 40	3	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	8.33%	DISTINCTION
60 - 69	36.11%	VERY GOOD
50 - 59	33.33%	GOOD
40 - 49	13.89%	AVERAGE
BELOW 40	8.33%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE




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PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : DATABASE SYSTEMS - 16SCCCS4
COURSE OUTCOME

CO1	It provides the basic concepts of the database systems including Data Models, Storage Structure.
CO2	Describes the Structure of relational databases, Database schema, Relational operations , Relational algebra operations.
CO3	Understanding the concepts of Basic structure of SQL queries, Set operations, Transactions, Authorization.
CO4	Provides the concepts of Relational languages, Entity-relationship design issues, aspects of Database design.
CO5	Understanding about Features of good relational designs, normalization and more normal forms.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	2
CO2	3	3	3	3	2
CO3	3	3	3	3	3
CO4	3	2	2	3	2
CO5	3	3	3	3	1
AVERAGE	3	2.8	2.8	3	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB16S 177266	ABDUL MAAJIDH.S	4	4	5	5	5	23	92
2	CB16S 177267	AISWARYA.S	4	4	5	4	5	22	88
3	CB16S 177268	AJAY.S	4	4	4	4	4	20	80
4	CB16S 177269	AJITHKUMAR.S	4	4	4	3	3	18	72
5	CB16S 177270	ANBUCHEZHIAN.C	3	4	4	3	3	17	68
6	CB16S 177271	ARAVINDHAN.D	4	4	5	4	4	21	84
7	CB16S 177272	ARAVINTH.M	5	4	4	4	5	22	88
8	CB16S 177273	AROKIYAREGAN.R	4	5	4	5	5	23	92
9	CB16S 177275	BABU.M	3	3	3	3	3	15	60
10	CB16S 177276	BAGYA.P	4	4	5	5	5	23	92
11	CB16S 177277	BALACHANDAR.M	5	4	4	5	5	23	92
12	CB16S 177278	BHARANIDHARAN.C.G	5	4	4	4	4	21	84
13	CB16S 177279	DHANESH.K	5	5	5	5	5	25	100
14	CB16S 177280	DHARMARAJAN.B	3	3	3	3	3	15	60
15	CB16S 177281	FAROOK BATCHA.M	5	5	5	5	5	25	100
16	CB16S 177282	GOWTHAMAN.B	4	4	4	4	4	20	80
17	CB16S 177283	JAGADEESH SAGAR.K	4	4	4	4	4	20	80
18	CB16S 177285	JAYASURIYA.I	5	5	5	5	5	25	100
19	CB16S 177286	JOSEPH CHRISTDOSS. P	3	3	3	3	3	15	60
20	CB16S 177287	KALAVENDHAN.R	4	3	5	4	4	20	80
21	CB16S 177289	KARTHIKEYAN.K	3	2	4	3	3	15	60
22	CB16S 177290	KEERTHANA.M	5	4	5	5	5	24	96
23	CB16S 177291	LAVANYA.S	4	5	5	5	5	24	96
24	CB16S 177292	MANIKANDAN.B	3	4	3	4	4	18	72
25	CB16S 177293	MUKESHKUMAR.S	4	3	3	4	4	18	72



26	CB16S 177295	REVATHLR	4	5	4	5	4	22	88
27	CB16S 177296	SANDHIYA.N	4	4	4	5	4	21	84
28	CB16S 177297	SARAN.C	3	3	4	4	3	17	68
29	CB16S 177298	SARGUNAM.S	2	3	4	3	4	16	64
30	CB16S 177299	SELVAKUMAR.A	3	3	3	3	3	15	60
31	CB16S 177300	SENTHILNAATHAN.K	3	4	4	4	3	18	72
32	CB16S 177301	VEERAMANLD	4	4	4	5	4	21	84
33	CB16S 177302	VEERAMANLP	3	3	4	3	4	17	68
AVERAGE			3.848	3.848	4.121	4.091	4.061		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.85	75	78.85	92.76
CO2	3.85	75	78.85	92.76
CO3	4.12	75	79.12	93.08
CO4	4.09	75	79.09	93.05
CO5	4.06	75	79.06	93.01

COURSE ATTAIMENT FOR B.Sc. COMPUTER SCIENCE

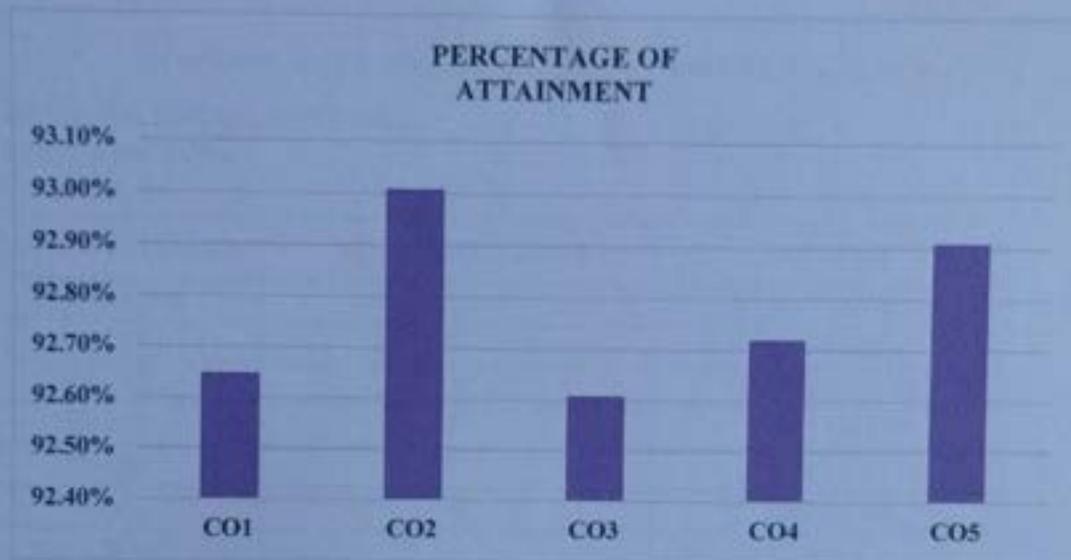
SUBJECT NAME: DATABASE SYSTEMS

SUBJECT CODE:16SCCCS4

NO. OF STUDENTS: 33

COURSE OUTCOME	PERCENTAGE OF ATTAIMENT
CO1	92.65%
CO2	93.01%
CO3	92.61%
CO4	92.72%
CO5	92.91%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATABASE SYSTEMS

SUBJECT CODE:16SCCS4

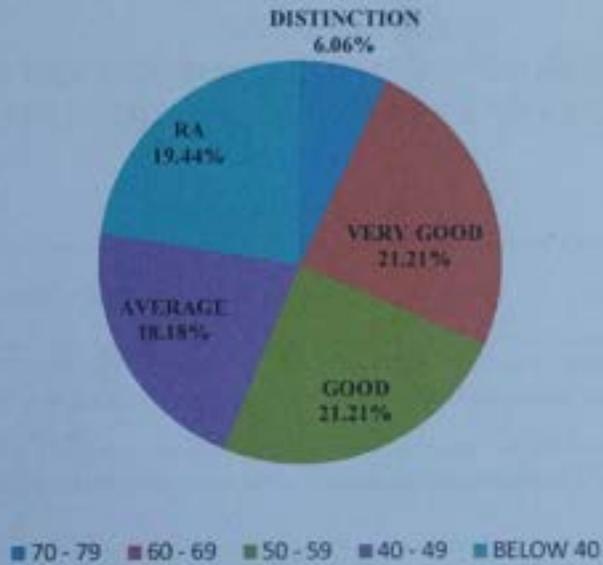
NO. OF STUDENTS: 33

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	2	DISTINCTION
60 - 69	7	VERY GOOD
50 - 59	7	GOOD
40 - 49	6	AVERAGE
BELOW 40	11	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	6.06%	DISTINCTION
60 - 69	21.21%	VERY GOOD
50 - 59	21.21%	GOOD
40 - 49	18.18%	AVERAGE
BELOW 40	19.44%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



PRINCIPAL

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(UGC Recognized 2(f) & 12(B) Institution)
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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



PO → CO ₁	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	3
CO2	3	2	1	2	2
CO3	3	2	2	2	3
CO4	3	2	1	3	2
CO5	3	3	2	3	3
AVERAGE	3	2.4	1.6	2.4	2.6



COURSE : DATA STRUCTURES AND ALGORITHMS - RCCS10CS5
COURSE OUTCOME

CO1	Understanding Arrays, ordered list, Stacks and Queues, Multiple Stacks and Queues, Singly Linked List.
CO2	Understanding Trees, Graphs, Activity Networks, Paths.
CO3	Understanding the concepts of Algorithms, Priority Queues, Binary Search.
CO4	Describes the concepts of Greedy Method, Optimal Storage on Tapes, Optimal Merge Patterns.
CO5	Understanding about the General Method, The 8-Queens Problem, Graph Coloring.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	3	3	2	2
CO3	3	3	3	3	1
CO4	3	2	3	3	1
CO5	3	3	3	3	1
AVERAGE	3	2.6	2.8	2.6	1.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB15S 172137	ABISHA.B	5	5	5	5	5	25	100
2	CB15S 172138	AJITHKUMAR.M	3	3	4	4	4	18	72
3	CB15S 172139	AMIRTHA.J	5	4	4	5	5	23	92
4	CB15S 172140	ARUN KUMAR.A	3	3	4	4	4	18	72
5	CB15S 172141	BAKKIYA LAKSHMI.J	5	4	4	5	5	23	92
6	CB15S 172142	BALAMURUGAN.S	3	3	4	4	3	17	68
7	CB15S 172143	BANUPRIYA.R	5	4	4	5	5	23	92
8	CB15S 172144	BHARATHI SESHAN.P	3	3	4	4	4	18	72
9	CB15S 172145	BHARATHIRAJA E	3	3	3	3	3	15	60
10	CB15S 172147	DIVA AHAR.K	3	3	4	4	4	18	72
11	CB15S 172148	GOWRI.P	5	4	4	5	5	23	92
12	CB15S 172149	GUGANATHAN.S	5	4	4	5	5	23	92
13	CB15S 172150	GUNA SEKAR.K	2	2	2	2	2	10	40
14	CB15S 172151	GURU BHARATHI.S	5	4	4	4	5	22	88
15	CB15S 172152	HARI VINOTH.S	5	5	5	5	5	25	100
16	CB15S 172153	HARISH KUMAR.U	4	4	4	4	4	20	80
17	CB15S 172154	KALIMUTHU.A	3	3	3	3	3	15	60
18	CB15S 172155	LIVINGSTON.D	3	4	4	3	3	17	68
19	CB15S 172156	MADHUBALAN.D	3	3	3	3	3	15	60
20	CB15S 172158	MANIKANDAN.M	5	5	5	5	5	25	100
21	CB15S 172159	MANIMARAN.M	3	3	4	4	3	17	68
22	CB15S 172160	MOHAMED GANIJ	3	3	4	4	4	18	72
23	CB15S 172161	NITHAYA NANTHAM.K	3	3	3	3	3	15	60
24	CB15S 172162	NOORUL PARVEEN.G	5	4	4	5	5	23	92
25	CB15S 172163	PARTHIPAN.R	4	4	4	4	4	20	80



26	CB15S 172164	PRAGADEESH.R	5	5	5	5	5	25	100
27	CB15S 172165	RAJESH.S	3	3	4	4	4	18	72
28	CB15S 172167	SOUNDARYA.B	5	4	4	5	5	23	92
29	CB15S 172168	SUBASHJ	3	3	4	4	4	18	72
30	CB15S 172169	SURESH.A	3	3	4	4	3	17	68
31	CB15S 172170	SYED NASRUDEEN.A	5	4	4	5	5	23	92
32	CB15S 172171	VEERAMANI.G	3	2	3	2	2	12	48
33	CB15S 172172	VETRI SELVAN.S	3	3	3	3	3	15	60
34	CB15S 172173	VIGNESH.K	3	3	4	4	3	17	68
35	CB15S 172174	VIGNESH.K	5	4	4	4	5	22	88
36	CB15S 172175	VINITHA	3	4	3	3	3	16	64
AVERAGE			3.806	3.556	3.861	4.028	3.972		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.81	75	78.81	92.718
CO2	3.56	75	78.56	92.424
CO3	3.86	75	78.86	92.776
CO4	4.03	75	79.03	92.976
CO5	3.97	75	78.97	92.906

COURSE ATTAIMENT FOR B.Sc. COMPUTER SCIENCE

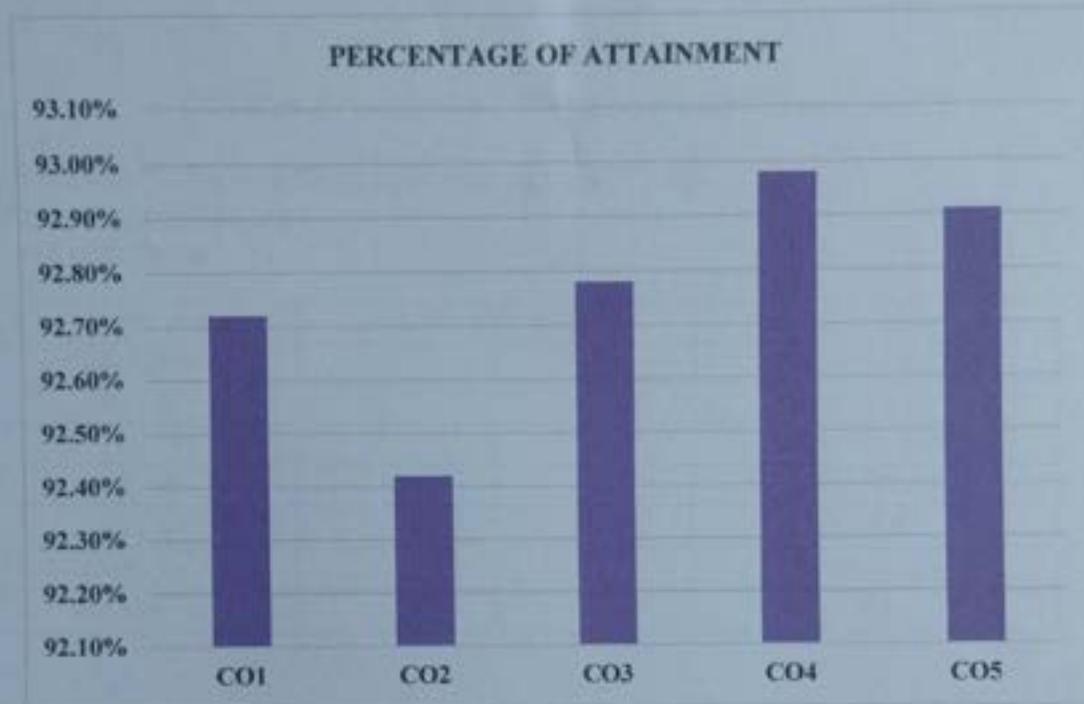
SUBJECT NAME: DATA STRUCTURES AND ALGORITHMS

SUBJECT CODE:RCCS10CS5

NO. OF STUDENTS: 36

COURSE OUTCOME	PERCENTAGE OF ATTAIMENT
CO1	92.72%
CO2	92.42%
CO3	92.78%
CO4	92.98%
CO5	92.91%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATA STRUCTURES AND ALGORITHMS

SUBJECT CODE:RCCS10CS5

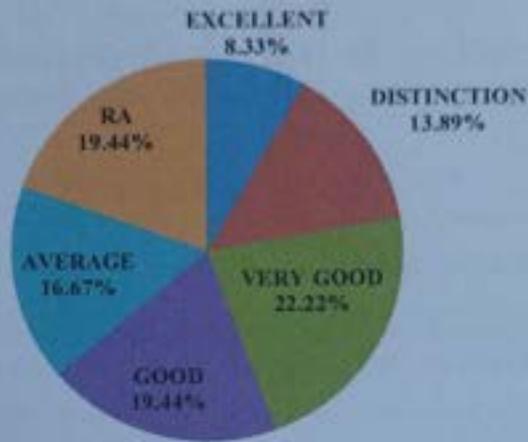
NO. OF STUDENTS: 36

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	3	EXCELLENT
70 - 79	5	DISTINCTION
60 - 69	8	VERY GOOD
50 - 59	7	GOOD
40 - 49	7	AVERAGE
BELOW 40	6	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	8.33%	EXCELLENT
70 - 79	13.89%	DISTINCTION
60 - 69	22.22%	VERY GOOD
50 - 59	19.44%	GOOD
40 - 49	16.67%	AVERAGE
BELOW 40	19.44%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59 ■ 40 - 49 ■ BELOW 40



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THANJAVUR-5
PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : E-COMMERCE - MBECS3:1/10
COURSE OUTCOME

CO1	Describes E-commerce , types, E-Commerce and world at the large, Case studies : Intel , Amazon.
CO2	Understanding Electronic Mail , The X.400 Message handling system, Internet Addresses, Multipurpose Internet Mail Extension , X.500 Directory Services, E-mail user agent.
CO3	Understanding the concepts of EDI, Costs and benefits, Components of EDI Systems, EDI implementation issues, EDIFACT, EDIFACT Message Structure.
CO4	Describes the concepts of Cyber Security, Cyber Attacks, Hacking, SSL , Authentication and assurance of data integrity, Cryptographic based solutions, Digital Signatures, VPN.
CO5	Understanding about Electronic Payment Systems, payment gateway, internet banking, the SET Protocol, E-cash, E-Cheque, Elements of electronic payments.



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB15S 172137	ABISHA. B	5	5	5	5	5	25	100
2	CB15S 172138	AJITHKUMAR. M	4	3	4	3	4	18	72
3	CB15S 172139	AMIRTHA. J	5	4	4	4	5	22	88
4	CB15S 172140	ARUN KUMAR. A	4	3	4	3	4	18	72
5	CB15S 172141	BAKKIYA LAKSHMI. J	3	3	3	3	3	15	60
6	CB15S 172142	BALAMURUGAN. S	3	3	3	3	3	15	60
7	CB15S 172143	BANUPRIYA. R	5	4	4	5	5	23	92
8	CB15S 172144	BHARATHI SESHAN. P	5	4	4	4	4	21	84
10	CB15S 172147	DIVAACHAR. K	4	3	4	3	4	18	72
11	CB15S 172148	GOWRI. P	5	5	5	5	5	25	100
12	CB15S 172149	GUGANATHAN. S	5	4	4	4	5	22	88
13	CB15S 172150	GUNA SEKAR. K	3	3	3	3	3	15	60
14	CB15S 172151	GURU BHARATHI. S	4	3	3	3	4	17	68
15	CB15S 172152	HARI VINOTH. S	5	5	5	5	5	25	100
16	CB15S 172153	HARISH KUMAR. U	4	4	4	3	4	19	76
17	CB15S 172154	KALIMUTHU. A	4	3	4	3	4	18	72
18	CB15S 172155	LIVINGSTON. D	3	3	3	3	3	15	60
19	CB15S 172156	MADHUBALAN. D	3	3	3	3	3	15	60
20	CB15S 172158	MANIKANDAN. M	5	4	5	5	5	24	96
21	CB15S 172159	MANIMARAN. M	4	4	4	4	4	20	80
22	CB15S 172160	MOHAMED GANI. J	5	4	4	4	4	21	84
23	CB15S 172161	NITHAYA NANTHAM. K	4	3	4	3	4	18	72
24	CB15S 172162	NOORUL PARVEEN. G	5	5	5	5	5	25	100
25	CB15S 172163	PARTHIPAN. R	4	4	4	4	4	20	80



26	CB15S 172164	PRAGADEESH. R	5	5	5	5	5	25	100
27	CB15S 172165	RAJESH. S	4	4	4	4	4	20	80
28	CB15S 172167	SOUNDARYA. B	5	5	5	5	5	25	100
29	CB15S 172168	SUBASH. J	4	4	4	4	4	20	80
30	CB15S 172169	SURESH. A	4	4	4	4	4	20	80
31	CB15S 172170	SYED NASRUDEEN. A	4	4	4	4	4	20	80
32	CB15S 172171	VEERAMANI. G	3	3	3	3	3	15	60
33	CB15S 172172	VETRI SELVAN. S	4	3	4	3	4	18	72
34	CB15S 172173	VIGNESH.K	4	3	4	3	4	18	72
35	CB15S 172174	VIGNESH. K	5	4	4	4	5	22	88
36	CB15S 172175	VINITH. A	4	3	4	3	4	18	72
AVERAGE			4.2	3.743	4	3.771	4.143		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.2	75	79.2	93.176
CO2	3.74	75	78.74	92.635
CO3	4	75	79	92.941
CO4	3.77	75	78.77	92.671
CO5	4.14	75	79.14	93.106

COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

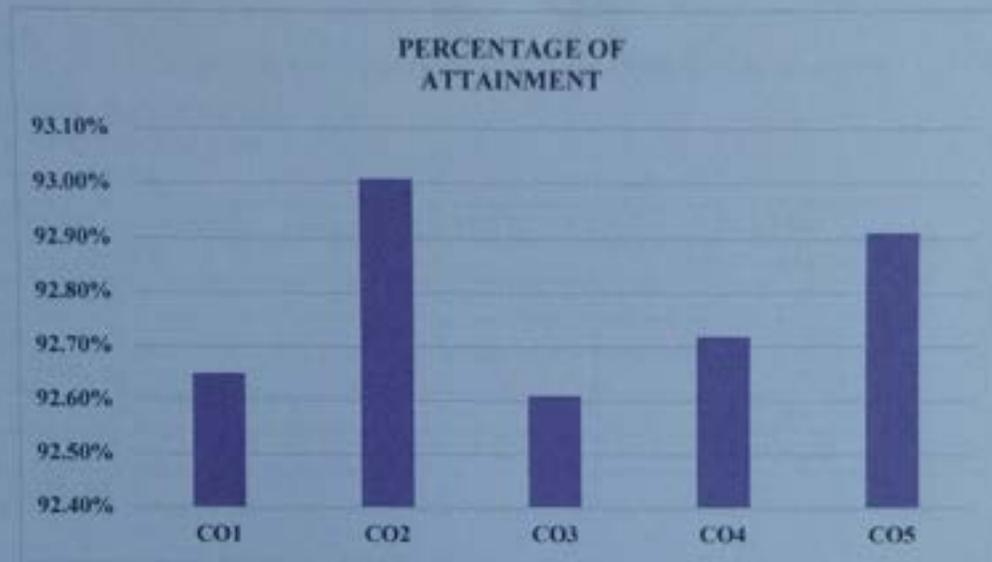
SUBJECT NAME: E-COMMERCE

SUBJECT CODE:MBECS3:1/10

NO. OF STUDENTS: 36

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.65%
CO2	93.01%
CO3	92.61%
CO4	92.72%
CO5	92.91%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: E-COMMERCE

SUBJECT CODE:MBECS3:1/10

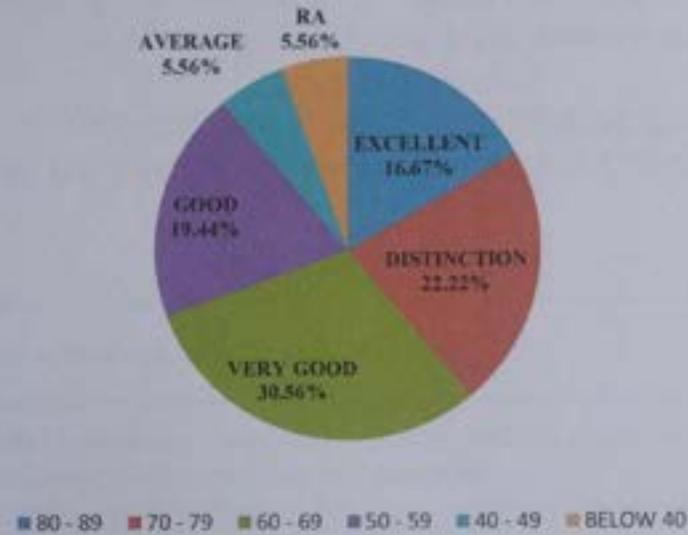
NO. OF STUDENTS: 36

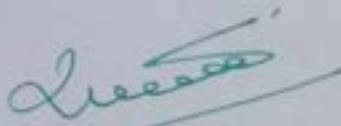
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	6	EXCELLENT
70 - 79	8	DISTINCTION
60 - 69	11	VERY GOOD
50 - 59	7	GOOD
40 - 49	2	AVERAGE
BELOW 40	2	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	16.67%	EXCELLENT
70 - 79	22.22%	DISTINCTION
60 - 69	30.56%	VERY GOOD
50 - 59	19.44%	GOOD
40 - 49	5.56%	AVERAGE
BELOW 40	5.56%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE




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Bharath College of Science and Management
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THANJAVUR - 613 005.



BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
(UGC Recognized 2(f) & 12(B) Institution)
THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : DATA MINING AND WAREHOUSING - P16CS31
COURSE OUTCOME

CO1	Understanding the Functionalities, Issues, Social Implications, Applications and Trends in Data mining, Data Warehouses.
CO2	Describes about the Data Preprocessing, Various methods in Data Cleaning Algorithms.
CO3	Explains the Clustering, Types of Algorithms, Association rule & methods.
CO4	Understanding the Data Warehousing, Data marts , OLTP & OLAP systems.
CO5	Understanding the Developing tools, Architectural strategies and organizational issues in data warehouse, Data content, Meta data.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	2	2
CO2	3	2	2	2	3
CO3	3	2	2	3	2
CO4	3	3	2	2	2
CO5	3	2	2	2	3
AVERAGE	3	2.4	2.2	2.2	2.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 16271551	BHUVANESHWARI. M	4	5	4	5	4	23	92
2	P 16271552	GAYATHRI. P	5	4	5	5	5	24	96
3	P 16271553	GURU PRASATH. S	5	5	5	4	5	24	96
4	P 16271554	KALAIVANAN. S. G	5	5	5	5	5	25	100
5	P 16271555	PRADEEPA. C	5	5	4	4	4	23	92
6	P 16271556	PRADEEPA. P	5	5	5	5	5	25	100
7	P 16271557	SOUMIYA. B	5	5	5	5	5	25	100
8	P 16271558	SWATHILAKSHMI. S	5	5	5	5	5	25	100
9	P 16271559	VENNILAVU. A	4	4	4	5	5	23	92
AVERAGE			4.778	4.778	4.667	4.778	4.778		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.78	75	79.78	93.859
CO2	4.78	75	79.78	93.859
CO3	4.67	75	79.67	93.729
CO4	4.78	75	79.78	93.859
CO5	4.78	75	79.78	93.859



COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

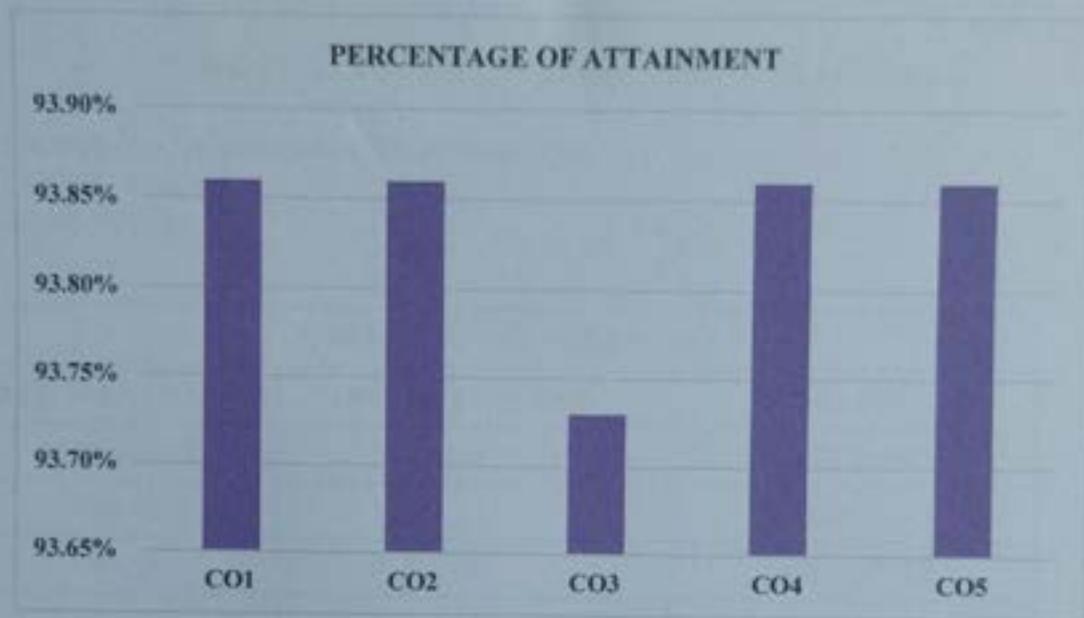
SUBJECT NAME: DATA MINING & WAREHOUSING

SUBJECT CODE: P16CS31

NO. OF STUDENTS: 9

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.86%
CO2	93.86%
CO3	93.73%
CO4	93.86%
CO5	93.86%





COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATA MINING & WAREHOUSING
SUBJECT CODE: P16CS31
NO. OF STUDENTS: 9

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	3	EXCELLENT
70 - 79	2	DISTINCTION
60 - 69	4	VERY GOOD
50 - 59	0	ABOVE AVERAGE
BELOW 50	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	33.33%	EXCELLENT
70 - 79	22.22%	DISTINCTION
60 - 69	44.44%	VERY GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69



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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : COMPUTER NETWORKS- RCCS10CS9
COURSE OUTCOME

CO1	Describes the Data Communications Networks, Network Models, The OSI Model, Multiplexing, Transmission Media, Switching Packet.
CO2	Understanding the concepts of Data Link Layer, Wireless Networks, Bluetooth, Cellular Telephone, Satellite network, Connection devices.
CO3	Understanding the concepts of Network Layer Services, performance, Routing Algorithms, IPV6 Addressing.
CO4	Describes the concepts of Transport Layer, User Datagram Protocol, TCP, Flow Control, Error Control, TCP Congestion Control, TCP timers.
CO5	Understanding about Application Layers , Word Wide Web & HTTP , FTP Email , DNS



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	2
CO2	3	2	2	2	2
CO3	3	3	2	2	2
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.8	2.2	2.2	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB15S 172137	ABISHA. B	5	5	5	5	5	25	100
2	CB15S 172138	AJITHKUMAR. M	4	4	4	4	4	20	80
3	CB15S 172139	AMIRTHA. J	5	5	4	5	4	23	92
4	CB15S 172140	ARUN KUMAR. A	4	4	3	4	4	19	76
5	CB15S 172141	BAKKIYA LAKSHMI. J	4	4	4	4	4	20	80
6	CB15S 172142	BALAMURUGAN. S	4	4	4	4	4	20	80
7	CB15S 172143	BANUPRIYA. R	5	3	5	5	4	23	92
8	CB15S 172144	BHARATHI SESHAN. P	4	4	4	4	4	20	80
9	CB15S 172147	DIVAACHAR. K	4	4	4	2	2	16	64
10	CB15S 172148	GOWRI. P	5	5	5	5	4	24	96
11	CB15S 172149	GUGANATHAN. S	4	5	5	4	4	21	84
12	CB15S 172150	GUNA SEKAR. K	4	4	3	2	2	15	60
13	CB15S 172151	GURU BHARATHI. S	4	4	4	4	4	20	80
14	CB15S 172152	HARI VINOOTH. S	5	5	5	5	5	25	100
15	CB15S 172153	HARISH KUMAR. U	4	4	4	4	4	20	80
16	CB15S 172154	KALIMUTHU. A	4	4	4	4	4	20	80
17	CB15S 172155	LIVINGSTON. D	3	3	4	2	3	15	60
18	CB15S 172156	MADHUBALAN. D	3	3	4	2	3	15	60
19	CB15S 172158	MANIKANDAN. M	4	4	4	4	4	20	80
20	CB15S 172159	MANIMARAN. M	4	4	4	4	4	20	80
21	CB15S 172160	MOHAMED GANI. J	4	4	4	4	4	20	80
22	CB15S 172161	NITHAYA NANTHAM. K	3	3	4	3	2	15	60
23	CB15S 172162	NOORUL PARVEEN. G	5	5	5	5	5	25	100



24	CB15S 172163	PARTHIPAN. R	4	4	4	4	4	20	80
25	CB15S 172164	PRAGADEESH. R	5	5	5	5	5	25	100
26	CB15S 172165	RAJESH. S	4	4	4	4	4	20	80
27	CB15S 172167	SOUNDARYA. B	5	5	5	5	5	25	100
28	CB15S 172168	SUBASH. J	4	4	5	4	4	21	84
29	CB15S 172169	SURESH. A	4	4	4	4	4	20	80
30	CB15S 172170	SYED NASRUDEEN. A	5	3	5	3	4	20	80
31	CB15S 172171	VEERAMANI. G	3	4	4	2	2	15	60
32	CB15S 172172	VETRI SELVAN. S	4	5	5	4	4	22	88
33	CB15S 172173	VIGNESH.K	4	4	4	4	4	20	80
34	CB15S 172174	VIGNESH. K	4	4	5	4	4	21	84
35	CB15S 172175	VINITH. A	3	4	4	2	2	15	60
AVERAGE			4.114	4.114	4.286	3.829	3.8		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.11	75	79.11	93.071
CO2	4.11	75	79.11	93.071
CO3	4.29	75	79.29	93.282
CO4	3.83	75	78.83	92.741
CO5	3.8	75	78.8	92.706



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

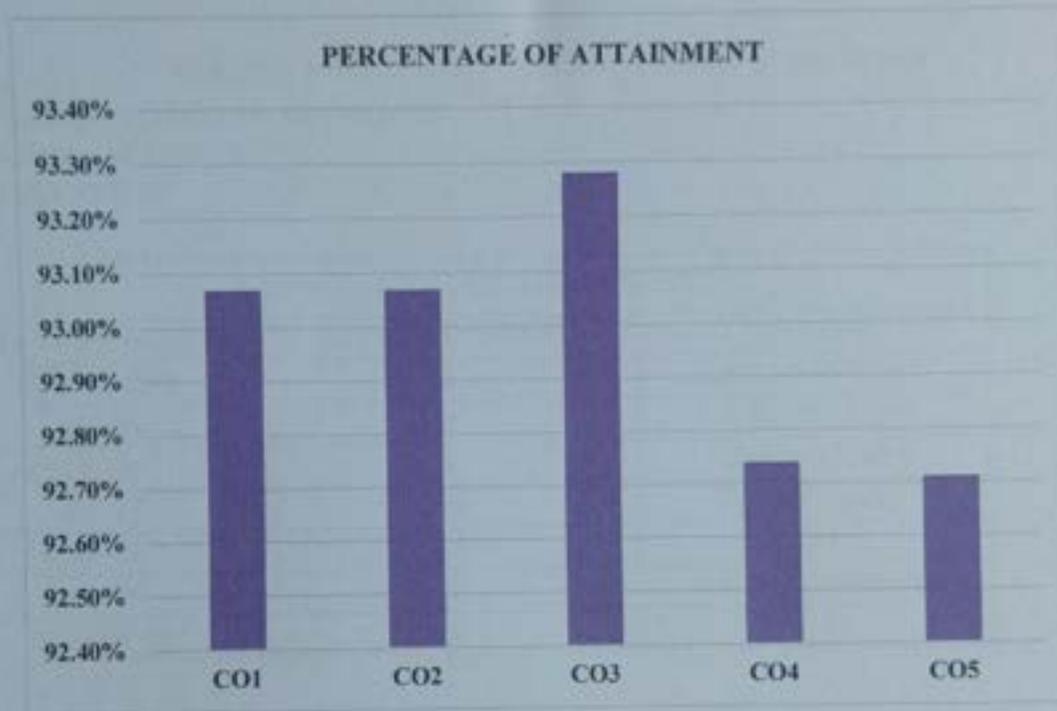
SUBJECT NAME: COMPUTER NETWORKS

SUBJECT CODE:RCCS10CS9

NO. OF STUDENTS: 35

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.07%
CO2	93.07%
CO3	93.28%
CO4	92.74%
CO5	92.71%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: COMPUTER NETWORKS

SUBJECT CODE: RCCS10CS9

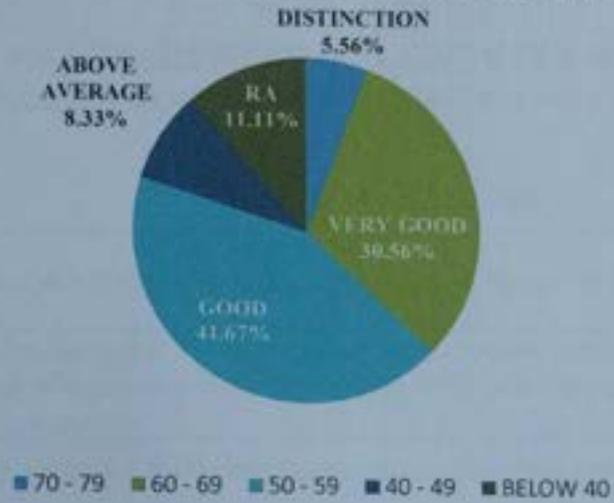
NO. OF STUDENTS: 35

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	2	DISTINCTION
60 - 69	11	VERY GOOD
50 - 59	15	GOOD
40 - 49	3	ABOVE AVERAGE
BELOW 40	4	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	5.56%	DISTINCTION
60 - 69	30.56%	VERY GOOD
50 - 59	41.67%	GOOD
40 - 49	8.33%	ABOVE AVERAGE
BELOW 40	11.11%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



PRINCIPAL

Bharath College of Science and Management
Bharath Avenue (Near New Bus Stand)
THANJAVUR-613 005.





BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
(UGC Recognized 2(f) & 12(B) Institution)
THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : SOFTWARE ENGINEERING - MBECSE1:1/10
COURSE OUTCOME

CO1	Understanding the basic concepts of Software Engineering, Quality and productivity factors, planning a software project
CO2	Describes the software cost estimation techniques.
CO3	Understanding the software requirements definition, software requirements specification, formal specification techniques and software design.
CO4	Understanding the concepts of design notations, standard and documentation guidelines.
CO5	Describes the verification and validation techniques.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	2
CO2	2	3	3	3	2
CO3	2	3	3	3	2
CO4	3	3	3	3	1
CO5	2	2	3	3	1
AVERAGE	2.4	2.8	3	3	1.6



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB15S 172137	ABISHA.B	5	5	5	5	5	25	100
2	CB15S 172138	AJITHKUMAR.M	3	4	4	3	3	17	68
3	CB15S 172139	AMIRTHAJ	4	4	5	5	5	23	92
4	CB15S 172140	ARUN KUMAR.A	3	4	3	3	3	16	64
5	CB15S 172141	BAKKIYA LAKSHMI.J	5	4	5	4	5	23	92
6	CB15S 172142	BALAMURUGAN.S	3	4	3	4	3	17	68
7	CB15S 172143	BANUPRIYA.R	4	5	4	5	5	23	92
8	CB15S 172144	BHARATHI SESHAN.P	4	4	3	4	4	19	76
9	CB15S 172145	BHARATHIRAJA. E	3	3	3	3	3	15	60
10	CB15S 172147	DIVAAHAR.K	4	4	3	4	4	19	76
11	CB15S 172148	GOWRI.P	4	5	4	5	5	23	92
12	CB15S 172149	GUGANATHAN.S	5	5	5	4	5	24	96
13	CB15S 172150	GUNA SEKAR.K	2	2	2	2	2	10	40
14	CB15S 172151	GURU BHARATHI.S	4	5	4	4	5	22	88
15	CB15S 172152	HARI VINOTh.S	5	5	5	5	5	25	100
16	CB15S 172153	HARISH KUMAR.U	4	3	4	4	4	19	76
17	CB15S 172154	KALIMUTHU.A	3	4	3	3	4	17	68
18	CB15S 172155	LIVINGSTON.D	3	4	4	3	4	18	72



19	CB15S 172156	MADHUBALAN.D	3	3	3	3	3	15	60
20	CB15S 172158	MANIKANDAN.M	5	5	5	5	5	25	100
21	CB15S 172159	MANIMARAN.M	3	4	3	4	3	17	68
22	CB15S 172160	MOHAMED.GANLJ	3	4	3	4	4	18	72
23	CB15S 172161	NITHAYA NANTHAM.K	3	3	3	3	3	15	60
24	CB15S 172162	NOORUL PARVEEN.G	5	5	5	5	5	25	100
25	CB15S 172163	PARTHIPAN.R	3	3	3	3	3	15	60
26	CB15S 172164	PRAGADEESH.R	5	5	5	5	5	25	100
27	CB15S 172165	RAJESH.S	4	4	4	3	4	19	76
28	CB15S 172167	SOUNDARYA.B	5	5	5	5	5	25	100
29	CB15S 172168	SUBASHJ	4	4	3	3	4	18	72
30	CB15S 172169	SURESH.A	3	4	3	3	3	16	64
31	CB15S 172170	SYED NASRUDEEN.A	5	4	5	4	5	23	92
32	CB15S 172171	VEERAMANLG	3	3	2	2	2	12	48
33	CB15S 172172	VETRI SELVAN.S	3	4	3	4	3	17	68
34	CB15S 172173	VIGNESH.K	3	4	3	3	4	17	68
35	CB15S 172174	VIGNESH.K	4	5	4	5	5	23	92
36	CB15S 172175	VINITH.A	3	3	3	3	3	15	60
AVERAGE			3.75	4.056	3.722	3.806	3.972		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.75	75	78.75	92.647
CO2	4.06	75	79.06	93.012
CO3	3.72	75	78.72	92.612
CO4	3.81	75	78.81	92.718
CO5	3.97	75	78.97	92.906



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: SOFTWARE ENGINEERING

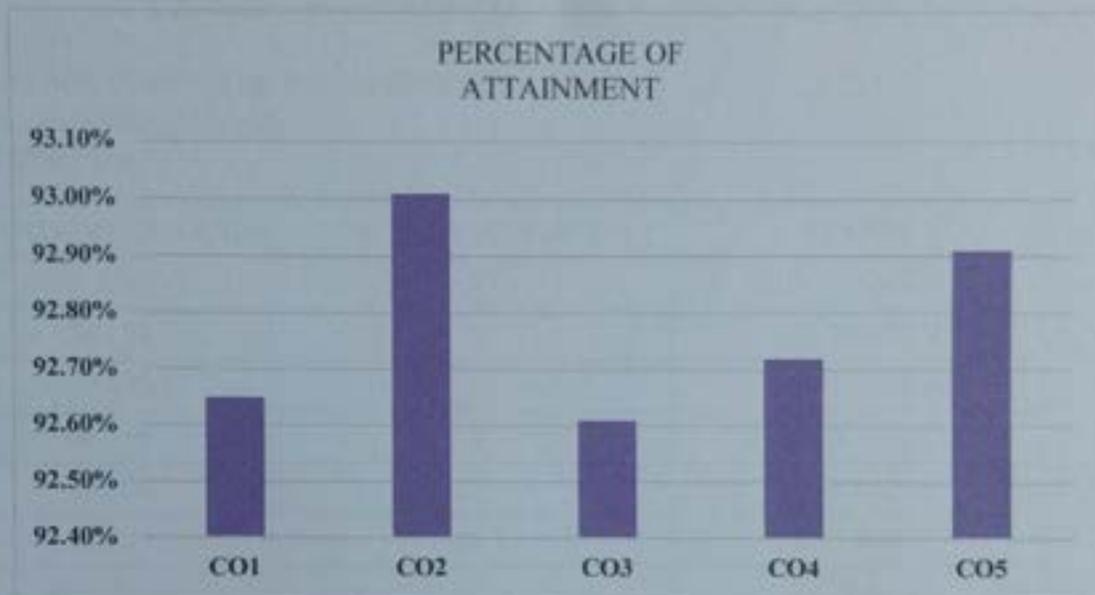
SUBJECT CODE:MBECS1:1/10

NO. OF STUDENTS: 36

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.65%
CO2	93.01%
CO3	92.61%
CO4	92.72%
CO5	92.91%



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: SOFTWARE ENGINEERING

SUBJECT CODE:MBECS1:1/10

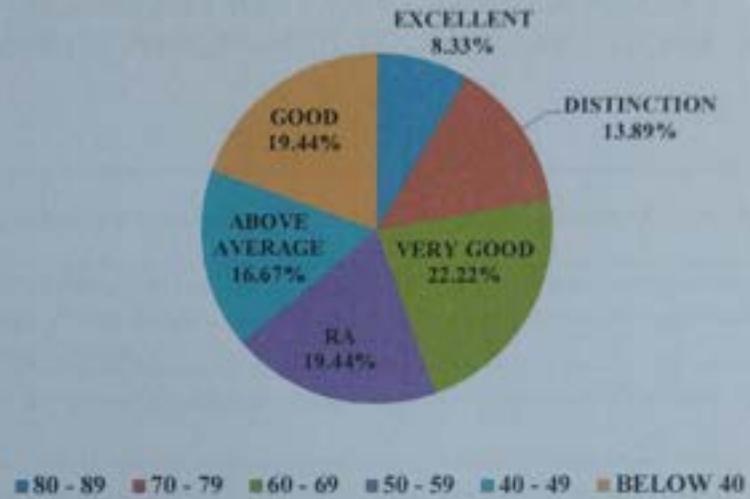
NO. OF STUDENTS: 36

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	3	EXCELLENT
70 - 79	5	DISTINCTION
60 - 69	8	VERY GOOD
50 - 59	7	GOOD
40 - 49	6	AVERAGE
BELOW 40	7	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	8.33%	EXCELLENT
70 - 79	13.89%	DISTINCTION
60 - 69	22.22%	VERY GOOD
50 - 59	19.44%	GOOD
40 - 49	16.67%	AVERAGE
BELOW 40	19.44%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



PRINCIPAL

Bharath College of Science and Management
Bharath Avenue (Near New Bus Stand)
THANJAVUR-613 005.



BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
(UGC Recognized 2(f) & 12(B) Institution)
THANJAVUR-5
PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN C++ - 16SCCCS2
COURSE OUTCOME

CO1	Describes the procedural and object oriented paradigm with the concepts, benefits, applications functions.
CO2	Understanding the classes and objects, constructors & destructors, operator overloading.
CO3	Understanding the concepts of Inheritance, pointers, and polymorphism.
CO4	Describes the concepts of managing console I/O operations, files and exception handling.
CO5	Understanding about manipulating strings and Object oriented systems development.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	0
CO2	3	3	3	2	1
CO3	3	3	3	3	0
CO4	3	2	3	3	0
CO5	3	3	3	3	0
AVERAGE	3	2.6	2.8	2.6	0.2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB17S 182671	ABARNA R	4	3	5	3	5	20	80
2	CB17S 182672	ABI R	3	4	3	4	4	18	72
3	CB17S 182673	AJMEER KHAN A	4	3	4	3	4	18	72
4	CB17S 182674	AKASH S	5	5	5	5	5	25	100
5	CB17S 182676	AUSTIN A S	3	3	3	3	3	15	60
6	CB17S 182677	BALAJI S	3	3	3	3	3	15	60
7	CB17S 182678	BRINDHA R	5	4	4	5	5	23	92
8	CB17S 182679	DIVAGAR R	3	3	3	3	3	15	60
9	CB17S 182680	ELANGO VAN V	3	2	3	3	2	13	52
10	CB17S 182681	GAYATHRI M	5	5	5	5	5	25	100
11	CB17S 182682	GOKILAN T	3	3	3	3	3	15	60
12	CB17S 182683	GOPINATH R	2	3	2	3	3	13	52
13	CB17S 182684	GOWTHAM. S	3	2	3	3	2	13	52
14	CB17S 182685	GRACE ROMALD BRITTO A	3	3	3	3	3	15	60
15	CB17S 182686	HARISH R	3	3	3	3	3	15	60
16	CB17S 182687	ITHRISH M	4	4	5	4	3	20	80
17	CB17S 182688	MOHAMED BHARATHI J	3	4	4	3	4	18	72
18	CB17S 182689	MOHAN T	4	3	4	3	4	18	72
19	CB17S 182690	NAGAARAJUN S	4	4	4	4	4	20	80
20	CB17S 182691	NITHIS KUMAR R	3	4	4	3	4	18	72
21	CB17S 182692	PALINIBHARATHI A	3	4	3	4	4	18	72
22	CB17S 182693	PANDIAMMAL T	5	5	5	5	5	25	100
23	CB17S 182694	PRAKASH V	3	3	3	3	3	15	60
24	CB17S 182695	PRASANNA V	4	4	4	4	4	20	80
25	CB17S 182696	PREETHI BAI R	5	4	5	5	5	24	96



26	CB17S 182697	PRIYANKA K	5	5	5	5	5	25	100
27	CB17S 182698	PUGALENDI A	3	4	4	3	4	18	72
28	CB17S 182699	RAJESH R	3	3	3	3	3	15	60
29	CB17S 182700	RETHINA SAMY V	5	5	5	5	5	25	100
30	CB17S 182701	RUTHRALINGAM P	4	5	5	5	5	24	96
31	CB17S 182702	SAKTHIVEL K	3	4	4	3	4	18	72
32	CB17S 182703	SANTHIYA K	5	5	4	5	5	24	96
33	CB17S 182704	SATHOSH KUMAR P	5	5	5	5	5	25	100
34	CB17S 182705	SATHISH KUMAR S	4	4	4	4	4	20	80
35	CB17S 182706	SATHISRAJ A	3	4	3	4	4	18	72
36	CB17S 182707	SATHIYANARAYANAN V	3	5	4	4	4	20	80
37	CB17S 182708	SENTHIL KUMAR K	5	4	5	4	4	22	88
38	CB17S 182709	SIVAKUMAR G	5	3	4	4	4	20	80
39	CB17S 182710	SRI VIJAY RAM M	3	4	3	4	4	18	72
40	CB17S 182711	SUREKA R	5	4	5	5	5	24	96
41	CB17S 182712	SYED MOHAMED S	4	3	3	4	4	18	72
42	CB17S 182713	TAJMAL BEGUM K	4	5	5	5	5	24	96
43	CB17S 182714	TAMIL SELVAN R	4	4	4	4	4	20	80
44	CB17S 182715	THIRUMOORTHY P	3	2	3	3	2	13	52
45	CB17S 182716	VAIRAVAN S T	5	5	5	5	5	25	100
46	CB17S 182717	VEERAIYAN C	5	4	4	5	5	23	92
47	CB17S 182718	VIJAY A	4	5	4	4	5	22	88
AVERAGE			3.83	3.83	3.915	3.894	4		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.83	75	78.83	92.741
CO2	3.83	75	78.83	92.741
CO3	3.91	75	78.91	92.835
CO4	3.89	75	78.89	92.812
CO5	4	75	79	92.941

COURSE ATTAIMENT FOR B.Sc. COMPUTER SCIENCE

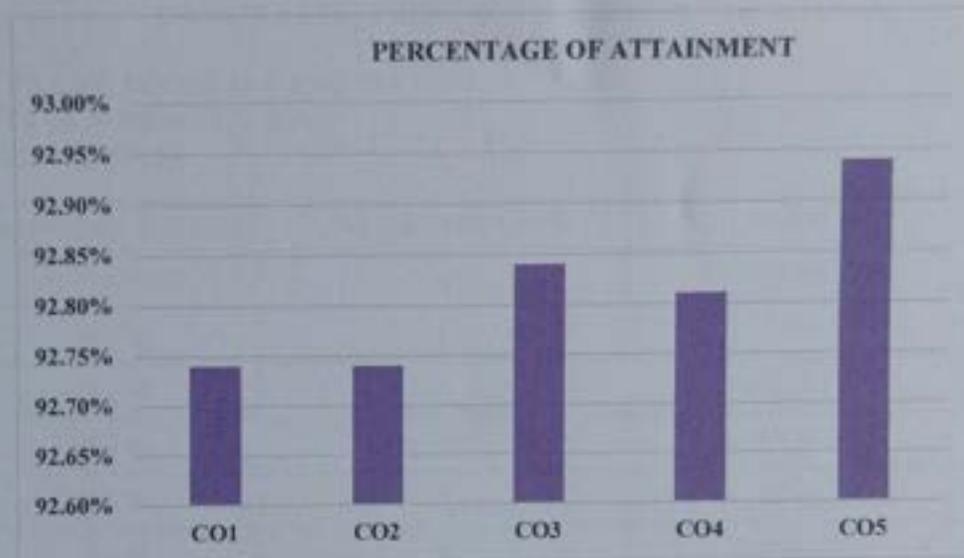
SUBJECT NAME: SOFTWARE ENGINEERING

SUBJECT CODE:MBECS1:1/10

NO. OF STUDENTS: 36

COURSE OUTCOME	PERCENTAGE OF ATTAIMENT
CO1	92.74%
CO2	92.74%
CO3	92.84%
CO4	92.81%
CO5	92.94%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: SOFTWARE ENGINEERING

SUBJECT CODE: MBEC51:1/10

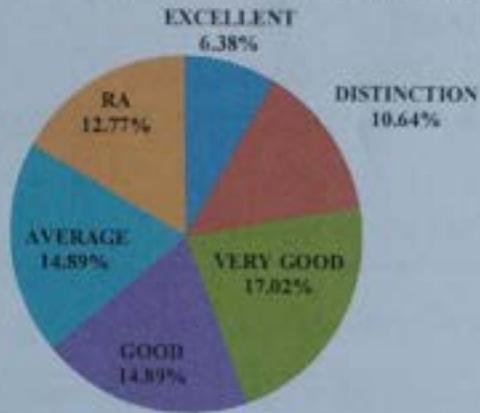
NO. OF STUDENTS: 36

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	3	EXCELLENT
70 - 79	5	DISTINCTION
60 - 69	8	VERY GOOD
50 - 59	7	GOOD
40 - 49	7	AVERAGE
BELOW 40	6	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	6.38%	EXCELLENT
70 - 79	10.64%	DISTINCTION
60 - 69	17.02%	VERY GOOD
50 - 59	14.89%	GOOD
40 - 49	14.89%	ABOVE AVERAGE
BELOW 40	12.77%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59 ■ 40 - 49 ■ BELOW 40



PRINCIPAL

Bharath College of Science and Management
Bharath Avenue (Near New Bus Stand)
THANJAVUR-813 005.



BHARATH COLLEGE OF SCIENCE AND MANAGEMENT

(UGC Recognized 2(f) & 12(B) Institution)

THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : COMPUTER GRAPHICS AND MULTIMEDIA - MBEC2:1/10
COURSE OUTCOME

CO1	Describes Overview of graphics systems, Video display devices, Graphics monitors and workstation, Input devices, Hard-copy devices, Graphics software.
CO2	Understanding Output primitives: Points and lines, Attributes of output primitiveS, Line, Area-fill, Character, Bundled attributes.
CO3	Understanding the concepts of Two-dimensional Geometric transformations, Matrix representations, Composite transformations, Other transformations.
CO4	Describes the concepts of Multimedia in Use, Multimedia Applications, Benefits and Problems, Technology : System Components, Multimedia Platforms.
CO5	Understanding about Technology: Development Tools – Image – Audio – Video.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	3
CO2	2	2	2	2	2
CO3	3	2	2	1	3
CO4	3	3	1	3	2
CO5	3	3	2	3	3
AVERAGE	2.8	2.6	1.8	2.2	2.6



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB15S 172137	ABISHA. B	5	5	5	5	5	25	100
2	CB15S 172138	AJITHKUMAR. M	4	3	4	3	4	18	72
3	CB15S 172139	AMIRTHA. J	4	5	4	5	5	23	92
4	CB15S 172140	ARUN KUMAR. A	4	3	4	4	4	19	76
5	CB15S 172141	BAKKIYA LAKSHMI. J	4	4	4	4	4	20	80
6	CB15S 172142	BALAMURUGAN. S	4	3	4	4	4	19	76
7	CB15S 172143	BANUPRIYA. R	4	5	4	5	4	22	88
8	CB15S 172144	BHARATHI SESHAN. P	4	3	4	4	4	19	76
9	CB15S 172147	DIVAAHAR. K	4	4	4	4	4	20	80
10	CB15S 172148	GOWRI. P	4	5	5	5	5	24	96
11	CB15S 172149	GUGANATHAN. S	4	5	4	5	5	23	92
12	CB15S 172150	GUNA SEKAR. K	2	2	2	2	2	10	40
13	CB15S 172151	GURU BHARATHI. S	4	4	4	4	4	20	80
14	CB15S 172152	HARI VINOTH. S	5	5	5	5	5	25	100
15	CB15S 172153	HARISH KUMAR. U	4	3	4	3	4	18	100
16	CB15S 172154	KALIMUTHU. A	4	4	4	4	4	20	72
17	CB15S 172155	LIVINGSTON. D	3	3	3	3	3	15	60
18	CB15S 172156	MADHUBALAN. D	3	2	3	3	3	14	56
19	CB15S 172158	MANIKANDAN. M	4	5	4	5	5	23	92
20	CB15S 172159	MANIMARAN. M	4	5	4	5	4	22	88
21	CB15S 172160	MOHAMED GANI. J	4	3	4	4	4	19	76



22	CB15S 172161	NITHAYA NANTHAM. K	3	2	3	3	3	14	56
23	CB15S 172162	NOORUL PARVEEN. G	5	5	5	5	5	25	100
24	CB15S 172163	PARTHIPAN. R	4	5	4	5	5	23	92
25	CB15S 172164	PRAGADEESH. R	5	5	5	5	5	25	100
26	CB15S 172165	RAJESH. S	4	5	4	5	4	22	88
27	CB15S 172167	SOUNDARYA. B	5	5	5	5	5	25	88
28	CB15S 172168	SUBASH. J	4	5	4	5	4	22	84
29	CB15S 172169	SURESH. A	4	4	4	5	4	21	88
30	CB15S 172170	SYED NASRUDEEN. A	4	5	4	5	4	22	60
31	CB15S 172171	VEERAMANI. G	3	3	3	3	3	15	60
32	CB15S 172172	VETRI SELVAN. S	4	3	4	3	4	18	72
33	CB15S 172173	VIGNESH.K	4	3	4	4	4	19	76
34	CB15S 172174	VIGNESH. K	4	5	4	5	4	22	88
35	CB15S 172175	VINITH. A	3	3	3	3	3	15	60
AVERAGE			3.943	3.971	3.971	4.2	4.086		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.94	75	78.94	92.871
CO2	3.97	75	78.97	92.906
CO3	3.97	75	78.97	92.906
CO4	4.2	75	79.2	93.176
CO5	4.09	75	79.09	93.047



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: COMPUTR GRAPHICS AND MULTIMEDIA

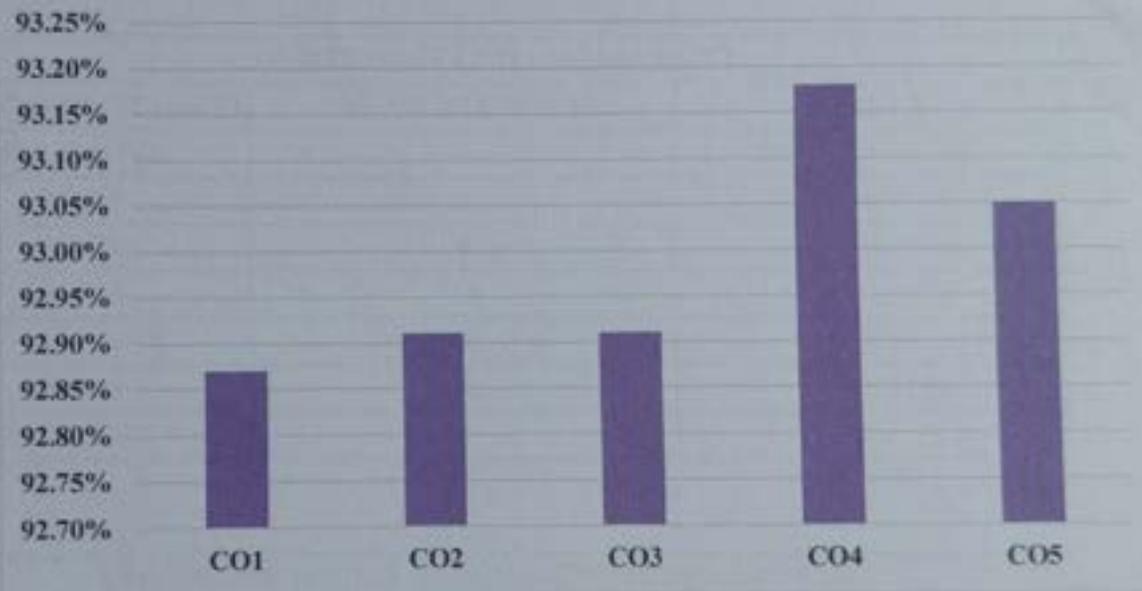
SUBJECT CODE: MBECS2:1/10

NO. OF STUDENTS: 35

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.87%
CO2	92.91%
CO3	92.91%
CO4	93.18%
CO5	93.05%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: COMPUTER GRAPHICS & MULTIMEDIA

SUBJECT CODE: MBECS2:1/10

NO. OF STUDENTS: 35

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	6	EXCELLENT
70 - 79	8	DISTINCTION
60 - 69	11	VERY GOOD
50 - 59	7	GOOD
40 - 49	3	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	17.14%	EXCELLENT
70 - 79	22.86%	DISTINCTION
60 - 69	31.43%	VERY GOOD
50 - 59	20%	GOOD
40 - 49	8.57%	AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN C- 16SCCCS1
COURSE OUTCOME

CO1	Understanding the basic concepts of C like constants, variables, data types operators and expressions.
CO2	Understanding the concepts of managing input output operations, decision making, branching and looping.
CO3	Understanding the concepts of character Arrays and Strings, User defined Functions.
CO4	Describes the concepts of Structures and Unions and Pointers.
CO5	Understanding about Dynamic memory allocation, Linked lists and Preprocessors.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	1
CO2	3	2	3	2	2
CO3	3	2	1	3	1
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.4	2.2	2.4	1.6



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB17S 182671	ABARNA R	5	5	5	5	5	25	100
2	CB17S 182672	ABI R	4	4	5	4	5	22	88
3	CB17S 182673	AJMEER KHAN A	4	5	4	4	4	21	84
4	CB17S 182674	AKASH S	5	5	5	5	5	25	100
5	CB17S 182675	ARUN KUMAR M	4	4	3	3	4	18	72
5	CB17S 182676	AUSTIN A S	3	4	4	3	4	18	72
6	CB17S 182677	BALAJI S	3	4	4	2	2	15	60
7	CB17S 182678	BRINDHA R	5	5	5	5	4	24	96
8	CB17S 182679	DIVAGAR R	3	4	4	3	4	18	72
9	CB17S 182680	ELANGO VAN V	3	4	4	2	2	15	60
10	CB17S 182681	GAYATHRI M	5	5	5	5	5	25	100
11	CB17S 182682	GOKILAN T	3	4	4	2	2	15	60
12	CB17S 182683	GOPINATH R	3	4	4	3	4	18	72
13	CB17S 182684	GOWTHAM. S	3	4	4	2	2	15	60
14	CB17S 182685	GRACE ROMALD BRITTO A	4	4	4	4	4	20	80
15	CB17S 182686	HARISH R	3	4	4	2	2	15	60
16	CB17S 182687	JTHRISH M	4	4	5	4	3	20	80
17	CB17S 182688	MOHAMED BHARATHI J	4	4	3	3	3	18	72
18	CB17S 182689	MOHAN T	3	3	4	3	4	18	72
19	CB17S 182690	NAGAARAJUN S	4	4	4	4	4	25	100
20	CB17S 182691	NITHIS KUMAR R	3	4	4	3	4	18	72
21	CB17S 182692	PALINIBHARATHI A	3	4	3	4	4	19	76
22	CB17S 182693	PANDIAMMAL T	5	5	5	5	5	25	100
23	CB17S 182694	PRAKASH V	3	4	4	2	2	20	80



24	CB17S 182695	PRASANNA V	4	4	4	4	4	20	80
25	CB17S 182696	PREETHI BAI R	5	4	5	5	5	25	100
26	CB17S 182697	PRIYANKA K	5	5	5	5	5	25	100
27	CB17S 182698	PUGALENDI A	3	4	4	4	4	19	76
28	CB17S 182699	RAJESH R	4	4	4	3	4	19	76
29	CB17S 182700	RETHINA SAMY V	4	4	5	4	5	22	88
30	CB17S 182701	RUTHRALINGAM P	4	5	5	4	5	23	92
31	CB17S 182702	SAKTHIVEL K	4	4	4	4	4	20	80
32	CB17S 182703	SANTHIYA K	5	5	5	5	5	25	100
33	CB17S 182704	SATHOSH KUMAR P	4	4	4	4	4	20	80
34	CB17S 182705	SATHISH KUMAR S	4	4	3	3	3	17	68
35	CB17S 182706	SATHISRAJ A	3	3	4	4	4	18	72
36	CB17S 182707	SATHIYANARAYANAN V	4	5	5	4	5	23	92
37	CB17S 182708	SENTHIL KUMAR K	5	5	5	5	5	25	100
38	CB17S 182709	SIVAKUMAR G	5	5	4	5	5	24	96
39	CB17S 182710	SRI VIJAY RAM M	3	4	4	3	4	18	72
40	CB17S 182711	SUREKA R	5	5	4	5	5	24	96
41	CB17S 182712	SYED MOHAMED S	4	4	4	4	4	20	80
42	CB17S 182713	TAJMAL BEGUM K	5	5	5	5	5	25	100
43	CB17S 182714	TAMIL SELVAN R	4	4	4	4	4	20	80
44	CB17S 182715	THIRUMOORTHY P	4	4	4	4	4	20	80
45	CB17S 182716	VAIRAVAN S T	4	4	4	4	5	21	84
46	CB17S 182717	VEERAIYAN C	4	4	5	4	4	21	84
47	CB17S 182718	VIJAY A	4	5	5	4	4	22	88
AVERAGE			3.938	4.271	4.271	3.792	4.021		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.94	75	78.94	92.871
CO2	4.27	75	79.27	93.259
CO3	4.27	75	79.27	93.259
CO4	3.79	75	78.79	92.694
CO5	4.02	75	79.02	92.965



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

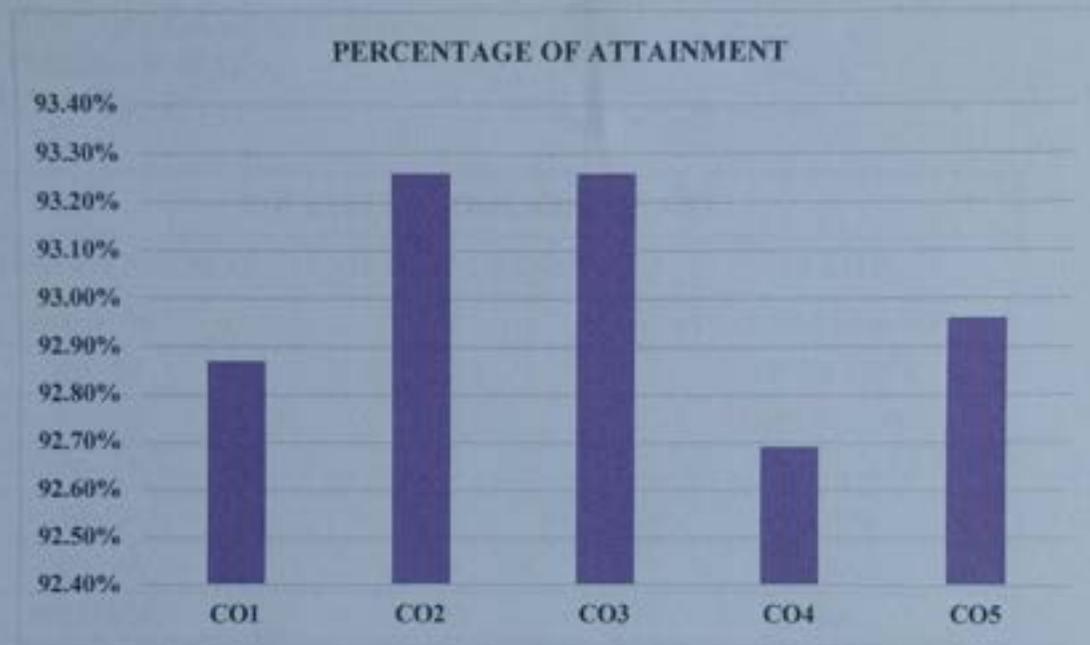
SUBJECT NAME: PROGRAMMING IN C

SUBJECT CODE: 16SCCCS1

NO. OF STUDENTS: 46

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.87%
CO2	93.26%
CO3	93.26%
CO4	92.69%
CO5	92.96%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN C

SUBJECT CODE: 16SCCCS1

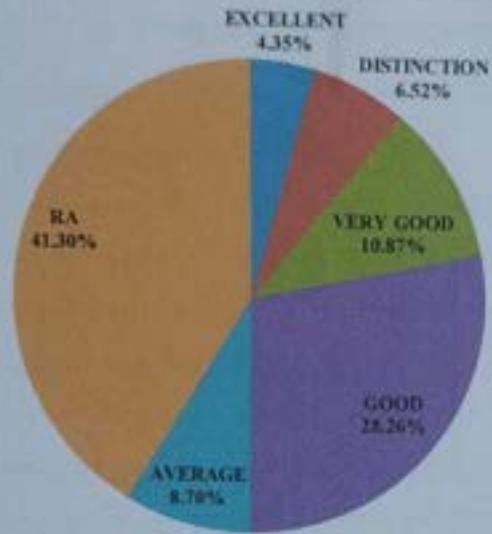
NO. OF STUDENTS: 46

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	2	EXCELLENT
70 - 79	3	DISTINCTION
60 - 69	5	VERY GOOD
50 - 59	13	GOOD
40 - 49	4	AVERAGE
BELOW 40	19	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	4.35%	EXCELLENT
70 - 79	6.52%	DISTINCTION
60 - 69	10.87%	VERY GOOD
50 - 59	28.26%	GOOD
40 - 49	8.70%	AVERAGE
BELOW 40	41.30%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59 ■ 40 - 49 ■ BELOW 40



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COURSE NAME : PROGRAMMING IN C LAB		COURSE CODE: 16SCCCS1P
On Completion of the course student will able to		
CO1	Develop C program using basic concepts.	
CO2	Implement Conditional control statements, Switch statements and Loop structures.	
CO3	Develop C program using the concepts of Arrays, Pointers.	
CO4	Solve the problem using concepts of Function, Recursion, Call by value & Call by Reference.	
CO5	Update the details of information using various file modes.	

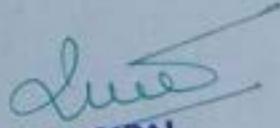


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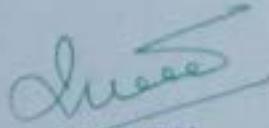
COURSE NAME : PROGRAMMING IN JAVA LAB		COURSE CODE: 16SCCCS3P
After Completion of the course student will able to		
CO1	Implement the Java program using arrays.	
CO2	Implement a Calculator to perform basic arithmetic operations.	
CO3	Solve the problem using the concepts of constructors, polymorphism and inheritance.	
CO4	Implement the java program using interface, multi threads, applets.	
CO5	Create a window using applets.	




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COURSE NAME : MYSQL LAB		COURSE CODE: RCCS10CS5P
Upon Completion of the course student will able to		
CO1	Find the results using the relations with suitable queries with no duplicate values.	
CO2	Impement to keep track of airline flight information using given relations.	
CO3	Solve the relations using key constraints.	
CO4	Implement the queries using relational algebra.	
CO5	Create a table, to find the specific values and to demonstrate the MySql operations.	




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COURSE NAME : OPERATING SYSTEMS LAB

COURSE CODE: RCCS10CS6P

On Completion of the course student will able to

CO1	Implement the menu driven shell program.
CO2	Perform the Testing of the File Existence, File readable, File Writable, Both Readable by accepting the specific file.
CO3	Understand the shell program using three arguments to take the pattern as well as input and output files.
CO4	Understand the concepts of menu driven shell program for editing, Pass word, ipconfig and ping.
CO5	Implement the shell program to find, accepts the files and directories.

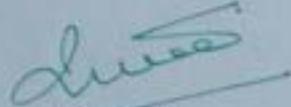


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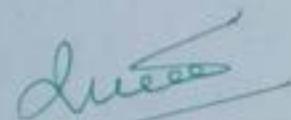
COURSE NAME : PROGRAMMING IN C++ LAB		COURSE CODE: 16SCCCS2P
After Completion of the course student will able to		
CO1	Perform concepts of Classes using C++ programming language.	
CO2	Implement Constructor and Destructor.	
CO3	Implement Operator Overloading.	
CO4	Solve the problem using Inheritance.	
CO5	Implement Files and Exception Handling in C++.	




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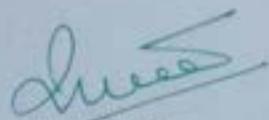
COURSE NAME : DATABASE SYSTEMS LAB		COURSE CODE: 16SCCCS4P
On Completion of the course student will able to		
CO1	Provide the knowledge in developing DDL and DML commands.	
CO2	Develop MySQL queries to implement the set operations.	
CO3	Implement aggregate functions.	
CO4	Develop and implement Join operations.	
CO5	Implement nested queries and to create a views and expand it.	




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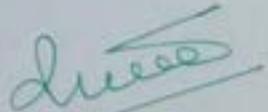
COURSE NAME : MICROPROCESSOR LAB		COURSE CODE: RCCS10CS7P
Upon Completion of the course student will able to		
CO1	Implement 8 - bit addition, Seperating out a hexa decimal digit, sum of series, data transfer using Intel 8085.	
CO2	Develop and execute programs fo display and for solving problems using subroutines on Intel 8085 Microprocessor.	
CO3	Implement the Matrix Display using 8255.	
CO4	Perform D/A & A/D converters using discrete component modules.	
CO5	Implement Traffic Signal.	




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COURSE NAME : HTML LAB		COURSE CODE: RCCS10CS8P
After Completion of the course student will able to		
CO1	Develop web pages using HTML documents.	
CO2	Understanding to create a web document using paragraph, back ground design, colour and text color.	
CO3	Develop complete web pages using Frames and Framesets.	
CO4	Develop complete set of web pages to describe the skills in various areas using HTML.	
CO5	Develop and Design the various registration form and to create tables using HTML.	




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COURSE NAME : MINI PROJECT		COURSE CODE: MBE10CSPW
After Completion of the course student will able to		
CO1	Enable the students to develop a project with a latest technologies.	
CO2	Plan, Analyse, design, implement and apply various types of testing.	
CO3	Communicate effectively in both oral and writing.	
CO4	Learn about different software development process models and the different features of software for their selected problem.	
CO5	Know about recent tools and technologies in software industry and also the scope their specialized areas in different fields in the industry.	



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COURSE NAME : WEB TECHNOLOGIES LAB		COURSE CODE: P16CS15P
After Completion of the course student will able to		
CO1	Know about the fundamental concepts of Internet.	
CO2	Develop and implement the codes in XML.	
CO3	Develop and implement the codes in Java Script.	
CO4	Develop and implement the codes in JSP.	
CO5	Develop and implement the codes in ASP different components, objects, connecting and storing in database .	



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COURSE NAME : DATAMINING LAB		COURSE CODE: P16CS33P
After Completion of the course student will able to		
CO1	Get hands on experience in developing applications using data mining tool.	
CO2	Implement Preprocessing for Data type Conversion and Data Transformation.	
CO3	Implement Feature Selection by Filter, Wrapper and dimensionally Reduction.	
CO4	Implement Supervised Technique - Classifier and Unsupervised Technique - Clustering algorithms.	
CO5	Implement Association Rule, Experimentation and knowledge flow for feature selection and classification and clustering	



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COURSE NAME : DISTRIBUTED TECHNOLOGIES LAB		COURSE CODE: P16CS23P
After Completion of the course student will able to		
CO1	Develop the fundamental concepts of Internet, Javascript, XML, JSP, ASP.	
CO2	Implement several webserver controls in database using ASP.NET.	
CO3	Generate Crystal Report from an existing database.	
CO4	Design the web page using AdRotator, Image map, Multiview controls and Master pages.	
CO5	Establish the security features, manage the concepts of mobile applications and also the web servers.	



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COURSE NAME : OPEN SOURCE LAB		COURSE CODE: P16CS43P
After Completion of the course student will able to		
CO1	Develop the fundamental concepts of Internet, Javascript, XML, JSP, ASP.	
CO2	Implement the server side PHP program to display details of students from a HTML form.	
CO3	Implement the PHP program that adds products that are selected from a web page to Shopping cart.	
CO4	Implement the PHP program to access the data stored in MySQL data source.	
CO5	Implement the shell program to find the details of an user session and to change the extension of a given file.	



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COURSE NAME : PROJECT WORK		COURSE CODE: P16CSPW
After Completion of the course student will able to		
CO1	Enable the students to develop a project with a latest technologies and trained as a software professional skills.	
CO2	Plan, Analyse, design, implement and apply various types of testing.	
CO3	Communicate effectively in both oral and writing.	
CO4	Learn about different software development process models and the different features of software for their selected problem.	
CO5	Know about recent tools and technologies in software industry and also the scope their specialized areas in different fields in the industry.	



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BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
(UGC Recognized 2(f) & 12(B) Institution)
THANJAVUR-5
PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : MANAGEMENT INFORMATION SYSTEM - 16SMBECS1:3

COURSE OUTCOME

CO1	Describes the Definition , Objectives , Uses and Limitations of MIS
CO2	Understanding Computer Softwares , Types and Trends.
CO3	Describes Management System in Business, Marketing , Human Resource.
CO4	Describes the Application of IT in Business , E-Commerce, Mobile Commerce, E-Governance, E-enterprises, etc.
CO5	Understanding Information security, Types of Breaches, Challenges , Cyper Laws and IT Act 2000 etc.



PO → CO ₁	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	3
CO2	3	2	3	3	3
CO3	3	3	2	2	3
CO4	3	2	3	3	3
CO5	3	2	3	3	2
AVERAGE	3	2.2	2.4	2.4	2.8



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB16S 177266	ABDUL MAAJIDH.S	5	4	5	4	4	22	88
2	CB16S 177267	AISWARYA.S	5	5	5	5	5	25	100
3	CB16S 177268	AJAY.S	5	4	4	5	5	23	92
4	CB16S 177269	AJITHKUMAR.S	2	2	2	2	2	10	40
5	CB16S 177270	ANBUCHZHIAN.C	3	2	2	3	2	12	48
6	CB16S 177271	ARAVINDHAN.D	3	2	3	3	2	13	52
7	CB16S 177272	ARAVINTH.M	3	2	3	3	3	14	56
8	CB16S 177273	AROKIYAREGAN.R	5	4	4	5	5	23	92
9	CB16S 177275	BABU.M	2	2	2	2	2	10	40
10	CB16S 177276	BAGYA.P	5	5	5	5	5	25	100
11	CB16S 177277	BALACHANDAR.M	5	4	5	4	4	22	88
12	CB16S 177278	BHARANIDHARAN.C.G	5	5	5	5	5	25	100
13	CB16S 177279	DHANESH.K	3	2	2	3	2	12	48
14	CB16S 177280	DHARMARAJAN.B	2	2	2	3	2	11	44
15	CB16S 177281	FAROOK BATCHA.M	5	4	5	4	4	22	88
16	CB16S 177282	GOWTHAMAN.B	2	2	2	3	2	11	44
17	CB16S 177283	JAGADEESH SAGAR.K	4	3	4	3	4	18	72
18	CB16S 177285	JAYASURIYA.I	4	3	5	3	5	20	80
19	CB16S 177287	KALAVENDHAN.R	4	3	5	3	5	20	80
20	CB16S 177289	KARTHIKEYAN.K	2	2	2	3	2	11	44
21	CB16S 177290	KEERTHANA M	5	5	5	5	5	25	100
22	CB16S 177291	LAVANYA.S	5	5	5	5	5	25	100
23	CB16S 177292	MANIKANDAN.B	3	2	2	3	2	12	48
24	CB16S 177293	MUKESHKUMAR.S	5	4	4	5	5	23	92



25	CB16S 177295	REVATHI.R	5	5	5	5	5	25	80
26	CB16S 177296	SANDHIYA.N	4	3	5	3	5	20	44
27	CB16S 177297	SARAN.C	2	2	2	3	2	11	48
28	CB16S 177298	SARGUNAM.S	3	2	2	3	2	12	48
29	CB16S 177299	SELVAKUMAR.A	3	2	2	3	2	12	80
30	CB16S 177300	SENTHILNAATHAN.K	4	3	5	3	5	20	88
31	CB16S 177301	VEERAMANI.D	5	4	5	4	4	22	48
32	CB16S 177302	VEERAMANI.P	3	2	2	3	2	12	48
AVERAGE			3.781	3.156	3.625	3.625	3.563		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.78	75	78.78	92.682
CO2	3.16	75	78.16	91.953
CO3	3.63	75	78.63	92.506
CO4	3.63	75	78.63	92.506
CO5	3.56	75	78.56	92.424



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: MANAGEMENT INFORMATION SYSTEM

SUBJECT CODE: 16SMBECS1:3

NO. OF STUDENTS: 32

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.68%
CO2	91.95%
CO3	92.51%
CO4	92.51%
CO5	92.42%



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: MANAGEMENT INFORMATION SYSTEM

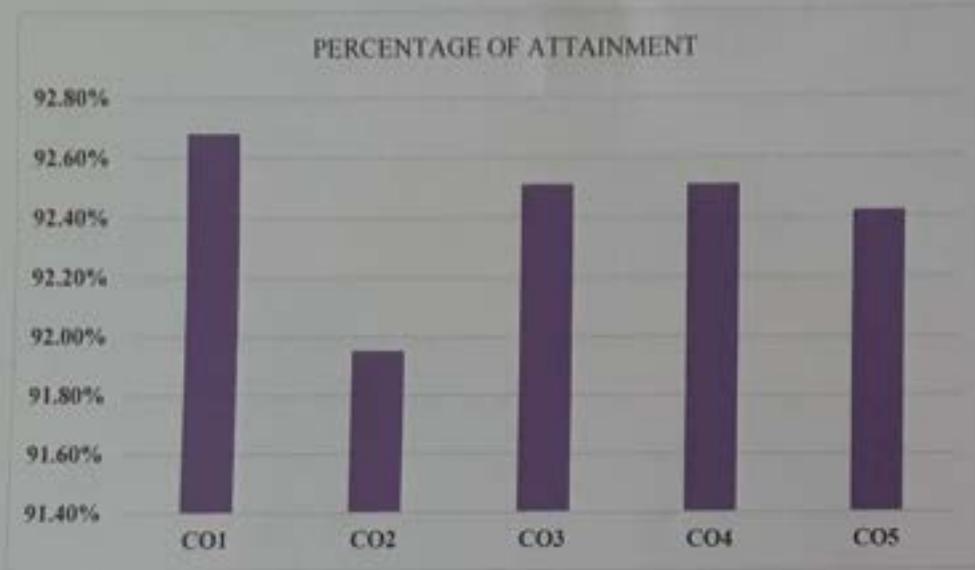
SUBJECT CODE: 16SMBECS1:3

NO. OF STUDENTS:32

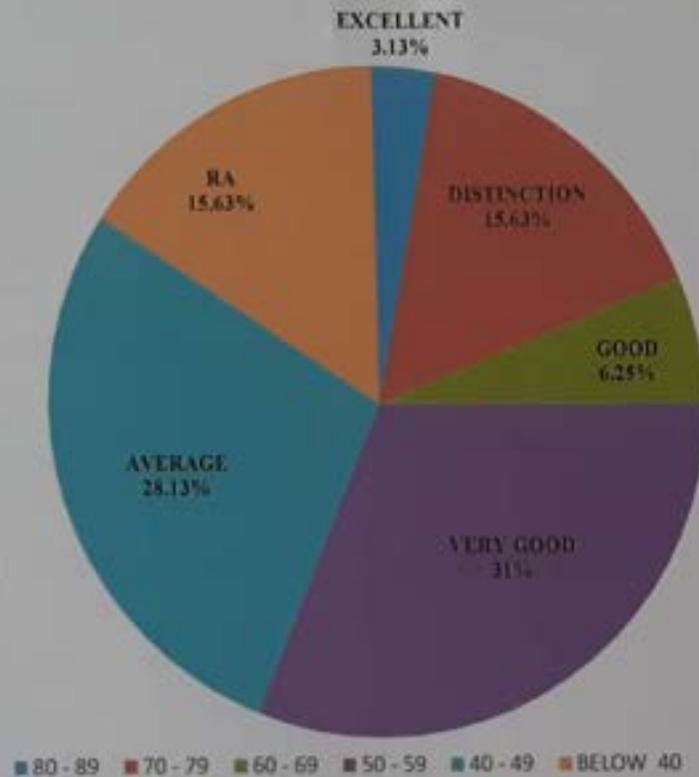
COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	1	EXCELLENT
70 - 79	5	DISINCTION
60 - 69	2	GOOD
50 - 59	10	VERY GOOD
40 - 49	9	AVERAGE
BELOW 40	5	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	3.13%	EXCELLENT
70 - 79	15.63%	DISINCTION
60 - 69	6.25%	GOOD
50 - 59	31%	VERY GOOD
40 - 49	28.13%	AVERAGE
BELOW 40	15.63%	RA





COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : DISTRIBUTED TECHNOLOGIES - P16CS22
COURSE OUTCOME

CO1	Understanding distributed Computing, Challenges and Strategies involved in establishing remote connection, Distributed computing practices through Dot Net and Java technologies.
CO2	Describes Advanced ADO, NET, Disconnected Data Access, Gridview, Details View, Form View controls, Crystal Reports, Applications.
CO3	Understanding Advanced ASP, NET, AdRotator, Multiview, Wizard and Image Map Controls, Master Pages, Site Navigation, Web Parts, Uses of these controls and features in Website development.
CO4	Describes ASP.NET, Security in ASP, NET, State Management in ASP, NET, Mobile Application development in ASP, NET, Critical usage of these features in Website development.
CO5	Understanding Web services, WSDL, UDDI, SOAP concepts, Connected a Web Service to a Data Base.



PO → CO ₁	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	3
CO2	3	3	3	3	2
CO3	3	3	3	3	3
CO4	3	3	2	3	3
CO5	2	3	3	3	3
AVERAGE	2.8	3	2.8	3	2.8



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 18270986	ARUNKUMAR. A	5	4	4	5	5	23	92
2	P 18270987	BALAMURUGAN. S	4	5	5	4	4	22	88
3	P 18270988	BHARATHI SESHAN	5	5	5	5	5	25	100
4	P 18270989	GURUBHARATHI. S	4	5	4	4	5	22	88
5	P 18270990	HARI VINOOTH. S	5	5	5	5	5	25	100
6	P 18270992	RAJESH. S	5	4	4	5	5	23	92
7	P 18270993	SUBBU RAJ. M	4	5	4	5	4	22	88
AVERAGE			4.571	4.714	4.429	4.714	4.714		

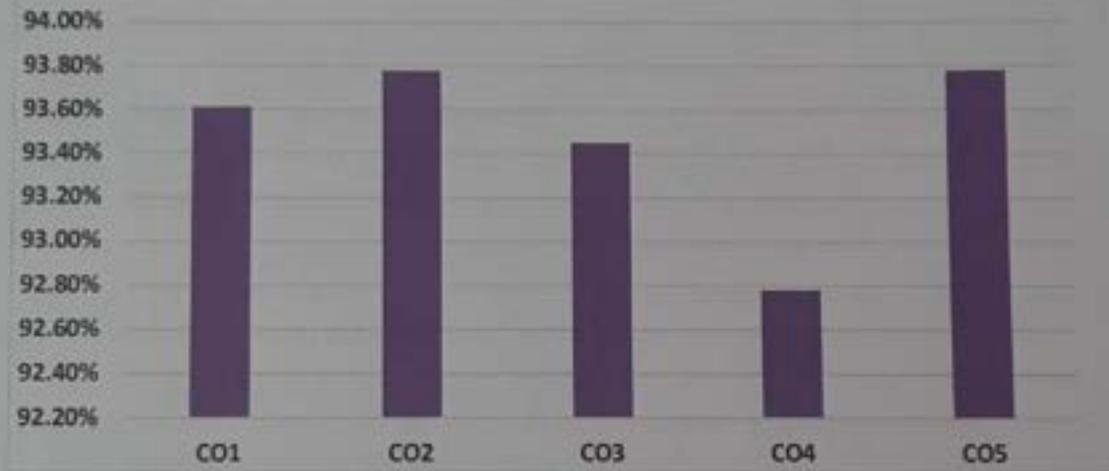


EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.57	75	79.57	93.61
CO2	4.71	75	79.71	93.78
CO3	4.43	75	79.43	93.45
CO4	4.71	75	79.71	93.78
CO5	4.71	75	79.71	93.78



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DISTRIBUTED TECHNOLOGIES

SUBJECT CODE: P16CS22

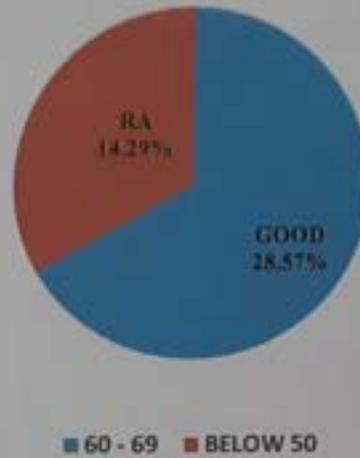
NO. OF STUDENTS:7

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	0	VERY GOOD
60 - 69	2	GOOD
50 - 59	0	ABOVE AVERAGE
BELOW 50	1	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
60 - 69	28.57%	GOOD
BELOW 50	14.29%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : NETWORK SECURITY - P16CSE4A

COURSE OUTCOME

CO1	Understanding , Symmetric Ciphers: Classical Encryption Techniques.
CO2	Understanding , Block ciphers and the Data Encryption Standards, Public-key Encryption and Hash Functions , Public-Key Cryptography and RSA.
CO3	Understanding , Network Security Practices , Authentication applications, Electronic Mail Security.
CO4	Describes, Network Security Practices, IP Security, Web Security.
CO5	Understanding , System Security: Intruders , Malicious Software , Firewall



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	0
CO2	3	3	3	2	1
CO3	3	3	3	3	1
CO4	3	2	3	3	0
CO5	3	3	3	3	0
AVERAGE	3	2.6	2.8	2.6	0.25



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 17272001	ANAMIKA. V	5	4	4	5	5	23	92
2	P 17272002	CHANDRAMOHAN. S	5	4	5	5	5	24	96
3	P 17272003	DEVAYANI. R	4	4	4	4	4	20	80
4	P 17272004	DHIVYA. K	5	5	5	5	5	25	100
5	P 17272005	KAYATHRI. D	5	4	5	5	5	24	96
6	P 17272006	NARMADAHA. C	5	4	4	5	5	23	92
7	P 17272007	SAMYTHURAL. V	4	4	4	4	4	20	80
8	P 17272008	SOWMIYA. R	5	4	4	4	5	22	88
9	P 17272009	VIGNESH. C	5	4	4	5	5	23	92
10	P 17272465	KAYALVIZHI. T	5	4	4	4	5	22	88
AVERAGE			4.8	4.1	4.3	4.6	4.8		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.8	75	79.8	93.882
CO2	4.1	75	79.1	93.059
CO3	4.3	75	79.3	93.294
CO4	4.6	75	79.6	93.647
CO5	4.8	75	79.8	93.882



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

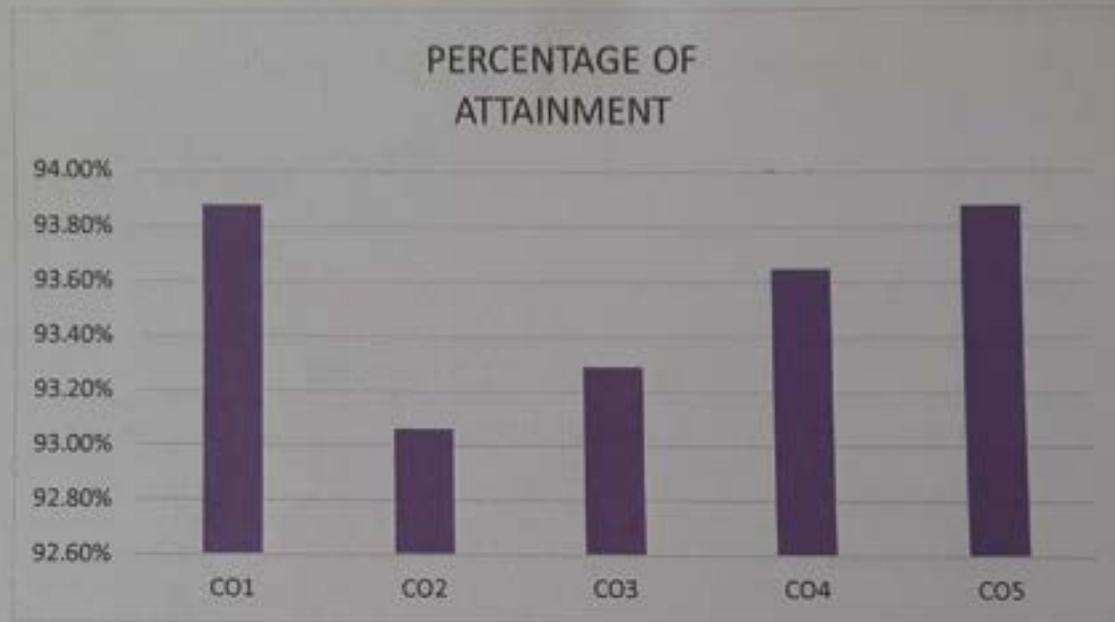
SUBJECT NAME: NETWORK SECURITY

SUBJECT CODE: P16CSE4A

NO. OF STUDENTS: 10

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.88%
CO2	93.06%
CO3	93.29%
CO4	93.65%
CO5	93.88%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: NETWORK SECURITY

SUBJECT CODE: P16CSE4A

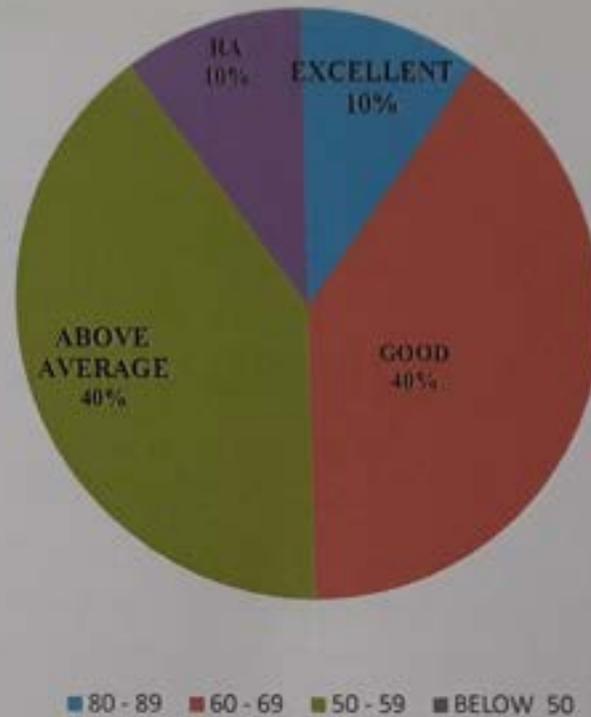
NO. OF STUDENTS:10

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	1	EXCELLENT
70 - 79	0	VERY GOOD
60 - 69	4	GOOD
50 - 59	4	ABOVE AVERAGE
BELOW 40	1	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	10%	EXCELLENT
60 - 69	40%	GOOD
50 - 59	40%	ABOVE AVERAGE
BELOW 50	10%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : DATABASE SYSTEMS - 16SCCCS4
COURSE OUTCOME

CO1	It provides the basic concepts of the database systems including Data Models, Storage Structure.
CO2	Describes the Structure of relational databases, Database schema, Relational operations , Relational algebra operations.
CO3	Understanding the concepts of Basic structure of SQL queries, Set operations, Transactions, Authorization.
CO4	Provides the concepts of Relational languages, Entity-relationship design issues, aspects of Database design.
CO5	Understanding about Features of good relational designs, normalization and more normal forms.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	2
CO2	3	3	3	3	2
CO3	3	3	3	3	3
CO4	3	2	2	3	2
CO5	3	3	3	3	1
AVERAGE	3	2.8	2.8	3	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB17S 182671	ABARNA R	4	4	4	4	4	20	80
2	CB17S 182672	ABI R	4	4	3	3	4	18	72
3	CB17S 182673	AJMEER KHAN A	3	4	3	3	4	17	68
4	CB17S 182674	AKASH S	5	5	5	5	5	25	100
5	CB17S 182676	AUSTIN A S	3	3	3	3	4	16	64
6	CB17S 182677	BALAJI S	3	4	3	3	3	16	64
7	CB17S 182678	BRINDHA R	4	5	4	4	5	22	88
8	CB17S 182679	DIVAGAR R	3	4	3	3	3	16	64
9	CB17S 182680	ELANGO VAN V	3	3	2	3	3	14	56
10	CB17S 182681	GAYATHRI M	4	5	5	4	5	23	92
11	CB17S 182682	GOKILAN T	3	4	3	3	3	16	64
12	CB17S 182683	GOPINATH R	3	4	3	4	3	17	68
13	CB17S 182685	GRACE ROMALD BRITTO A	4	3	3	3	4	17	68
14	CB17S 182686	HARISH R	3	3	3	3	3	15	60
15	CB17S 182687	ITHRISH M	3	4	4	4	3	18	72
16	CB17S 182688	MOHAMED BHARATHI J	3	3	3	3	3	15	60
17	CB17S 182689	MOHAN T	3	3	3	3	4	16	64
18	CB17S 182690	NAGAARAJUN S	4	4	3	3	4	18	72
19	CB17S 182691	NITHISKUMAR R	3	3	3	3	3	15	60
20	CB17S 182692	PALINIBHARATHI A	3	3	3	3	3	15	60
21	CB17S 182693	PANDIAMMAL T	4	4	5	4	5	22	88
22	CB17S 182694	PRAKASH V	3	3	4	4	3	17	68
23	CB17S 182695	PRASANNA V	3	3	4	4	4	18	72
24	CB17S 182696	PREETHI BAI R	4	5	4	4	4	21	84
25	CB17S 182697	PRIYANKA K	5	4	5	4	5	23	92
26	CB17S 182698	PUGALENDI A	3	3	3	3	3	15	60
27	CB17S 182699	RAJESH R	4	3	3	3	4	17	68



28	CB17S 182700	RETHINA SAMY V	4	4	4	5	4	21	84
29	CB17S 182701	RUTHRALINGAM P	5	5	5	5	5	25	100
30	CB17S 182702	SAKTHIVEL K	4	3	4	4	4	19	76
31	CB17S 182703	SANTHIYA K	4	5	4	4	4	21	84
32	CB17S 182704	SATHOSH KUMAR P	3	4	4	4	4	19	76
33	CB17S 182705	SATHISH KUMAR S	4	4	5	4	4	21	84
34	CB17S 182706	SATHISRAJ A	4	3	4	3	3	17	68
35	CB17S 182707	SATHIYANARAYANAN V	4	3	3	3	4	17	68
36	CB17S 182708	SENTHIL KUMAR K	3	4	4	4	3	18	72
37	CB17S 182709	SIVAKUMAR G	3	3	3	3	4	16	64
38	CB17S 182710	SRIVIJAYARAM M	3	4	4	4	3	18	72
39	CB17S 182711	SUREKA R	4	3	4	4	4	19	76
40	CB17S 182712	SYED MOHAMED S	4	3	4	3	3	17	68
41	CB17S 182713	TAJMAL BEGUM K	5	4	5	4	5	23	92
42	CB17S 182714	TAMILSELVAN R	4	3	3	3	4	17	68
43	CB17S 182715	THIRUMOORTHY P	3	3	3	3	4	16	64
44	CB17S 182716	VAIRAVAN S T	5	5	5	5	5	25	100
45	CB17S 182717	VEERAIYAN C	4	3	3	3	4	17	68
46	CB17S 182718	VIJAY A	3	4	3	3	4	17	68
47	CB17S 182719	ARTHIM	5	5	5	5	5	25	100
AVERAGE			3.66	3.723	3.681	3.596	3.851		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.66	75	78.66	92.54
CO2	3.72	75	78.72	92.61
CO3	3.68	75	78.68	92.56
CO4	3.6	75	78.6	92.47
CO5	3.85	75	78.85	92.76



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

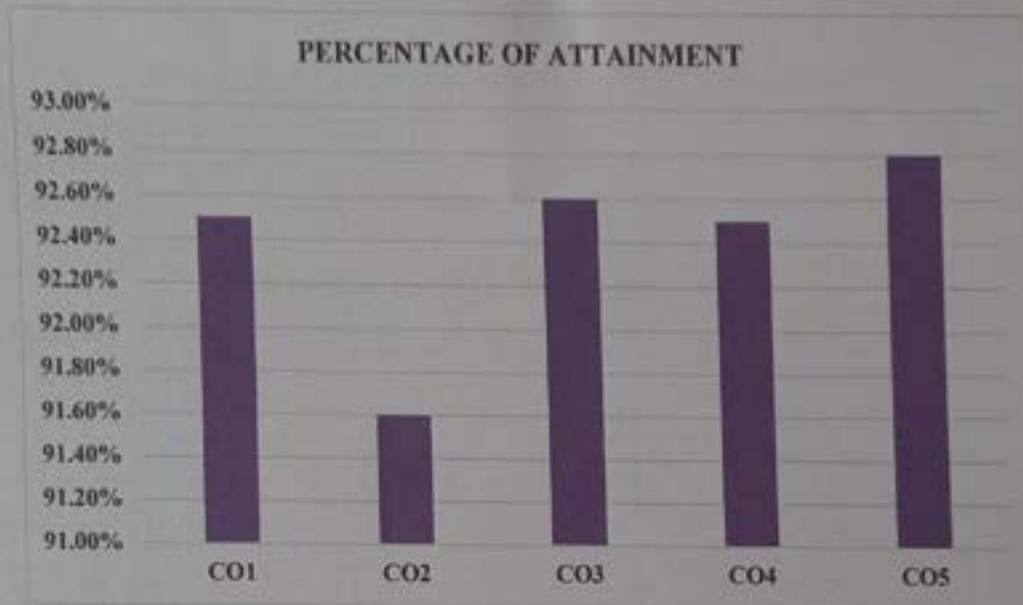
SUBJECT NAME: DATABASE SYSTEMS

SUBJECT CODE: 16SCCCS4

NO. OF STUDENTS: 47

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.50%
CO2	91.60%
CO3	92.60%
CO4	92.50%
CO5	92.80%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATABASE SYSTEMS

SUBJECT CODE: 16SCCCS4

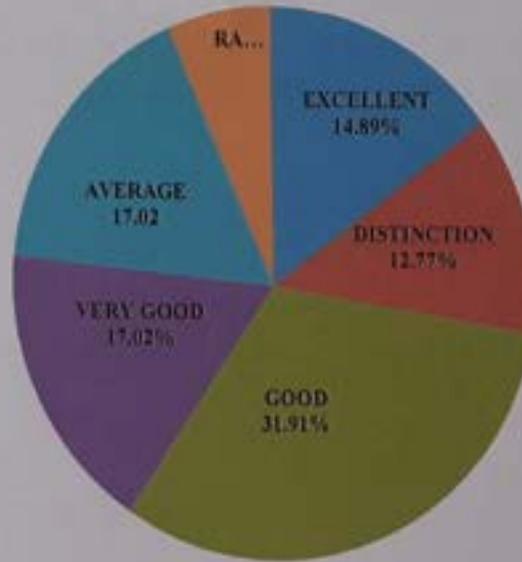
NO. OF STUDENTS:47

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	7	EXCELLENT
70 - 79	6	DISINCTION
60 - 69	15	GOOD
50 - 59	8	VERY GOOD
40 - 49	8	AVERAGE
BELOW 40	3	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	14.89%	EXCELLENT
70 - 79	12.77%	DISINCTION
60 - 69	31.91%	GOOD
50 - 59	17.02%	VERY GOOD
40 - 49	17.02%	AVERAGE
BELOW 40	6.38%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59 ■ 40 - 49 ■ BELOW 40



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PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN JAVA - 16SCCCS3
COURSE OUTCOME

CO1	Describes the Introduction to OOPS and Introduction to Java Programming.
CO2	Understanding Java Data Types, Variable, Operations and Assignment, Control Structures, Arrays, Strings.
CO3	Describes Classes, Modifiers, Packages, Interfaces.
CO4	Describes Exception Handling and Multi Threading in Java.
CO5	Understanding Files and I/O Streams and Java Applets.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	1
CO2	3	2	3	3	1
CO3	2	2	2	2	1
CO4	3	2	3	3	1
CO5	3	2	3	3	1
AVERAGE	2.8	2	2.4	2.6	1



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB17S 182671	ABARNA R	5	5	5	5	5	25	100
2	CB17S 182672	ABI R	4	3	4	3	4	18	72
3	CB17S 182673	AJMEER KHAN A	4	3	4	3	4	18	72
4	CB17S 182674	AKASH S	5	5	5	5	5	25	100
5	CB17S 182676	AUSTIN A S	3	3	3	2	3	14	56
6	CB17S 182677	BALAJI S	4	3	4	3	4	18	72
7	CB17S 182678	BRINDHA R	5	4	4	5	5	23	92
8	CB17S 182679	DIVAGAR R	4	3	4	3	3	17	68
9	CB17S 182680	ELANGO VAN V	4	3	4	3	3	17	68
10	CB17S 182681	GAYATHRI M	5	4	4	5	5	23	92
11	CB17S 182682	GOKILAN T	4	3	4	3	3	17	68
12	CB17S 182683	GOPINATH R	4	3	4	3	4	18	72
13	CB17S 182684	GOWTHAM S	4	4	4	3	4	19	76
14	CB17S 182685	GRACE ROMALD BRITTO A	4	4	4	4	4	20	80
15	CB17S 182686	HARISH R	4	4	4	4	5	21	84
16	CB17S 182687	ITHRISH M	4	5	4	4	5	22	88
17	CB17S 182688	MOHAMED BHARATHI J	4	4	4	4	4	20	80
18	CB17S 182689	MOHAN T	5	4	4	5	5	23	92
19	CB17S 182690	NAGAARAJUN S	5	4	4	5	5	23	92
20	CB17S 182691	NITHIS KUMAR R	4	5	4	4	5	22	88
21	CB17S 182692	PALINIBHARATHI A	4	4	4	4	4	20	80



22	CB17S 182693	PANDIAMMAL T	5	5	5	5	5	25	100
23	CB17S 182694	PRAKASH V	5	4	4	5	5	23	92
24	CB17S 182695	PRASANNA V	4	5	4	4	5	22	88
25	CB17S 182696	PREETHI BAI R	5	5	5	5	5	25	100
26	CB17S 182697	PRIYANKA K	5	5	5	5	5	25	100
27	CB17S 182698	PUGALENDI A	4	4	4	4	4	20	80
28	CB17S 182699	RAJESH R	4	3	4	3	3	17	68
29	CB17S 182700	RETHINA SAMY V	5	5	5	5	5	25	100
30	CB17S 182701	RUTHRALINGAM P	4	4	4	4	5	21	84
31	CB17S 182702	SAKTHIVEL K	4	4	4	4	5	21	84
32	CB17S 182703	SANTHIYA K	5	4	4	5	5	23	92
33	CB17S 182704	SATHOSH KUMAR P	4	5	4	4	5	22	88
34	CB17S 182705	SATHISH KUMAR S	4	4	4	4	4	20	80
35	CB17S 182706	SATHISRAJ A	4	4	4	4	5	21	84
36	CB17S 182707	SATHIYANARAYANAN V	4	4	4	4	5	21	84
37	CB17S 182708	SENTHIL KUMAR K	4	5	5	5	5	24	96
38	CB17S 182709	SIVAKUMAR G	4	4	4	4	5	21	84
39	CB17S 182710	SRI VIJAY RAM M	4	5	4	4	5	22	88



40	CB17S 182711	SUREKA R	5	5	5	5	5	25	100
41	CB17S 182712	SYED MOHAMED S	4	4	4	4	4	20	80
42	CB17S 182713	TAJMAL BEGUM K	5	5	5	5	5	25	100
43	CB17S 182714	TAMIL SELVAN R	4	5	5	5	5	24	96
44	CB17S 182715	THIRUMOORTHY P	3	3	3	3	3	15	60
45	CB17S 182716	VAIRAVAN S T	5	5	5	5	5	25	100
46	CB17S 182717	VEERAIYAN C	5	4	4	5	5	23	92
47	CB17S 182718	VIJAY A	4	5	4	4	5	22	88
48	CB17S 182719	AARTHI M	5	5	5	5	5	25	100
AVERAGE			4.313	4.167	4.208	4.146	4.521		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.31	75	79.31	93.306
CO2	4.17	75	79.17	93.141
CO3	4.21	75	79.21	93.188
CO4	4.15	75	79.15	93.118
CO5	4.52	75	79.52	93.553



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

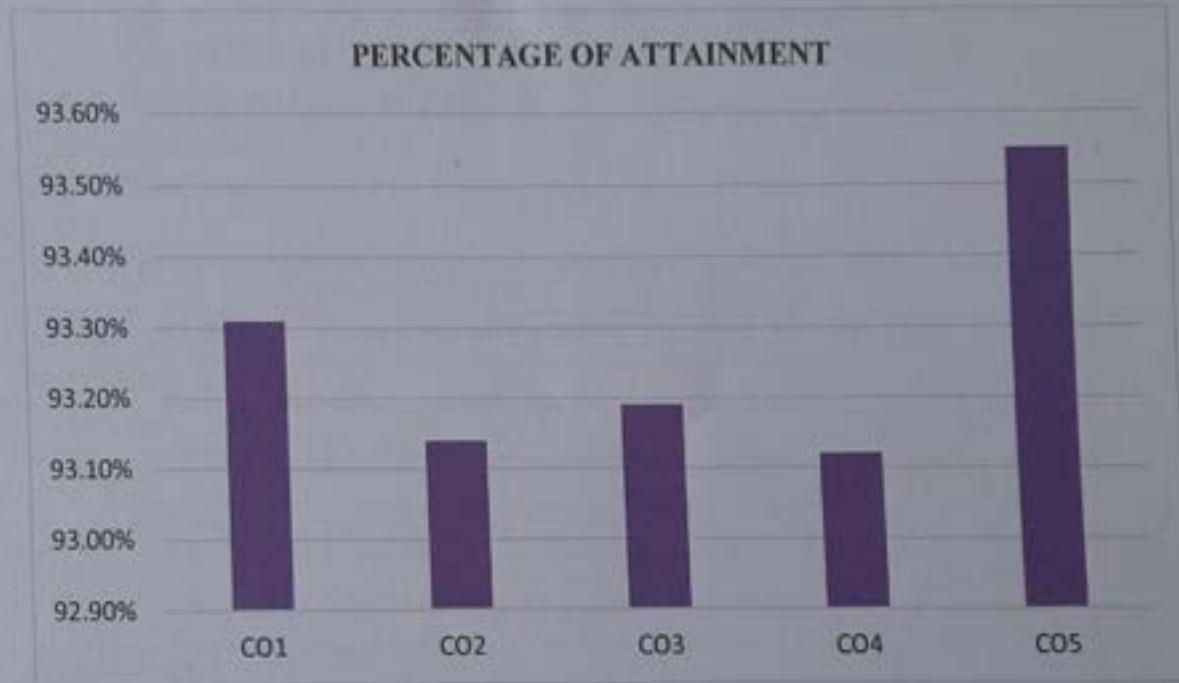
SUBJECT NAME: PROGRAMMING IN JAVA

SUBJECT CODE: 16SCCCS3

NO. OF STUDENTS: 48

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.31%
CO2	93.14%
CO3	93.19%
CO4	93.12%
CO5	93.55%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN JAVA

SUBJECT CODE: 16SCCCS3

NO. OF STUDENTS:48

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	4	EXCELLENT
70 - 79	9	DISINCTION
60 - 69	5	GOOD
50 - 59	14	VERY GOOD
40 - 49	2	AVERAGE
BELOW 40	14	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	8.33%	EXCELLENT
70 - 79	18.75%	DISINCTION
60 - 69	10.42%	GOOD
50 - 59	29.17%	VERY GOOD
40 - 49	4.17%	AVERAGE
BELOW 40	29.17%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59 ■ 40 - 49 ■ BELOW 40

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PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN PHP - 16SCCCS9
COURSE OUTCOME

CO1	Understanding the concepts and essentials of PHP.
CO2	Understanding the concepts of creating functions, reading data in webpages, handling power.
CO3	Understanding about advanced object oriented programming.
CO4	Describes about the file handling, working with databases, sessions, cookies and FTP.
CO5	Understanding Advanced Ajax, Drawing images on the server.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	0
CO2	3	3	3	3	1
CO3	3	3	3	3	0
CO4	3	3	3	3	0
CO5	3	3	3	3	1
AVERAGE	3	3	3	3	0.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB16S 177266	ABDUL MAAJIDH.S	4	5	4	5	5	23	92
2	CB16S 177267	AISWARYA.S	5	5	5	5	5	25	100
3	CB16S 177268	AJAY.S	5	5	5	5	5	25	100
4	CB16S 177269	AJITHKUMAR.S	3	4	3	4	4	18	72
5	CB16S 177270	ANBUCHZHIAN.C	3	3	3	3	3	15	60
6	CB16S 177271	ARAVINDHAN.D	4	4	4	4	4	20	80
7	CB16S 177272	ARAVINTH.M	4	4	3	4	4	19	76
8	CB16S 177273	AROKIYAREGAN.R	4	4	5	4	4	21	84
9	CB16S 177275	BABU.M	3	3	3	3	3	15	60
10	CB16S 177276	BAGYA.P	5	5	5	5	5	25	100
11	CB16S 177277	BALACHANDAR.M	5	5	5	5	5	25	100
12	CB16S 177278	BHARANIDHARAN.C.G	5	5	5	5	5	25	100
13	CB16S 177279	DHANESH.K	3	4	3	3	3	16	64
14	CB16S 177280	DHARMARAJAN.B	3	3	3	3	3	15	60
15	CB16S 177281	FAROOK BATCHA.M	4	4	4	4	4	20	80
16	CB16S 177282	GOWTHAMAN.B	4	4	3	4	3	18	72
17	CB16S 177283	JAGADEESH SAGAR.K	5	5	5	5	5	25	100
18	CB16S 177285	JAYASURIYA.I	5	5	5	5	5	25	100
19	CB16S 177287	KALAVENDHAN.R	5	4	5	5	5	24	96
20	CB16S 177289	KARTHIKEYAN.K	3	3	3	3	3	15	60
21	CB16S 177290	KEERTHANA.M	4	5	5	5	5	24	96
22	CB16S 177291	LAVANYA.S	5	5	5	5	5	25	100
23	CB16S 177292	MANIKANDAN.B	3	4	3	3	3	16	64



24	CB16S 177293	MUKESHKUMAR.S	5	4	5	4	5	23	92
25	CB16S 177295	REVATHLR	5	5	5	5	5	25	100
26	CB16S 177296	SANDHIYA.N	5	5	5	4	5	24	96
27	CB16S 177297	SARAN.C	4	4	4	4	4	20	80
28	CB16S 177298	SARGUNAM.S	4	3	4	3	4	18	72
29	CB16S 177299	SELVAKUMAR.A	3	3	3	3	3	15	60
30	CB16S 177300	SENTHILNAATHAN.K	4	5	4	5	5	23	92
31	CB16S 177301	VEERAMANI.D	5	5	4	5	5	24	96
32	CB16S 177302	VEERAMANI.P	4	4	4	4	4	20	80
AVERAGE			4.156	4.25	4.125	4.188	4.25		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.16	75	79.16	93.13
CO2	4.25	75	79.25	93.24
CO3	4.13	75	79.13	93.09
CO4	4.19	75	79.19	93.16
CO5	4.25	75	79.25	93.24



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN PHP

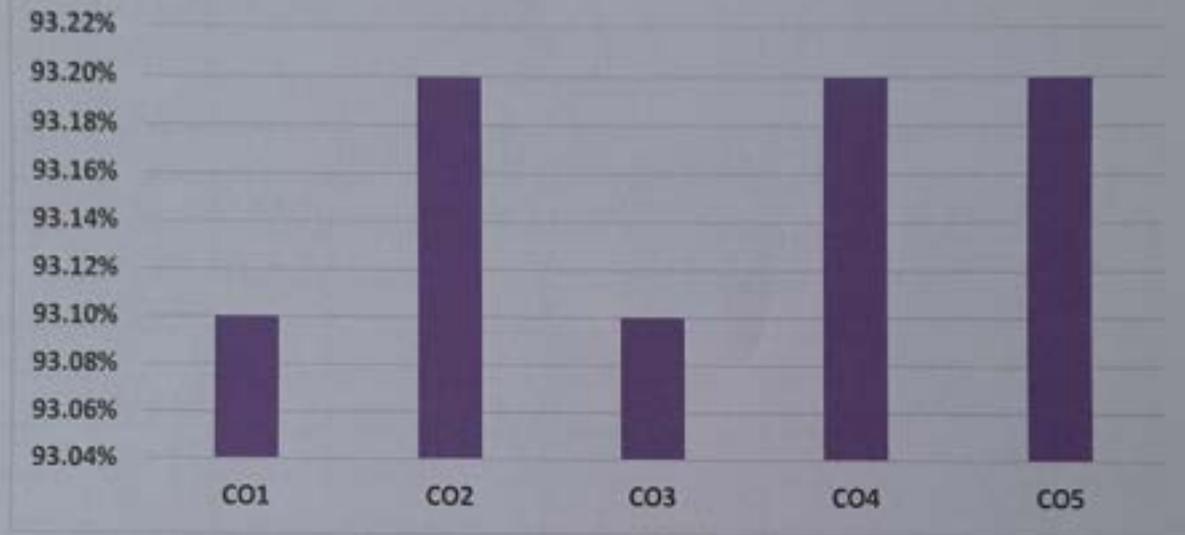
SUBJECT CODE: 16SCCCS9

NO. OF STUDENTS: 32

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.10%
CO2	93.20%
CO3	93.10%
CO4	93.20%
CO5	93.20%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN PHP

SUBJECT CODE: 16SCCCS9

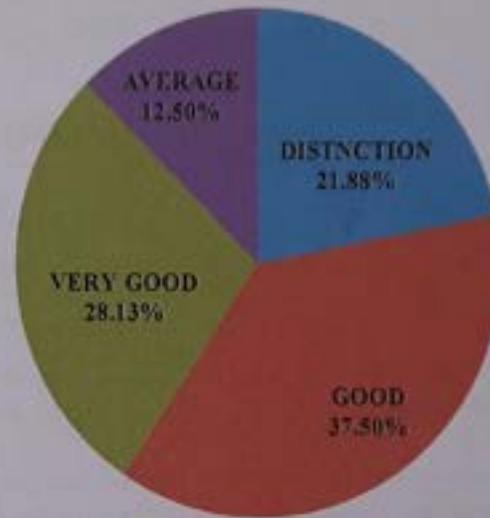
NO. OF STUDENTS:32

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	7	DISINCTION
60 - 69	12	GOOD
50 - 59	9	VERY GOOD
40 - 49	4	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	21.88%	DISINCTION
60 - 69	37.50%	GOOD
50 - 59	28.13%	VERY GOOD
40 - 49	12.50%	AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 70 - 79 ■ 60 - 69 ■ 50 - 59 ■ 40 - 49



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : DATA STRUCTURES AND ALGORITHMS - 16SCCCS5

COURSE OUTCOME

CO1	Understanding Arrays, ordered lists, Stacks and Queues, Multiple Stacks and Queues, Singly Linked List
CO2	Understanding Trees, Graphs, Activity Networks, Paths..
CO3	Understanding the concepts of Algorithms, Priority Queues, Binary Search.
CO4	Describes the concepts of Greedy Method, Optimal Storage on Tapes, Optimal Merge Patterns.
CO5	Understanding about the General Method, The 8-Queens Problem, Graph Coloring.



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	3	3	2	2
CO3	3	3	3	3	1
CO4	3	2	3	3	1
CO5	3	3	3	3	1
AVERAGE	3	2.6	2.8	2.6	1.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB16S 177266	ABDUL MAAJIDH.S	5	4	4	5	5	23	92
2	CB16S 177267	AISWARYA.S	5	5	5	5	5	25	100
3	CB16S 177268	AJAY.S	5	4	4	5	5	23	92
4	CB16S 177269	AJITHKUMAR.S	3	2	3	3	2	13	52
5	CB16S 177270	ANBUCHEZHIAN.C	3	3	3	3	3	15	60
6	CB16S 177271	ARAVINDHAN.D	3	2	3	3	2	13	52
7	CB16S 177272	ARAVINTH.M	3	2	3	3	3	14	56
8	CB16S 177273	AROKIYAREGAN.R	5	4	4	5	5	23	92
9	CB16S 177275	BABU.M	2	2	3	3	2	12	48
10	CB16S 177276	BAGYA.P	5	5	5	5	5	25	100
11	CB16S 177277	BALACHANDAR.M	5	4	5	5	5	24	96
12	CB16S 177278	BHARANIDHARAN.C.G	5	5	5	5	5	25	100
13	CB16S 177279	DHANESH.K	2	2	3	3	2	12	48
14	CB16S 177280	DHARMARAJAN.B	2	2	2	3	2	11	44
15	CB16S 177281	FAROOK BATCHA.M	5	4	4	5	5	23	92
16	CB16S 177282	GOWTHAMAN.B	3	2	3	3	2	13	52
17	CB16S 177283	JAGADEESH SAGAR.K	3	4	4	3	3	17	68
18	CB16S 177285	JAYASURIYA.I	5	4	4	5	5	23	92
19	CB16S 177287	KALAVENDHAN.R	4	4	5	4	4	21	84
20	CB16S 177289	KARTHIKEYAN.K	2	2	3	3	2	12	48
21	CB16S 177290	KEERTHANA M	5	5	5	5	5	25	100
22	CB16S 177291	LAVANYA.S	5	5	5	5	5	25	100
23	CB16S 177292	MANIKANDAN.B	3	2	3	3	2	13	52
24	CB16S 177293	MUKESHKUMAR.S	5	4	4	5	5	23	92
25	CB16S 177295	REVATHI.R	5	5	5	5	5	25	100



26	CB16S 177296	SANDHIYA.N	5	5	3	4	4	21	84
27	CB16S 177297	SARAN.C	3	2	3	3	2	13	52
28	CB16S 177298	SARGUNAM.S	3	2	3	3	2	13	52
29	CB16S 177299	SELVAKUMAR.A	2	2	3	3	2	12	48
30	CB16S 177300	SENTHILNAATHAN.K	5	5	3	4	4	21	84
31	CB16S 177301	VEERAMANI.D	5	4	4	5	5	23	92
32	CB16S 177302	VEERAMANI.P	3	2	3	3	2	13	52
AVERAGE			3.875	3.406	3.719	3.969	3.594		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.88	75	78.88	92.8
CO2	3.41	75	78.41	92.2471
CO3	3.72	75	78.72	92.6118
CO4	3.97	75	78.97	92.9059
CO5	3.59	75	78.59	92.4588



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

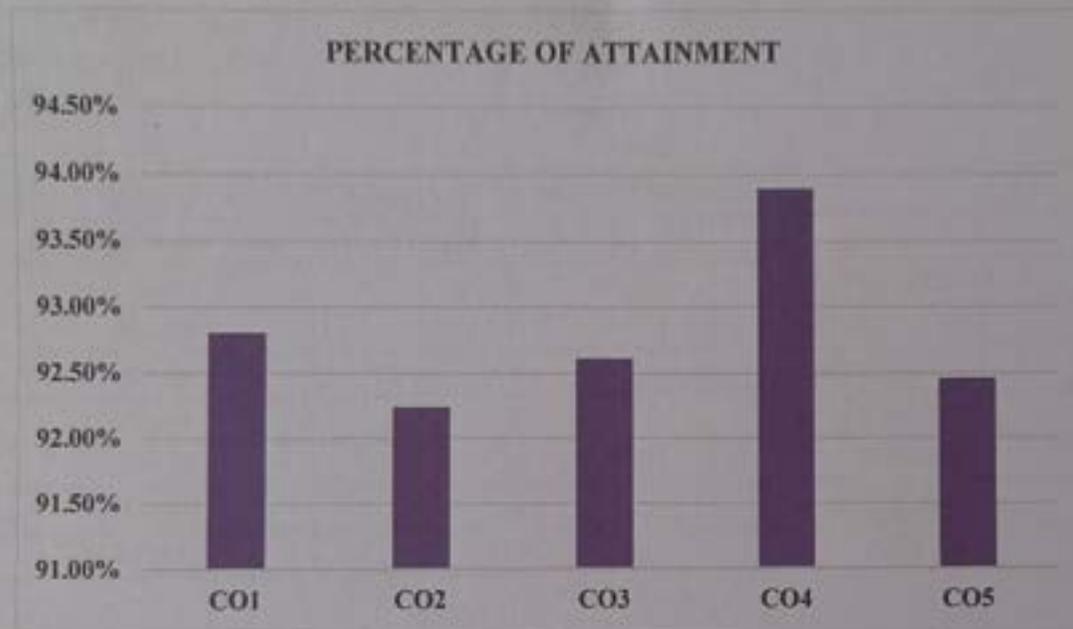
SUBJECT NAME: DATA STRUCTURES AND ALGORITHMS

SUBJECT CODE: 16SCCCS5

NO. OF STUDENTS: 32

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.80%
CO2	92.24%
CO3	92.61%
CO4	93.90%
CO5	92.46%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATA STRUCTURES AND ALGORITHMS

SUBJECT CODE: 16SCCCS5

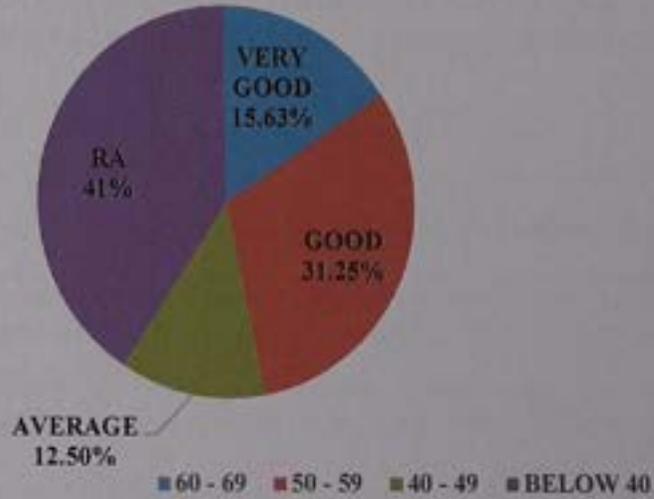
NO. OF STUDENTS: 32

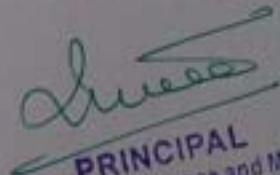
COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	0	DISTINCTION
60 - 69	5	VERY GOOD
50 - 59	10	GOOD
40 - 49	4	AVERAGE
BELOW 40	13	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
60 - 69	15.63%	VERY GOOD
50 - 59	31.25%	GOOD
40 - 49	12.50%	AVERAGE
BELOW 40	41%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE




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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN C++ - 16SCCCS2

COURSE OUTCOME

CO1	Describes the procedural and object oriented paradigm with the concepts, benefits, applications functions.
CO2	Understanding the classes and objects, constructors & destructors, operator overloading.
CO3	Understanding the concepts of Inheritance, pointers, and polymorphism.
CO4	Describes the concepts of managing console I/O operations, files and exception handling.
CO5	Understanding about manipulating strings and Object oriented systems development.



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	0
CO2	3	3	3	2	1
CO3	3	3	3	3	0
CO4	3	2	3	3	0
CO5	3	3	3	3	0
AVERAGE	3	2.6	2.8	2.6	0.2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB18S 187996	AAKASH. M	3	2	2	3	2	12	48
2	CB18S 187997	ABISHEK. S	2	3	2	2	3	12	48
3	CB18S 187998	ARUNPRASATH. A	3	4	5	3	5	20	80
4	CB18S 187999	BARATH. G	5	3	4	5	5	22	88
5	CB18S 188000	BARATHKISHORE. M.J	2	2	2	3	2	11	44
6	CB18S 188001	CHANDRU. K	5	5	5	5	5	25	100
7	CB18S 188002	ESWARAN. P	2	2	2	3	2	11	44
8	CB18S 188003	FYROSE AHAMED. M Y	2	2	3	3	2	12	48
9	CB18S 188004	HAKKIM MOHAMED. A	4	5	5	3	4	21	84
10	CB18S 188006	HARIHARAN. R	3	3	3	3	3	15	60
11	CB18S 188007	KARTHIKEYAN. N	5	4	5	4	5	23	92
12	CB18S 188008	KAVIYA. S	5	5	5	5	5	25	100
13	CB18S 188009	MADHUMITHA. R	5	5	5	5	5	25	100
14	CB18S 188010	MUKESH. K	3	3	2	2	2	12	48
15	CB18S 188011	NANDHA KUMAR. M	3	2	2	3	2	12	48
16	CB18S 188012	NANTHA KUMAR. S	5	5	4	4	5	23	92
17	CB18S 188013	POOJA. S	5	5	5	5	5	25	100
18	CB18S 188014	PRADEEP. R	2	2	2	3	2	11	44
19	CB18S 188015	PRAVEEN. C	2	3	3	3	2	13	52
20	CB18S 188016	PRAVEENKUMAR. M	2	2	2	2	2	10	40



21	CB18S 188017	PRITHIVIRAJ. R	2	2	2	3	2	11	44
22	CB18S 188018	RAVISH. S	4	5	5	5	4	23	92
23	CB18S 188019	SABEER AHAMED.S	3	4	4	3	4	18	72
24	CB18S 188020	SANTHOSH. K	5	3	4	5	5	22	88
25	CB18S 188022	SUJITH. P	5	5	5	4	5	24	96
26	CB18S 188023	VENGATESHAN. S	2	3	2	3	2	12	48
27	CB18S 188024	VIGNESH. A	3	3	4	3	4	17	68
28	CB18S 188025	VISHNU PRAKASH. R	4	5	5	3	5	22	88
AVERAGE			3.429	3.464	3.536	3.5	3.536		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.43	75	78.43	92.27
CO2	3.46	75	78.46	92.31
CO3	3.5	75	78.5	92.35
CO4	3.54	75	78.54	92.4
CO5	4	75	79	92.94



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

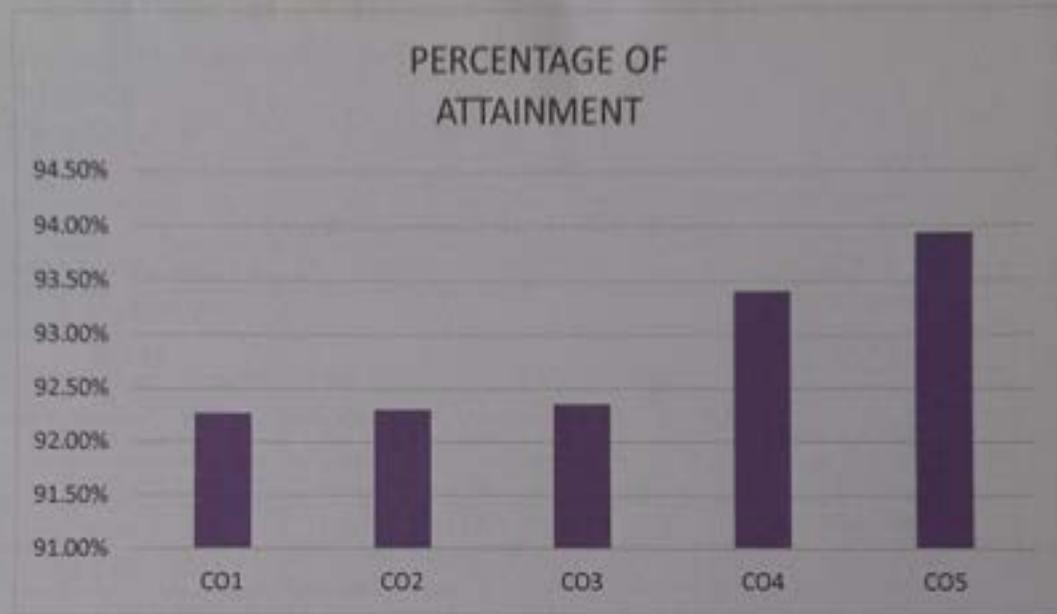
SUBJECT NAME: PROGRAMMING IN C++

SUBJECT CODE: 16SCCCS2

NO. OF STUDENTS: 28

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.27%
CO2	92.30%
CO3	92.35%
CO4	93.40%
CO5	93.94%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN C++

SUBJECT CODE: 16SCCCS2

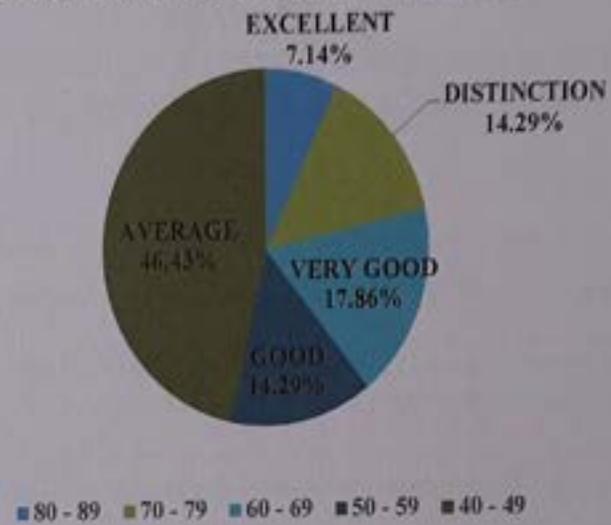
NO. OF STUDENTS: 28

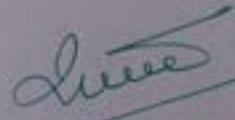
COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	2	EXCELLENT
70 - 79	4	DISTINCTION
60 - 69	5	VERY GOOD
50 - 59	4	GOOD
40 - 49	13	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	7.14%	EXCELLENT
70 - 79	14.29%	DISTINCTION
60 - 69	17.86%	VERY GOOD
50 - 59	14.29%	GOOD
40 - 49	46.43%	AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE




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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : COMPUTER NETWORKS- 16SCCCS6

COURSE OUTCOME

CO1	Describes the Data Communications Networks, Network Models, The OSI Model, Multiplexing, Transmission Media, Switching Packet.
CO2	Understanding the concepts of Data Link Layer, Wireless Networks, Bluetooth, Cellular Telephone, Satellite network, Connection devices.
CO3	Understanding the concepts of Network Layer Services, performance, Routing Algorithms, IPV6 Addressing.
CO4	Describes the concepts of Transport Layer, User Datagram Protocol, TCP, Flow Control, Error Control, TCP Congestion Control, TCP timers.
CO5	Understanding about Application Layers , Word Wide Web & HTTP , FTP Email , DNS



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	2
CO2	3	2	2	2	2
CO3	3	3	2	2	2
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.8	2.2	2.2	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB16S 177266	ABDUL MAAJIDH.S	5	5	5	5	4	24	96
2	CB16S 177267	AISWARYA.S	5	5	5	5	5	25	100
3	CB16S 177268	AJAY.S	4	5	5	4	4	22	88
4	CB16S 177269	AJITHKUMAR.S	3	2	3	2	2	12	48
5	CB16S 177270	ANBUCHZHIAN.C	4	4	4	2	2	16	64
6	CB16S 177271	ARAVINDHAN.D	3	3	2	2	2	12	48
7	CB16S 177272	ARAVINTH.M	3	2	3	2	2	12	48
8	CB16S 177273	AROKIYAREGAN.R	5	5	4	5	5	24	96
9	CB16S 177275	BABU.M	3	2	2	2	2	11	44
10	CB16S 177276	BAGYA.P	5	5	5	5	5	25	100
11	CB16S 177277	BALACHANDAR.M	5	4	5	5	4	23	92
12	CB16S 177278	BHARANIDHARAN.C.G	5	5	5	5	5	25	100
13	CB16S 177279	DHANESH.K	3	2	2	2	2	11	44
14	CB16S 177280	DHARMARAJAN.B	3	2	3	2	2	12	48
15	CB16S 177281	FAROOK BATCHA.M	4	5	5	4	4	22	88
16	CB16S 177282	GOWTHAMAN.B	3	2	3	2	2	12	48
17	CB16S 177283	JAGADEESH SAGAR.K	4	4	4	2	2	16	64
18	CB16S 177285	JAYASURIYA.I	5	3	5	5	4	22	88
19	CB16S 177287	KALAVENDHAN.R	5	3	5	5	4	22	88
20	CB16S 177289	KARTHIKEYAN.K	3	2	2	2	2	11	44
21	CB16S 177290	KEERTHANA M	5	5	5	5	5	25	100
22	CB16S 177291	LAVANYA.S	5	5	5	5	5	25	100
23	CB16S 177292	MANIKANDAN.B	3	3	2	2	2	12	48



24	CB16S 177293	MUKESHKUMAR.S	4	4	4	4	4	20	80
25	CB16S 177295	REVATHI.R	5	5	5	5	5	25	100
26	CB16S 177296	SANDHIYA.N	4	5	5	4	4	22	88
27	CB16S 177297	SARAN.C	2	3	2	2	3	12	48
28	CB16S 177298	SARGUNAM.S	2	2	2	2	3	11	44
29	CB16S 177299	SELVAKUMAR.A	2	2	2	2	2	10	40
30	CB16S 177300	SENTHILNAATHAN.K	5	5	5	5	4	24	96
31	CB16S 177301	VEERAMANI.D	4	5	5	4	4	22	88
32	CB16S 177302	VEERAMANI.P	2	3	3	2	2	12	48
AVERAGE			3.844	3.656	3.813	3.438	3.344		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.84	75	78.84	92.753
CO2	3.66	75	78.66	92.541
CO3	3.81	75	78.81	92.718
CO4	3.44	75	78.44	92.282
CO5	3.34	75	78.34	92.165



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: COMPUTER NETWORKS

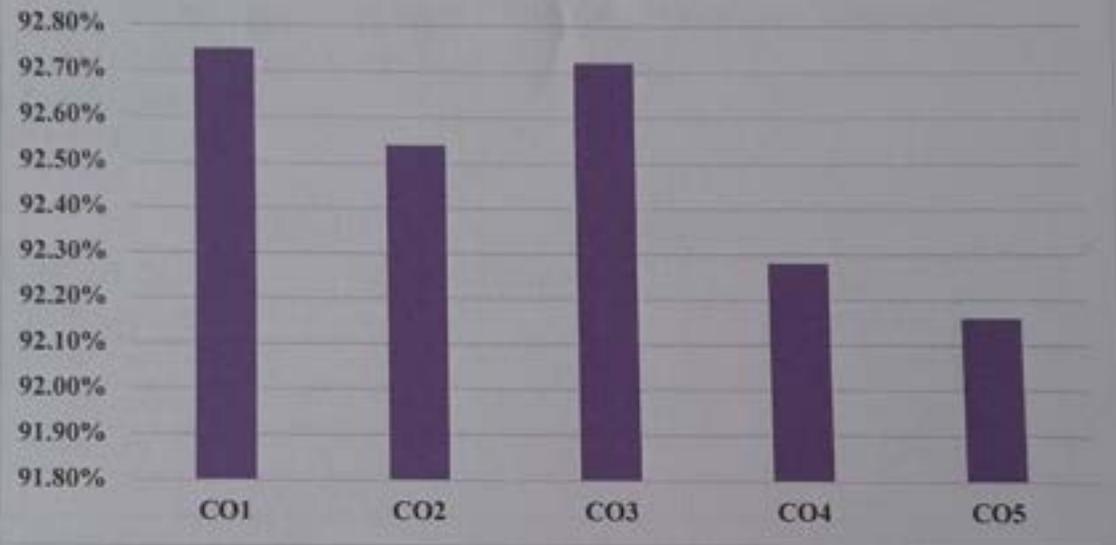
SUBJECT CODE: 16SCCCS6

NO. OF STUDENTS: 32

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.75%
CO2	92.54%
CO3	92.72%
CO4	92.28%
CO5	92.16%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: COMPUTER NETWORKS

SUBJECT CODE: 16SCCCS6

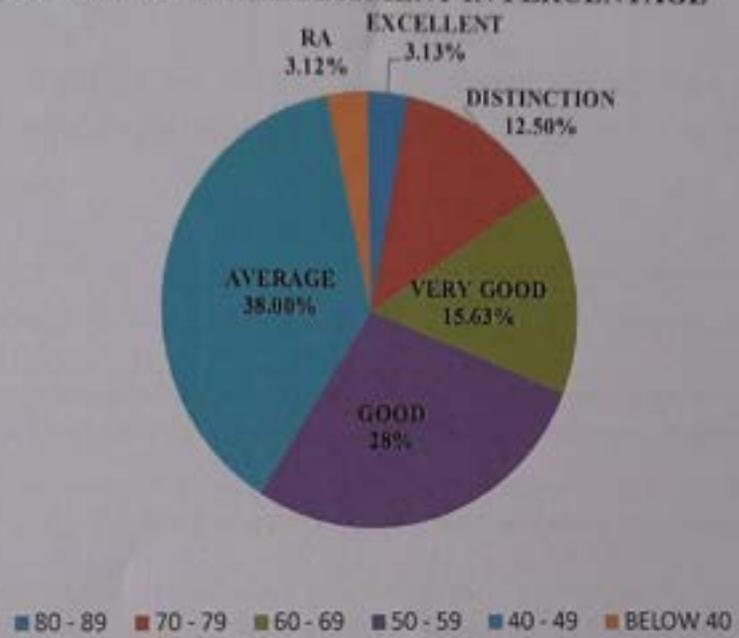
NO. OF STUDENTS: 32

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	1	EXCELLENT
70 - 79	4	DISTINCTION
60 - 69	5	VERY GOOD
50 - 59	9	GOOD
40 - 49	12	AVERAGE
BELOW 40	1	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	3.13%	EXCELLENT
70 - 79	12.50%	DISTINCTION
60 - 69	15.63%	VERY GOOD
50 - 59	28%	GOOD
40 - 49	38.00%	AVERAGE
BELOW 40	3.12%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : CLOUD COMPUTING - 16SMBECS2:2

COURSE OUTCOME

CO1	Introduction to Cloud Computing, Move to Cloud Computing, Types, Working of Cloud Computing.
CO2	Understanding Cloud Computing Architecture, Cloud Modeling and Design, Virtualization.
CO3	Describes Data Storage , Cloud Storage from LANs to WANs, Cloud Computing Services, Cloud Computing at Work.
CO4	Describes the Risks in Cloud Computing, Data Security, Security Services, Tools : Tools and Technologies for Cloud, Cloud Mashaps, Apache Hadoop.
CO5	Understanding Cloud Applications, Microsoft, Google, Amazon cloud, Cloud Applications



PO → CO ₁	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	2	3	3	1
CO3	3	3	2	3	3
CO4	3	2	2	3	1
CO5	3	3	3	3	2
AVERAGE	3	2.4	2.4	2.8	1.8



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB16S 177266	ABDUL MAAJIDH.S	5	4	4	4	5	22	88
2	CB16S 177267	AISWARYA.S	5	5	5	4	5	24	96
3	CB16S 177268	AJAY.S	5	5	4	4	5	23	92
4	CB16S 177269	AJITHKUMAR.S	4	3	4	4	4	19	76
5	CB16S 177270	ANBUCHZHIAN.C	4	3	4	3	4	18	72
6	CB16S 177271	ARAVINDHAN.D	5	4	4	4	5	22	88
7	CB16S 177272	ARAVINTH.M	4	4	4	4	5	21	84
8	CB16S 177273	AROKIYAREGAN.R	5	5	4	4	5	23	92
9	CB16S 177275	BABU.M	4	3	4	3	4	18	72
10	CB16S 177276	BAGYA.P	5	5	5	5	5	25	100
11	CB16S 177277	BALACHANDAR.M	5	5	5	4	5	24	96
12	CB16S 177278	BHARANIDHARAN.C.G	5	5	5	5	5	25	100
13	CB16S 177279	DHANESH.K	4	3	4	3	4	18	72
14	CB16S 177280	DHARMARAJAN.B	4	3	3	3	4	17	68
15	CB16S 177281	FAROOK BATCHA.M	4	4	4	4	5	21	84
16	CB16S 177282	GOWTHAMAN.B	4	3	4	4	4	19	76
17	CB16S 177283	JAGADEESH SAGAR.K	5	5	5	5	5	25	100
18	CB16S 177285	JAYASURIYA.I	5	5	5	5	5	25	100
19	CB16S 177287	KALAVENDHAN.R	5	5	5	4	5	24	96
20	CB16S 177289	KARTHIKEYAN.K	3	3	3	3	4	16	64
21	CB16S 177290	KEERTHANA M	5	5	5	4	5	24	96
22	CB16S 177291	LAVANYA.S	5	5	5	5	5	25	100



23	CB16S 177292	MANIKANDAN.B	4	3	4	3	4	18	72
24	CB16S 177293	MUKESHKUMAR.S	5	5	5	4	5	24	96
25	CB16S 177295	REVATHI.R	5	5	5	5	5	25	100
26	CB16S 177296	SANDHIYA.N	5	5	5	5	5	25	100
27	CB16S 177297	SARAN.C	5	4	4	4	5	22	88
28	CB16S 177298	SARGUNAM.S	3	4	3	4	4	18	72
29	CB16S 177299	SELVAKUMAR.A	4	3	3	3	4	17	68
30	CB16S 177300	SENTHILNAATHAN.K	5	4	4	4	5	22	88
31	CB16S 177301	VEERAMANI.D	5	5	5	5	5	25	100
32	CB16S 177302	VEERAMANI.P	5	5	4	4	5	23	92
AVERAGE			4.56	4.22	4.28	4.03	4.69		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.56	75	79.56	93.60
CO2	4.22	75	79.22	93.20
CO3	4.28	75	79.28	93.27
CO4	4.03	75	79.03	92.98
CO5	4.69	75	79.69	93.75



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: CLOUD COMPUTING

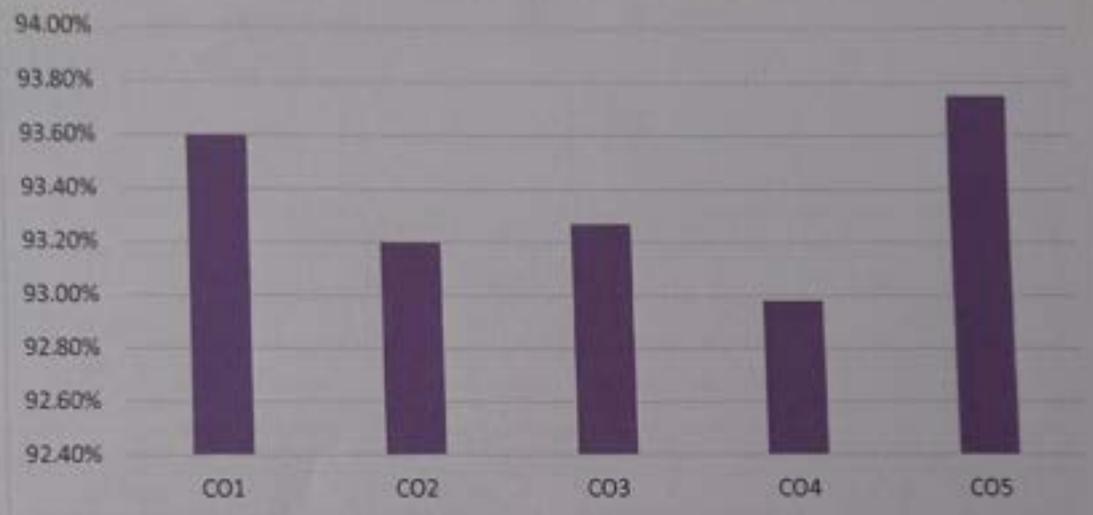
SUBJECT CODE: 16SMBECS2:2

NO. OF STUDENTS: 32

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.60%
CO2	93.20%
CO3	93.27%
CO4	92.98%
CO5	93.75%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: CLOUD COMPUTING

SUBJECT CODE: 16SMBECS2:2

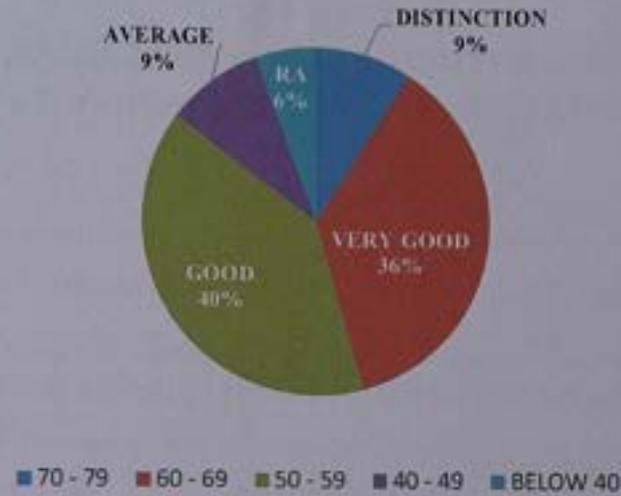
NO. OF STUDENTS: 32

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	3	DISTINCTION
60 - 69	12	VERY GOOD
50 - 59	13	GOOD
40 - 49	3	AVERAGE
BELOW 40	1	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	9.38%	DISTINCTION
60 - 69	37.50%	VERY GOOD
50 - 59	40.63%	GOOD
40 - 49	9%	AVERAGE
BELOW 40	5.71%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN C- 16SCCCS1
COURSE OUTCOME

CO1	Understanding the basic concepts of C like constants, variables, data types operators and expressions.
CO2	Understanding the concepts of managing input output operations, decision making, branching and looping.
CO3	Understanding the concepts of character Arrays and Strings, User defined Functions.
CO4	Describes the concepts of Structures and Unions and Pointers.
CO5	Understanding about Dynamic memory allocation, Linked lists and Preprocessors.



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	1
CO2	3	2	3	2	2
CO3	3	2	1	3	1
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.4	2.2	2.4	1.6



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB18S 187996	AAKASH. M	3	4	4	2	2	15	60
2	CB18S 187997	ABISHEK. S	2	4	4	3	2	15	60
3	CB18S 187998	ARUNPRASATH. A	4	4	4	4	4	20	80
4	CB18S 187999	BARATH. G	3	3	4	3	4	18	72
5	CB18S 188000	BARATHKISHORE. M.J	3	4	4	3	3	18	72
6	CB18S 188001	CHANDRU. K	5	5	5	5	5	25	100
7	CB18S 188002	ESWARAN. P	4	4	3	3	3	17	68
8	CB18S 188003	FYROSE AHAMED. M Y	4	3	4	3	3	17	68
9	CB18S 188004	HAKKIM MOHAMED. A	5	5	4	5	5	24	96
10	CB18S 188005	HARI BASKAR. R	3	2	3	2	2	12	48
11	CB18S 188006	HARIHARAN. R	4	4	4	4	4	20	80
12	CB18S 188007	KARTHIKEYAN. N	5	5	5	5	5	25	100
13	CB18S 188008	KAVIYA. S	5	5	5	5	5	25	100
14	CB18S 188009	MADHUMITHA. R	5	5	5	5	5	25	100
15	CB18S 188010	MUKESH. K	3	4	4	3	4	18	72
16	CB18S 188011	NANDHA KUMAR. M	3	3	3	2	2	13	52
17	CB18S 188012	NANTHA KUMAR. S	3	4	4	3	4	18	72
18	CB18S 188013	POOJA. S	5	5	5	5	5	25	100
19	CB18S 188014	PRADEEP. R	4	4	3	3	3	17	68
20	CB18S 188015	PRAVEEN. C	3	3	4	3	4	18	72
21	CB18S 188016	PRAVEENKUMAR. M	4	5	4	4	5	22	88
22	CB18S 188017	PRITHIVIRAJ. R	5	4	4	5	4	22	88
23	CB18S 188018	RAVISH. S	5	5	5	5	5	25	100



24	CB18S 188019	SABEER AHAMED.S	4	4	3	3	3	17	68
25	CB18S 188020	SANTHOSH. K	4	4	4	4	4	20	80
26	CB18S 188021	SRI RAM. B	5	4	5	5	5	24	96
27	CB18S 188022	SUJITH. P	5	5	5	5	5	25	100
28	CB18S 188023	VENGATESHAN. S	4	4	4	4	4	20	80
29	CB18S 188024	VIGNESH. A	4	4	4	4	4	20	80
30	CB18S 188025	VISHNU PRAKASH. R	5	4	5	5	5	24	96
AVERAGE			4.033	4.1	4.133	3.833	3.933		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+	END SEM	TOTAL	%
CO1	4.03	75	79.03	92.976
CO2	4.1	75	79.1	93.059
CO3	4.13	75	79.13	93.094
CO4	3.83	75	78.83	92.741
CO5	3.93	75	78.93	92.859



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

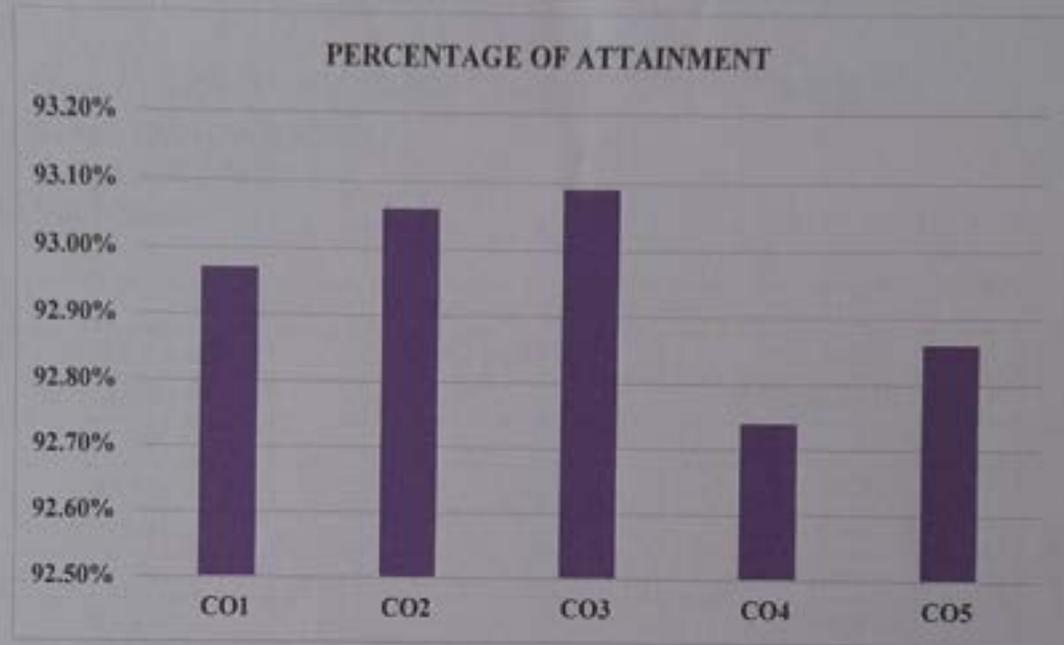
SUBJECT NAME: PROGRAMMING IN C

SUBJECT CODE: 16SCCCS1

NO. OF STUDENTS: 30

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.97%
CO2	93.06%
CO3	93.09%
CO4	92.74%
CO5	92.86%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN C

SUBJECT CODE: 16SCCCS1

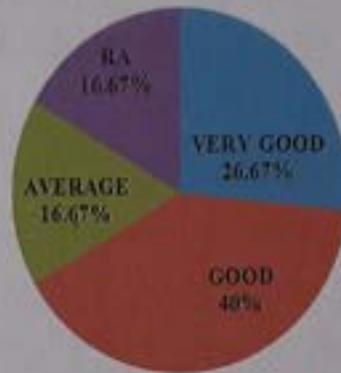
NO. OF STUDENTS: 30

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	0	DISTINCTION
60 - 69	8	VERY GOOD
50 - 59	12	GOOD
40 - 49	5	AVERAGE
BELOW 40	5	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
60 - 69	26.67%	VERY GOOD
50 - 59	40.00%	GOOD
40 - 49	16.67%	AVERAGE
BELOW 40	16.67%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 60 - 69 ■ 50 - 59 ■ 40 - 49 ■ BELOW 40



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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : OPERATING SYSTEMS - 16SCCCS8

COURSE OUTCOME

CO1	Describes Introduction to Operating System, History, Types, Development, Object-Oriented Design.
CO2	Understanding Memory Management - Early Memory, Partitions, Virtual memory.
CO3	Describes Processor Management , Multi-Core Technologies, Dead Locks, Concurrent Processes.
CO4	Describes Device Management, Types of Devices, Storage, Components of IO and management of IO.
CO5	Understanding File Management, Physical Storage Allocation, Access Methods, Access Control.



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	2
CO2	3	3	3	3	3
CO3	2	3	2	2	2
CO4	3	2	2	3	3
CO5	3	2	3	3	2
AVERAGE	2.8	2.4	2.2	2.4	2.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB16S 177266	ABDUL MAAJIDH.S	4	4	4	4	4	20	80
2	CB16S 177267	AISWARYA.S	4	4	5	4	4	21	84
3	CB16S 177268	AJAY.S	4	5	4	4	5	22	88
4	CB16S 177269	AJITHKUMAR.S	4	4	3	3	4	18	72
5	CB16S 177270	ANBUCHAZHIYAN.C	4	4	4	4	4	20	80
6	CB16S 177271	ARAVINDHAN.D	4	4	4	4	4	20	80
7	CB16S 177272	ARAVINTH.M	4	4	4	4	4	20	80
8	CB16S 177273	AROKIYAREGAN.R	4	3	3	3	4	17	68
9	CB16S 177275	BABU.M	4	3	3	3	4	17	68
10	CB16S 177276	BAGYA.P	5	5	5	5	5	25	100
11	CB16S 177277	BALACHANDAR.M	4	5	5	5	5	24	96
12	CB16S 177278	BHARANIDHARAN.C.G	5	5	5	5	5	25	100
13	CB16S 177279	DHANESH.K	4	4	3	3	4	18	72
14	CB16S 177280	DHARMARAJAN.B	4	4	3	3	4	18	72
15	CB16S 177281	FAROOK BATCHA.M	4	4	4	3	4	19	76
16	CB16S 177282	GOWTHAMAN.B	4	4	4	3	4	19	76
17	CB16S 177283	JAGADEESH SAGAR.K	4	3	3	3	4	17	68
18	CB16S 177285	JAYASURIYA.I	5	5	5	5	5	25	100
19	CB16S 177287	KALAVENDHAN.R	4	5	5	5	5	24	96
20	CB16S 177289	KARTHIKEYAN.K	4	5	4	4	5	22	88
21	CB16S 177290	KEERTHANA M	4	5	5	5	5	24	96
22	CB16S 177291	LAVANYA.S	4	5	5	5	5	24	96
23	CB16S 177292	MANIKANDAN.B	5	4	4	5	5	23	92
24	CB16S 177293	MUKESHKUMAR.S	4	5	5	5	5	24	96



25	CB16S 177295	REVATHI.R	5	5	5	5	5	25	96
26	CB16S 177296	SANDHIYA.N	4	5	5	5	5	24	80
27	CB16S 177297	SARAN.C	4	4	4	4	4	20	72
28	CB16S 177298	SARGUNAM.S	4	4	3	3	4	18	72
29	CB16S 177299	SELVAKUMAR.A	4	4	3	3	4	18	80
30	CB16S 177300	SENTHILNAATHAN.K	4	4	4	4	4	20	92
31	CB16S 177301	VEERAMANI.D	5	4	4	5	5	23	88
32	CB16S 177302	VEERAMANI.P	4	5	4	4	5	22	88
AVERAGE			4.188	4.313	4.094	4.063	4.469		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.19	75	79.19	93.165
CO2	4.31	75	79.31	93.306
CO3	4.09	75	79.09	93.047
CO4	4.06	75	79.06	93.012
CO5	4.47	75	79.47	93.494



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

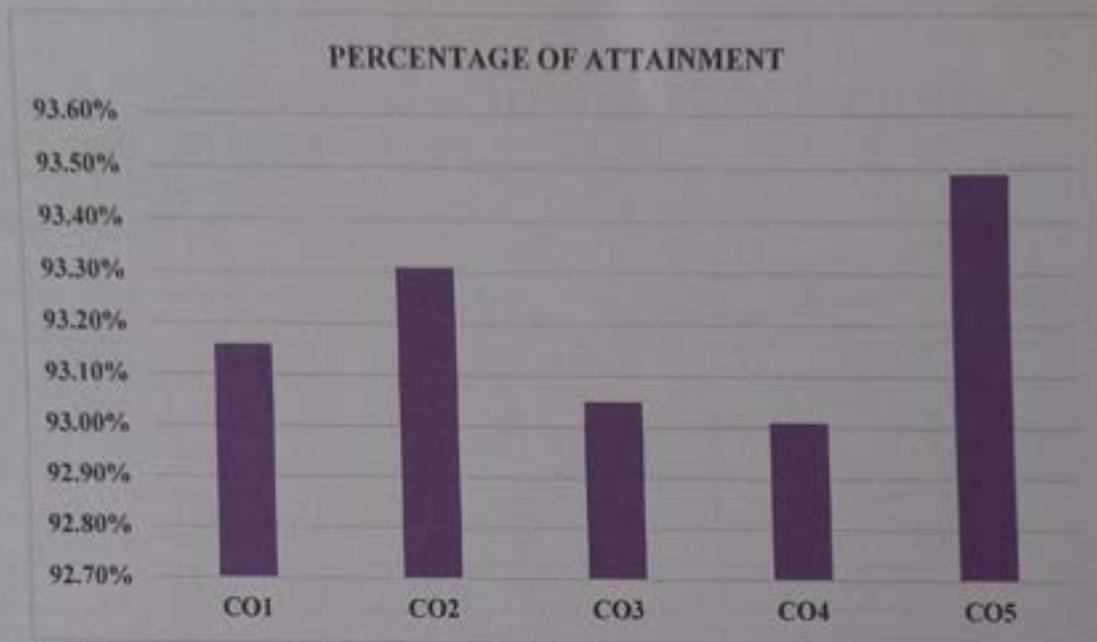
SUBJECT NAME: OPERATING SYSTEMS

SUBJECT CODE: 16SCCCS8

NO. OF STUDENTS: 32

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.16%
CO2	93.31%
CO3	93.05%
CO4	93.01%
CO5	93.49%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: OPERATING SYSTEMS

SUBJECT CODE: 16SCCCS8

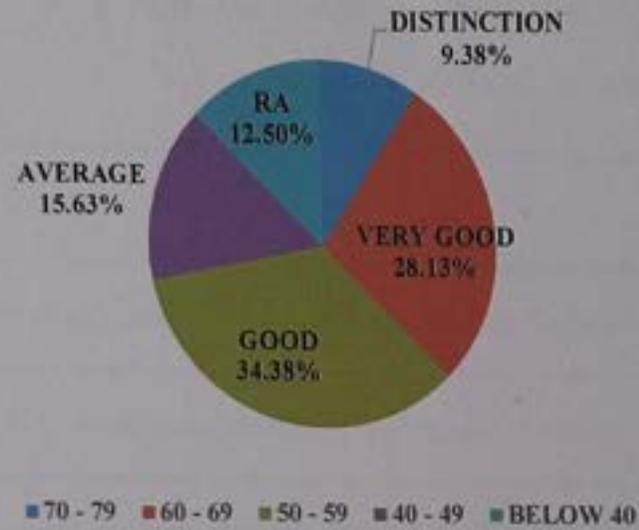
NO. OF STUDENTS: 32

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	3	DISTINCTION
60 - 69	9	VERY GOOD
50 - 59	11	GOOD
40 - 49	5	AVERAGE
BELOW 40	4	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	9.38%	DISTINCTION
60 - 69	28.13%	VERY GOOD
50 - 59	34.38%	GOOD
40 - 49	15.63%	AVERAGE
BELOW 40	12.50%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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COURSE NAME : PROGRAMMING IN C LAB

COURSE CODE: 16SCCCSIP

On Completion of the course student will able to

CO1	Develop C program using basic concepts.
CO2	Implement Conditional control statements, Switch statements and Loop structures.
CO3	Develop C program using the concepts of Arrays, Pointers.
CO4	Solve the problem using concepts of Function, Recursion, Call by value & Call by Reference.
CO5	Update the details of information using various file modes.



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THANJAVUR - 613 005.

COURSE NAME : PROGRAMMING IN JAVA LAB		COURSE CODE: 16SCCCS3P	
After Completion of the course student will able to			
CO1	Implement the Java program using arrays.		
CO2	Implement a Calculator to perform basic arithmetic operations.		
CO3	Solve the problem using the concepts of constructors, polymorphism and inheritance.		
CO4	Implement the java program using interface, multi threads, applets.		
CO5	Create a window using applets.		



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COURSE NAME : DIGITAL ELECTRONICS AND MICROPROCESSOR LAB		COURSE CODE: 16SCCCS5P
Upon Completion of the course student will able to		
CO1	Implement the practical related to Digital Electronics and Intel 8085 Microprocessors.	
CO2	Verify the logic gates, constructing the half and full adder.	
CO3	Implement K-Map to reduce the digital circuit, Shift Registers, Up Down Counters.	
CO4	Implement assembly language program for addition, subtraction, sum of series, data transfer.	
CO5	Implement assembly language program for finding maximum of N numbers and conversion of decimal to hexa decimal number.	



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THANJAVUR - 613 005.

COURSE NAME : PROGRAMMING IN C++ LAB		COURSE CODE: 16SCCCS2P
After Completion of the course student will able to		
CO1	Perform concepts of Classes using C++ programming language.	
CO2	Implement Constructor and Destructor.	
CO3	Implement Operator Overloading.	
CO4	Solve the problem using Inheritance.	
CO5	Implement Files and Exception Handling in C++.	

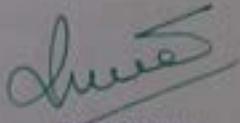


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COURSE NAME : DATABASE SYSTEMS LAB		COURSE CODE: 16SCCCS4P
On Completion of the course student will able to		
CO1	Provide the knowledge in developing DDL and DML commands.	
CO2	Develop MySQL queries to implement the set operations.	
CO3	Implement aggregate functions.	
CO4	Develop and implement Join operations.	
CO5	Implement nested queries and to create a views and expand it.	




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COURSE NAME : PROGRAMMING IN PHP LAB		COURSE CODE: 16SCCCS6P
Upon Completion of the course student will able to		
CO1	Implement PHP program to find factorial of a number.	
CO2	Implement Conditional statements in PHP program.	
CO3	Implement array concepts in PHP program.	
CO4	Implement the concepts of funbctions in PHP program.	
CO5	Implement the concepts of sessions, cookies and to design an authentication web page in PHP with MYSQL to check username and password.	

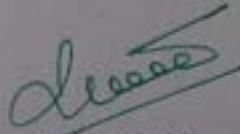


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COURSE NAME : MINI PROJECT		COURSE CODE: 16SMBECSPW
After Completion of the course student will able to		
CO1	Enable the students to develop a project with a latest technologies.	
CO2	Plan, Analyse, design, implement and apply various types of testing.	
CO3	Communicate effectively in both oral and writing.	
CO4	Learn about different software development process models and the different features of software for their selected problem.	
CO5	Know about recent tools and technologies in software industry and also the scope their specialized areas in different fields in the industry.	




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COURSE NAME : WEB TECHNOLOGIES LAB

COURSE CODE: P16CS15P

After Completion of the course student will able to

CO1	Know about the fundamental concepts of Internet.
CO2	Develop and implement the codes in XML.
CO3	Develop and implement the codes in Java Script.
CO4	Develop and implement the codes in JSP.
CO5	Develop and implement the codes in ASP different components, objects, connecting and storing in database .

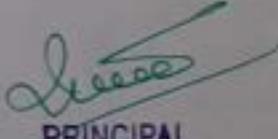


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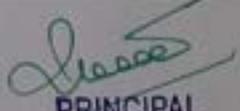
COURSE NAME : DATAMINING LAB		COURSE CODE: P16CS33P
Upon Completion of the course student will able to		
CO1	Get hands on experience in developing applications using data mining tool.	
CO2	Implement Preprocessing for Data type Conversinh and Data Transformation.	
CO3	Implement Feature Selection by Filter, Wrapper and dimensionally Reduction.	
CO4	Implement Supervised Technique - Classifier and Unsupervised Technique - Clustering algorithms.	
CO5	Implement Association Rule, Experimenter and knowledge flow for feature selection and classification and clustering	




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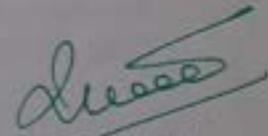
COURSE NAME : DISTRIBUTED TECHNOLOGIES LAB		COURSE CODE: P16CS23P
On Completion of the course student will able to		
CO1	Develop the fundamental concepts of Internet, Javascript, XML, JSP, ASP.	
CO2	Implement several webserver controls in database using ASP.NET.	
CO3	Generate Crystal Report from an existing database.	
CO4	Design the web page using AdRotator, Image map, Multiview controls and Master pages.	
CO5	Establish the security features, manage the concepts of mobile applications and also the web servers.	




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COURSE NAME : OPEN SOURCE LAB		COURSE CODE: P16CS43P
After Completion of the course student will able to		
CO1	Develop the fundamental concepts of Internet, Javascript, XML, JSP, ASP.	
CO2	Implement the server side PHP program to display details of students from a HTML form.	
CO3	Implement the PHP program that adds products that are selected from a web page to Shopping cart.	
CO4	Implement the PHP program to access the data stored in MySQL data source.	
CO5	Implement the shell program to find the details of an user session and to change the extension of a given file.	




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COURSE NAME : PROJECT WORK		COURSE CODE: P16CSPW
After Completion of the course student will able to		
CO1	Enable the students to develop a project with a latest technologies and trained as a software professional skills.	
CO2	Plan, Analyse, design, implement and apply various types of testing.	
CO3	Communicate effectively in both oral and writing.	
CO4	Learn about different software development process models and the different features of software for their selected problem.	
CO5	Know about recent tools and technologies in software industry and also the scope their specialized areas in different fields in the industry.	



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BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : DESIGN & ANALYSIS OF ALGORITHM - P16CS13
COURSE OUTCOME

CO1	To study the concepts of algorithms and analysis of algorithms.
CO2	Understanding the concepts of analysis of algorithm using divide & conquer method.
CO3	Describes the concepts of analysis of algorithm using greedy method.
CO4	Understanding the concepts of analysis of algorithm using dynamic programming method.
CO5	Understanding the concepts of analysis of algorithm using backtracking and branch & bound techniques.



COURSE : DESIGN & ANALYSIS OF ALGORITHM - P16CSI3
COURSE OUTCOME

CO1	To study the concepts of algorithms and analysis of algorithms.
CO2	Understanding the concepts of analysis of algorithm using divide & conquer method.
CO3	Describes the concepts of analysis of algorithm using greedy method.
CO4	Understanding the concepts of analysis of algorithm using dynamic programming method.
CO5	Understanding the concepts of analysis of algorithm using backtracking and branch & bound techniques.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	2	3	2	2	2
CO2	2	3	2	1	2
CO3	2	3	2	1	2
CO4	2	3	2	2	2
CO5	2	3	2	1	2
AVERAGE	2	3	2	1.4	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 19272901	AJAY. S	4	5	5	5	5	24	96
2	P 19272902	AJITH KUMAR R	5	4	5	4	5	23	92
3	P 19272903	ANIS FATHIMA. K	5	5	5	5	5	25	100
4	P 19272904	BHARANIDHARAN. C. G	5	5	5	5	5	25	100
5	P 19272905	BOSCO PRABHU. A	5	4	5	4	5	23	92
6	P 19272906	GNANASEKAR. M	5	5	5	5	5	25	100
7	P 19272907	GUNASEKAR. K	4	5	4	5	5	23	92
8	P 19272908	JAYA SUTHAN. S	5	5	5	5	5	25	100
9	P 19272909	JAYASURYA. I	5	5	5	5	5	25	100
10	P 19272910	KARTHIKEYAN. K	5	4	5	5	4	23	92
11	P 19272911	KALAIYARASAN. G	5	5	4	4	4	22	88
12	P 19272912	MANIKANDAN. B	5	5	4	4	5	23	92
13	P 19272913	MUKESHKUMAR. S	4	5	5	5	5	24	96
14	P 19272914	MUTHURAMAN. R	5	5	5	5	5	25	100
15	P 19272915	REVATHI. R	5	5	5	5	5	25	100
16	P 19272916	SIVANANDAM. P	5	5	5	5	5	25	100
17	P 19272917	SUBASH. K	5	5	5	5	5	25	100
18	P 19272918	SUDARSON. S. P	5	5	5	5	5	25	100
19	P 19272919	VAIRAPPAN. R	5	4	5	5	4	23	92
20	P 19272920	VEERAMANI. G	5	5	5	4	5	24	96
21	P 19272921	VIVEK. K	5	4	4	5	4	22	88
22	P 19272922	ZAFAR ALI. M	5	5	5	5	5	25	100
AVERAGE			4.864	4.773	4.818	4.773	4.818		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.86	75	79.86	93.953
CO2	4.77	75	79.77	93.847
CO3	4.82	75	79.82	93.906
CO4	4.77	75	79.77	93.847
CO5	4.82	75	79.82	93.906



COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: DESIGN & ANALYSIS OF ALGORITHM

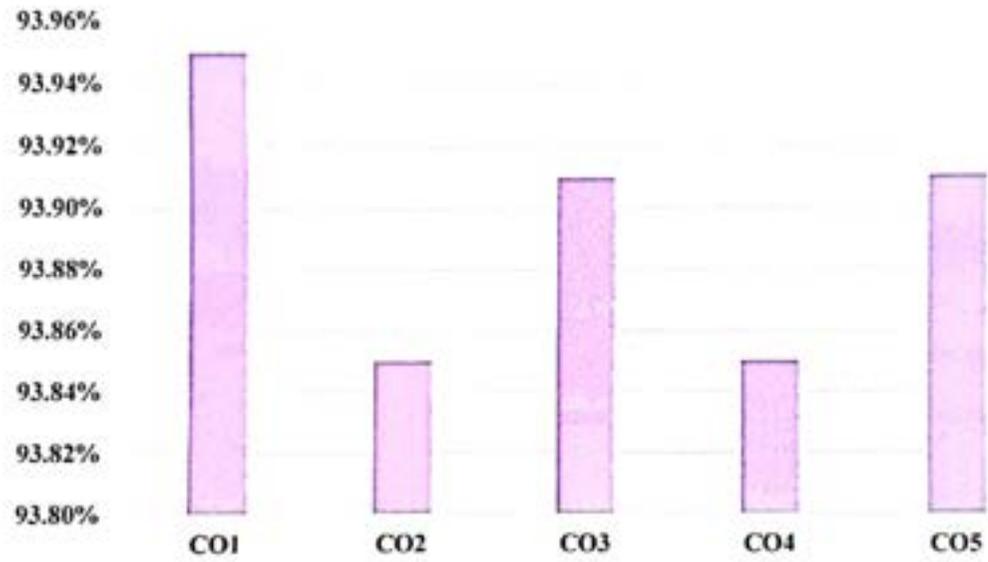
SUBJECT CODE: P16CS13

NO. OF STUDENTS: 22

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.95%
CO2	93.85%
CO3	93.91%
CO4	93.85%
CO5	93.91%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: DESIGN & ANALYSIS OF ALGORITHM

SUBJECT CODE: P16CS13

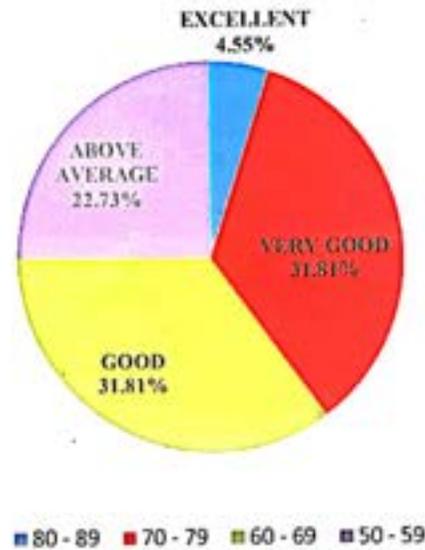
NO. OF STUDENTS: 22

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	1	EXCELLENT
70 - 79	7	VERY GOOD
60 - 69	7	GOOD
50 - 59	2	ABOVE AVERAGE
BELOW 50	5	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	4.55%	EXCELLENT
70 - 79	31.81%	VERY GOOD
60 - 69	31.81%	GOOD
50 - 59	22.73%	ABOVE AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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BHARATH COLLEGE OF SCIENCE AND MANAGEMENT

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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : DISTRIBUTED TECHNOLOGIES - P16CS22
COURSE OUTCOME

CO1	Understanding distributed Computing, Challenges and Strategies involved in establishing remote connection, Distributed computing practices through Dot Net and Java technologies.
CO2	Describes Advanced ADO, NET, Disconnected Data Access, Gridview, Details View, Form View controls, Crystal Reports, Applications.
CO3	Understanding Advanced ASP.NET, Uses of these controls and features in Website development.
CO4	Describes ASP.NET, Security in ASP, NET, State Management in ASP, NET, Mobile Application development in ASP, NET, Critical usage of these features in Website development.
CO5	Understanding Web services, WSDL, UDDI, SOAP concepts, Connected a Web Service to a Data Base.



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	3
CO2	3	3	3	3	2
CO3	3	3	3	3	3
CO4	3	3	2	3	3
CO5	2	3	3	3	3
AVERAGE	2.8	3	2.8	3	2.8



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	3
CO2	3	3	3	3	2
CO3	3	3	3	3	3
CO4	3	3	2	3	3
CO5	2	3	3	3	3
AVERAGE	2.8	3	2.8	3	2.8



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.9	75	79.9	94
CO2	4.52	75	79.52	93.553
CO3	4.76	75	79.76	93.835
CO4	4.67	75	79.67	93.729
CO5	4.67	75	79.67	93.729

COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: DISTRIBUTED TECHNOLOGIES

SUBJECT CODE: P16CS22

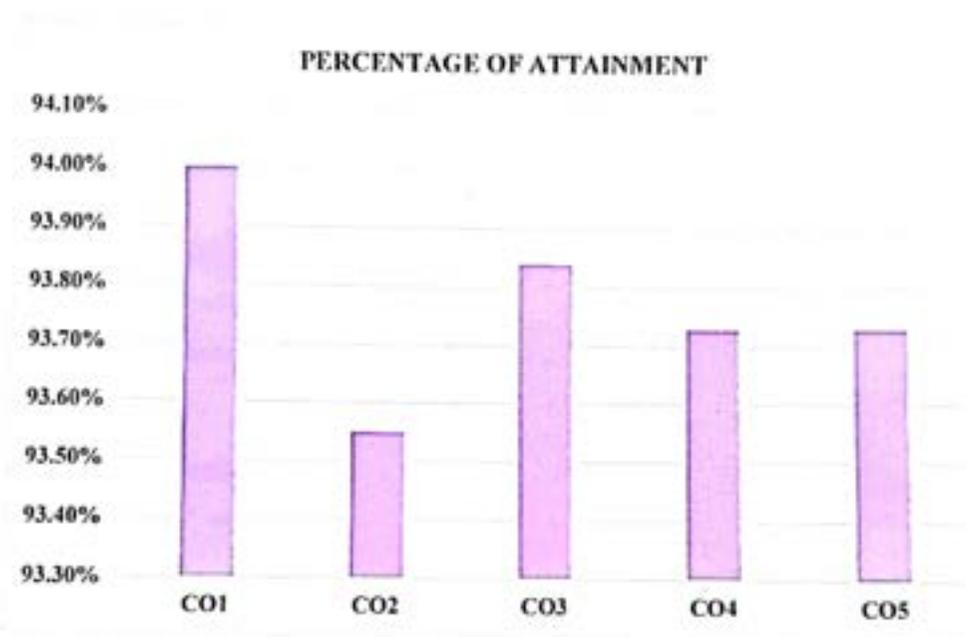
NO. OF STUDENTS: 21

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	94.00%
CO2	93.55%
CO3	93.84%
CO4	93.73%
CO5	93.73%



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 19272901	AJAY. S	5	4	4	5	5	23	92
2	P 19272902	AJITH KUMAR. R	5	4	5	4	4	22	88
3	P 19272903	ANIS FATHIMA. K	5	5	5	5	5	25	100
4	P 19272904	BHARANIDHARAN. C. G	5	5	5	5	5	25	100
5	P 19272906	GNANASEKAR. M	5	5	5	5	5	25	100
6	P 19272907	GUNASEKAR. K	5	4	5	4	4	22	88
7	P 19272908	JAYA SUTHAN. S	5	5	5	5	5	25	100
8	P 19272909	JAYASURYA. I	5	5	5	5	5	25	100
9	P 19272910	KARTHIKEYAN. K	5	4	5	4	4	22	88
10	P 19272911	MALAYARASAN. G	5	4	5	4	4	22	88
11	P 19272912	MANIKANDAN. B	5	4	4	5	5	23	92
12	P 19272913	MUKESHKUMAR. S	5	4	5	4	4	22	88
13	P 19272914	MUTHURAMAN. R	4	5	4	5	5	23	92
14	P 19272915	REVATHI. R	5	5	5	5	5	25	100
15	P 19272916	SIVANANDAM. P	5	5	5	5	5	25	100
16	P 19272917	SUBASH. K	5	4	4	5	5	23	92
17	P 19272918	SUDARSON. S. P	5	5	5	5	5	25	100
18	P 19272919	VAIRAPPAN. R	4	5	5	4	4	22	88
19	P 19272920	VEERAMANI. G	5	4	5	4	4	22	88
20	P 19272921	VIVEK. K	5	4	4	5	5	23	92
21	P 19272922	ZAFFAR ALI. M	5	5	5	5	5	25	100
AVERAGE			4.905	4.524	4.762	4.667	4.667		





COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: DISTRIBUTED TECHNOLOGIES

SUBJECT CODE: P16CS22

NO. OF STUDENTS: 21

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	5	OUTSTANDING
80 - 89	11	EXCELLENT
70 - 79	4	VERY GOOD
60 - 69	1	GOOD
50 - 59	0	ABOVE AVERAGE
BELOW 50	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	23.81%	OUTSTANDING
80 - 89	52.38%	EXCELLENT
70 - 79	19.05%	VERY GOOD
60 - 69	4.76%	GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : DIGITAL ELECTRONICS AND MICROPROCESSOR- 16SCCCS7
COURSE OUTCOME

CO1	Describes the various Number System, Number System conversion, Logic Gates and circuits
CO2	Understanding the concepts of Fundamentals of Boolean Algebra, Laws and Theorems, Simplifying Logic Circuits, NAND and NOR Implementation.
CO3	Understanding the concepts of Combinational Logic Circuits, Adders & its types, Multiplexers, Demultiplexers , Decoders, Encoders, Registers.
CO4	Describes the concepts of Microprocessor, Microcomputer, Buses.
CO5	Understanding about Instruction and Data Format, Address Modes, Status Flags, Assembler.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	2
CO2	3	3	3	3	2
CO3	3	2	2	3	2
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.8	2.4	2.6	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB17S 182671	ABARNA R	4	4	4	4	3	15	60
2	CB17S 182672	ABI R	3	2	3	2	2	12	48
3	CB17S 182673	AJMEER KHAN A	3	3	3	3	2	12	48
4	CB17S 182674	AKASH S	4	4	4	4	3	25	100
5	CB17S 182677	BALAJI S	3	3	4	3	2	14	56
6	CB17S 182678	BRINDHA R	5	5	5	5	5	25	100
7	CB17S 182679	DIVAGAR R	2	2	2	2	2	10	40
8	CB17S 182680	ELANGO VAN V	2	2	2	2	2	10	40
9	CB17S 182681	GAYATHRI M	4	4	4	4	4	20	80
10	CB17S 182682	GOKILAN T	3	2	2	2	2	11	44
11	CB17S 182683	GOPINATH R	3	2	2	2	2	11	44
12	CB17S 182685	GRACE ROMALD BRITTO A	3	2	2	2	2	11	44
13	CB17S 182686	HARISH R	2	2	2	2	2	10	40
14	CB17S 182687	ITHRISH M	4	4	4	3	3	18	72
15	CB17S 182688	MOHAMED BHARATHI J	2	2	3	3	2	12	48
16	CB17S 182689	MOHAN T	2	2	2	2	2	10	40
17	CB17S 182690	NAGAARAJUN S	2	2	3	3	2	12	48
18	CB17S 182691	NITHIS KUMAR R	2	3	3	3	2	13	52
19	CB17S 182692	PALINIBHARATHI A	2	2	3	3	2	12	48
20	CB17S 182693	PANDIAMMAL T	5	5	5	5	5	25	100
21	CB17S 182694	PRAKASH V	2	3	3	3	2	13	52
22	CB17S 182695	PRASANNA V	4	4	4	3	3	18	72
23	CB17S 182696	PREETHI BAI R	5	5	5	5	5	25	100
24	CB17S 182697	PRIYANKA K	5	5	5	5	5	25	100



25	CB17S 182698	PUGALENDI A	3	4	3	3	2	14	56
26	CB17S 182699	RAJESH R	2	3	3	3	2	13	52
27	CB17S 182700	RETHINA SAMY V	2	4	4	3	4	17	68
28	CB17S 182701	RUTHRALINGAM P	2	3	3	3	3	19	76
29	CB17S 182702	SAKTHIVEL K	3	4	3	2	2	14	56
30	CB17S 182703	SANTHIYA K	5	5	5	5	5	25	100
31	CB17S 182704	SATHOSH KUMAR P	2	2	3	3	3	18	72
32	CB17S 182705	SATHISH KUMAR S	3	2	3	2	2	12	48
33	CB17S 182706	SATHISRAJ A	3	2	3	2	2	12	48
34	CB17S 182707	SATHIYANARAYANAN V	3	3	3	3	2	14	56
35	CB17S 182708	SENTHIL KUMAR K	4	4	4	4	4	20	80
36	CB17S 182709	SIVAKUMAR G	3	2	3	2	2	12	48
37	CB17S 182710	SRI VIJAY RAM M	2	2	2	2	2	10	40
38	CB17S 182711	SUREKA R	2	2	3	2	2	11	44
39	CB17S 182712	SYED MOHAMED S	2	2	3	2	2	11	44
40	CB17S 182713	TAJMAL BEGUM K	4	4	4	4	4	20	80
41	CB17S 182714	TAMIL SELVAN R	3	3	3	2	2	13	52
42	CB17S 182716	VAIRAVAN S T	3	4	4	2	2	15	60
43	CB17S 182717	VEERAIYAN C	3	3	3	3	2	14	56
44	CB17S 182718	VIJAY A	3	3	4	3	4	18	72
AVERAGE			3.023	3.068	3.295	2.955	2.705		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+	END SEM	TOTAL	%
CO1	3.02	75	78.02	91.788
CO2	3.07	75	78.07	91.847
CO3	3.3	75	78.3	92.118
CO4	2.95	75	77.95	91.706
CO5	2.7	75	77.7	91.412



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

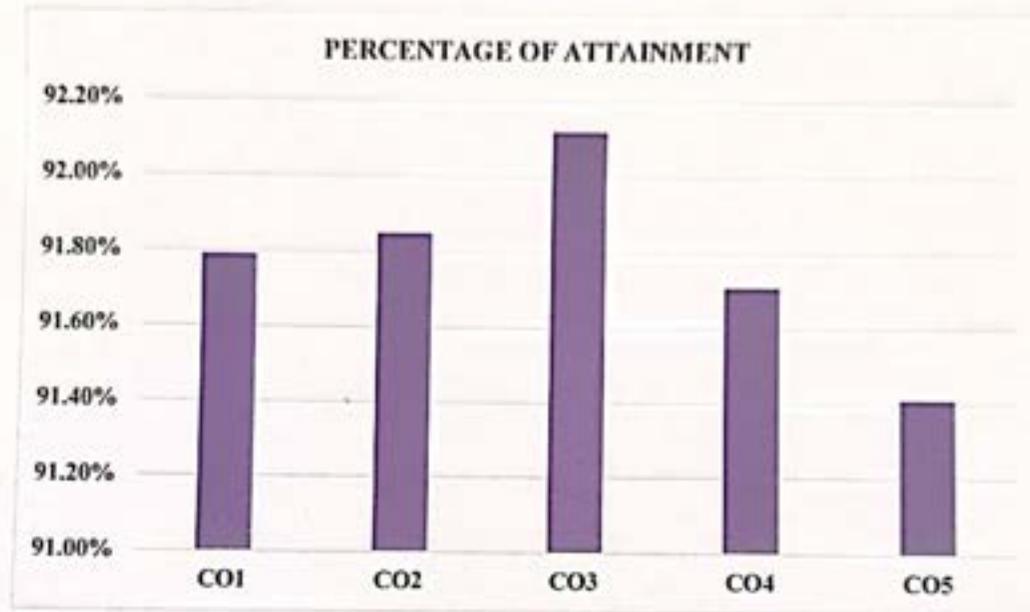
SUBJECT NAME: DIGITAL ELECTRONICS AND MICROPROCESSOR

SUBJECT CODE:16SCCCS7

NO. OF STUDENTS: 44

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	91.79%
CO2	91.85%
CO3	92.12%
CO4	91.71%
CO5	91.41%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DIGITAL ELECTRONICS AND MICROPROCESSOR

SUBJECT CODE:16SCCCS7

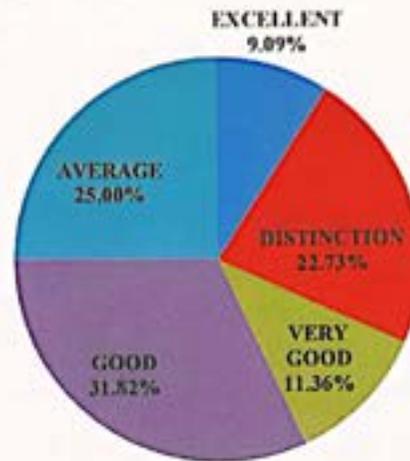
NO. OF STUDENTS: 44

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	4	EXCELLENT
70 - 79	10	DISTINCTION
60 - 69	5	VERY GOOD
50 - 59	14	GOOD
40 - 49	11	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	9.09%	EXCELLENT
70 - 79	22.73%	DISTINCTION
60 - 69	11.36%	VERY GOOD
50 - 59	31.82%	GOOD
40 - 49	25.00%	AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59 ■ 40 - 49



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : DATABASE SYSTEMS - 16SCCCS4
COURSE OUTCOME

CO1	It provides the basic concepts of the database systems including Data Models, Storage Structure.
CO2	Describes the Structure of relational databases, Database schema, Relational operations , Relational algebra operations.
CO3	Understanding the concepts of Basic structure of SQL queries, Set operations, Transactions, Authorization.
CO4	Provides the concepts of Relational languages, Entity-relationship design issues, aspects of Database design.
CO5	Understanding about Features of good relational designs, normalization and more normal forms.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	2
CO2	3	3	3	3	2
CO3	3	3	3	3	3
CO4	3	2	2	3	2
CO5	3	3	3	3	1
AVERAGE	3	2.8	2.8	3	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB18S 187996	AAKASH. M	4	4	4	4	4	20	80
2	CB18S 187997	ABISHEK. S	5	4	4	4	4	21	84
3	CB18S 187998	ARUNPRASATH. A	5	4	5	4	5	23	92
4	CB18S 187999	BARATH. G	5	4	5	5	5	24	96
5	CB18S 188000	BARATHKISHORE. M.J	5	4	5	4	5	23	92
6	CB18S 188001	CHANDRU. K	5	5	5	5	5	25	100
7	CB18S 188002	ESWARAN. P	4	4	4	5	4	21	84
8	CB18S 188003	FYROSE AHAMED. M Y	5	4	5	4	5	23	92
9	CB18S 188004	HAKKIM MOHAMED. A	5	4	4	5	4	22	88
10	CB18S 188006	HARIHARAN. R	5	4	5	4	5	23	92
11	CB18S 188007	KARTHIKEYAN. N	5	5	5	5	5	25	100
12	CB18S 188008	KAVIYA. S	5	5	5	5	5	25	100
13	CB18S 188009	MADHUMITHA. R	5	5	5	5	5	25	100
14	CB18S 188010	MUKESH. K	5	4	4	5	4	22	88
15	CB18S 188011	NANDHA KUMAR. M	4	4	4	4	4	20	80
16	CB18S 188012	NANTHA KUMAR. S	5	4	5	4	4	22	88
17	CB18S 188013	POOJA. S	5	5	5	5	5	25	100
18	CB18S 188014	PRADEEP. R	5	4	5	4	4	22	88
19	CB18S 188015	PRAVEEN. C	4	4	5	4	4	21	84
20	CB18S 188016	PRAVEENKUMAR. M	5	4	5	4	5	23	92
21	CB18S 188017	PRITHIVIRAJ. R	4	4	4	5	4	21	84
22	CB18S 188018	RAVISH. S	5	5	5	5	5	25	100
23	CB18S 188019	SABEER AHAMED.S	5	5	5	5	5	25	100
24	CB18S 188020	SANTHOSH. K	5	4	5	4	5	23	92
25	CB18S 188022	SUJITH. P	5	5	5	5	5	25	100
26	CB18S 188023	VENGATESHAN. S	5	4	5	5	5	24	96
27	CB18S 188024	VIGNESH. A	4	4	5	4	4	21	84



28	CB18S 188025	VISHNU PRAKASH. R	5	4	5	5	5	24	96
AVERAGE			4.786	4.286	4.75	4.536	4.607		

EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.79	75	79.79	93.87
CO2	4.29	75	79.29	93.28
CO3	4.75	75	79.75	93.82
CO4	4.54	75	79.54	93.58
CO5	4.61	75	79.61	93.66



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATABASE SYSTEMS

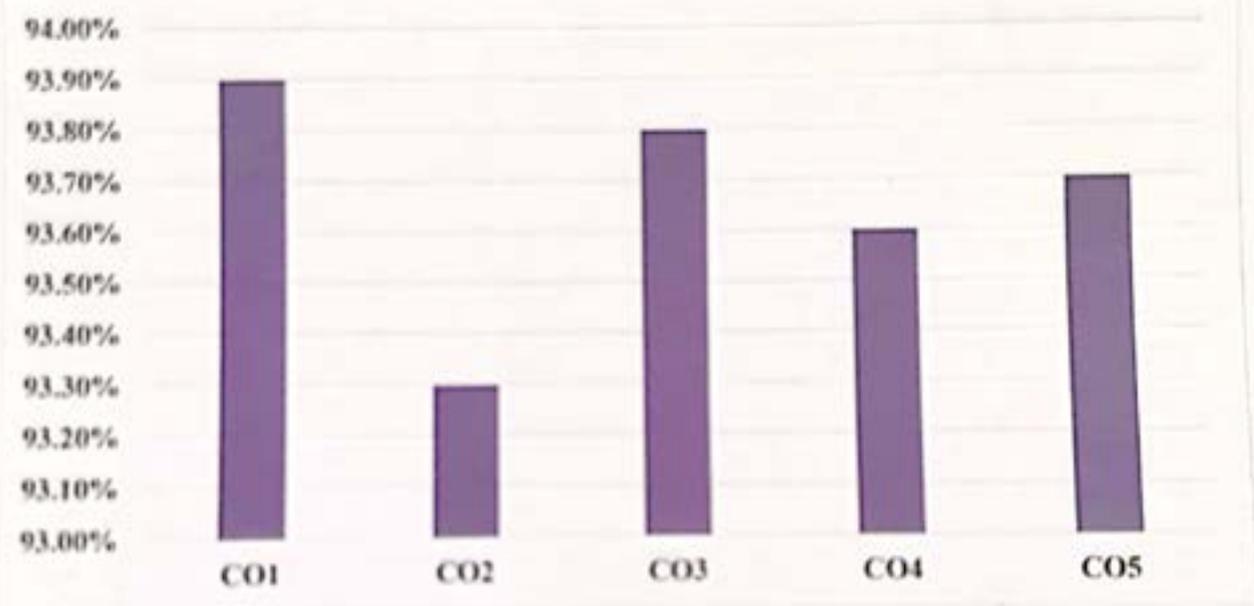
SUBJECT CODE:16SCCCS4

NO. OF STUDENTS: 28

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.90%
CO2	93.30%
CO3	93.80%
CO4	93.60%
CO5	93.70%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATABASE SYSTEMS

SUBJECT CODE:16SCCCS4

NO. OF STUDENTS: 28

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	17	DISTINCTION
60 - 69	11	VERY GOOD
50 - 59	0	GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	60.71%	DISTINCTION
60 - 69	39.29%	VERY GOOD



COURSE COUTCOME ASSESSMENT IN PERCENTAGE



■ 70 - 79 ■ 60 - 69



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN JAVA - 16SCCCS3
COURSE OUTCOME

CO1	Describes the Introduction to OOPS and Introduction to Java Programming.
CO2	Understanding Java Data Types, Variable, Operations and Assignment, Control Structures, Arrays, Strings
CO3	Describes Classes, Modifiers, Packages, Interfaces.
CO4	Describes Exception Handling and Multi Threading in java.
CO5	Understanding Files and I/O Streams and Java Applets.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	3
CO2	3	2	3	3	3
CO3	2	2	2	2	1
CO4	3	2	3	3	3
CO5	3	2	3	3	1
AVERAGE	2.8	2	2.4	2.6	2.2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB18S 187996	AAKASH. M	2	3	2	2	3	12	48
2	CB18S 187997	ABISHEK. S	2	3	3	2	3	13	52
3	CB18S 187998	ARUNPRASATH. A	5	5	4	4	5	23	92
4	CB18S 187999	BARATH. G	5	5	5	4	5	24	96
5	CB18S 188000	BARATHKISHORE. M.J	4	3	3	4	3	17	68
6	CB18S 188001	CHANDRU. K	5	5	5	5	5	25	100
7	CB18S 188002	ESWARAN. P	2	3	3	3	3	14	56
8	CB18S 188003	FYROSE AHAMED. M Y	2	3	3	2	3	13	52
9	CB18S 188004	HAKKIM MOHAMED. A	4	4	4	4	4	20	80
10	CB18S 188006	HARJHARAN. R	4	3	3	4	4	18	72
11	CB18S 188007	KARTHIKEYAN. N	5	5	5	5	5	25	100
12	CB18S 188008	KAVIYA. S	5	5	5	5	5	25	100
13	CB18S 188009	MADHUMITHA. R	5	5	5	5	5	25	100
14	CB18S 188010	MUKESH. K	2	3	2	2	3	12	48
15	CB18S 188011	NANDHA KUMAR. M	2	2	2	2	3	11	44
16	CB18S 188012	NANTHA KUMAR. S	3	3	3	3	3	15	60
17	CB18S 188013	POOJA. S	5	5	5	5	5	25	100
18	CB18S 188014	PRADEEP. R	4	4	4	4	4	20	80
19	CB18S 188015	PRAVEEN. C	4	3	3	4	4	18	72
20	CB18S 188016	PRAVEENKUMAR. M	4	5	4	4	5	22	88
21	CB18S 188017	PRITHIVIRAJ. R	3	3	3	3	3	15	60
22	CB18S 188018	RAVISH. S	5	5	5	5	5	25	100
23	CB18S 188019	SABEER AHAMED.S	4	5	4	4	5	22	88
24	CB18S 188020	SANTHOSH. K	4	3	3	4	4	18	72



25	CB18S 188022	SUJITH. P	5	5	5	5	5	25	100
26	CB18S 188023	VENGATESHAN. S	4	4	4	4	4	20	80
27	CB18S 188024	VIGNESH. A	4	4	3	4	4	19	76
28	CB18S 188025	VISHNU PRAKASH. R	4	3	3	4	3	17	68
AVERAGE			3.821	3.893	3.679	3.786	4.036		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.82	75	78.82	92.729
CO2	3.89	75	78.89	92.812
CO3	3.68	75	78.68	92.565
CO4	3.79	75	78.79	92.694
CO5	4.04	75	79.04	92.988



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN JAVA

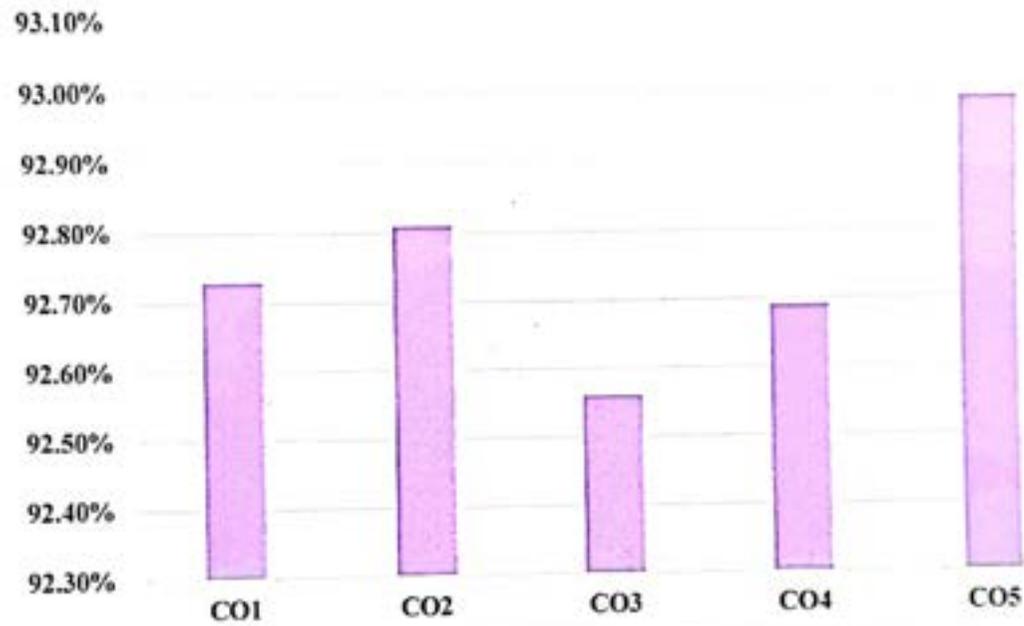
SUBJECT CODE:16SCCCS3

NO. OF STUDENTS: 28

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.73%
CO2	92.81%
CO3	92.56%
CO4	92.69%
CO5	92.99%



PERCENTAGE OF ATTAINMENT



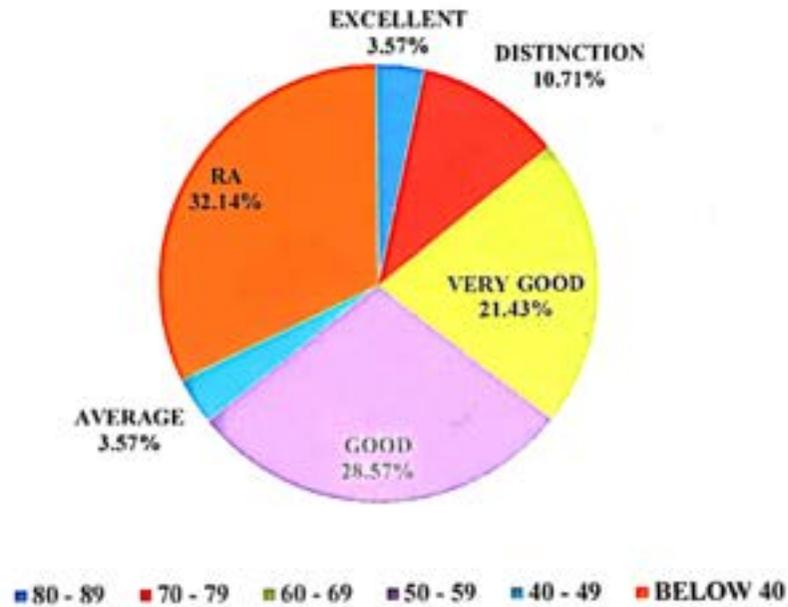
COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE**SUBJECT NAME: PROGRAMMING IN JAVA****SUBJECT CODE:16SCCCS3****NO. OF STUDENTS: 28**

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	1	EXCELLENT
70 - 79	3	DISTINCTION
60 - 69	6	VERY GOOD
50 - 59	8	GOOD
40 - 49	1	AVERAGE
BELOW 40	9	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	3.57%	EXCELLENT
70 - 79	10.71%	DISTINCTION
60 - 69	21.43%	VERY GOOD
50 - 59	28.57%	GOOD
40 - 49	3.57%	AVERAGE
BELOW 40	32.14%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



[Handwritten Signature]
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Bharath College of Science and Management
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PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
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PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN PHP - 16SCCCS9
COURSE OUTCOME

CO1	Understanding the concepts and essentials of PHP.
CO2	Understanding the concepts of creating functions, reading data in webpages, handling power.
CO3	Understanding about advanced object oriented programming.
CO4	Describes about the file handling, working with databases, sessions, cookies and FTP.
CO5	Understanding Advanced Ajax, Drawing images on the server.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	0
CO2	3	3	3	3	1
CO3	3	3	3	3	0
CO4	3	3	3	3	0
CO5	3	3	3	3	1
AVERAGE	3	3	3	3	0.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB17S 182671	ABARNA R	5	4	5	4	5	23	92
2	CB17S 182672	ABI R	4	5	4	5	5	23	92
3	CB17S 182673	AJMEER KHAN A	5	4	5	4	5	23	92
4	CB17S 182674	AKASH S	5	5	5	5	5	25	100
5	CB17S 182677	BALAJI S	5	4	4	4	5	22	88
6	CB17S 182678	BRINDHA R	5	5	5	5	5	25	100
7	CB17S 182679	DIVAGAR R	4	5	4	5	4	22	88
8	CB17S 182680	ELANGO VAN V	4	5	4	4	4	21	84
9	CB17S 182681	GAYATHRI M	5	5	5	5	5	25	100
10	CB17S 182682	GOKILAN T	4	4	5	4	4	21	84
11	CB17S 182683	GOPINATH R	4	5	4	5	5	23	92
12	CB17S 182685	GRACE ROMALD BRITTO A	4	5	4	4	4	21	84
13	CB17S 182686	HARISH R	4	5	5	4	4	22	88
14	CB17S 182687	ITHRISH M	5	4	5	5	5	24	96
15	CB17S 182688	MOHAMED BHARATHI J	4	4	4	5	4	21	84
16	CB17S 182689	MOHAN T	5	4	4	4	4	21	84
17	CB17S 182690	NAGARAJUN S	5	5	5	5	5	25	100
18	CB17S 182691	NITHISKUMAR R	5	5	5	5	5	25	100
19	CB17S 182692	PALANIBHARATHI A	4	5	4	5	5	23	92
20	CB17S 182693	PANDIAMMAL T	5	5	5	5	5	25	100
21	CB17S 182694	PRAKASH V	4	5	4	5	5	23	92
22	CB17S 182695	PRASANNA V	4	5	5	4	4	22	88
23	CB17S 182696	PREETHI BAI R	5	5	5	5	5	25	100
24	CB17S 182697	PRIYANKA K	5	5	5	5	5	25	100
25	CB17S 182698	PUGALENDI A	5	5	5	5	5	25	100
26	CB17S 182699	RAJESH R	5	4	5	5	5	24	96



27	CB17S 182700	RETHINA SAMY V	5	5	5	5	5	25	100
28	CB17S 182701	RUTHRALINGAM P	5	5	5	5	5	25	100
29	CB17S 182702	SAKTHIVEL K	5	5	4	5	5	24	96
30	CB17S 182703	SANTHIYA K	5	5	5	5	5	25	100
31	CB17S 182704	SATHOSH KUMAR P	4	5	5	4	5	23	92
32	CB17S 182705	SATHISH KUMAR S	5	5	5	5	5	25	100
33	CB17S 182706	SATHISRAJ A	4	5	4	5	5	23	92
34	CB17S 182707	SATHIYANARAYANAN V	4	5	5	4	5	23	92
35	CB17S 182708	SENTHIL KUMAR K	5	5	5	5	5	25	100
36	CB17S 182709	SIVAKUMAR G	4	5	4	5	5	23	92
37	CB17S 182711	SUREKA R	5	5	5	5	5	25	100
38	CB17S 182712	SYED MOHAMED S	4	5	5	4	5	23	92
39	CB17S 182713	TAJMAL BEGUM K	5	5	5	5	5	25	100
40	CB17S 182716	VAIRAVAN S T	5	5	5	5	5	25	100
41	CB17S 182717	VEERAIYAN C	5	5	4	4	5	23	92
42	CB17S 182718	VIJAY A	4	5	5	4	5	23	92
43	CB17S 182719	ARTHIM	5	5	5	5	5	25	100
AVERAGE			4.605	4.814	4.674	4.674	4.814		

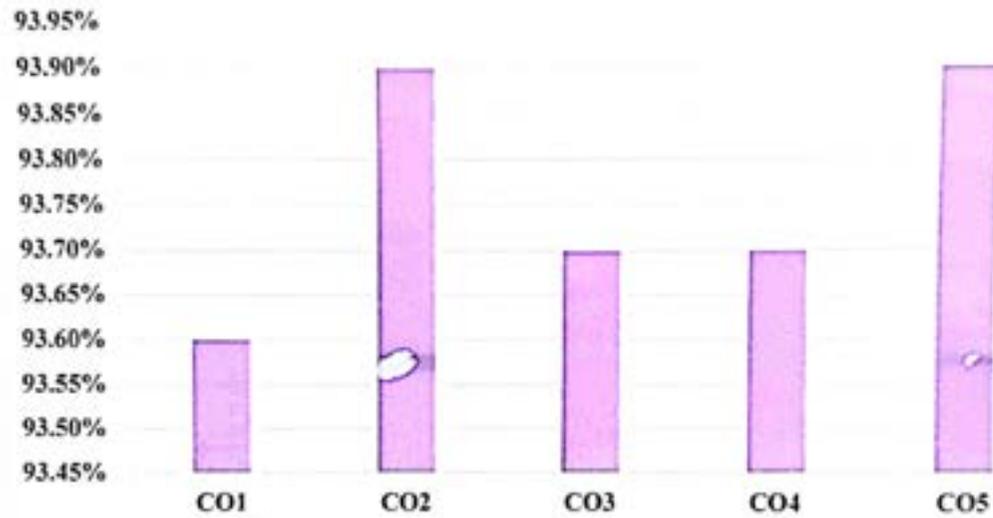


EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.6	75	79.6	93.65
CO2	4.81	75	79.81	93.89
CO3	4.67	75	79.67	93.73
CO4	4.67	75	79.67	93.73
CO5	4.81	75	79.81	93.89



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN PHP

SUBJECT CODE:16SCCCS9

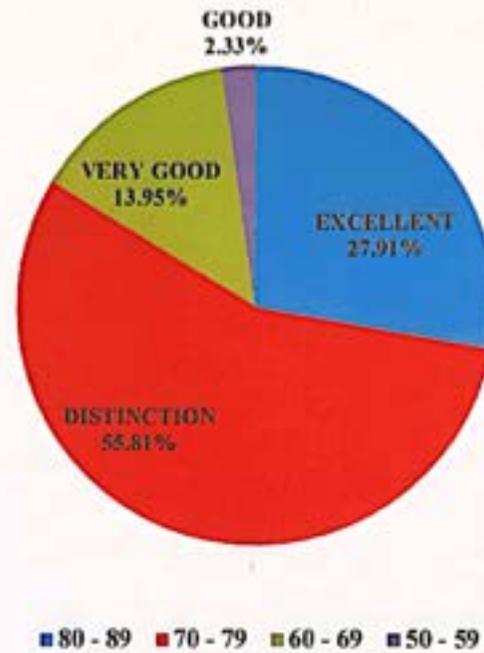
NO. OF STUDENTS: 43

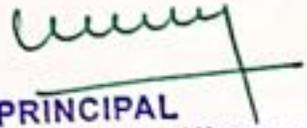
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	12	EXCELLENT
70 - 79	24	DISTINCTION
60 - 69	6	VERY GOOD
50 - 59	1	GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	27.91%	EXCELLENT
70 - 79	55.81%	DISTINCTION
60 - 69	13.95%	VERY GOOD
50 - 59	2.33%	GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE




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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : DATA MINING AND WAREHOUSING - P16CS31
COURSE OUTCOME

CO1	Understanding the Functionalities, Issues, Social Implications, Applications and Trends in Data mining, Data Warehouses.
CO2	Describes about the Data Preprocessing, Various methods in Data Cleaning Algorithms.
CO3	Explains the Clustering, Types of Algorithms, Association rule & methods.
CO4	Understanding the Data Warehousing, Data marts , OLTP & OLAP systems.
CO5	Understanding the Developing tools, Architectural strategies and organizational issues in data warehouse, Data content, Meta data.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	2	2
CO2	3	2	2	2	3
CO3	3	2	2	3	2
CO4	3	3	2	2	2
CO5	3	2	2	2	3
AVERAGE	3	2.4	2.2	2.2	2.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 18270986	ARUNKUMAR. A	5	4	4	4	4	21	84
2	P 18270987	BALAMURUGAN. S	5	4	4	5	5	23	92
3	P 18270988	BHARATHI SESHAN. P	5	5	5	5	5	25	100
4	P 18270989	GURUBHARATHI. S	4	4	4	4	5	21	84
5	P 18270990	HARI VINOTH. S	5	5	5	5	5	25	100
6	P 18270992	RAJESH. S	5	4	4	5	5	23	92
7	P 18270993	SUBBU RAJ. M	5	4	4	4	4	21	84
AVERAGE			4.857	4.286	4.286	4.571	4.714		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.86	75	79.86	93.953
CO2	4.29	75	79.29	93.282
CO3	4.29	75	79.29	93.282
CO4	4.57	75	79.57	93.612
CO5	4.71	75	79.71	93.776



COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

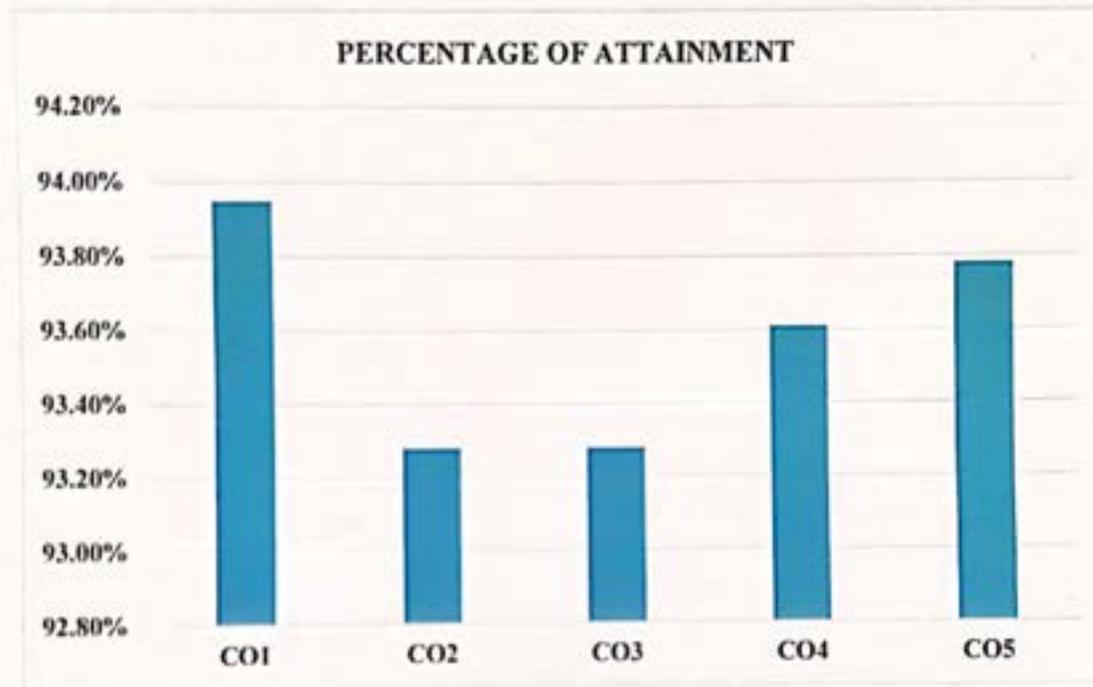
SUBJECT NAME: DATA MINING & WAREHOUSING

SUBJECT CODE: P16CS31

NO. OF STUDENTS: 7

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.95%
CO2	93.28%
CO3	93.28%
CO4	93.61%
CO5	93.78%





COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATA MINING & WAREHOUSING

SUBJECT CODE: P16CS31

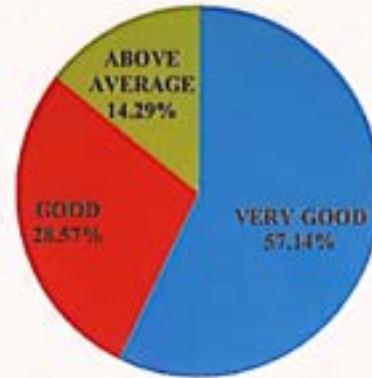
NO. OF STUDENTS: 7

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	4	VERY GOOD
60 - 69	2	GOOD
50 - 59	1	ABOVE AVERAGE
BELOW 50	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	57.14%	VERY GOOD
60 - 69	28.57%	GOOD
50 - 59	14.29%	ABOVE AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 70 - 79 ■ 60 - 69 ■ 50 - 59



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : EMBEDDED SYSTEMS - P16CSE2A
COURSE OUTCOME

CO1	Introducing the embedded systems, structural units in a processor, memory devices, memory allocation.
CO2	Understanding about the device drivers, interrupt servicing mechanisms, programming concepts in C, C++, Java, Macros and functions, loops and pointers
CO3	Describes the program modeling concepts in single and multiprocessor systems, developments process.
CO4	Understanding about the real time operating systems, interrupt routines in RTOS environment, performance metrics in scheduling models.
CO5	Provides Hardware software code design, design cycle, use of software tools for development, use of scopes and logic analysers for system hardware tests and issues.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	2	3	3	1	1
CO2	3	3	3	2	2
CO3	3	3	3	1	2
CO4	3	3	3	2	1
CO5	3	3	3	1	2
AVERAGE	2.8	3	3	1.4	1.6



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 19272901	AJAY. S	4	5	5	5	5	24	96
2	P 19272902	AJITH KUMAR R	5	4	4	5	5	23	92
3	P 19272903	ANIS FATHIMA. K	5	5	5	5	5	25	100
4	P 19272904	BHARANIDHARAN. C. G	5	5	5	5	5	25	100
5	P 19272906	GNANASEKAR. M	5	5	5	5	5	25	100
6	P 19272907	GUNASEKAR. K	5	5	4	4	5	23	92
7	P 19272908	JAYA SUTHAN. S	5	5	5	5	5	25	100
8	P 19272909	JAYASURYA. I	5	5	5	5	5	25	100
9	P 19272910	KARTHIKEYAN. K	5	4	4	5	5	23	92
10	P 19272911	MALAIYARASAN. G	4	4	5	5	4	22	88
11	P 19272912	MANIKANDAN. B	5	4	5	5	4	23	92
12	P 19272913	MUKESHKUMAR. S	5	5	5	4	4	23	92
13	P 19272914	MUTHURAMAN. R	5	5	5	4	5	24	96
14	P 19272915	REVATHI. R	5	5	5	5	5	25	100
15	P 19272916	SIVANANDAM. P	5	5	5	5	5	25	100
16	P 19272917	SUBASH. K	5	5	5	4	4	23	92
17	P 19272918	SUDARSON. S. P	5	5	5	5	5	25	100
18	P 19272919	VAIRAPPAN. R	5	4	4	5	4	22	88
19	P 19272920	VEERAMANI. G	4	5	4	5	4	22	88
20	P 19272921	VIVEK. K	4	5	4	4	5	22	88
21	P 19272922	ZAFAR ALI. M	5	5	5	5	5	25	100
AVERAGE			4.81	4.762	4.714	4.762	4.714		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.81	75	79.81	93.894
CO2	4.76	75	79.76	93.835
CO3	4.71	75	79.71	93.776
CO4	4.76	75	79.76	93.835
CO5	4.71	75	79.71	93.776



COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: EMBEDDED SYSTEMS

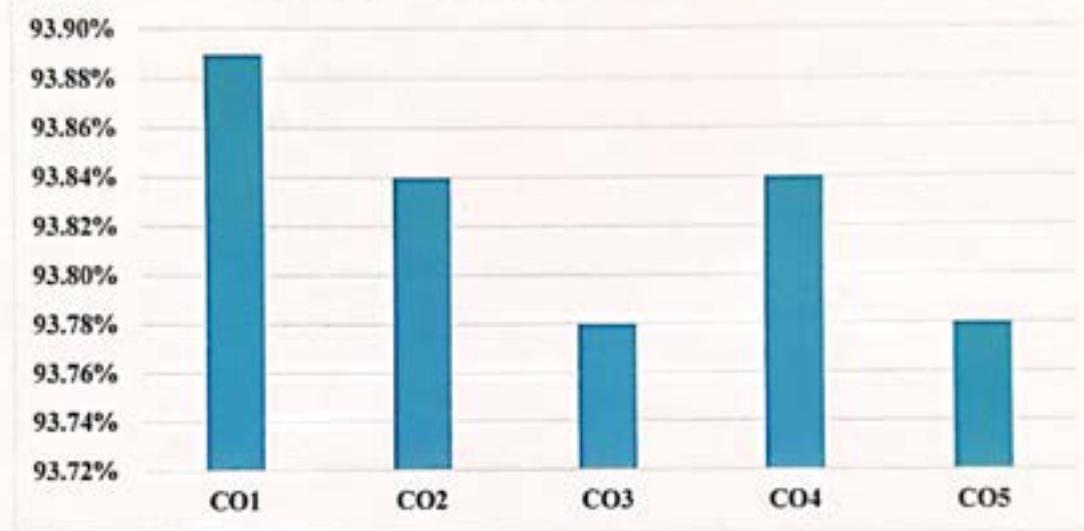
SUBJECT CODE: P16CSE2A

NO. OF STUDENTS: 21

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.89%
CO2	93.84%
CO3	93.78%
CO4	93.84%
CO5	93.78%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: EMBEDDED SYSTEMS

SUBJECT CODE: P16CSE2A

NO. OF STUDENTS: 21

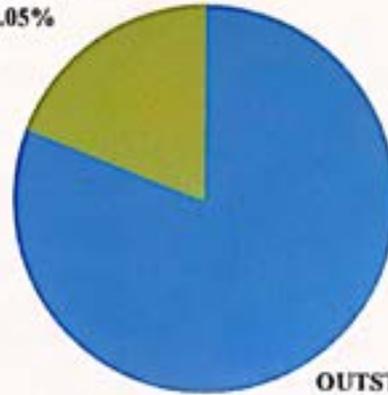
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	17	OUTSTANDING
80 - 89	4	EXCELLENT
70 - 79	0	VERY GOOD
60 - 69	0	GOOD
50 - 59	0	ABOVE AVERAGE
BELOW 50	0	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	80.95%	OUTSTANDING
80 - 89	19.05%	EXCELLENT

COURSE OUTCOME ASSESSMENT IN PERCENTAGE

EXCELLENT
19.05%



OUTSTANDING
80.95%

■ 90 & ABOVE ■ 80 - 89



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : MANAGEMENT INFORMATION SYSTEM - 16SMBECS1:3

COURSE OUTCOME

CO1	Describes the Definition, Objectives, Uses and Limitations of MIS.
CO2	Understanding Computer Softwares, Types and Trends.
CO3	Describes Management System in Business, Marketing , Human Resource.
CO4	Describes the Application of IT in Business, E-Commerce, Mobile Commerce, E-Governance, E-enterprises, etc.
CO5	Understanding Information security, Types of Breaches, Challenges , Cyper Laws and IT Act 2000 etc.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	3
CO2	3	2	3	3	3
CO3	3	3	2	2	3
CO4	3	2	3	3	3
CO5	3	2	3	3	2
AVERAGE	3	2.2	2.4	2.4	2.8



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB17S 182671	ABARNA R	5	4	5	5	5	24	96
2	CB17S 182672	ABI R	5	4	4	5	5	23	92
3	CB17S 182673	AJMEER KHAN A	5	4	5	4	4	22	88
4	CB17S 182674	AKASH S	5	5	5	5	5	25	100
5	CB17S 182677	BALAJI S	5	4	5	4	4	22	88
6	CB17S 182678	BRINDHA R	5	5	5	5	5	25	100
7	CB17S 182679	DIVAGAR R	5	4	5	4	4	22	88
8	CB17S 182680	ELANGO VAN V	4	4	4	4	4	20	80
9	CB17S 182681	GAYATHRI M	5	5	5	5	5	25	100
10	CB17S 182682	GOKILAN T	4	4	4	4	4	20	80
11	CB17S 182683	GOPINATH R	4	4	4	4	4	20	80
12	CB17S 182685	GRACE ROMALD BRITTO A	4	4	5	4	4	21	84
13	CB17S 182686	HARISH R	4	4	4	4	4	20	80
14	CB17S 182687	ITHRISH M	5	4	5	4	4	22	88
15	CB17S 182688	MOHAMED BHARATHI J	4	4	4	4	4	20	80
16	CB17S 182689	MOHAN T	5	4	5	4	4	22	88
17	CB17S 182690	NAGAARAJUN S	5	4	4	5	5	23	92
18	CB17S 182691	NITHIS KUMAR R	5	4	5	4	4	22	88
19	CB17S 182692	PALINIBHARATHI A	4	4	4	4	4	20	80
20	CB17S 182693	PANDIAMMAL T	5	5	5	5	5	25	100
21	CB17S 182694	PRAKASH V	5	4	5	4	4	22	88
22	CB17S 182695	PRASANNA V	5	4	5	4	4	22	88
23	CB17S 182696	PREETHI BAI R	5	5	5	5	5	25	100
24	CB17S 182697	PRIYANKA K	5	5	5	5	5	25	100
25	CB17S 182698	PUGALENDI A	5	4	4	5	5	23	92



26	CB17S 182699	RAJESH R	5	4	5	4	4	22	88
27	CB17S 182700	RETHINA SAMY V	5	4	5	5	5	24	96
28	CB17S 182701	RUTHRALINGAM P	5	5	5	5	5	25	100
29	CB17S 182702	SAKTHIVEL K	4	4	4	4	4	20	80
30	CB17S 182703	SANTHIYA K	5	5	5	5	5	25	100
31	CB17S 182704	SATHOSH KUMAR P	5	4	5	4	4	22	88
32	CB17S 182705	SATHISH KUMAR S	4	5	4	5	4	22	88
33	CB17S 182706	SATHISRAJ A	5	4	5	4	4	22	88
34	CB17S 182707	SATHIYANARAYANAN V	5	4	4	5	5	23	92
35	CB17S 182708	SENTHIL KUMAR K	5	5	5	5	5	25	100
36	CB17S 182709	SIVAKUMAR G	5	4	4	5	5	23	92
37	CB17S 182710	SRI VIJAY RAM M	5	4	5	4	4	22	88
38	CB17S 182711	SUREKA R	5	5	5	5	5	25	100
39	CB17S 182712	SYED MOHAMED S	5	4	5	4	4	22	88
40	CB17S 182713	TAJMAL BEGUM K	5	5	5	5	5	25	100
41	CB17S 182714	TAMIL SELVAN R	5	5	5	5	5	25	100
42	CB17S 182716	VAIRAVAN S T	5	5	5	5	5	25	100
43	CB17S 182717	VEERAIYAN C	5	5	5	5	5	25	100
44	CB17S 182718	VIJAY A	5	4	5	5	5	24	96
45	CB17S 182719	AARTHI	5	5	5	5	5	25	100
AVERAGE			4.8	4.356	4.711	4.533	4.511		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.8	75	79.8	93.882
CO2	4.36	75	79.36	93.365
CO3	4.71	75	79.71	93.776
CO4	4.53	75	79.53	93.565
CO5	4.51	75	79.51	93.541



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

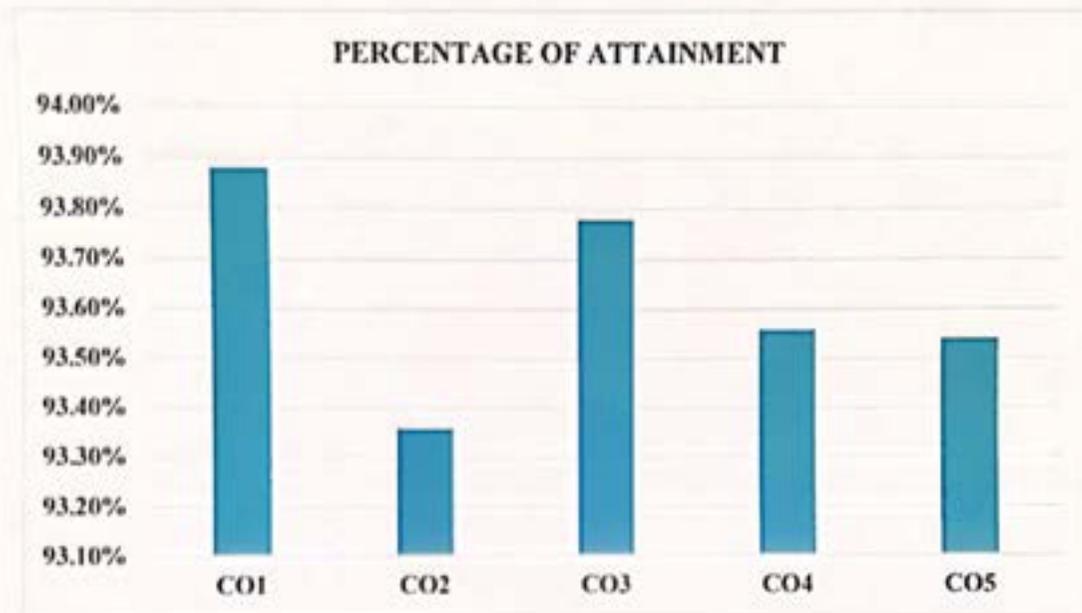
SUBJECT NAME: MANAGEMENT INFORMATION SYSTEMS

SUBJECT CODE:MBECS1:3

NO. OF STUDENTS: 45

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.88%
CO2	93.36%
CO3	93.78%
CO4	93.56%
CO5	93.54%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: MANAGEMENT INFORMATION SYSTEMS

SUBJECT CODE:MBECS1:3

NO. OF STUDENTS: 45

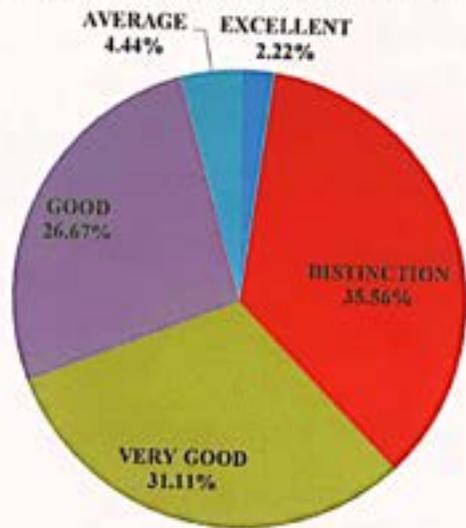
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	1	EXCELLENT
70 - 79	16	DISTINCTION
60 - 69	14	VERY GOOD
50 - 59	12	GOOD
40 - 49	2	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE

CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	2.22%	EXCELLENT
70 - 79	35.56%	DISTINCTION
60 - 69	31.11%	VERY GOOD
50 - 59	26.67%	GOOD
40 - 49	4.44%	AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59 ■ 40 - 49



PRINCIPAL

Bharath College of Science and Management
Bharath Avenue (Near New Bus Stand),
THANJAVUR-613 005.



BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
(UGC Recognized 2(f) & 12(B) Institution)
THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : OPERATING SYSTEMS - 16SCCCS8
COURSE OUTCOME

CO1	Describes Introduction to Operating System, History, Types, Development, Object-Oriented Design.
CO2	Understanding Memory Management - Early Memory, Partitions, Virtual memory.
CO3	Describes Processor Management , Multi-Core Technologies, Dead Locks, Concurrent Processes.
CO4	Describes Device Management, Types of Devices, Storage, Components of IO and management of IO.
CO5	Understanding File Management, Physical Storage Allocation, Access Methods, Access Control.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	2
CO2	3	3	3	3	3
CO3	2	3	2	2	2
CO4	3	2	2	3	3
CO5	3	2	3	3	2
AVERAGE	2.8	2.4	2.2	2.4	2.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB17S 182671	ABARNA R	4	5	5	5	5	24	96
2	CB17S 182672	ABI R	4	5	4	4	5	22	88
3	CB17S 182673	AJMEER KHAN A	4	5	5	5	5	24	96
4	CB17S 182674	AKASH S	5	5	5	5	5	25	100
5	CB17S 182677	BALAJI S	5	4	4	5	5	23	92
6	CB17S 182678	BRINDHA R	5	5	5	5	5	25	100
7	CB17S 182679	DIVAGAR R	4	4	5	4	4	21	84
8	CB17S 182680	ELANGO VAN V	4	5	4	4	5	22	88
9	CB17S 182681	GAYATHRI M	4	5	5	5	5	24	96
10	CB17S 182682	GOKILAN T	4	5	4	4	5	22	88
11	CB17S 182683	GOPINATH R	5	4	4	5	5	23	92
12	CB17S 182685	GRACE ROMALD BRITTO A	4	5	4	4	5	22	88
13	CB17S 182686	HARISH R	4	4	5	4	4	21	84
14	CB17S 182687	ITHRISH M	5	5	5	5	5	25	100
15	CB17S 182688	MOHAMED BHARATHI J	4	4	5	4	4	21	84
16	CB17S 182689	MOHAN T	4	5	4	4	5	22	88
17	CB17S 182690	NAGAAARAJUN S	5	5	5	5	5	25	100
18	CB17S 182691	NITHIS KUMAR R	5	5	5	5	5	25	100
19	CB17S 182692	PALINIBHARATHI A	4	5	4	4	5	22	88
20	CB17S 182693	PANDIAMMAL T	5	5	5	5	5	25	100
21	CB17S 182694	PRAKASH V	4	5	4	4	5	22	88
22	CB17S 182695	PRASANNA V	5	4	4	5	5	23	92
23	CB17S 182696	PREETHI BAI R	5	5	5	5	5	25	100
24	CB17S 182697	PRIYANKA K	5	5	5	5	5	25	100



25	CB17S 182698	PUGALENDI A	4	5	5	5	5	24	96
26	CB17S 182699	RAJESH R	5	4	4	5	5	23	92
27	CB17S 182700	RETHINA SAMY V	5	5	5	5	5	25	100
28	CB17S 182701	RUTHRALINGAM P	5	5	5	5	5	25	100
29	CB17S 182702	SAKTHIVEL K	4	5	5	5	5	24	96
30	CB17S 182703	SANTHIYA K	5	5	5	5	5	25	100
31	CB17S 182704	SATHOSH KUMAR P	5	4	4	5	5	23	92
32	CB17S 182705	SATHISH KUMAR S	5	5	5	5	5	25	100
33	CB17S 182706	SATHISRAJ A	4	5	4	4	5	22	88
34	CB17S 182707	SATHIYANARAYANAN V	5	4	4	5	5	23	92
35	CB17S 182708	SENTHIL KUMAR K	5	5	5	5	5	25	100
36	CB17S 182709	SIVAKUMAR G	4	5	5	5	5	24	96
37	CB17S 182711	SUREKA R	5	5	5	5	5	25	100
38	CB17S 182712	SYED MOHAMED S	4	5	4	4	5	22	88
39	CB17S 182713	TAJMAL BEGUM K	5	5	5	5	5	25	100
40	CB17S 182716	VAIRAVAN S T	5	5	5	5	5	25	100
41	CB17S 182717	VEERAIYAN C	4	5	5	5	5	24	96
42	CB17S 182718	VIJAY A	4	5	5	5	5	24	96
43	CB17S 182719	ARTHI M	5	5	5	5	5	25	100
AVERAGE			4.535	4.791	4.651	4.721	4.93		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.53	75	79.53	93.565
CO2	4.79	75	79.79	93.871
CO3	4.65	75	79.65	93.706
CO4	4.72	75	79.72	93.788
CO5	4.93	75	79.93	94.035



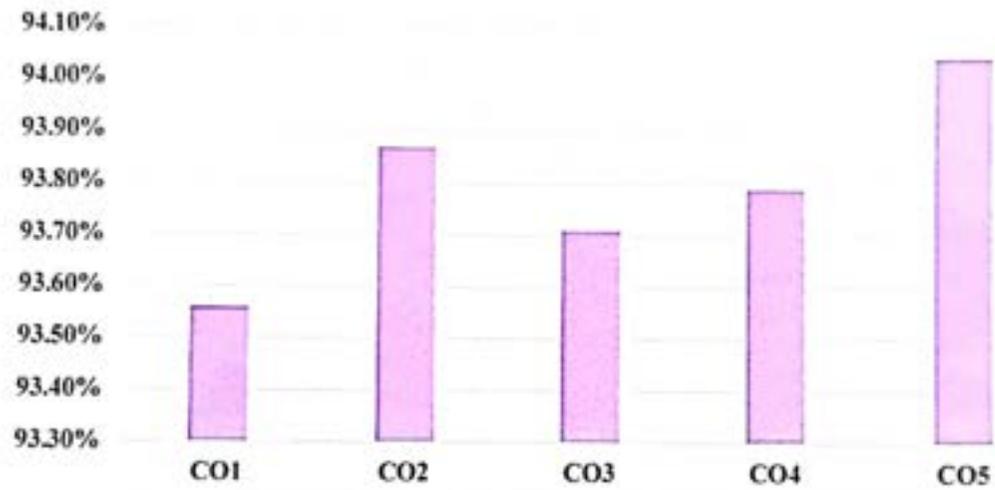
COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: OPERATING SYSTEM
SUBJECT CODE:16SCCCS8
NO. OF STUDENTS: 43

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.56%
CO2	93.87%
CO3	93.71%
CO4	93.79%
CO5	94.04%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: OPERATING SYSTEM

SUBJECT CODE:16SCCCS8

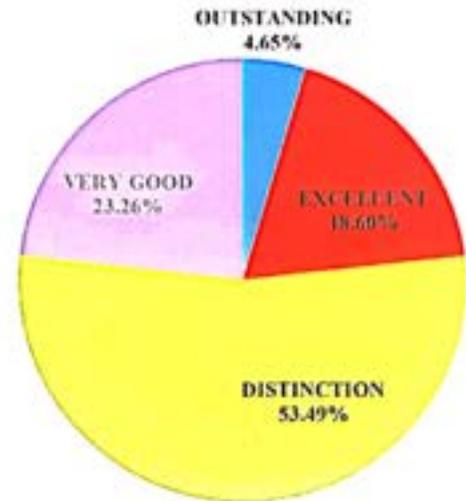
NO. OF STUDENTS: 43

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	2	OUTSTANDING
80 - 89	8	EXCELLENT
70 - 79	23	DISTINCTION
60 - 69	10	VERY GOOD
50 - 59	0	GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	4.65%	OUTSTANDING
80 - 89	18.60%	EXCELLENT
70 - 79	53.49%	DISTINCTION
60 - 69	23.26%	VERY GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69



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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN C- 16SCCCSI
COURSE OUTCOME

CO1	Understanding the basic concepts of C like constants, variables, data types operators and expressions.
CO2	Understanding the concepts of managing input output operations, decision making, branching and looping.
CO3	Understanding the concepts of character Arrays and Strings, User defined Functions.
CO4	Describes the concepts of Structures and Unions and Pointers.
CO5	Understanding about Dynamic memory allocation, Linked lists and Preprocessors.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	1
CO2	3	2	3	2	2
CO3	3	2	1	3	1
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.4	2.2	2.4	1.6



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN C
SUBJECT CODE:16SCCCS1
NO. OF STUDENTS: 48

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	0	DISTINCTION
60 - 69	3	VERY GOOD
50 - 59	5	GOOD
40 - 49	17	AVERAGE
BELOW 40	23	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
60 - 69	6.25%	VERY GOOD
50 - 59	10.47%	GOOD
40 - 49	35.42%	AVERAGE
BELOW 40	47.92%	RA



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB19S 193606	ADHITHYA. R	4	5	5	4	5	23	92
2	CB19S 193607	AHAMED NIYAS. A	3	3	3	3	3	15	60
3	CB19S 193608	AMARESHWAR. PS	3	3	3	3	2	14	56
4	CB19S 193609	ANANTHAN. K	3	4	4	3	4	18	72
5	CB19S 193610	ANTO RAGUNATH. S	4	4	4	4	3	19	76
4	CB19S 193611	BALAJI.V.R	4	4	4	4	3	19	76
3	CB19S 193612	BHARATH. B. R. S	2	2	3	3	2	12	48
5	CB19S 193613	BOOMINATHAN. R	3	3	4	3	2	15	60
5	CB19S 193614	BHUVANESH. A	3	3	3	3	2	14	56
9	CB19S 193615	DEVARAJAN. S	4	4	4	3	4	19	76
10	CB19S 193616	ELAVARSAN. A	3	4	4	3	4	18	72
11	CB19S 193617	ELAVARSAN. K	4	4	4	4	4	20	80
12	CB19S 193618	EZHILARASAN. G	4	4	5	4	4	21	84
14	CB19S 193619	GNANASUNDHARI. R	4	5	5	4	4	22	88
15	CB19S 193620	GOMATHI. R	4	4	4	4	3	19	76
16	CB19S 193621	JAYAPRIYAN. J	4	3	3	3	3	16	64
17	CB19S 193622	JAGADESH. P	4	4	4	3	3	18	72
18	CB19S 193623	KARTHIK KUMAR. J.M.	3	3	3	3	2	14	56
19	CB19S 193624	KARTHIK. S	2	3	3	3	2	13	52
20	CB19S 193625	KARTHIKEYAN. K	3	3	3	3	3	15	60
21	CB19S 193626	KASI. S	3	3	3	3	2	14	56
22	CB19S 193627	KATHIRVEL. G	4	3	3	3	3	16	64
23	CB19S 193628	KIRUBAKARAN. M	3	3	3	3	3	15	60
24	CB19S 193629	MADHUBALA. B	4	4	4	3	3	18	72
25	CB19S 193630	MAHESWARAN. K	4	4	3	3	3	17	68
26	CB19S 193631	MANIKANDAN. M	4	3	3	3	3	16	64
27	CB19S 193632	MANIKATHAYANITHI. M	3	3	3	3	2	14	56



28	CB19S 193633	MANOJKUMAR. S	3	4	3	3	2	15	60
29	CB19S 193634	MOHAMED HAKKIM MO	2	3	3	3	2	13	52
30	CB19S 193635	MUKESH KANNAN. M	3	4	4	3	4	18	72
31	CB19S 193636	MUKILAN. P	2	3	3	3	3	14	56
32	CB19S 193637	PRABAKAR. L	3	3	4	3	3	16	64
33	CB19S 193638	PRAVEEN KUMAR. R	3	4	4	3	4	18	72
34	CB19S 193639	RACHSON. S	4	4	4	4	4	20	80
35	CB19S 193640	RAGUVARAN. R	4	4	4	3	4	19	76
36	CB19S 193641	RANJITH. R	3	4	4	3	4	18	72
37	CB19S 193642	ROHIN AMALA RAJ. R	4	5	5	4	5	23	92
38	CB19S 193643	SABARISH. S	4	4	4	3	4	22	88
39	CB19S 193644	SANTHOSH. S	3	4	4	3	4	21	84
40	CB19S 193645	SATHISH KUMAR. M	3	3	3	3	3	15	60
41	CB19S 193646	SHAHUL HAMEED. A	4	3	3	3	3	16	64
42	CB19S 193647	SIVA. N	5	5	5	5	5	18	72
43	CB19S 193648	SIVASURIYA. P	4	4	4	4	4	19	76
44	CB19S 193649	SORNA. P. V	4	4	4	4	4	22	88
45	CB19S 193650	URUMAIYA. V	4	4	4	4	5	16	64
46	CB19S 193651	VENKATRAJ. B	3	3	4	4	4	18	72
47	CB19S 193652	VIGNESH. R	3	3	3	3	2	14	56
48	CB19S 193653	VIGNESH. S	4	4	5	4	4	21	84
AVERAGE			3.438	3.625	3.708	3.333	3.292		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.44	75	78.44	92.282
CO2	3.63	75	78.63	92.506
CO3	3.71	75	78.71	92.6
CO4	3.33	75	78.33	92.153
CO5	3.29	75	78.29	92.106



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN C

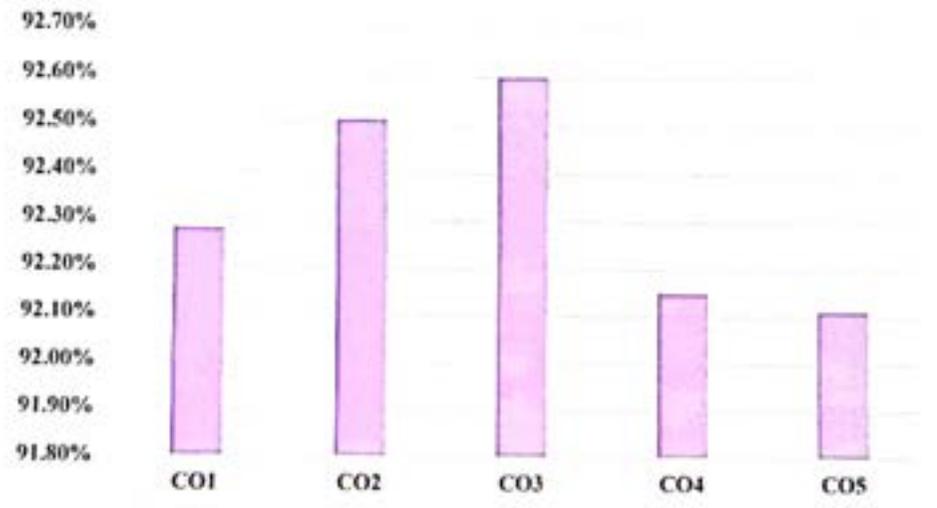
SUBJECT CODE:16SCCCS1

NO. OF STUDENTS: 48

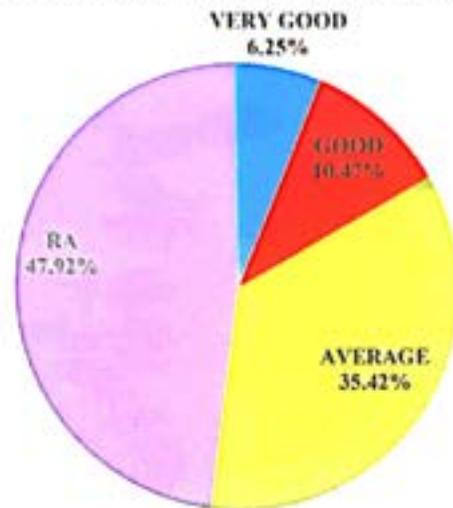
COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.28%
CO2	92.51%
CO3	92.60%
CO4	92.15%
CO5	92.11%



PERCENTAGE OF ATTAINMENT



COURSE ASSESSMENT IN PERCENTAGE.



■ 60 - 69 ■ 50 - 59 ■ 40 - 49 ■ BELOW 40



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ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

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COURSE : CLOUD COMPUTING - 16SMBECS2:2
COURSE OUTCOME

CO1	Introduction to Cloud Computing, Move to Cloud Computing, Types, Working of Cloud Computing.
CO2	Understanding Cloud Computing Architecture, Cloud Modeling and Design, Virtualization.
CO3	Describes Data Storage , Cloud Storage from LANs to WANs, Cloud Computing Services, Cloud Computing at Work.
CO4	Describes the Risks in Cloud Computing, Data Security, Security Services, Tools : Tools and Technologies for Cloud, Cloud Mashaps, Apache Hadoop.
CO5	Understanding Cloud Applications, Microsoft, Google, Amazon cloud, Cloud Applications.



PO → CO ₁	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	2	3	3	1
CO3	3	3	2	3	3
CO4	3	2	2	3	1
CO5	3	3	3	3	2
AVERAGE	3	2.4	2.4	2.8	1.8



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB17S 182671	ABARNA R	5	5	5	5	5	25	100
2	CB17S 182672	ABI R	4	4	5	5	5	23	92
3	CB17S 182673	AJMEER KHAN A	4	4	5	5	5	23	92
4	CB17S 182674	AKASH S	5	5	5	5	5	25	100
5	CB17S 182677	BALAJI S	4	4	5	5	5	23	92
6	CB17S 182678	BRINDHA R	5	5	5	5	5	25	100
7	CB17S 182679	DIVAGAR R	4	4	5	5	5	23	92
8	CB17S 182680	ELANGO VAN V	4	4	4	4	4	20	80
9	CB17S 182681	GAYATHRI M	5	5	5	5	5	25	100
10	CB17S 182682	GOKILAN T	4	4	4	4	4	20	80
11	CB17S 182683	GOPINATH R	5	4	4	5	5	23	92
12	CB17S 182685	GRACE ROMALD BRITTO A	4	5	4	4	4	21	84
13	CB17S 182686	HARISH R	4	3	4	3	4	22	88
14	CB17S 182687	ITHRISH M	4	3	3	3	4	25	100
15	CB17S 182688	MOHAMED BHARATHI J	4	5	4	4	4	21	84
16	CB17S 182689	MOHAN T	4	5	4	4	4	21	84
17	CB17S 182690	NAGAARAJUN S	5	5	5	5	5	25	100
18	CB17S 182691	NITHIS KUMAR R	5	5	5	5	5	25	100
19	CB17S 182692	PALINIBHARATHI A	5	5	5	4	5	24	96
20	CB17S 182693	PANDIAMMAL T	3	4	4	3	2	16	64
21	CB17S 182694	PRAKASH V	5	5	5	5	5	25	100
22	CB17S 182695	PRASANNA V	3	4	4	2	2	15	60
23	CB17S 182696	PREETHI BAI R	5	4	4	5	5	23	92
24	CB17S 182697	PRIYANKA K	5	5	5	5	5	25	100



25	CB17S 182698	PUGALENDI A	5	5	5	4	5	24	96
26	CB17S 182699	RAJESH R	4	4	4	4	4	20	80
27	CB17S 182700	RETHINA SAMY V	5	4	4	4	5	25	100
28	CB17S 182701	RUTHRALINGAM P	5	5	5	5	5	25	100
29	CB17S 182702	SAKTHIVEL K	5	5	5	5	5	25	100
30	CB17S 182703	SANTHIYA K	5	5	5	5	5	25	100
31	CB17S 182704	SATHOSH KUMAR P	5	5	4	5	5	24	96
32	CB17S 182705	SATHISH KUMAR S	5	5	5	5	5	25	100
33	CB17S 182706	SATHISRAJ A	4	4	5	4	5	22	88
34	CB17S 182707	SATHIYANARAYANAN V	5	4	5	4	5	23	92
35	CB17S 182708	SENTHIL KUMAR K	5	5	5	5	5	25	100
36	CB17S 182709	SIVAKUMAR G	5	4	5	4	5	23	92
37	CB17S 182711	SUREKA R	5	5	5	5	5	25	100
38	CB17S 182712	SYED MOHAMED S	5	4	5	4	5	23	92
39	CB17S 182713	TAJMAL BEGUM K	5	5	5	5	5	25	100
40	CB17S 182716	VAIRAVAN S T	5	5	5	5	5	25	100
41	CB17S 182717	VEERAIYAN C	5	4	5	4	5	23	92
42	CB17S 182718	VIJAY A	5	4	5	4	5	23	92
43	CB17S 182719	ARTHI. M	5	5	5	5	5	25	100
AVERAGE			4.605	4.488	4.651	4.442	4.674		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.6	75	79.6	93.65
CO2	4.49	75	79.49	93.52
CO3	4.65	75	79.65	93.71
CO4	4.44	75	79.44	93.46
CO5	4.67	75	79.67	93.73

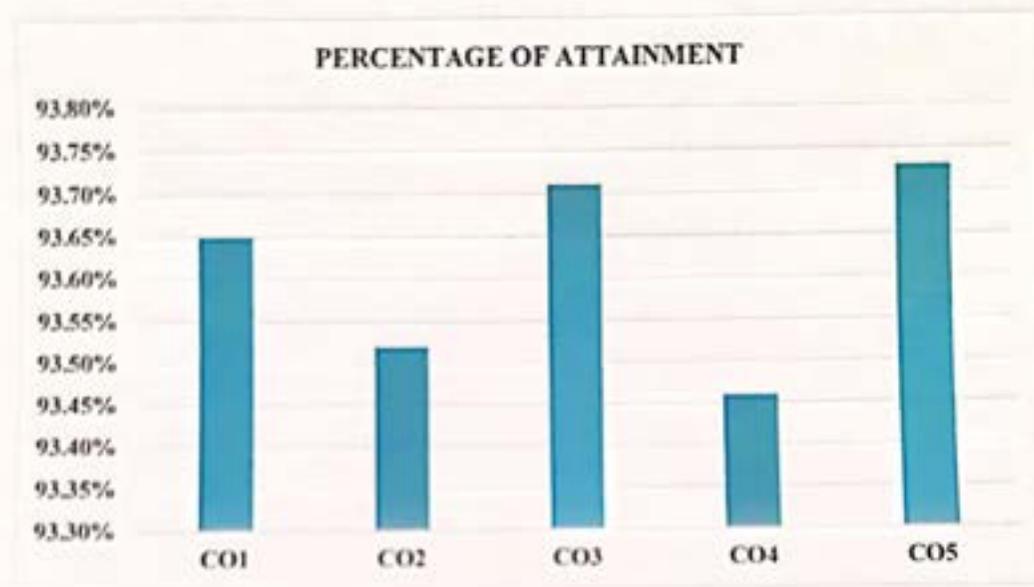


COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: CLOUD COMPUTING
SUBJECT CODE:MBECS2:2
NO. OF STUDENTS: 43

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.65%
CO2	93.52%
CO3	93.71%
CO4	93.46%
CO5	93.73%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: CLOUD COMPUTING

SUBJECT CODE:MBECS2:2

NO. OF STUDENTS: 43

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	9	EXCELLENT
70 - 79	17	DISTINCTION
60 - 69	17	VERY GOOD
50 - 59	0	GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	20.93%	EXCELLENT
70 - 79	39.53%	DISTINCTION
60 - 69	39.53%	VERY GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69



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COURSE NAME : PROGRAMMING IN C LAB		COURSE CODE: 16SCCCS1P
On Completion of the course student will able to		
CO1	Develop C program using basic concepts.	
CO2	Implement Conditional control statements, Switch statements and Loop structures.	
CO3	Develop C program using the concepts of Arrays, Pointers.	
CO4	Solve the problem using concepts of Function, Recursion, Call by value & Call by Reference.	
CO5	Update the details of information using various file modes.	




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COURSE NAME : PROGRAMMING IN JAVA LAB		COURSE CODE: 16SCCCS3P
After Completion of the course student will able to		
CO1	Implement the Java program using arrays.	
CO2	Implement a Calculator to perform basic arithmetic operations.	
CO3	Solve the problem using the concepts of constructors, polymorphism and inheritance.	
CO4	Implement the java program using interface, multi threads, applets.	
CO5	Create a window using applets.	



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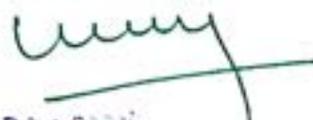
COURSE NAME : DIGITAL ELECTRONICS AND MICROPROCESSOR LAB		COURSE CODE: 16SCCCS5P
Upon Completion of the course student will able to		
CO1	Implement the practical related to Digital Electronics and Intel 8085 Microprocessors.	
CO2	Verify the logic gates, constructing the half and full adder.	
CO3	Implement K-Map to reduce the digital circuit, Shift Registers, Up Down Counters.	
CO4	Implement assembly language program for addition, subtraction, sum of series, data transfer.	
CO5	Implement assembly language program for finding maximum of N numbers and conversion of decimal to hexa decimal number.	



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COURSE NAME : PROGRAMMING IN C++ LAB		COURSE CODE: 16SCCCS2P
After Completion of the course student will able to		
CO1	Perform concepts of Classes using C++ programming language.	
CO2	Implement Constructor and Destructor.	
CO3	Implement Operator Overloading.	
CO4	Solve the problem using Inheritance.	
CO5	Implement Files and Exception Handling in C++.	




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COURSE NAME : DATABASE SYSTEMS LAB		COURSE CODE: 16SCCCS4P
On Completion of the course student will able to		
CO1	Provide the knowledge in developing DDL and DML commands.	
CO2	Develop MySQL queries to implement the set operations.	
CO3	Implement aggregate functions.	
CO4	Develop and implement Join operations.	
CO5	Implement nested queries and to create a views and expand it.	




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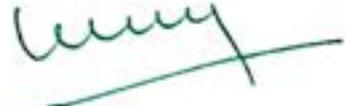
COURSE NAME : DATABASE SYSTEMS LAB		COURSE CODE: 16SCCCS4P
On Completion of the course student will able to		
CO1	Provide the knowledge in developing DDL and DML commands.	
CO2	Develop MySQL queries to implement the set operations.	
CO3	Implement aggregate functions.	
CO4	Develop and implement Join operations.	
CO5	Implement nested queries and to create a views and expand it.	




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COURSE NAME : PROGRAMMING IN PHP LAB		COURSE CODE: 16SCCCS6P
Upon Completion of the course student will able to		
CO1	Implement PHP program to find factorial of a number.	
CO2	Implement Conditional statements in PHP program.	
CO3	Implement array concepts in PHP program.	
CO4	Implement the concepts of funbctions in PHP program.	
CO5	Implement the concepts of sessions, cookies and to design an authentication web page in PHP with MYSQL to check username and password.	




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COURSE NAME : MINI PROJECT		COURSE CODE: 16SMBECSPW
After Completion of the course student will able to		
CO1	Enable the students to develop a project with a latest technologies.	
CO2	Plan, Analyse, design, implement and apply various types of testing.	
CO3	Communicate effectively in both oral and writing.	
CO4	Learn about different software development process models and the different features of software for their selected problem.	
CO5	Know about recent tools and technologies in software industry and also the scope their specialized areas in different fields in the industry.	



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COURSE NAME : WEB TECHNOLOGIES LAB		COURSE CODE: P16CS15P
After Completion of the course student will able to		
CO1	Know about the fundamental concepts of Internet.	
CO2	Develop and implement the codes in XML	
CO3	Develop and implement the codes in Java Script.	
CO4	Develop and implement the codes in JSP.	
CO5	Develop and implement the codes in ASP different components, objects, connecting and storing in database .	



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COURSE NAME : DATAMINING LAB		COURSE CODE: P16CS33P
Upon Completion of the course student will able to		
CO1	Get hands on experience in developing applications using data mining tool.	
CO2	Implement Preprocessing for Data type Conversion and Data Transformation.	
CO3	Implement Feature Selection by Filter, Wrapper and dimensionally Reduction.	
CO4	Implement Supervised Technique - Classifier and Unsupervised Technique - Clustering algorithms.	
CO5	Implement Association Rule, Experimentation and knowledge flow for feature selection and classification and clustering	



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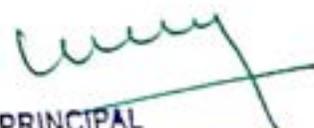
COURSE NAME : DISTRIBUTED TECHNOLOGIES LAB		COURSE CODE: P16CS23P
On Completion of the course student will able to		
CO1	Develop the fundamental concepts of Internet, Javascript, XML, JSP, ASP.	
CO2	Implement several webserver controls in database using ASP.NET.	
CO3	Generate Crystal Report from an existing database.	
CO4	Design the web page using AdRotator, Image map, Multiview controls and Master pages.	
CO5	Establish the security features, manage the concepts of mobile applications and also the web servers.	




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COURSE NAME : OPEN SOURCE LAB		COURSE CODE: P16CS43P
After Completion of the course student will able to		
CO1	Develop the fundamental concepts of Internet, Javascript, XML, JSP, ASP.	
CO2	Implement the server side PHP program to display details of students from a HTML form.	
CO3	Implement the PHP program that adds products that are selected from a web page to Shopping cart.	
CO4	Implement the PHP program to access the data stored in MySQL data source.	
CO5	Implement the shell program to find the details of an user session and to change the extension of a given file.	




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COURSE NAME : PROJECT WORK		COURSE CODE: P16CSPW
After Completion of the course student will able to		
CO1	Enable the students to develop a project with a latest technologies and trained as a software professional skills.	
CO2	Plan, Analyse, design, implement and apply various types of testing.	
CO3	Communicate effectively in both oral and writing.	
CO4	Learn about different software development process models and the different features of software for their selected problem.	
CO5	Know about recent tools and technologies in software industry and also the scope their specialized areas in different fields in the industry.	



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BHARATH COLLEGE OF SCIENCE AND MANAGEMENT

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PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : COMPILER DESIGN - P16CS32
COURSE OUTCOME

CO1	Understands the different phases of compiler and needs of the compiler.
CO2	Describes about symbol table entries, syntax analysis, writing the context free grammar, techniques of parsing.
CO3	Understanding the construction of syntax trees, S & L - attributed definitions, type checking.
CO4	Describes the runtime environment, storage organizations, storage allocation strategies, Intermediate code generations.
CO5	Understanding the concepts of Issues in design of code generator, target machine & code optimization.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	2	3	3	1	1
CO2	3	3	3	2	2
CO3	3	3	3	1	2
CO4	3	3	3	2	1
CO5	3	3	3	1	2
AVERAGE	2.8	3	3	1.4	1.6



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 19272901	AJAY. S	5	4	5	5	5	24	96
2	P 19272902	AJITH KUMAR R	4	4	4	5	4	21	84
3	P 19272903	ANIS FATHIMA. K	5	5	5	5	5	25	100
4	P 19272904	BHARANIDHARAN. C. G	5	5	5	5	5	25	100
5	P 19272906	GNANASEKAR. M	5	5	5	5	5	25	100
6	P 19272907	GUNASEKAR. K	4	5	4	4	4	21	84
7	P 19272908	JAYA SUTHAN. S	4	5	5	5	5	24	96
8	P 19272909	JAYASURYA. I	5	5	5	5	5	25	100
9	P 19272910	KARTHIKEYAN. K	5	4	4	4	5	22	88
10	P 19272911	MALAIYARASAN. G	4	5	5	5	4	23	92
11	P 19272912	MANIKANDAN. B	4	4	5	4	4	21	84
12	P 19272913	MUKESHKUMAR. S	4	4	5	4	4	22	88
13	P 19272914	MUTHURAMAN. R	5	5	4	5	5	24	96
14	P 19272915	REVATHI. R	5	5	5	5	5	25	100
15	P 19272916	SIVANANDAM. P	5	5	5	5	5	25	100
16	P 19272917	SUBASH. K	4	4	5	4	4	22	88
17	P 19272918	SUDARSON. S. P	5	5	5	5	5	25	100
18	P 19272919	VAIRAPPAN. R	4	5	5	5	4	23	92
19	P 19272920	VEERAMANI. G	5	4	5	5	5	24	96
20	P 19272921	VIVEK. K	4	5	5	5	4	23	92
21	P 19272922	ZAFAR ALI. M	5	5	4	5	4	23	92
AVERAGE			4.571	4.667	4.762	4.762	4.571		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.57	75	79.57	93.612
CO2	4.67	75	79.67	93.729
CO3	4.76	75	79.76	93.835
CO4	4.76	75	79.76	93.835
CO5	4.57	75	79.57	93.612



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: COMPILER DESIGN

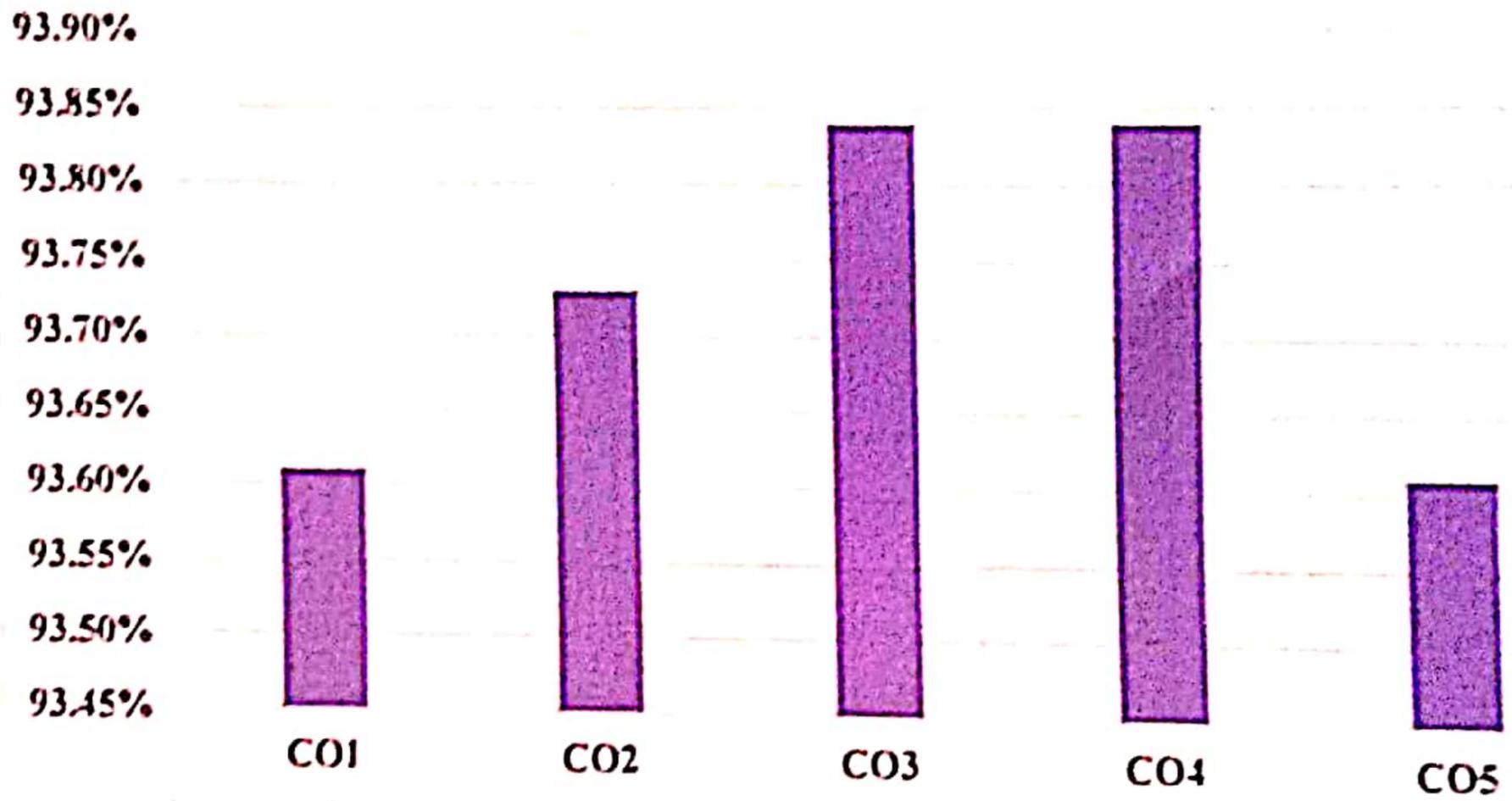
SUBJECT CODE: P16CS32

NO. OF STUDENTS: 21

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.61%
CO2	93.73%
CO3	93.84%
CO4	93.84%
CO5	93.61%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: COMPILER DESIGN

SUBJECT CODE: P16CS32

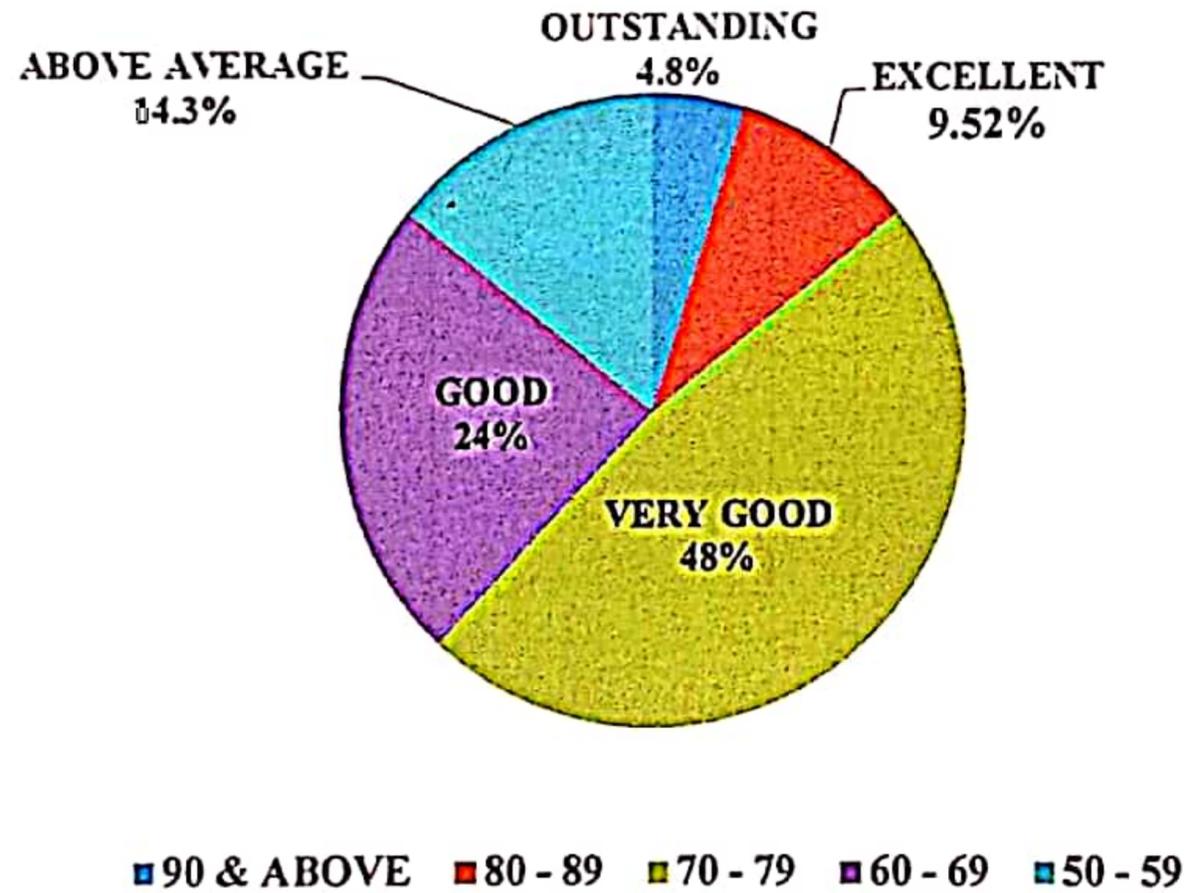
NO. OF STUDENTS:21

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	1	OUTSTANDING
80 - 89	2	EXCELLENT
70 - 79	10	DISTINCTION
60 - 69	5	VERY GOOD
50 - 59	3	GOOD
40-49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	4.8%	OUTSTANDING
80 - 89	9.52%	EXCELLENT
70 - 79	48%	DISTINCTION
60 - 69	24%	VERY GOOD
50 - 59	14.3%	GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : CLOUD COMPUTING - P16CS41
COURSE OUTCOME

CO1	Understanding the Layers, Features, Types, Seven step model, SaaS, Integration Scenarios , Methodologies , The Enterprise Paradigm.
CO2	Describes about the Migration Services, Infrastructures, Design types, Cloud Storage ,Technologies, Challenges.
CO3	Explains the Technologies and Tools, Aneka Cloud Platform, Hybrid Cloud Implementation – CometCloud.
CO4	Introduction – Enterprise Demand, Dynamic ICT Service , Quality and Security, Data Centre Producing Business, The MapReduce Programming
CO5	Understanding the Principles, A Federated Cloud Computing Model, Security Considerations, SLA, SLO Management, HPC on CloudsGrid.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	2	2
CO2	3	2	1	2	3
CO3	3	2	2	3	2
CO4	3	3	2	2	2
CO5	3	1	2	2	3
AVERAGE	3	2.2	2	2.2	2.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 19272901	AJAY. S	5	4	5	5	5	24	96
2	P 19272902	AJITH KUMAR. R	5	4	4	4	5	23	92
3	P 19272903	ANIS FATHIMA. K	5	5	5	5	5	25	100
4	P 19272904	BHARANIDHARAN. C. G	5	5	5	5	5	25	100
5	P 19272906	GNANASEKAR. M	5	5	5	5	5	25	100
6	P 19272907	GUNASEKAR. K	5	4	4	4	5	23	92
7	P 19272908	JAYA SUTHAN. S	5	4	4	4	5	23	92
8	P 19272909	JAYASURYA. I	5	5	5	5	5	25	100
9	P 19272910	KARTHIKEYAN. K	5	4	4	4	5	23	92
10	P 19272911	MALAYARASAN. G	5	4	5	5	5	24	96
11	P 19272912	MANIKANDAN. B	5	4	4	4	5	23	92
12	P 19272913	MUKESHKUMAR. S	5	4	5	5	5	24	96
13	P 19272914	MUTHURAMAN. R	5	5	5	5	4	24	96
14	P 19272915	REVATHI. R	5	5	5	5	5	25	100
15	P 19272916	SIVANANDAM. P	5	5	5	5	5	25	100
16	P 19272917	SUBASH. K	5	5	5	5	5	25	100
17	P 19272918	SUDARSON. S. P	5	5	5	5	5	25	100
18	P 19272919	VAIRAPPAN. R	4	5	4	5	4	23	92
19	P 19272920	VEERAMANI. G	5	5	5	5	5	23	92
20	P 19272921	VIVEK. K	5	4	4	4	5	23	92
21	P 19272922	ZAFFAR ALI. M	5	5	5	5	5	25	100
AVERAGE			4.952	4.571	4.667	4.714	4.905		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.95	75	79.95	94.059
CO2	4.57	75	79.57	93.612
CO3	4.67	75	79.67	93.729
CO4	4.71	75	79.71	93.776
CO5	4.9	75	79.9	94



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: CLOUD COMPUTING

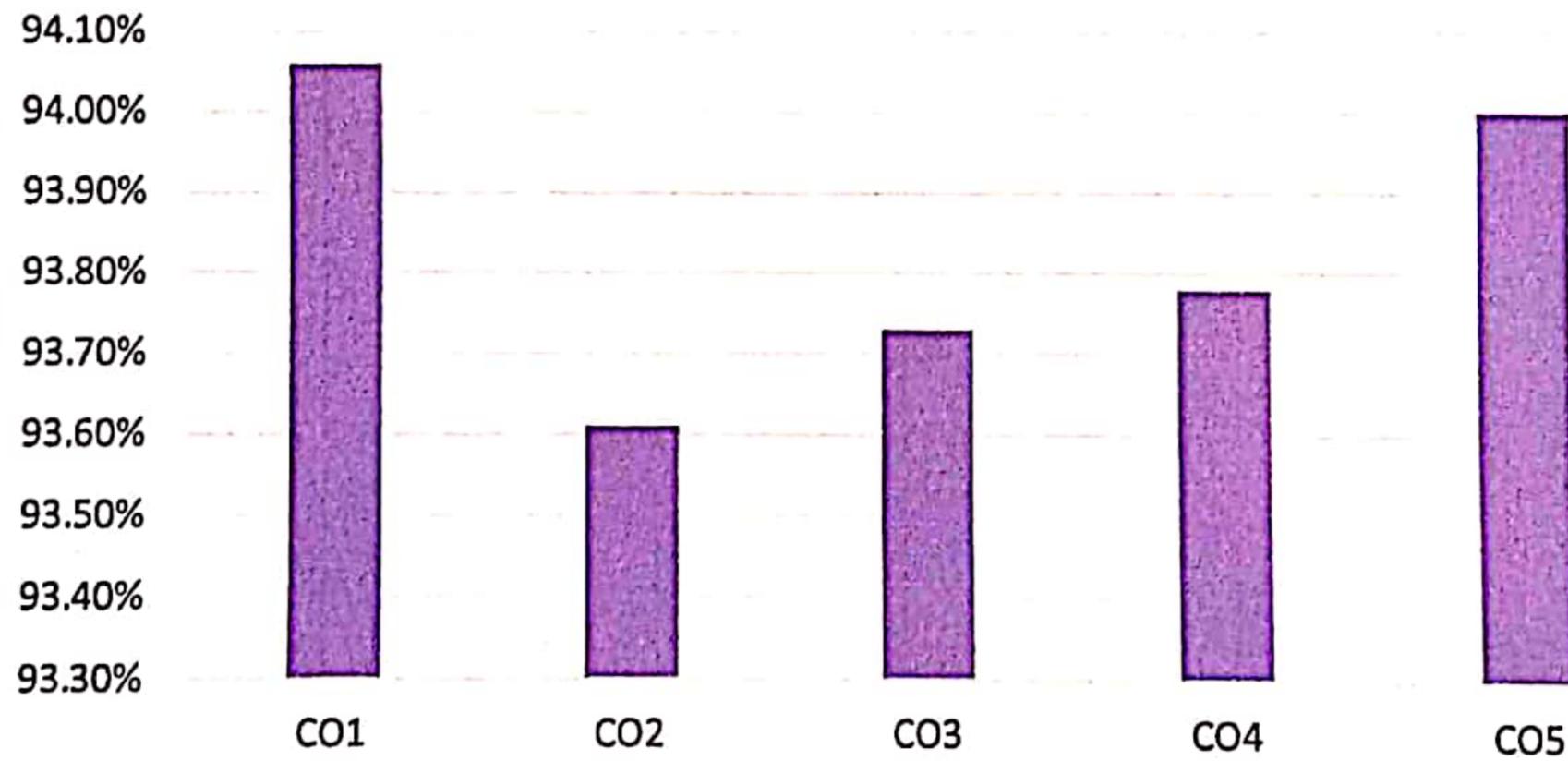
SUBJECT CODE: P16CS41

NO. OF STUDENTS: 21

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	94.06%
CO2	93.61%
CO3	93.73%
CO4	93.78%
CO5	94.00%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: CLOUD COMPUTING

SUBJECT CODE: P16CS41

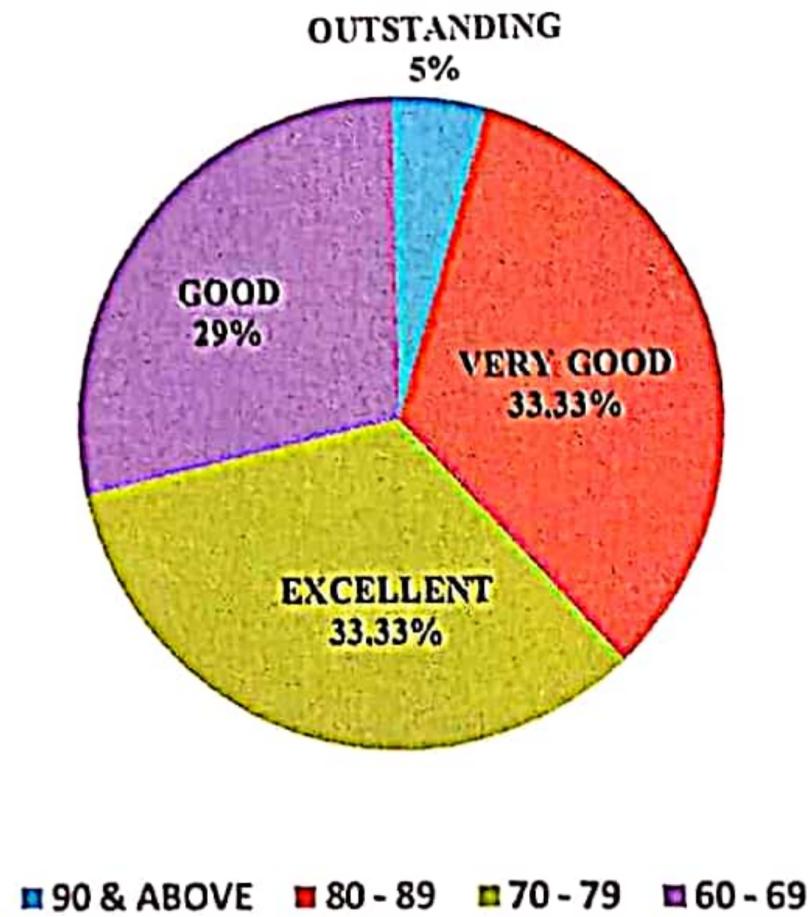
NO. OF STUDENTS:21

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	1	OUTSTANDING
80 - 89	7	EXCELLENT
70 - 79	7	VERY GOOD
60 - 69	6	GOOD
50 - 59	0	ABOVE AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	5%	OUTSTANDING
80 - 89	33.33%	EXCELLENT
70 - 79	33.33%	VERY GOOD
60 - 69	29%	GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : DIGITAL ELECTRONICS AND MICROPROCESSOR- 16SCCCS7
COURSE OUTCOME

CO1	Describes the various Number System, Number System conversion, Logic Gates and circuits
CO2	Understanding the concepts of Fundamentals of Boolean Algebra, Laws and Theorems, Simplifying Logic Circuits, NAND and NOR Implementation.
CO3	Understanding the concepts of Combinational Logic Circuits, Adders & its types, Multiplexers, Demultiplexers , Decoders, Encoders, Registers.
CO4	Describes the concepts of Microprocessor, Microcomputer, Buses.
CO5	Understanding about Instruction and Data Format, Address Modes, Status Flags, Assembler.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	2
CO2	3	3	3	3	2
CO3	3	2	2	3	2
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.8	2.4	2.6	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB18S 187996	AAKASH. M	4	5	4	4	5	22	88
2	CB18S 187997	ABISHEK. S	4	4	4	4	4	20	80
3	CB18S 187998	ARUNPRASATH. A	5	4	4	4	4	21	84
4	CB18S 187999	BARATH. G	5	5	4	4	5	23	92
5	CB18S 188000	BARATHKISHORE. M.J	4	5	4	4	5	22	88
6	CB18S 188001	CHANDRU. K	5	5	5	5	5	25	100
7	CB18S 188002	ESWARAN. P	5	5	4	4	5	23	92
8	CB18S 188003	FYROSE AHAMED. M Y	4	5	4	4	5	22	88
9	CB18S 188004	HAKKIM MOHAMED. A	4	5	5	4	4	22	88
10	CB18S 188005	HARI BASKAR. R	5	4	5	5	5	24	96
11	CB18S 188006	HARIHARAN. R	4	5	4	4	5	22	88
12	CB18S 188007	KARTHIKEYAN. N	5	5	4	4	5	23	92
13	CB18S 188008	KAVIYA. S	5	5	5	5	5	25	100
14	CB18S 188009	MADHUMITHA. R	4	4	4	3	3	25	100
15	CB18S 188010	MUKESH. K	2	2	3	3	2	20	80
16	CB18S 188011	NANDIA KUMAR. M	2	2	2	2	2	20	80
17	CB18S 188012	NANTHA KUMAR. S	4	5	4	4	4	21	84
18	CB18S 188013	POOJA. S	2	3	3	3	2	25	100
19	CB18S 188014	PRADEEP. R	4	5	5	5	4	23	92
20	CB18S 188015	PRAVEEN. C	4	5	5	5	4	23	92
21	CB18S 188016	PRAVEENKUMAR. M	2	3	3	3	2	24	96
22	CB18S 188017	PRITHIVIRAJ. R	4	5	5	4	4	22	88
23	CB18S 188018	RAVISH. S	5	5	5	5	5	25	100
24	CB18S 188019	SABEER AHAMED.S	5	5	5	5	5	25	100



25	CB18S 188020	SANTHOSH. K	4	4	4	4	4	20	80
26	CB18S 188022	SUJITH. P	5	5	5	5	5	25	100
27	CB18S 188023	VENGATESHAN. S	5	5	5	5	5	25	100
28	CB18S 188024	VIGNESH. A	4	4	4	4	4	20	80
29	CB18S 188025	VISHNU PRAKASH. R	4	4	4	4	4	20	80
AVERAGE			4.103	4.414	4.207	4.103	4.172		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.1	75	79.1	93.06
CO2	4.41	75	79.41	93.42
CO3	4.21	75	79.21	93.19
CO4	4.1	75	79.1	93.06
CO5	4.17	75	79.17	93.14



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DIGITAL ELECTRONICS AND MICROPROCESSOR

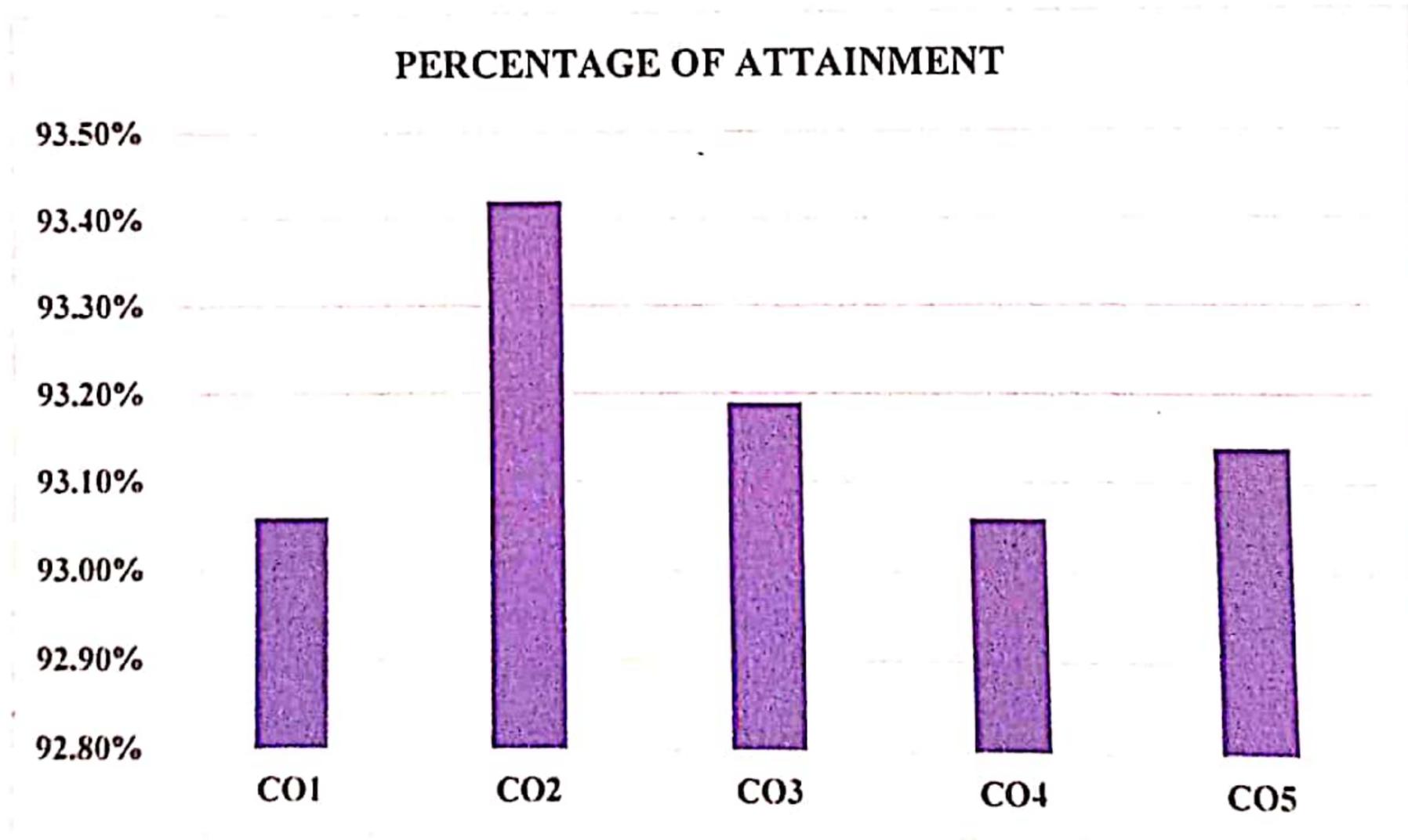
SUBJECT CODE: 16SCCCS7

NO. OF STUDENTS: 29

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.06%
CO2	93.42%
CO3	93.19%
CO4	93.06%
CO5	93.14%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DIGITAL ELECTRONICS AND MICROPROCESSOR

SUBJECT CODE: 16SCCCS7

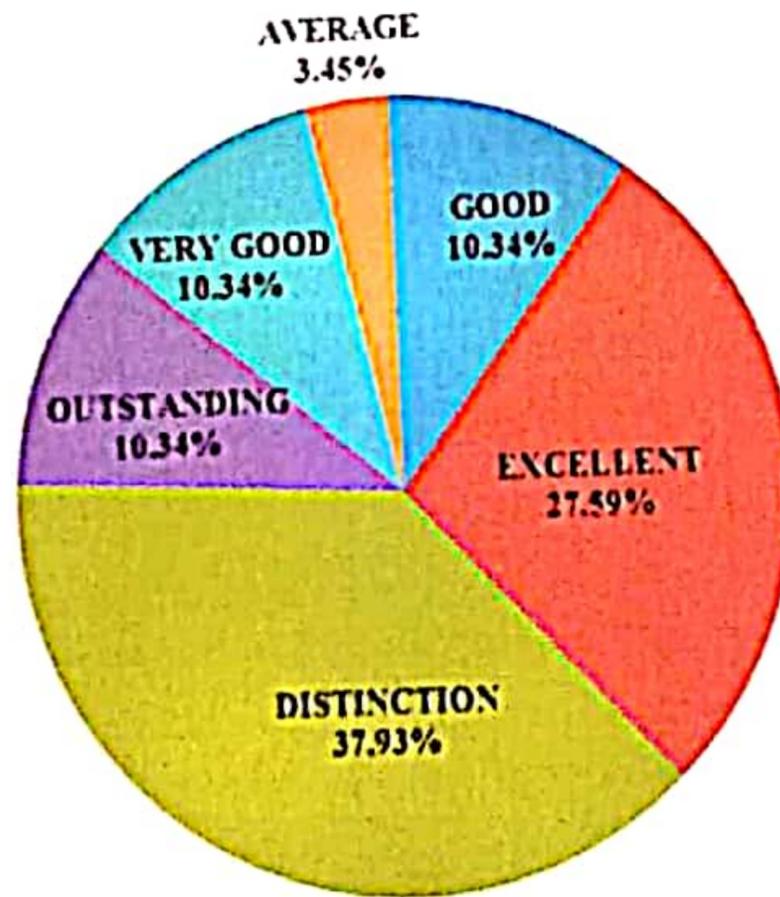
NO. OF STUDENTS:29

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	3	OUTSTANDING
80 - 89	8	EXCELLENT
70 - 79	11	DISINCTION
60 - 69	3	VERY GOOD
50 - 59	3	GOOD
40 - 49	1	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	10.34%	OUTSTANDING
80 - 89	27.59%	EXCELLENT
70 - 79	37.93%	DISINCTION
60 - 69	10.34%	VERY GOOD
50 - 59	10.34%	GOOD
40 - 49	3.45%	AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59 ■ 40 - 49



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN JAVA - 16SCCCS3
COURSE OUTCOME

CO1	Describes the Introduction to OOPS and Introduction to Java Programming.
CO2	Understanding Java Data Types, Variable, Operations and Assignment, Control Structures, Arrays, Strings
CO3	Describes Classes, Modifiers, Packages, Interfaces.
CO4	Describes Exception Handling and Multi Threading in java.
CO5	Understanding Files and I/O Streams and Java Applets.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	1
CO2	3	2	3	3	1
CO3	2	2	2	2	1
CO4	3	2	3	3	1
CO5	3	2	3	3	1
AVERAGE	2.8	2	2.4	2.6	1



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB19S 193606	ADHITHYA. R	5	4	5	4	5	23	92
2	CB19S 193607	AHAMED NIYAS. A	4	4	4	4	4	20	80
3	CB19S 193608	AMARESHWAR. PS	5	4	5	4	5	23	92
4	CB19S 193611	BALAJI.V.R	5	4	5	4	4	22	88
5	CB19S 193613	BOOMINATHAN. R	4	4	4	4	4	20	80
6	CB19S 193614	BHUVANESH. A	4	4	4	4	4	20	80
7	CB19S 193615	DEVARAJAN. S	5	4	4	4	4	21	84
8	CB19S 193616	ELAVARSAN. A	5	4	5	4	5	23	92
9	CB19S 193617	ELAVARSAN. K	4	4	4	4	4	20	80
10	CB19S 193618	EZHILARASAN G	5	5	5	4	5	24	96
11	CB19S 193619	GNANASUNDHARI. R	5	5	5	5	5	25	100
12	CB19S 193620	GOMATHI. R	5	4	5	4	5	23	92
13	CB19S 193621	JAYAPRIYAN. J	5	4	5	4	4	22	88
14	CB19S 193622	JAGADESH. P	5	4	5	4	5	23	92
15	CB19S 193623	KARTHIK KUMAR. J.M.	4	4	4	4	4	20	80
16	CB19S 193624	KARTHIK. S	5	4	5	4	4	22	88
17	CB19S 193625	KARTHIKEYAN. P	5	4	5	4	5	23	92
18	CB19S 193626	KASI. S	3	3	3	3	3	15	60
19	CB19S 193627	KATHIRVEL. G	4	4	4	4	4	20	80
20	CB19S 193628	KIRUBAKARAN. M	4	4	4	4	4	20	80
21	CB19S 193629	MADHUBALA. B	5	4	5	4	5	23	92
22	CB19S 193630	MAHESWARAN. K	4	3	4	3	4	18	72
23	CB19S 193631	MANIKANDAN. M	4	4	4	4	4	20	80
24	CB19S 193632	MANIKATHAYANITHI. M	5	5	5	4	5	24	96



25	CB19S 193633	MANOJKUMAR. S	4	4	4	4	4	20	80
26	CB19S 193634	MOHAMED HAKKIM MOHSIN. M	5	4	5	4	5	23	92
27	CB19S 193635	MUKESH KANNAN. M	5	5	5	5	5	25	100
28	CB19S 193636	MUKILAN. P	5	5	5	5	5	25	100
29	CB19S 193637	PRABAKAR. L	5	4	5	4	5	23	92
30	CB19S 193638	PRAVEEN KUMAR. R	4	4	4	4	4	20	80
31	CB19S 193639	RACHSON. S	4	4	4	4	4	20	80
32	CB19S 193640	RAGUVARAN. R	5	4	5	4	5	23	92
33	CB19S 193641	RANJITH R	5	4	5	4	4	22	88
34	CB19S 193642	ROHIN AMALA RAJ. R	5	5	5	4	5	24	96
35	CB19S 193643	SABARISH. S	5	4	5	4	5	23	92
36	CB19S 193644	SANTHOSH. S	5	5	5	4	5	24	96
37	CB19S 193645	SATHISH KUMAR. M	5	4	5	4	4	22	88
38	CB19S 193646	SHAHUL HAMEED. A	4	4	4	4	4	20	80
39	CB19S 193647	SIVA. N	4	4	4	4	4	20	80
40	CB19S 193648	SIVASURIYA. P	5	4	4	4	4	21	84
41	CB19S 193649	SORNA. P. V	5	5	5	5	5	25	100
42	CB19S 193650	URUMAIYA. V	5	4	4	4	4	21	84
43	CB19S 193651	VENKATRAJ. B	4	4	4	4	4	20	80
44	CB19S 193652	VIGNESH. R	5	5	5	5	5	25	100
45	CB19S 193653	VIGNESH. S	5	4	4	4	4	21	84
AVERAGE			4.622	4.156	4.533	4.067	4.422		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.62	75	79.62	93.671
CO2	4.16	75	79.16	93.129
CO3	4.53	75	79.53	93.565
CO4	4.07	75	79.07	93.024
CO5	4.42	75	79.42	93.435



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN JAVA

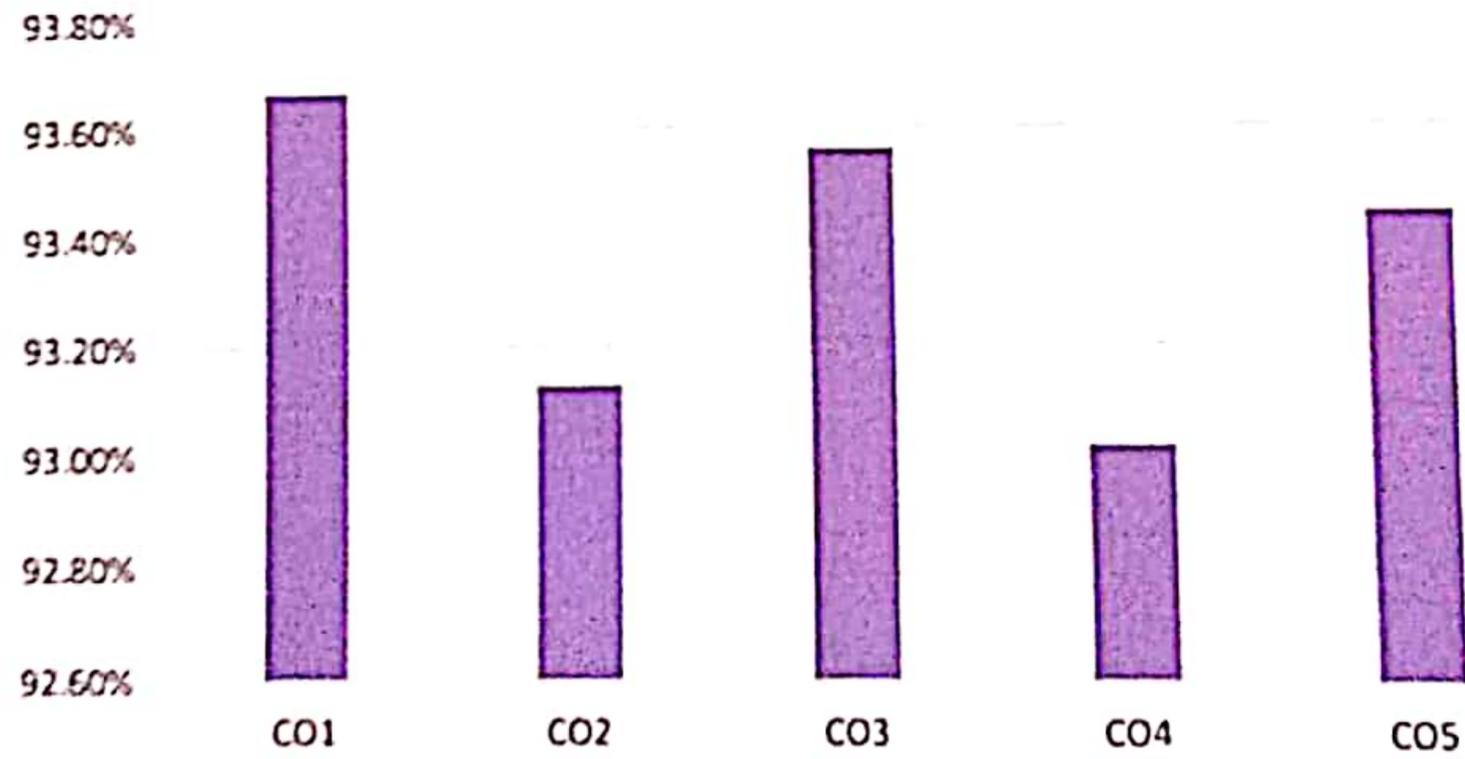
SUBJECT CODE: 16SCCCS3

NO. OF STUDENTS: 45

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.67%
CO2	93.13%
CO3	93.56%
CO4	93.02%
CO5	93.44%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN JAVA

SUBJECT CODE: 16SCCCS3

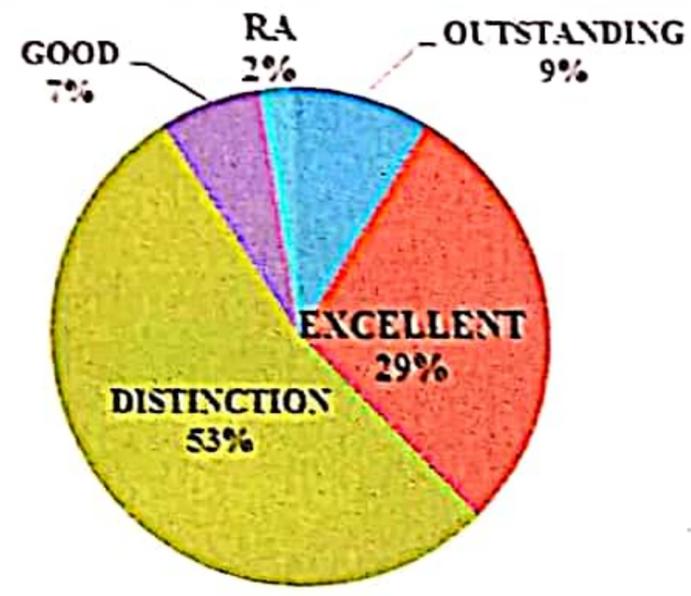
NO. OF STUDENTS:45

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	4	OUTSTANDING
80 - 89	13	EXCELLENT
70 - 79	24	DISINCTION
60 - 69	3	GOOD
50 - 59	0	VERY GOOD
40 - 49	0	AVERAGE
BELOW 40	1	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	9%	OUTSTANDING
80 - 89	29%	EXCELLENT
70 - 79	53%	DISTINCTION
60 - 69	7%	GOOD
BELOW 40	2%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ BELOW 40



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN C++ - 16SCCCS2
COURSE OUTCOME

CO1	Describes the procedural and object oriented paradigm with the concepts, benefits, applications functions.
CO2	Understanding the classes and objects, constructors & destructors, operator overloading.
CO3	Understanding the concepts of Inheritance, pointers, and polymorphism.
CO4	Describes the concepts of managing console I/O operations, files and exception handling.
CO5	Understanding about manipulating strings and Object oriented systems development.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	0
CO2	3	3	3	2	1
CO3	3	3	3	3	0
CO4	3	2	3	3	0
CO5	3	3	3	3	0
AVERAGE	3	2.6	2.8	2.6	0.2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB20S 199597	ABDUL BASITH. M	5	5	4	4	5	23	92
2	CB20S 199598	ABISHEK. S	4	4	5	5	4	22	88
3	CB20S 199599	AJITH KUMAR. V	4	5	5	4	5	23	92
4	CB20S 199600	AKASH. L	4	4	5	5	4	22	88
5	CB20S 199601	ARAVINTHAN. V	5	4	5	4	5	23	88
6	CB20S 199602	BALAMURUGAN. S	4	4	5	5	4	22	88
7	CB20S 199603	DEENADAYALAN. P	5	5	4	5	4	23	92
8	CB20S 199604	JAMES ANTONY SAHAYARAJ S	4	4	5	5	4	22	88
9	CB20S 199605	JAMES KUMAR. P	5	4	5	4	5	23	92
10	CB20S 199606	JAYASABARI. G	5	4	5	5	5	24	96
11	CB20S 199607	JENIFER JOSPHINE RANI S	5	5	4	4	5	23	92
12	CB20S 199608	JOSE WACHRISTOPHERRAJ. B	4	4	5	5	4	22	88
13	CB20S 199609	KABILESIL M. J	5	5	4	5	4	23	92
14	CB20S 199610	KARTHIK RAJA. B	4	4	5	5	4	22	88
15	CB20S 199611	MOHAMMED ASHIK. K	5	4	4	5	5	23	92
16	CB20S 199612	MUTHURAMAN. M	4	4	5	5	4	22	88
17	CB20S 199613	NITHISH. N	4	5	4	5	4	22	88
18	CB20S 199614	NIVAS. S	4	5	4	5	5	23	92
19	CB20S 199615	PANDLESWARI. G	4	5	5	4	5	23	92
20	CB20S 199616	PERVEASH MOHAMMED. N	5	4	4	5	4	22	88
21	CB20S 199617	PRASANTH. R	4	4	5	5	5	23	92
22	CB20S 199618	PRIYANKA. E	5	5	4	4	5	23	92
23	CB20S 199619	SALMAN FARAS. S	5	4	5	5	4	23	92
24	CB20S 199620	SANDHIYA. R	4	5	5	5	5	24	96
25	CB20S 199621	SATHISH KUMAR. V	5	4	4	5	5	23	92
26	CB20S 199622	SATHYASEELAN. M	4	4	5	5	4	22	88



27	CB20S 199623	SHARMILA. M	4	5	4	5	5	23	92
28	CB20S 199624	SIVANESHWARAN. R	5	4	5	5	4	23	92
29	CB20S 199625	SIVAYALINI. P	5	5	4	5	5	24	96
30	CB20S 199626	SOBIKA. J	4	5	5	5	5	24	96
31	CB20S 199627	SOWMIYA. L	5	5	4	5	5	24	96
32	CB20S 199628	THAMILMANI. B	4	5	4	5	4	22	88
33	CB20S 199629	VIGNESH KUMAR. M	4	4	5	4	5	22	88
AVERAGE			4.455	4.455	4.576	4.758	4.545455		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.45	75	79.45	93.47
CO2	4.45	75	79.45	93.47
CO3	4.58	75	79.58	93.62
CO4	4.76	75	79.76	93.84
CO5	4.55	75	79.55	93.59



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN C++

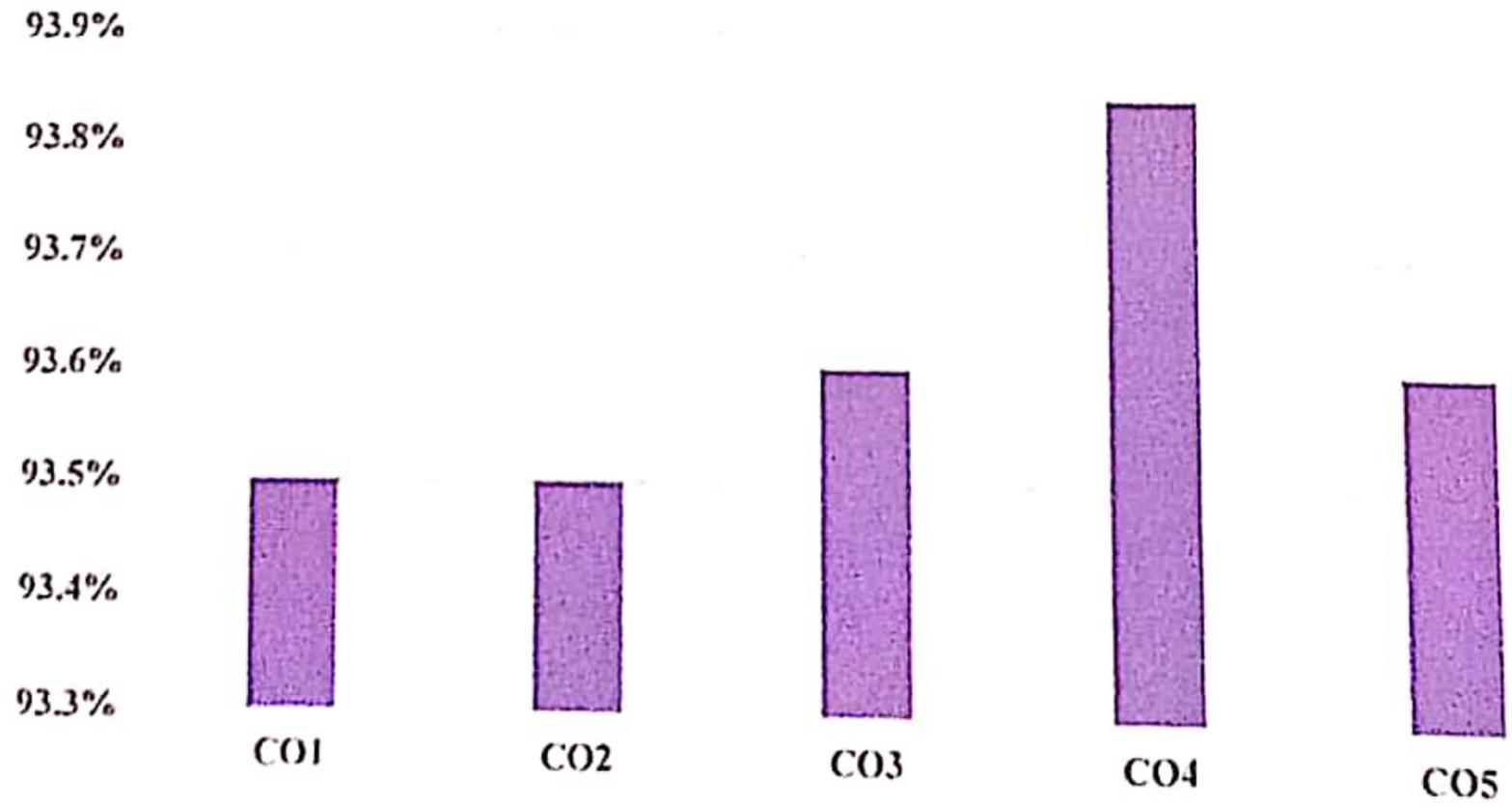
SUBJECT CODE: 16SCCCS2

NO. OF STUDENTS: 33

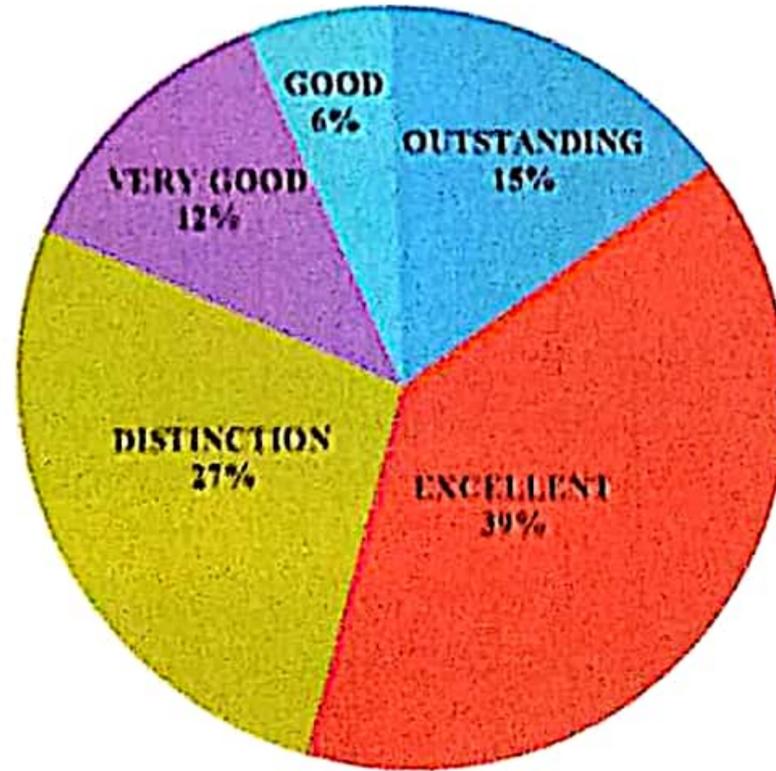
COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.5%
CO2	93.5%
CO3	93.6%
CO4	93.84%
CO5	93.6%



PERCENTAGE OF ATTAINMENT



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59



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PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : DATA MINING AND WAREHOUSING - P16CS31
COURSE OUTCOME

CO1	Understanding the Functionalities, Issues, Social Implications, Applications and Trends in Data mining, Data Warehouses.
CO2	Describes about the Data Preprocessing, Various methods in Data Cleaning Algorithms.
CO3	Explains the Clustering, Types of Algorithms, Association rule & methods.
CO4	Understanding the Data Warehousing, Data marts , OLTP & OLAP systems.
CO5	Understanding the Developing tools, Architectural strategies and organizational issues in data warehouse, Data content, Meta data.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	2	2
CO2	3	2	2	2	3
CO3	3	2	2	3	2
CO4	3	3	2	2	2
CO5	3	2	2	2	3
AVERAGE	3	2.4	2.2	2.2	2.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 19272901	AJAY. S	5	4	4	5	5	23	92
2	P 19272902	AJITH KUMAR. R	5	4	5	5	5	20	80
3	P 19272903	ANIS FATHIMA. K	5	5	5	4	5	25	100
4	P 19272904	BHARANIDHARAN. C. G	5	5	5	5	5	25	100
5	P 19272906	GNANASEKAR. M	5	5	4	4	4	25	100
6	P 19272907	GUNASEKAR. K	4	4	4	5	5	22	88
7	P 19272908	JAYA SUTHAN. S	5	4	4	5	5	23	92
8	P 19272909	JAYASURYA. I	5	5	5	5	5	25	100
9	P 19272910	KARTHIKEYAN. K	4	4	4	4	5	21	84
10	P 19272911	MALAYARASAN. G	5	4	4	5	5	23	92
11	P 19272912	MANIKANDAN. B	4	4	4	4	5	21	84
12	P 19272913	MUKESHKUMAR. S	4	4	4	4	5	21	84
13	P 19272914	MUTHURAMAN. R	5	5	5	5	5	25	100
14	P 19272915	REVATHI. R	5	5	5	5	5	25	100
15	P 19272916	SIVANANDAM. P	5	5	5	5	5	25	100
16	P 19272917	SUBASH. K	5	4	4	5	5	23	92
17	P 19272918	SUDARSON. S. P	5	5	5	5	5	25	100
18	P 19272919	VAIRAPPAN. R	4	4	4	5	5	22	88
19	P 19272920	VEERAMANI. G	4	4	4	5	5	22	88
20	P 19272921	VIVEK. K	4	4	4	5	5	22	88
21	P 19272922	ZAFFAR ALI. M	5	5	4	5	5	24	96
AVERAGE			4.667	4.429	4.381	4.762	4.952		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.67	75	79.67	93.729
CO2	4.43	75	79.43	93.447
CO3	4.38	75	79.38	93.388
CO4	4.76	75	79.76	93.835
CO5	4.95	75	79.95	94.059



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATA MINING AND WAREHOUSING

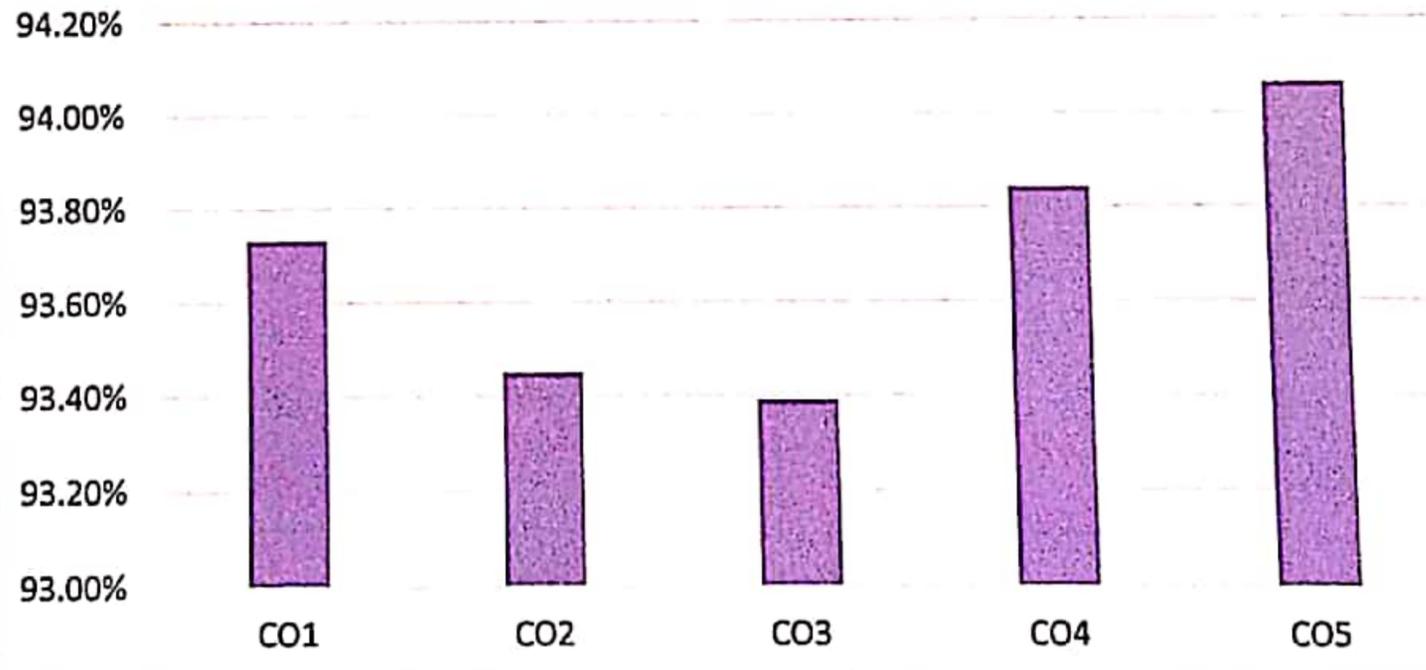
SUBJECT CODE: P16CS31

NO. OF STUDENTS: 21

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.73%
CO2	93.45%
CO3	93.39%
CO4	93.84%
CO5	94.06%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATA MINING AND WAREHOUSING

SUBJECT CODE: P16CS31

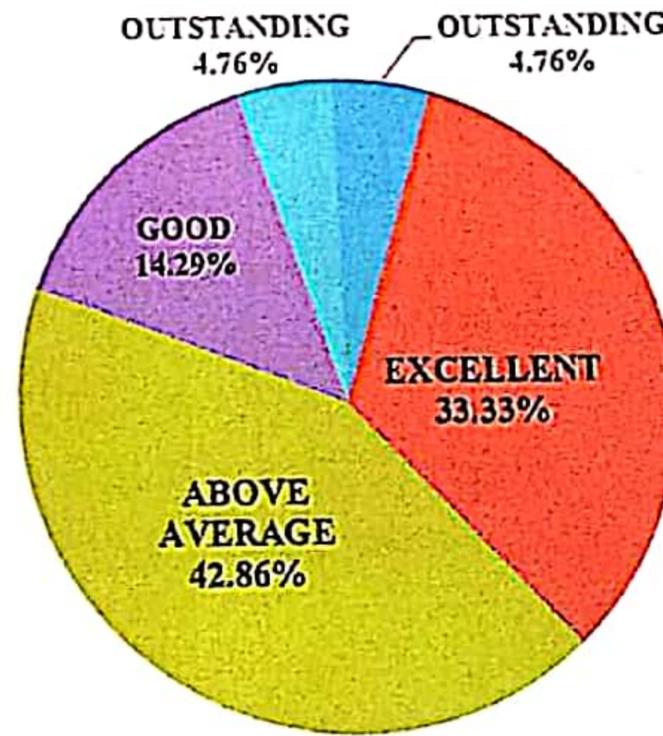
NO. OF STUDENTS:21

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	1	OUTSTANDING
80 - 89	7	EXCELLENT
70 - 79	9	VERY GOOD
60 - 69	3	GOOD
50 - 59	1	ABOVE AVERAGE
BELOW 50	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	4.76%	OUTSTANDING
80 - 89	33.33%	EXCELLENT
70 - 79	42.86%	VERY GOOD
60 - 69	14.29%	GOOD
50 - 59	4.76%	ABOVE AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59




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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : MANAGEMENT INFORMATION SYSTEM - 16SMBECS1:3
COURSE OUTCOME

CO1	Describes the Definition , Objectives , Uses and Limitations of MIS.
CO2	Understanding Computer Softwares, Types and Trends.
CO3	Describes Management System in Business, Marketing, Human Resource.
CO4	Describes the Application of IT in Business , E-Commerce, Mobile Commerce, E-Governance, E-enterprises, etc.
CO5	Understanding Information security, Types of Breaches, Challenges , Cyper Laws and IT Act 2000 etc.



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	3
CO2	3	2	3	3	3
CO3	3	3	2	2	3
CO4	3	2	3	3	3
CO5	3	2	3	3	2
AVERAGE	3	2.2	2.4	2.4	2.8



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB18S 187996	AAKASH. M	4	5	3	4	5	21	84
2	CB18S 187997	ABISHEK. S	4	4	3	4	5	20	80
3	CB18S 187998	ARUNPRASATH. A	4	5	4	4	5	22	88
4	CB18S 187999	BARATH. G	4	5	4	4	5	22	88
5	CB18S 188000	BARATHKISHORE. M.J	5	4	4	5	5	23	92
6	CB18S 188001	CHANDRU. K	5	5	5	5	5	25	100
7	CB18S 188002	ESWARAN. P	4	5	4	4	5	22	88
8	CB18S 188003	FYROSE AHAMED. M Y	4	5	3	4	5	21	84
9	CB18S 188004	HAKKIM MOHAMED. A	4	5	4	4	5	22	88
10	CB18S 188006	HARIHARAN. R	4	4	3	4	5	20	80
11	CB18S 188007	KARTHIKEYAN. N	4	5	4	4	5	22	88
12	CB18S 188008	KAVIYA. S	5	5	5	5	5	25	100
13	CB18S 188009	MADHUMITHA. R	5	5	5	5	5	25	100
14	CB18S 188010	MUKESH. K	4	4	3	4	5	20	80
15	CB18S 188011	NANDHA KUMAR. M	4	5	3	4	5	21	84
16	CB18S 188012	NANTHA KUMAR. S	5	4	4	5	5	23	92
17	CB18S 188013	POOJA. S	5	5	5	5	5	25	100
18	CB18S 188014	PRADEEP. R	4	5	4	4	5	22	88
19	CB18S 188015	PRAVEEN. C	4	5	4	4	5	22	88
20	CB18S 188016	PRAVEENKUMAR. M	5	5	5	5	5	25	100
21	CB18S 188017	PRITHIVIRAJ. R	5	4	4	5	5	23	92
22	CB18S 188018	RAVISH. S	5	5	5	5	5	25	100
23	CB18S 188019	SABEER AHAMED.S	5	5	5	5	5	25	100
24	CB18S 188020	SANTHOSH. K	4	4	3	4	5	20	80
25	CB18S 188022	SUJITH. P	5	5	5	5	5	25	100



26	CB18S 188023	VENGATESHAN. S	5	5	5	5	5	25	100
27	CB18S 188024	VIGNESH. A	4	4	3	4	5	20	80
28	CB18S 188025	VISHNU PRAKASH. R	4	5	3	4	5	21	84
AVERAGE			4.429	4.714	4	4.429	5		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.43	75	79.43	93.447
CO2	4.71	75	79.71	93.776
CO3	4	75	79	92.941
CO4	4.43	75	79.43	93.447
CO5	5	75	80	94.118



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: MANAGEMENT INFORMATION SYSTEM

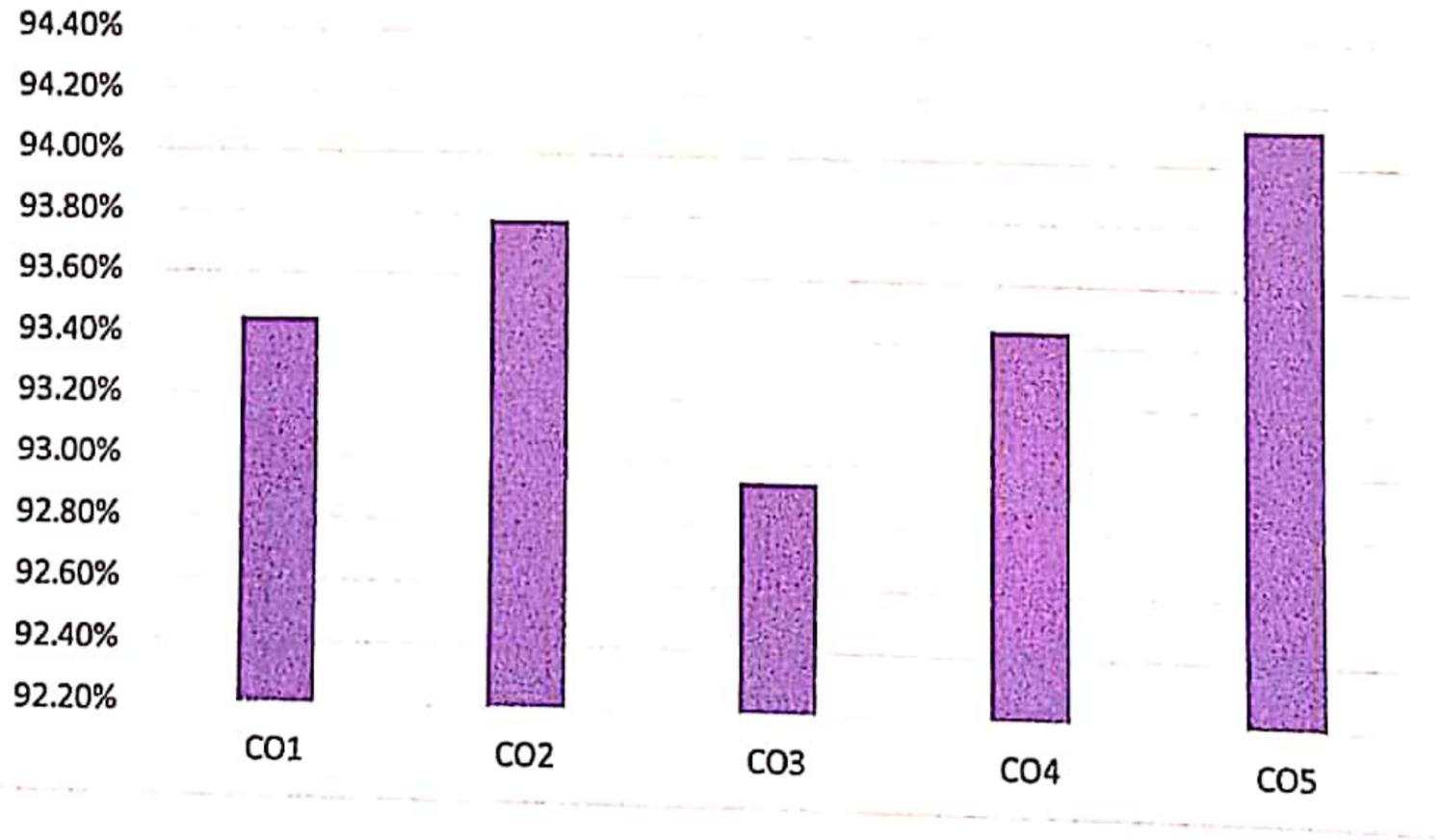
SUBJECT CODE: 16SMBECS1:3

NO. OF STUDENTS: 28

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.45%
CO2	93.78%
CO3	92.94%
CO4	93.45%
CO5	94.12%



PERCENTAGE OF ATTAINMENT



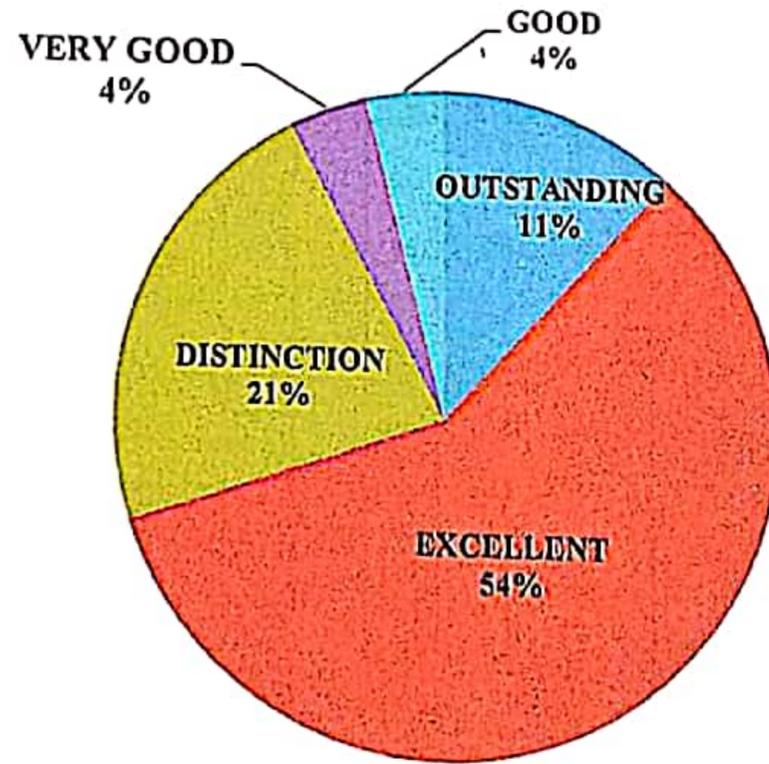
SUBJECT NAME: MANAGEMENT INFORMATION SYSTEM
 SUBJECT CODE: 16SMBECS1:3
 NO. OF STUDENTS:28

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	3	OUTSTANDING
80 - 89	15	EXCELLENT
70 - 79	6	DISINCTION
60 - 69	2	GOOD
50 - 59	1	VERY GOOD
40 - 49	1	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	11%	OUTSTANDING
80 - 89	54%	EXCELLENT
70 - 79	21%	DISINCTION
60 - 69	4%	GOOD
50 - 59	4%	VERY GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : WIRELESS SENSOR NETWORKS - P16CS42
COURSE OUTCOME

CO1	Understanding the challenges for Wireless Sensor, Networks, Enabling Technologies for Wireless Sensor Networks.
CO2	Provides the Single Node Architecture, Hardware Components, Energy Consumption of Sensor Nodes, Operating Systems and Execution Environments, Network Architecture.
CO3	Describes the Mediation Device Protocol, Wakeup Radio Concepts, Assignment of MAC Addresses, Routing Protocols Energy-Efficient Routing, Geographic Routing.
CO4	Understanding the Topology Control, Clustering, Time synchronization, Localization and Positioning, Sensor Tasking and Control.
CO5	Describes the Sensor Node Hardware, Berkeley Motes, Node-level Simulators, State-centric programming.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	2	3	3	3	3
CO2	3	2	3	3	2
CO3	3	3	3	3	3
CO4	3	3	2	3	3
CO5	2	3	3	3	2
AVERAGE	2.6	2.8	2.8	3	2.6



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 19272901	AJAY. S	4	5	5	5	5	24	96
2	P 19272902	AJITH KUMAR. R	5	4	5	5	4	23	92
3	P 19272903	ANIS FATHIMA. K	5	5	5	5	5	25	100
4	P 19272904	BHARANIDHARAN. C. G	5	5	5	5	5	25	100
5	P 19272906	GNANASEKAR. M	5	5	5	5	5	25	100
6	P 19272907	GUNASEKAR. K	5	5	5	4	5	24	96
7	P 19272908	JAYA SUTHAN. S	5	4	4	5	5	23	92
8	P 19272909	JAYASURYA. I	5	5	5	5	5	25	100
9	P 19272910	KARTHIKEYAN. K	4	5	5	4	5	23	92
10	P 19272911	MALAYARASAN. G	5	4	5	4	5	23	92
11	P 19272912	MANIKANDAN. B	5	4	5	5	4	23	92
12	P 19272913	MUKESHKUMAR. S	5	4	5	4	5	23	92
13	P 19272914	MUTHURAMAN. R	5	4	5	5	5	24	96
14	P 19272915	REVATHI. R	5	5	5	5	5	25	100
15	P 19272916	SIVANANDAM. P	5	5	5	5	5	25	100
16	P 19272917	SUBASH. K	5	5	5	5	5	25	100
17	P 19272918	SUDARSON. S. P	5	5	5	5	5	25	100
18	P 19272919	VAIRAPPAN. R	5	5	5	5	4	24	96
19	P 19272920	VEERAMANI. G	4	5	5	5	5	24	96
20	P 19272921	VIVEK. K	5	4	5	4	5	23	92
21	P 19272922	ZAFFAR ALI. M	5	5	5	5	5	25	100
AVERAGE			4.857	4.667	4.952	4.762	4.857		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.86	75	79.86	93.953
CO2	4.67	75	79.67	93.729
CO3	4.95	75	79.95	94.059
CO4	4.76	75	79.76	93.835
CO5	4.86	75	79.86	93.953



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: WIRELESS SENSOR NETWORKS

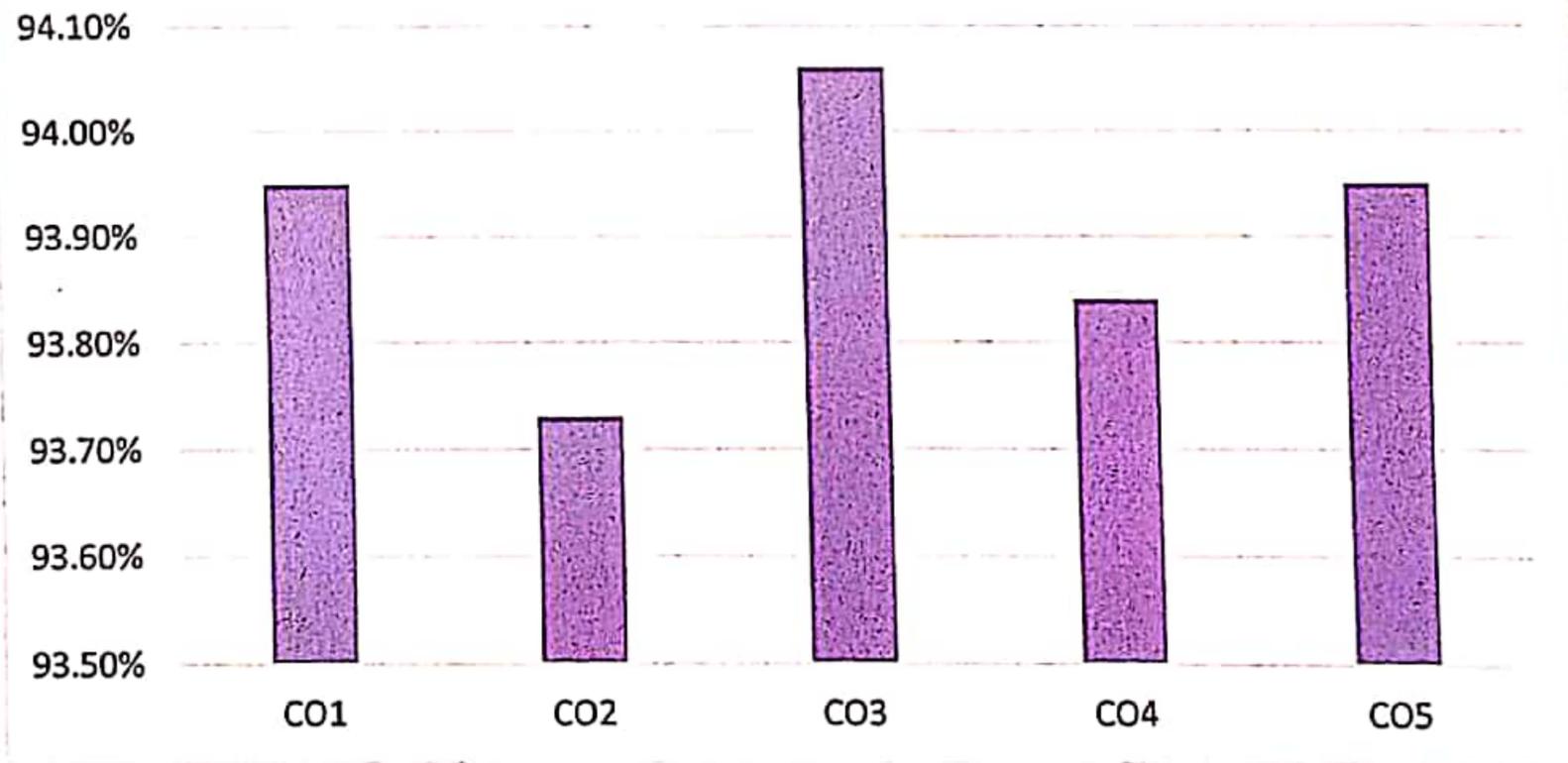
SUBJECT CODE: P16CS42

NO. OF STUDENTS: 21

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.95%
CO2	93.73%
CO3	94.06%
CO4	93.84%
CO5	93.95%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: WIRELESS SENSOR NETWORKS

SUBJECT CODE: P16CS42

NO. OF STUDENTS:21

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	1	OUTSTANDING
80 - 89	7	EXCELLENT
70 - 79	7	VERY GOOD
60 - 69	6	GOOD
50 - 59	0	ABOVE AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	5%	OUTSTANDING
80 - 89	33%	EXCELLENT
70 - 79	33%	VERY GOOD
60 - 69	29%	GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN C- 16SCCCS1
COURSE OUTCOME

CO1	Understanding the basic concepts of C like constants, variables, data types operators and expressions.
CO2	Understanding the concepts of managing input output operations, decision making, branching and looping.
CO3	Understanding the concepts of character Arrays and Strings, User defined Functions.
CO4	Describes the concepts of Structures and Unions and Pointers.
CO5	Understanding about Dynamic memory allocation, Linked lists and Preprocessors.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	1
CO2	3	2	3	2	2
CO3	3	2	1	3	1
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.4	2.2	2.4	1.6



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG.NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB20S 199597	ABDUL BASITH. M	4	5	5	4	5	23	92
2	CB20S 199598	ABISHEK. S	5	5	4	4	5	23	92
3	CB20S 199599	AJITH KUMAR. V	5	5	5	5	5	25	100
4	CB20S 199600	AKASH. L	5	5	5	4	5	24	96
5	CB20S 199601	ARAVINTHAN. V	5	4	4	4	5	22	88
6	CB20S 199602	BALAMURUGAN. S	5	5	4	4	5	23	92
7	CB20S 199603	DEENADAYALAN. P	4	5	5	4	5	23	92
8	CB20S 199604	JAMES ANTONY SAHAYA	5	5	5	4	5	24	96
9	CB20S 199605	JAMES KUMAR. P	4	4	5	4	5	22	88
10	CB20S 199606	JAYASABARI. G	5	5	5	5	5	25	100
11	CB20S 199607	JENIFAR JOSPHINE RANI	4	5	5	4	5	23	92
12	CB20S 199608	JOSEWACHRISTOPHERRA	5	4	4	4	5	22	88
13	CB20S 199609	KABILESII. M. J	4	4	4	4	5	21	84
14	CB20S 199610	KARTHIK RAJA. B	5	5	5	4	5	24	96
15	CB20S 199611	MMOHAMED ASHIK. K	5	5	5	4	5	24	96
16	CB20S 199612	MUTHURAMAN. M	5	5	5	5	5	25	100
17	CB20S 199613	NITHISH. N	5	5	5	5	5	25	100
18	CB20S 199614	NIVAS. S	5	5	5	5	5	25	100
19	CB20S 199615	PANDEESWARI. G	5	5	4	5	5	24	96
20	CB20S 199616	PERVEASHI MOHAMED .N	5	5	5	5	5	25	100
21	CB20S 199617	PRASANTH. R	5	5	5	5	5	25	100
22	CB20S 199618	PRIYANKA. E	5	5	5	5	5	25	100
23	CB20S 199619	SALMAN FARAS. S	5	5	5	5	5	25	100
24	CB20S 199620	SANDHIYA. R	5	5	5	5	5	25	100
25	CB20S 199621	SATHISH KUMAR. V	5	5	5	5	5	25	100
26	CB20S 199622	SATHYASEELAN. M	5	4	5	5	5	24	96
27	CB20S 199623	SHARMILA. M	5	4	4	5	5	23	92



28	CB20S 199624	SIVANESHWARAN. R	5	5	4	4	4	22	88
29	CB20S 199625	SIVAYALINI. P	5	5	5	5	5	25	100
30	CB20S 199626	SOBIKA. J	5	4	5	5	5	24	96
31	CB20S 199627	SOWMIYA. L	5	5	5	5	5	25	100
32	CB20S 199628	THAMILMANI. B	5	5	5	5	5	25	100
33	CB20S 199629	VIGNESH KUMAR. M	5	4	5	5	5	24	96
AVERAGE			4.848	4.803	4.788	4.735	4.782		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.85	75	79.85	93.941
CO2	4.8	75	79.8	93.882
CO3	4.79	75	79.79	93.871
CO4	4.73	75	79.73	93.8
CO5	4.78	75	79.78	93.859



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN C

SUBJECT CODE: 16SCCCS1

NO. OF STUDENTS: 33

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.94%
CO2	93.88%
CO3	91.87%
CO4	93.80%
CO5	93.86%



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN C

SUBJECT CODE: 16SCCCS1

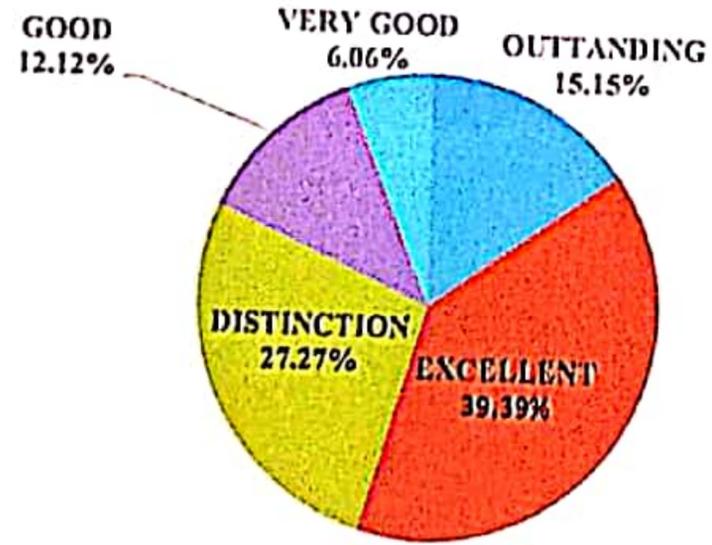
NO. OF STUDENTS:33

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	5	OUTSTANDING
80 - 89	13	EXCELLENT
70 - 79	9	DISINCTION
60 - 69	4	GOOD
50 - 59	2	VERY GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	15.15%	OUTSTANDING
80 - 89	39.39%	EXCELLENT
70 - 79	27.27%	DISINCTION
60 - 69	12.12%	GOOD
50 - 59	6.06%	VERY GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59



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PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : DATABASE SYSTEMS - 16SCCCS4
COURSE OUTCOME

CO1	It provides the basic concepts of the database systems including Data Models, Storage Structure.
CO2	Describes the Structure of relational databases, Database schema, Relational operations , Relational algebra operations.
CO3	Understanding the concepts of Basic structure of SQL queries, Set operations, Transactions, Authorization.
CO4	Provides the concepts of Relational languages, Entity-relationship design issues, aspects of Database design.
CO5	Understanding about Features of good relational designs, normalization and more normal forms.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	2
CO2	3	3	3	3	2
CO3	3	3	3	3	3
CO4	3	2	2	3	2
CO5	3	3	3	3	1
AVERAGE	3	2.8	2.8	3	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB19S 193606	ADHITHYA. R	5	4	4	5	5	23	92
2	CB19S 193607	AHAMED NIYAS. A	4	5	4	5	5	23	92
3	CB19S 193608	AMARESHWAR. PS	5	5	5	4	5	24	96
4	CB19S 193611	BALAJI.V.R	5	5	5	5	4	24	96
5	CB19S 193613	BOOMINATHAN. R	4	5	4	4	5	22	88
6	CB19S 193614	BHUVANESH. A	5	4	4	5	4	22	88
7	CB19S 193615	DEVARAJAN. S	5	5	5	4	4	23	92
8	CB19S 193616	ELAVARSAN. A	4	5	4	5	5	23	92
9	CB19S 193617	ELAVARSAN. K	5	5	5	4	5	24	96
10	CB19S 193618	EZHILARASAN. G	5	4	5	5	5	24	96
11	CB19S 193619	GNANASUNDHARI. R	5	5	4	5	5	24	96
12	CB19S 193620	GOMATHI. R	4	5	4	4	5	22	88
13	CB19S 193621	JAYAPRIYAN. J	4	5	4	4	5	22	88
14	CB19S 193622	JAGADESH. P	4	5	5	4	5	23	92
15	CB19S 193623	KARTHIK KUMAR. J.M.	5	5	5	4	5	24	96
16	CB19S 193624	KARTHIK. S	5	4	5	5	5	24	96
17	CB19S 193625	KARTHIKEYAN. K	5	5	5	4	5	24	96
18	CB19S 193627	KATHIRVEL. G	4	5	4	5	5	23	92
19	CB19S 193628	KIRUBAKARAN. M	5	4	5	5	5	24	96
20	CB19S 193629	MADHUBALA. B	5	5	5	4	5	24	96
21	CB19S 193630	MAHESWARAN. K	5	5	4	5	5	24	96
22	CB19S 193631	MANIKANDAN. M	4	5	4	4	5	22	88
23	CB19S 193632	MANIKATHAYANITHI. M	4	5	5	4	5	23	92
24	CB19S 193633	MANOJKUMAR. S	5	4	5	5	5	24	96
25	CB19S 193634	MOHAMED HAKKIM MOHSIN. M	5	5	5	4	5	24	96



26	CB19S 193635	MUKESH KANNAN. M	5	4	5	5	5	24	96
27	CB19S 193636	MUKILAN. P	4	5	4	4	5	22	88
28	CB19S 193637	PRABAKAR. L	5	5	4	4	5	23	92
29	CB19S 193638	PRAVEEN KUMAR. R	5	5	5	4	5	24	96
30	CB19S 193639	RACHSON. S	5	4	5	5	5	24	96
31	CB19S 193640	RAGUVARAN. R	5	5	4	5	5	24	96
32	CB19S 193641	RANJITH. R	4	5	4	4	5	22	88
33	CB19S 193642	ROHIN AMALA RAJ. R	5	5	5	4	5	24	96
34	CB19S 193643	SABARISH. S	4	5	4	4	5	22	88
35	CB19S 193644	SANTHOSH. S	5	4	5	5	5	24	96
36	CB19S 193645	SATHISH KUMAR. M	5	4	5	5	5	24	96
37	CB19S 193646	SHAHUL HAMEED. A	4	5	4	4	5	22	88
38	CB19S 193647	SIVA. N	5	5	5	4	5	24	96
39	CB19S 193648	SIVASURIYA. P	4	5	4	4	5	22	88
40	CB19S 193649	SORNA. P. V	5	4	5	5	5	24	96
41	CB19S 193650	URUMAIYA. V	5	5	5	4	5	24	96
42	CB19S 193651	VENKATRAJ. B	4	5	4	4	5	22	88
43	CB19S 193652	VIGNESH. R	5	5	5	4	5	24	96
44	CB19S 193653	VIGNESH. S	4	5	4	4	5	22	88
AVERAGE			4.636	4.75	4.545	4.409	4.932		

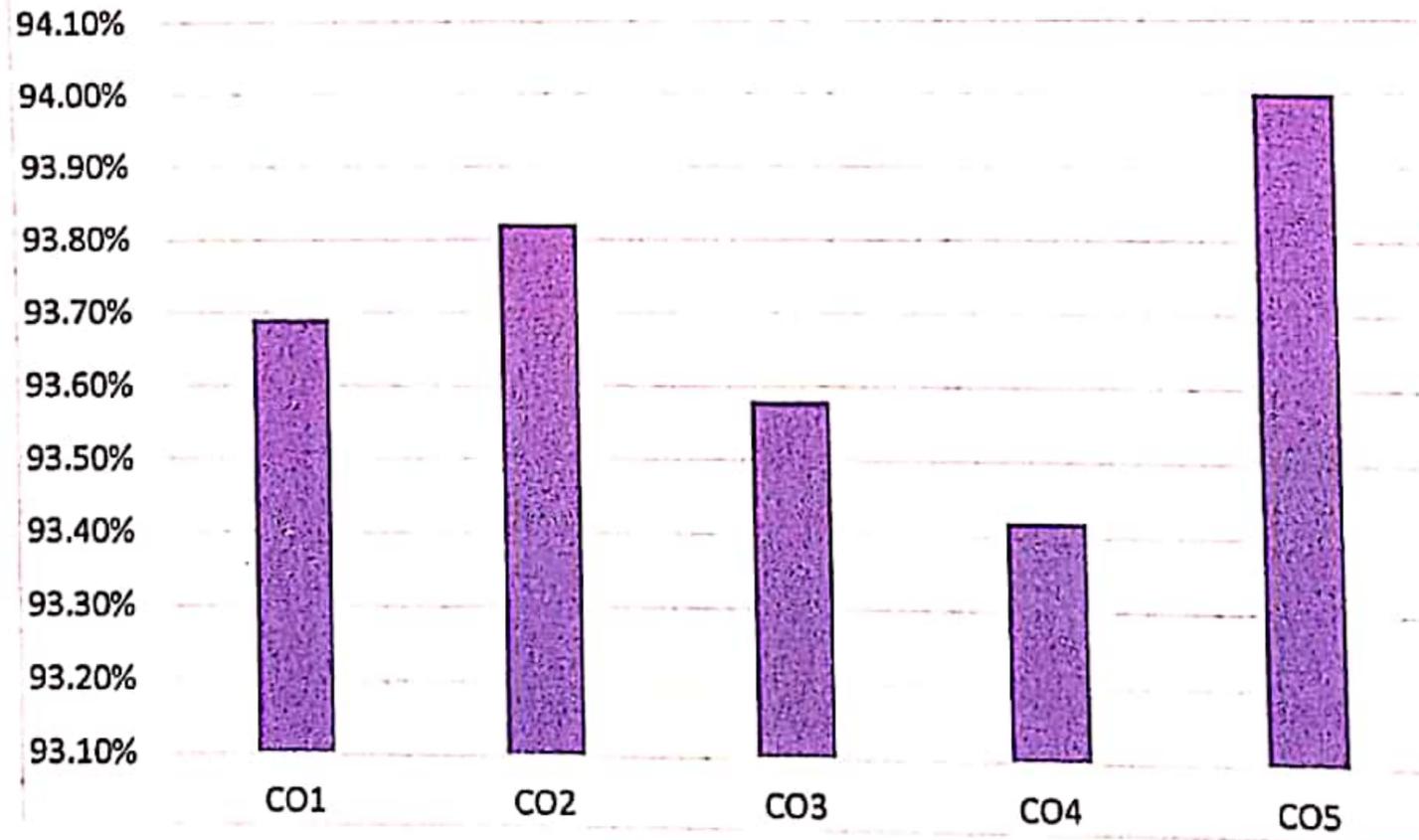


EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.64	75	79.64	93.69
CO2	4.75	75	79.75	93.82
CO3	4.55	75	79.55	93.59
CO4	4.41	75	79.41	93.42
CO5	4.93	75	79.93	94.04



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATABASE SYSTEMS

SUBJECT CODE: 16SCCCS4

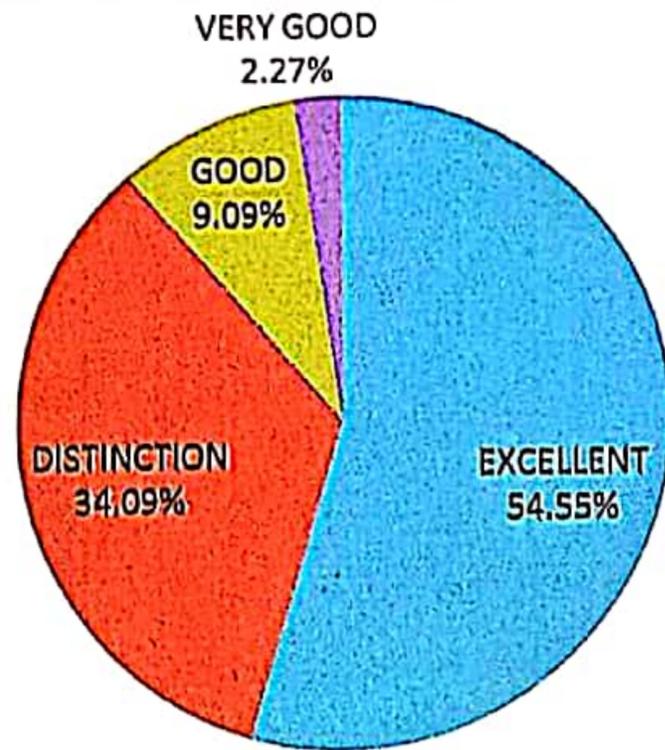
NO. OF STUDENTS:44

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	24	EXCELLENT
70 - 79	15	DISINCTION
60 - 69	4	GOOD
50 - 59	1	VERY GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	54.55%	EXCELLENT
70 - 79	34.09%	DISINCTION
60 - 69	9.09%	GOOD
50 - 59	2.27%	VERY GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59




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COURSE NAME : PROGRAMMING IN C LAB		COURSE CODE: 16SCCCS1P
On Completion of the course student will able to		
CO1	Develop C program using basic concepts.	
CO2	Implement Conditional control statements, Switch statements and Loop structures.	
CO3	Develop C program using the concepts of Arrays, Pointers.	
CO4	Solve the problem using concepts of Function, Recursion, Call by value & Call by Reference.	
CO5	Update the details of information using various file modes.	



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COURSE NAME : PROGRAMMING IN JAVA LAB		COURSE CODE: 16SCCCS3P
After Completion of the course student will able to		
CO1	Implement the Java program using arrays.	
CO2	Implement a Calculator to perform basic arithmetic operations.	
CO3	Solve the problem using the concepts of constructors, polymorphism and inheritance.	
CO4	Implement the java program using interface, multi threads, applets.	
CO5	Create a window using applets.	



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COURSE NAME : DIGITAL ELECTRONICS AND MICROPROCESSOR LAB		COURSE CODE: 16SCCCS5P
Upon Completion of the course student will able to		
CO1	Implement the practical related to Digital Electronics and Intel 8085 Microprocessors.	
CO2	Verify the logic gates, constructing the half and full adder.	
CO3	Implement K-Map to reduce the digital circuit, Shift Registers, Up Down Counters.	
CO4	Implement assembly language program for addition, subtraction, sum of series, data transfer.	
CO5	Implement assembly language program for finding maximum of N numbers and conversion of decimal to hexa decimal number.	



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COURSE NAME : PROGRAMMING IN C++ LAB		COURSE CODE: 16SCCCS2P
After Completion of the course student will able to		
CO1	Perform concepts of Classes using C++ programming language.	
CO2	Implement Constructor and Destructor.	
CO3	Implement Operator Overloading.	
CO4	Solve the problem using Inheritance.	
CO5	Implement Files and Exception Handling in C++.	



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COURSE NAME : DATABASE SYSTEMS LAB		COURSE CODE: 16SCCCS4P
On Completion of the course student will able to		
CO1	Provide the knowledge in developing DDL and DML commands.	
CO2	Develop MySQL queries to implement the set operations.	
CO3	Implement aggregate functions.	
CO4	Develop and implement Join operations.	
CO5	Implement nested queries and to create a views and expand it.	



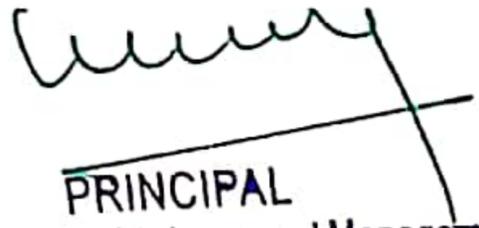
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COURSE NAME : PROGRAMMING IN PHP LAB		COURSE CODE: 16SCCCS6P
Upon Completion of the course student will able to		
CO1	Implement PHP program to find factorial of a number.	
CO2	Implement Conditional statements in PHP program.	
CO3	Implement array concepts in PHP program.	
CO4	Implement the concepts of funbctions in PHP program.	
CO5	Implement the concepts of sessions, cookies and to design an authentication web page in PHP with MYSQL to check username and password.	




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COURSE NAME : MINI PROJECT		COURSE CODE: 16SMBECSPW
After Completion of the course student will able to		
CO1	Enable the students to develop a project with a latest technologies.	
CO2	Plan, Analyse, design, implement and apply various types of testing.	
CO3	Communicate effectively in both oral and writing.	
CO4	Learn about different software development process models and the different features of software for their selected problem.	
CO5	Know about recent tools and technologies in software industry and also the scope their specialized areas in different fields in the industry.	



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COURSE NAME : WEB TECHNOLOGIES LAB	COURSE CODE: P16CS15P
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After Completion of the course student will able to

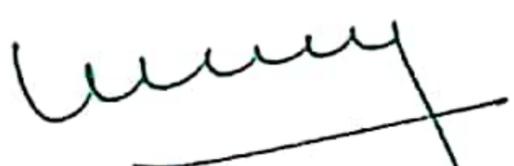
CO1	Know about the fundamental concepts of Internet.
CO2	Develop and implement the codes in XML
CO3	Develop and implement the codes in Java Script.
CO4	Develop and implement the codes in JSP.
CO5	Develop and implement the codes in ASP different components, objects, connecting and storing in database .



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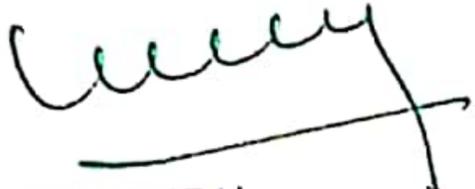
COURSE NAME : DATAMINING LAB		COURSE CODE: P16CS33P	
Upon Completion of the course student will able to			
CO1	Get hands on experience in developing applications using data mining tool.		
CO2	Implement Preprocessing for Data type Conversinh and Data Transformation.		
CO3	Implement Feature Selection by Filter, Wrapper and dimensionally Reduction.		
CO4	Implement Supervised Technique - Classifier and Unsupervised Technique - Clustering algorithms.		
CO5	Implement Association Rule, Experimenter and knowledge flow for feature selection and classification and clustering		




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COURSE NAME : DISTRIBUTED TECHNOLOGIES LAB		COURSE CODE: P16CS23P
On Completion of the course student will able to		
CO1	Develop the fundamental concepts of Internet, Javascript, XML, JSP, ASP.	
CO2	Implement several webserver controls in database using ASP.NET.	
CO3	Generate Crystal Report from an existing database.	
CO4	Design the web page using AdRotator, Image map, Multiview controls and Master pages.	
CO5	Establish the security features, manage the concepts of mobile applications and also the web servers.	




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COURSE NAME : OPEN SOURCE LAB		COURSE CODE: P16CS43P
After Completion of the course student will able to		
CO1	Develop the fundamental concepts of Internet, Javascript, XML, JSP, ASP.	
CO2	Implement the server side PHP program to display details of students from a HTML form.	
CO3	Implement the PHP program that adds products that are selected from a web page to Shopping cart.	
CO4	Implement the PHP program to access the data stored in MySQL data source.	
CO5	Implement the shell program to find the details of an user session and to change the extension of a given file.	



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COURSE NAME : PROJECT WORK		COURSE CODE: P16CSPW
After Completion of the course student will able to		
CO1	Enable the students to develop a project with a latest technologies and trained as a software professional skills.	
CO2	Plan, Analyse, design, implement and apply various types of testing.	
CO3	Communicate effectively in both oral and writing.	
CO4	Learn about different software development process models and the different features of software for their selected problem.	
CO5	Know about recent tools and technologies in software industry and also the scope their specialized areas in different fields in the industry.	



A handwritten signature in black ink, appearing to be "V. S. Srinivasan".

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BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : DIGITAL ELECTRONICS AND MICROPROCESSOR- 16SCCCS7
COURSE OUTCOME

CO1	Describes the various Number System, Number System conversion, Logic Gates and circuits
CO2	Understanding the concepts of Fundamentals of Boolean Algebra, Laws and Theorems, Simplifying Logic Circuits, NAND and NOR Implementation.
CO3	Understanding the concepts of Combinational Logic Circuits, Adders & its types, Multiplexers, Demultiplexers , Decoders, Encoders, Registers.
CO4	Describes the concepts of Microprocessor, Microcomputer, Buses.
CO5	Understanding about Instruction and Data Format, Address Modes, Status Flags, Assembler.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	2
CO2	3	3	3	3	2
CO3	3	2	2	3	2
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.8	2.4	2.6	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB19S 193606	ADHITHYA. R	4	5	5	5	4	23	92
2	CB19S 193607	AHAMED NIYAS. A	4	4	5	4	4	21	84
3	CB19S 193608	AMARESHWAR. PS	4	5	5	5	4	23	92
4	CB19S 193611	BALAJI.V.R	4	4	5	5	4	22	88
5	CB19S 193613	BOOMINATHAN. R	4	5	4	5	4	22	88
6	CB19S 193614	BHUVANESH. A	4	5	5	5	4	23	92
7	CB19S 193615	DEVARAJAN. S	5	5	5	5	5	25	100
8	CB19S 193616	ELAVARSAN. A	4	5	5	5	4	23	92
9	CB19S 193617	ELAVARSAN. K	4	4	5	5	4	22	88
10	CB19S 193618	EZHILARASAN. G	4	4	5	4	4	22	88
11	CB19S 193619	GNANASUNDHARI. R	5	5	5	5	5	25	100
12	CB19S 193620	GOMATHI. R	4	5	5	5	4	23	92
13	CB19S 193621	JAYAPRIYAN. J	5	5	4	5	5	24	96
14	CB19S 193622	JAGADESH. P	5	5	4	5	5	24	96
15	CB19S 193623	KARTHIK KUMAR. J.M.	4	5	5	5	4	23	92
16	CB19S 193624	KARTHIK. S	5	5	4	5	5	24	96
17	CB19S 193625	KARTHIKEYAN. K	5	5	4	5	5	24	96
18	CB19S 193626	KASI. S	5	5	5	5	5	24	96
19	CB19S 193627	KATHIRVEL. G	5	5	4	5	5	24	96
20	CB19S 193628	KIRUBAKARAN. M	5	4	4	4	5	23	92
21	CB19S 193629	MADHUBALA. B	4	4	4	5	5	23	92
22	CB19S 193630	MAHESWARAN. K	5	4	4	4	5	23	92
23	CB19S 193631	MANIKANDAN. M	5	4	4	4	5	23	92
24	CB19S 193632	MANIKATHAYANITHI. M	4	4	4	5	5	22	88
25	CB19S 193633	MANOJKUMAR. S	5	5	5	5	5	25	100



26	CB19S 193634	MOHAMED HAKKIM MO	5	5	5	5	5	25	100
27	CB19S 193635	MUKESH KANNAN, M	5	5	5	5	5	25	100
28	CB19S 193636	MUKILAN, P	4	4	4	5	5	22	88
29	CB19S 193637	PRABAKAR, L	4	5	4	5	5	23	92
30	CB19S 193638	PRAVEEN KUMAR, R	4	5	4	5	5	23	92
31	CB19S 193639	RACHSON, S	4	5	5	5	5	24	96
32	CB19S 193640	RAGUVARAN, R	5	5	5	5	5	25	100
33	CB19S 193641	RANJITH, R	4	5	5	5	5	24	96
34	CB19S 193642	ROHIN AMALA RAJ, R	4	5	4	5	5	23	92
35	CB19S 193643	SABARISH, S	4	5	4	5	5	23	92
36	CB19S 193644	SANTHOSH, S	4	5	5	5	5	24	96
37	CB19S 193645	SATHISH KUMAR, M	4	5	4	5	5	23	92
38	CB19S 193646	SHAHUL HAMEED, A	4	5	5	5	5	24	96
39	CB19S 193647	SIVA, N	4	5	4	5	5	23	92
40	CB19S 193648	SIVASURIYA, P	5	5	5	5	5	25	100
41	CB19S 193649	SORNA, P. V	5	5	5	5	5	25	100
42	CB19S 193650	URUMAIYA, V	4	5	5	5	5	24	96
43	CB19S 193651	VENKATRAJ, B	4	5	5	5	5	24	96
44	CB19S 193652	VIGNESH, R	5	5	5	5	5	25	100
45	CB19S 193653	VIGNESH, S	4	5	4	5	5	23	92
AVERAGE			4.4	4.778	4.578	4.889	4.756		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.4	75	79.4	93.412
CO2	4.78	75	79.78	93.859
CO3	4.58	75	79.58	93.624
CO4	4.89	75	79.89	93.988
CO5	4.76	75	79.76	93.835



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

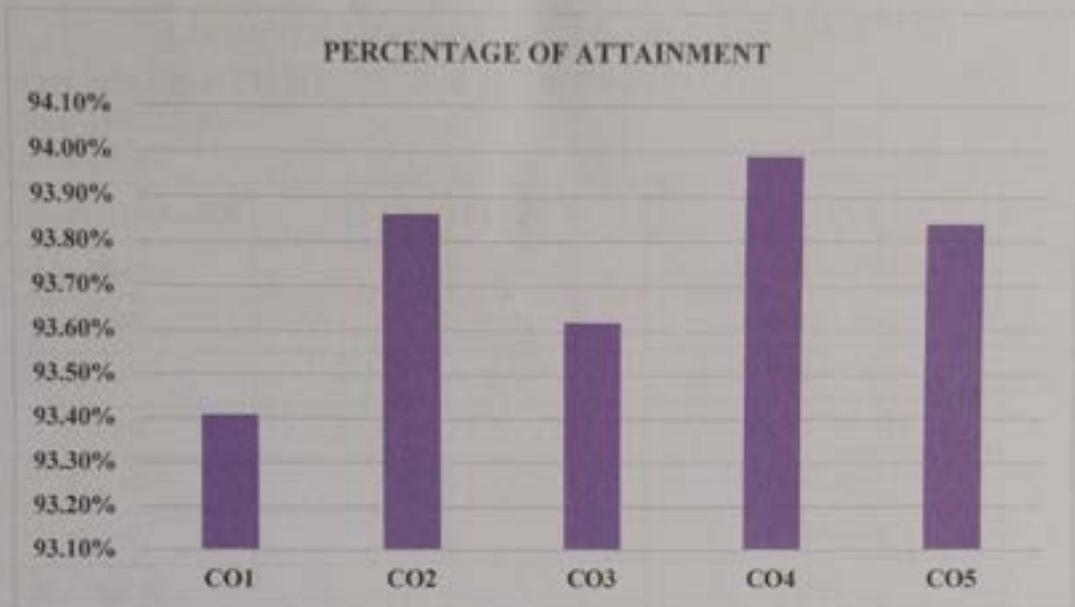
SUBJECT NAME: DIGITAL ELECTRONICS & MICROPROCESSOR

SUBJECT CODE:16SCCCS7

NO. OF STUDENTS: 45

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.41%
CO2	93.86%
CO3	93.62%
CO4	93.99%
CO5	93.84%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DIGITAL ELECTRONICS & MICROPROCESSOR

SUBJECT CODE:16SCCCS7

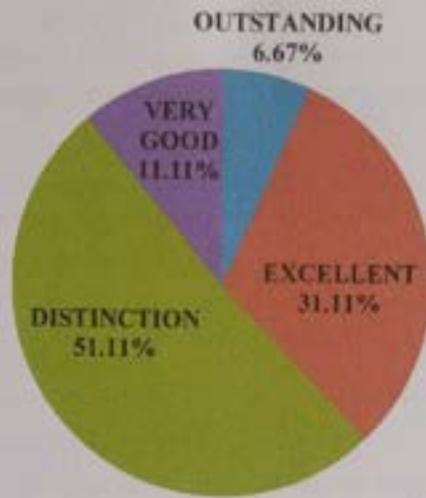
NO. OF STUDENTS: 45

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	3	OUTSTANDING
80 - 89	14	EXCELLENT
70 - 79	23	DISTINCTION
60 - 69	5	VERY GOOD
50 - 59	0	GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	6.67%	OUTSTANDING
80 - 89	31.11%	EXCELLENT
70 - 79	51.11%	DISTINCTION
60 - 69	11.11%	VERY GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69



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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : CLOUD COMPUTING - P16CS41
COURSE OUTCOME

CO1	Understanding the Layers, Features, Types, Seven step model, SaaS, Integration Scenarios , Methodologies , The Enterprise Paradigm.
CO2	Describes about the Migration Services, Infrastructures, Design types, Cloud Storage ,Technologies, Challenges.
CO3	Explains the Technologies and Tools, Aneka Cloud Platform, Hybrid Cloud Implementation – CometCloud.
CO4	Introduction – Enterprise Demand, Dynamic ICT Service , Quality and Security, Data Centre Producing Business, The MapReduce Programming
CO5	Understanding the Principles, A Federated Cloud Computing Model, Security Considerations, SLA, SLO Management, HPC on CloudsGrid.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	2	2
CO2	3	2	1	2	3
CO3	3	2	2	3	2
CO4	3	3	2	2	2
CO5	3	1	2	2	3
AVERAGE	3	2.2	2	2.2	2.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 20273401	ABARNA R	5	4	5	4	5	23	92
2	P 20273402	ABI R	4	5	4	4	5	22	88
3	P 20273403	AKASH S	5	5	5	5	5	25	100
4	P 20273404	ARAVINTH S	4	4	5	5	4	22	88
5	P 20273405	ARJUN K	5	4	4	5	5	23	92
6	P 20273406	AISHWARYA P	5	5	5	5	5	25	100
7	P 20273407	BRINDHA R	5	4	5	5	5	24	96
8	P 20273408	DIVAGAR R	5	4	4	5	5	23	92
9	P 20273409	ELANGO VAN. V	5	4	5	4	5	23	92
10	P 20273410	GOKILAN T	4	5	4	4	5	22	88
11	P 20273411	GRACE ROMALD BRITTO A	5	5	4	4	5	23	92
12	P 20273412	GUHAN S	5	4	5	4	5	23	92
13	P 20273413	HARISH R	5	4	4	5	5	23	92
14	P 20273414	JAGADEESH SAGAR K	4	4	5	5	4	22	88
15	P 20273415	KARTHIK T	5	5	5	5	5	25	100
16	P 20273416	KARTHIKA S	5	4	5	5	5	24	96
17	P 20273417	KRISHNAPRIYA K	5	5	5	5	4	24	96
18	P 20273418	NANCY BRINTHA I	5	4	4	5	5	23	92
19	P 20273419	NASRIN BAANU K	5	5	5	5	5	25	100
20	P 20273420	PREETHI BAL R	5	4	4	5	5	23	92
21	P 20273421	PRIYANKA K	5	5	5	5	5	25	100
22	P 20273422	PUGALENDI A	5	5	5	5	5	25	100
23	P 20273423	RAJESH R	4	5	4	4	5	22	88



24	P 20273424	RAMANI S	5	4	5	4	5	23	92
25	P 20273425	RUTHRALINGAM P	5	5	5	5	5	25	100
26	P 20273426	SAKTHIVEL K	5	5	5	4	5	24	96
27	P 20273427	SANTHOSH KUMAR P	5	5	4	4	5	23	92
28	P 20273428	SATHISH KUMAR S	4	4	5	4	5	22	88
29	P 20273429	SATHISH RAJ A	5	4	5	4	5	23	92
30	P 20273430	SATHYA NARAYANAN V	5	5	5	5	5	25	100
31	P 20273431	SUGANYA G	5	5	5	4	5	24	96
32	P 20273432	SYED MOHAMED S	5	4	5	5	5	24	96
33	P 20273433	VAIRAVAN S T	5	4	4	5	5	23	92
34	P 20273434	VEERAMAN M	4	4	4	5	5	22	88
35	P 20273435	VIJAY A	4	5	5	4	4	22	88
AVERAGE			4.771	4.486	4.657	4.6	4.886		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.77	75	79.77	93.847
CO2	4.49	75	79.49	93.518
CO3	4.66	75	79.66	93.718
CO4	4.6	75	79.6	93.647
CO5	4.89	75	79.89	93.988

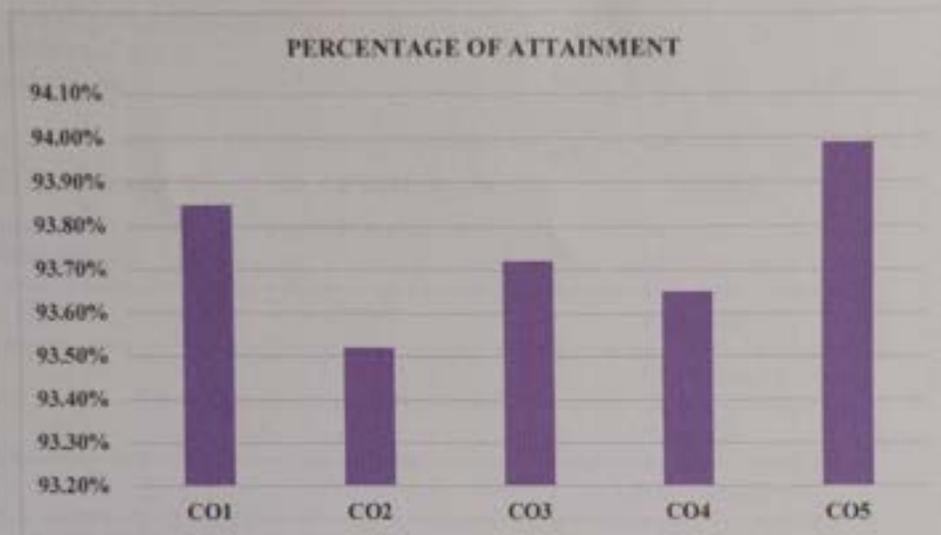


COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: CLOUD COMPUTING
SUBJECT CODE: P16CS41
NO. OF STUDENTS: 35

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.85%
CO2	93.52%
CO3	93.72%
CO4	93.65%
CO5	93.99%





COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: CLOUD COMPUTING

SUBJECT CODE: P16CS41

NO. OF STUDENTS: 35

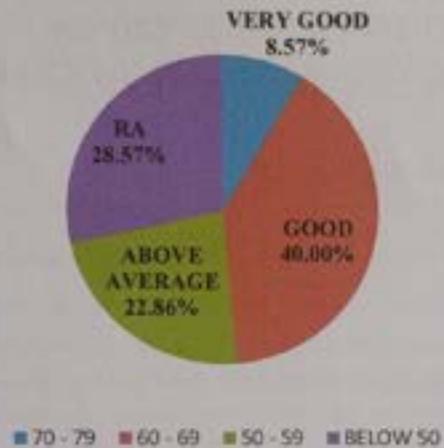
CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	3	VERY GOOD
60 - 69	14	GOOD
50 - 59	8	ABOVE AVERAGE
BELOW 50	10	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE

CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	8.57%	VERY GOOD
60 - 69	40.00%	GOOD
50 - 59	22.86%	ABOVE AVERAGE
BELOW 50	28.57%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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PRINCIPAL

Bharath College of Science and Management
Bharath Avenue (Near New Bus Stand)
THANJAVUR-613 005.



BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
(UGC Recognized 2(f) & 12(B) Institution)
THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	Get core competence in various subjects of Computer Science.
PO2	Provides mathematical foundations, fundamental concepts, methods, algorithms and principles with various strategies to develop professional software development skills.
PO3	Develops the skills in different applications, tools and technologies.
PO4	Understands how to build and architect the real world applications.
PO5	Provides technology-oriented with knowledge and ability to develop creative solution.



COURSE : WIRELESS SENSOR NETWORKS - P16CS42

COURSE OUTCOME

CO1	Understanding the challenges for Wireless Sensor, Networks, Enabling Technologies for Wireless Sensor Networks.
CO2	Provides the Single Node Architecture, Hardware Components, Energy Consumption of Sensor Nodes, Operating Systems and Execution Environments, Network Architecture.
CO3	Describes the Mediation Device Protocol, Wakeup Radio Concepts, Assignment of MAC Addresses, Routing Protocols Energy-Efficient Routing, Geographic Routing.
CO4	Understanding the Topology Control, Clustering, Time synchronization, Localization and Positioning, Sensor Tasking and Control.
CO5	Describes the Sensor Node Hardware, Berkeley Motes, Node-level Simulators, State-centric programming.



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	3	3	2	1
CO3	3	3	3	3	1
CO4	3	2	3	3	1
CO5	3	3	3	3	1
AVERAGE	3	2.6	2.8	2.6	1.2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	P 20273401	ABARNA R	4	5	4	5	5	23	92
2	P 20273402	ABI R	5	4	5	5	4	23	92
3	P 20273403	AKASH. S	5	5	5	5	5	25	100
4	P 20273404	ARAVINTH.S	5	5	4	4	5	23	92
5	P 20273405	ARJUN. K	5	4	5	5	5	24	96
6	P 20273406	AISHWARYA. P	5	5	5	5	5	25	100
7	P 20273407	BRINDHA. R	5	4	4	5	5	23	92
8	P 20273408	DIVAGAR. R	4	5	4	5	4	22	88
9	P 20273409	ELANGO VAN. V	5	4	4	5	5	23	92
10	P 20273410	GOKILAN. T	5	4	4	5	5	23	92
11	P 20273411	GRACE ROMALD BRITTO. A	4	5	5	4	5	23	92
12	P 20273412	GUHAN. S	5	4	4	4	5	22	88
13	P 20273413	HARISH. R	5	4	4	5	5	23	92
14	P 20273414	JAGADEESH SAGAR. K	5	4	4	5	5	23	92
15	P 20273415	KARTHIK. T	5	5	5	5	5	25	100
16	P 20273416	KARTHIKA. S	4	5	5	5	5	24	96
17	P 20273417	KRISHNAPRIYA. K	5	4	5	5	5	24	96
18	P 20273418	NANCY BRINTHA. I	5	4	4	4	5	22	88
19	P 20273419	NASRIN BAANU. K	5	5	5	5	5	25	100
20	P 20273420	PREETHI BAL. R	4	5	4	4	4	22	88
21	P 20273421	PRIYANKA. K	5	5	5	5	5	25	100
22	P 20273422	PUGALENDI. A	5	5	5	5	5	25	100



23	P 20273423	RAJESH. R	5	4	4	4	5	22	88
24	P 20273424	RAMANI. S	5	4	5	5	5	24	96
25	P 20273425	RUTHRALINGAM. P	5	5	5	5	5	25	100
26	P 20273426	SAKTHIVEL. K	5	4	4	5	5	23	92
27	P 20273427	SANTHOSH KUMAR. P	5	4	4	4	5	22	88
28	P 20273428	SATHISH KUMAR. S	5	4	4	5	5	23	92
29	P 20273429	SATHISH RAJ. A	5	4	4	5	5	23	92
30	P 20273430	SATHYA NARAYANAN. V	5	5	5	5	5	25	100
31	P 20273431	SUGANYA. G	5	4	5	5	5	24	96
32	P 20273432	SYED MOHAMED. S	5	4	4	4	5	22	88
33	P 20273433	VAIRAVAN. S. T	5	4	4	5	5	23	92
34	P 20273434	VEERAMANI. M	5	4	4	4	5	22	88
35	P 20273435	VIJAY. A	5	4	4	5	5	23	92
AVERAGE			4.857	4.4	4.429	4.743	4.914		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.86	75	79.86	93.953
CO2	4.4	75	79.4	93.412
CO3	4.43	75	79.43	93.447
CO4	4.74	75	79.74	93.812
CO5	4.91	75	79.91	94.012



COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

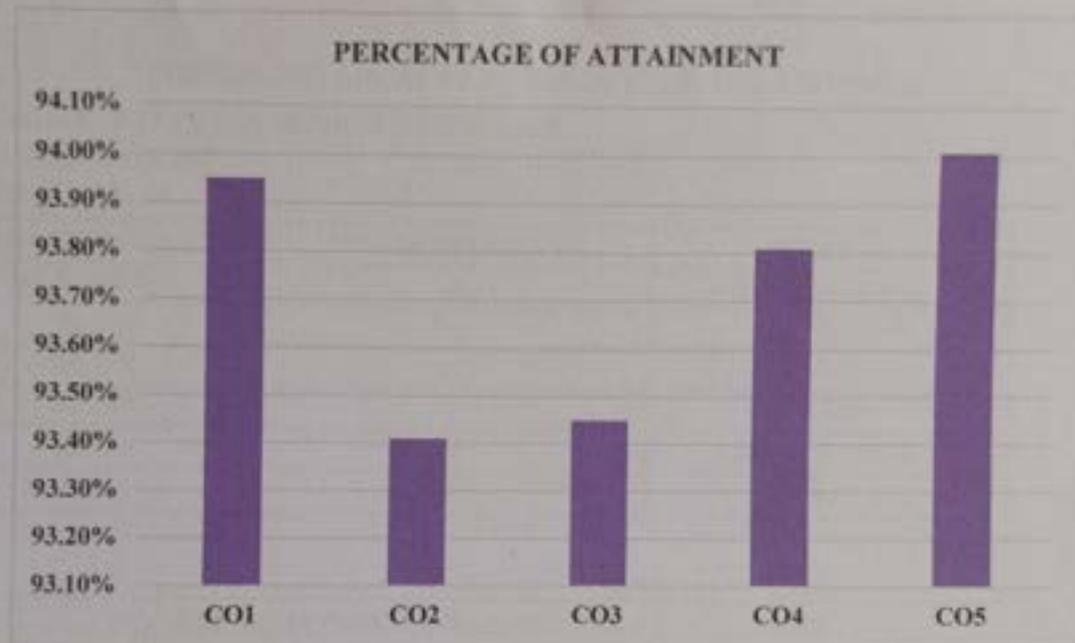
SUBJECT NAME: WIRELESS SENSOR NETWORKS

SUBJECT CODE: P16CS42

NO. OF STUDENTS: 35

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.95%
CO2	93.41%
CO3	93.45%
CO4	93.81%
CO5	94.01%





COURSE ATTAINMENT FOR M.Sc. COMPUTER SCIENCE

SUBJECT NAME: WIRELESS SENSOR NETWORKS

SUBJECT CODE: P16CS42

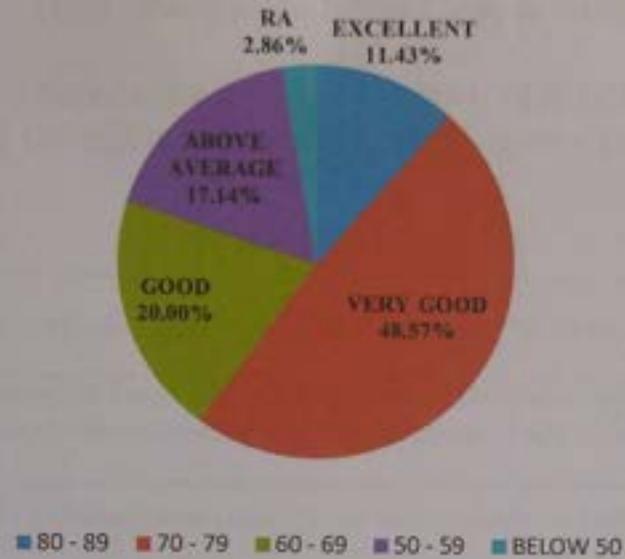
NO. OF STUDENTS: 35

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	4	EXCELLENT
70 - 79	17	VERY GOOD
60 - 69	7	GOOD
50 - 59	6	ABOVE AVERAGE
BELOW 50	1	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	11.43%	EXCELLENT
70 - 79	48.57%	VERY GOOD
60 - 69	20.00%	GOOD
50 - 59	17.14%	ABOVE AVERAGE
BELOW 50	2.86%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



[Handwritten Signature]

PRINCIPAL

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BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : MANAGEMENT INFORMATION SYSTEM - 16SMBECS1:3

COURSE OUTCOME

CO1	Describes the Definition , Objectives , Uses and Limitations of MIS
CO2	Understanding Computer Softwares , Types and Trends.
CO3	Describes Management System in Business, Marketing , Human Resource.
CO4	Describes the Application of IT in Business , E-Commerce, Mobile Commerce, E-Governance, E-enterprises, etc.
CO5	Understanding Information security, Types of Breaches, Challenges , Cyper Laws and IT Act 2000 etc.



PO → CO↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	3
CO2	3	2	3	3	3
CO3	3	3	2	2	3
CO4	3	2	3	3	3
CO5	3	2	3	3	2
AVERAGE	3	2.2	2.4	2.4	2.8



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB19S 193606	ADHITHYA. R	5	5	4	5	5	24	96
2	CB19S 193607	AHAMED NIYAS. A	4	5	5	5	4	23	92
3	CB19S 193608	AMARESHWAR. PS	5	5	4	5	5	24	96
4	CB19S 193611	BALAJI.V.R	5	5	4	5	4	23	92
5	CB19S 193613	BOOMINATHAN. R	4	5	5	5	4	23	92
6	CB19S 193614	BHUVANESH. A	5	5	4	5	5	24	96
7	CB19S 193615	DEVARAJAN. S	5	5	5	5	5	25	100
8	CB19S 193616	ELAVARSAN. A	5	5	4	5	4	23	92
9	CB19S 193617	ELAVARSAN. K	4	5	5	5	4	23	92
10	CB19S 193619	GNANASUNDHARI. R	5	5	4	5	4	23	92
11	CB19S 193620	GOMATHI. R	5	5	4	5	5	24	96
12	CB19S 193621	JAYAPRIYAN. J	5	4	5	5	5	24	96
13	CB19S 193622	JAGADESH. P	5	5	4	5	4	23	92
14	CB19S 193623	KARTHIK KUMAR. J.M.	5	4	5	5	4	23	92
15	CB19S 193624	KARTHIK. S	4	5	5	5	5	24	96
16	CB19S 193625	KARTHIKEYAN. K	5	5	4	4	5	23	92
17	CB19S 193626	KASI. S	5	5	4	5	5	24	96
18	CB19S 193627	KATHIRVEL. G	4	4	5	5	5	23	92
19	CB19S 193628	KIRUBAKARAN. M	5	5	4	5	4	23	92
20	CB19S 193629	MADHUBALA. B	5	5	5	5	5	25	100
21	CB19S 193630	MAHESWARAN. K	4	5	5	5	4	23	92
22	CB19S 193631	MANIKANDAN. M	5	5	4	5	5	24	96
23	CB19S 193632	MANIKATHAYANITHI. M	5	4	5	5	4	23	92
24	CB19S 193633	MANOJKUMAR. S	5	5	5	5	5	25	100



25	CB19S 193634	MOHAMED HAKKIM MOHSIN. M	5	5	5	5	5	25	100
26	CB19S 193635	MUKESH KANNAN. M	5	5	5	5	5	25	100
27	CB19S 193636	MUKILAN. P	5	4	5	5	5	24	96
28	CB19S 193637	PRABAKAR. L	4	5	5	5	4	23	92
29	CB19S 193638	PRAVEEN KUMAR. R	5	5	5	4	4	23	92
30	CB19S 193639	RACHSON. S	5	5	4	5	5	24	96
31	CB19S 193640	RAGUVARAN. R	5	5	5	5	5	25	100
32	CB19S 193641	RANJITH R.	5	5	4	5	5	24	96
33	CB19S 193642	ROHIN AMALA RAJ. R	5	5	4	5	4	23	92
34	CB19S 193643	SABARISH. S	5	5	4	4	5	23	92
35	CB19S 193644	SANTHOSH. S	5	5	4	5	5	24	96
36	CB19S 193645	SATHISH KUMAR. M	5	5	4	5	4	23	92
37	CB19S 193646	SHAHUL HAMEED. A	5	5	4	5	5	24	96
38	CB19S 193647	SIVA. N	5	5	4	5	4	23	92
39	CB19S 193648	SIVASURIYA. P	5	5	4	5	4	23	92
40	CB19S 193649	SORNA. P. V	5	5	5	5	5	25	100
41	CB19S 193650	URUMAIYA. V	4	5	5	5	5	24	96
42	CB19S 193651	VENKATRAJ. B	5	4	5	5	5	24	96
43	CB19S 193652	VIGNESH. R	5	5	5	5	5	25	100
44	CB19S 193653	VIGNESH. S	5	5	5	4	4	23	92
AVERAGE			4.818	4.864	4.523	4.909	4.591		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.82	75	79.82	93.906
CO2	4.86	75	79.86	93.953
CO3	4.52	75	79.52	93.553
CO4	4.91	75	79.91	94.012
CO5	4.59	75	79.59	93.635



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

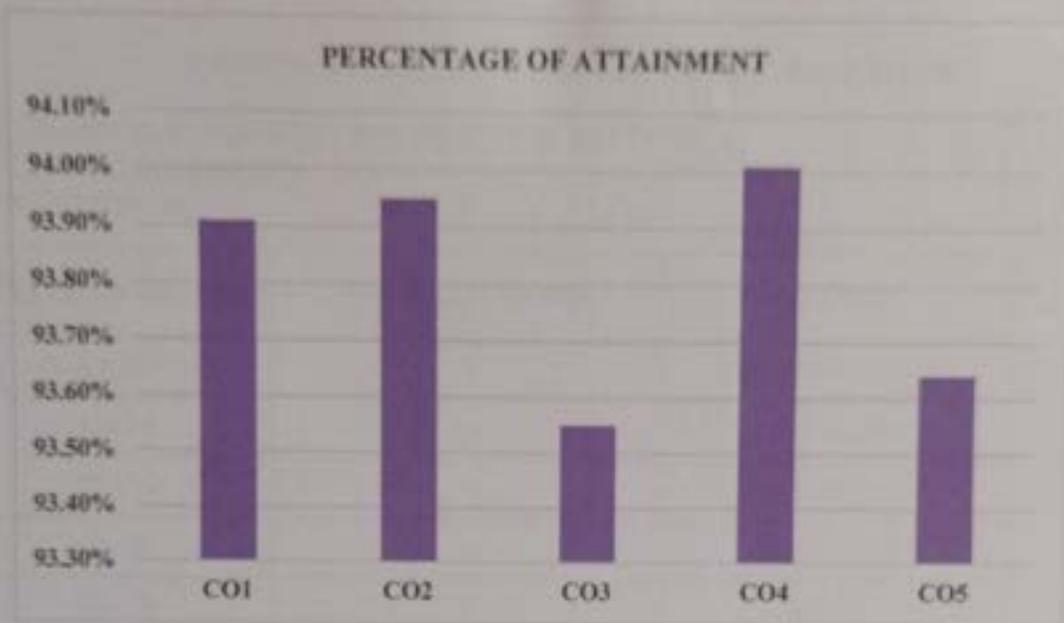
SUBJECT NAME: MANAGEMENT INFORMATION SYSTEM

SUBJECT CODE:16SMBECS1:3

NO. OF STUDENTS: 45

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.91%
CO2	93.95%
CO3	93.55%
CO4	94.01%
CO5	93.64%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: MANAGEMENT INFORMATION SYSTEM

SUBJECT CODE:16SMBECS1:3

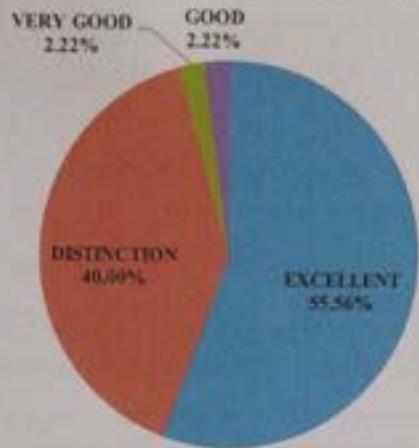
NO. OF STUDENTS: 45

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	25	EXCELLENT
70 - 79	18	DISTINCTION
60 - 69	1	VERY GOOD
50 - 59	1	GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	55.56%	EXCELLENT
70 - 79	40.00%	DISTINCTION
60 - 69	2.22%	VERY GOOD
50 - 59	2.22%	GOOD



COURSE OUTCOME IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : COMPUTER NETWORKS- 16SCCCS6
COURSE OUTCOME

CO1	Describes the Data Communications Networks, Network Models, The OSI Model, Multiplexing, Transmission Media, Switching Packet.
CO2	Understanding the concepts of Data Link Layer, Wireless Networks, Bluetooth, Cellular Telephone, Satellite network, Connection devices.
CO3	Understanding the concepts of Network Layer Services, performance, Routing Algorithms, IPV6 Addressing.
CO4	Describes the concepts of Transport Layer, User Datagram Protocol, TCP, Flow Control, Error Control, TCP Congestion Control, TCP timers.
CO5	Understanding about Application Layers , Word Wide Web & HTTP , FTP Email , DNS



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	2
CO2	3	2	2	2	2
CO3	3	3	2	2	2
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.8	2.2	2.2	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB19S 193606	ADHITHYA. R	4	5	5	4	4	23	92
2	CB19S 193607	AHAMED NIYAS. A	5	4	5	5	4	23	92
3	CB19S 193608	AMARESHWAR. PS	5	5	4	5	4	23	92
4	CB19S 193611	BALAJI.V.R	5	4	5	5	4	23	92
5	CB19S 193613	BOOMINATHAN. R	4	4	5	5	4	22	88
6	CB19S 193614	BHUVANESH. A	5	4	5	5	4	23	92
7	CB19S 193615	DEVARAJAN. S	5	5	5	5	5	25	100
8	CB19S 193616	ELAVARSAN. A	5	4	5	5	4	23	92
9	CB19S 193617	ELAVARSAN. K	5	4	4	5	5	23	92
10	CB19S 193618	EZHILARASAN. G	5	4	5	5	4	23	92
11	CB19S 193619	GNANASUNDHARI. R	5	5	5	5	5	25	100
12	CB19S 193620	GOMATHI. R	5	5	5	5	5	25	100
13	CB19S 193621	JAYAPRIYAN. J	5	4	5	5	4	23	92
14	CB19S 193622	JAGADESH. P	4	4	5	5	4	23	92
15	CB19S 193623	KARTHIK KUMAR. J.M.	4	4	5	5	4	22	88
16	CB19S 193624	KARTHIK. S	4	4	5	5	5	23	92
17	CB19S 193625	KARTHIKEYAN. K	5	4	5	5	4	23	92
18	CB19S 193626	KASI. S	4	4	5	5	4	23	92
19	CB19S 193627	KATHIRVEL. G	4	4	4	5	5	23	92
20	CB19S 193628	KIRUBAKARAN. M	4	5	4	5	4	23	92
21	CB19S 193629	MADHUBALA. B	5	5	5	5	5	25	100
22	CB19S 193630	MAHESWARAN. K	4	5	4	4	5	23	92
23	CB19S 193631	MANIKANDAN. M	4	4	4	5	5	23	92
24	CB19S 193632	MANIKATHAYANITHI. M	5	5	5	5	5	25	100



25	CB19S 193633	MANOJKUMAR. S	5	5	5	5	5	25	100
26	CB19S 193634	MOHAMED HAKKIM MOHSIN. M	4	4	4	4	4	25	100
27	CB19S 193635	MUKESH KANNAN. M	5	5	5	5	5	25	100
28	CB19S 193636	MUKILAN. P	5	4	5	4	4	23	92
29	CB19S 193637	PRABAKAR. L	4	5	5	4	4	23	92
30	CB19S 193638	PRAVEEN KUMAR. R	4	5	5	4	4	22	88
31	CB19S 193639	RACHSON. S	5	4	5	4	4	23	92
32	CB19S 193640	RAGUVARAN. R	5	5	5	5	5	25	100
33	CB19S 193641	RANJITH. R	5	4	5	4	4	23	92
34	CB19S 193642	ROHIN AMALA RAJ. R	5	4	5	5	4	23	92
35	CB19S 193643	SABARISH. S	4	5	5	4	4	22	88
36	CB19S 193644	SANTHOSH. S	5	4	5	4	4	23	92
37	CB19S 193645	SATHISH KUMAR. M	5	5	4	4	4	23	92
38	CB19S 193646	SHAHUL HAMEED. A	5	4	5	4	4	23	92
39	CB19S 193647	SIVA. N	4	5	4	5	4	23	92
40	CB19S 193648	SIVASURIYA. P	4	4	5	4	4	22	88
41	CB19S 193649	SORNA. P. V	5	5	5	5	5	25	100
42	CB19S 193650	URUMAIYA. V	5	5	5	5	4	24	96
43	CB19S 193651	VENKATRAJ. B	4	5	4	5	4	23	92
44	CB19S 193652	VIGNESH. R	5	5	5	5	5	25	100
45	CB19S 193653	VIGNESH. S	4	4	5	4	4	22	88
AVERAGE			4.6	4.467	4.778	4.689	4.333		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+	END SEM	TOTAL	%
CO1	4.6	75	79.6	93.647
CO2	4.47	75	79.47	93.494
CO3	4.78	75	79.78	93.859
CO4	4.69	75	79.69	93.753
CO5	4.33	75	79.33	93.329



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

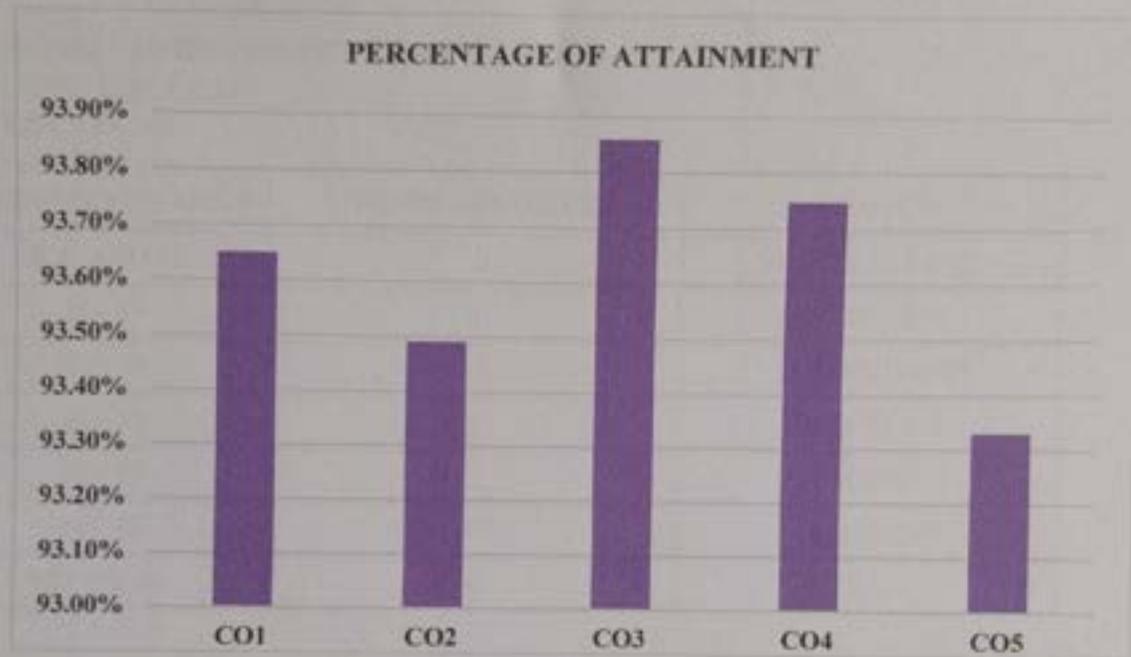
SUBJECT NAME: COMPUTER NETWORKS

SUBJECT CODE:16SCCCS6

NO. OF STUDENTS: 45

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.65%
CO2	93.49%
CO3	93.86%
CO4	93.75%
CO5	93.33%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: COMPUTER NETWORKS

SUBJECT CODE:16SCCCS6

NO. OF STUDENTS: 45

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	2	OUTSTANDING
80 - 89	7	EXCELLENT
70 - 79	30	DISTINCTION
60 - 69	5	VERY GOOD
50 - 59	1	GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE

CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	4.44%	OUTSTANDING
80 - 89	15.56%	EXCELLENT
70 - 79	66.67%	DISTINCTION
60 - 69	11.11%	VERY GOOD
50 - 59	2.22%	GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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PRINCIPAL

Bharath College of Science and Management
Bharath Avenue (Near New Bus Stand)
THANJAVUR-613 005.



BHARATH COLLEGE OF SCIENCE AND MANAGEMENT
(UGC Recognized 2(f) & 12(B) Institution)
THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN C- 16SCCCSI
COURSE OUTCOME

CO1	Understanding the basic concepts of C like constants, variables, data types operators and expressions.
CO2	Understanding the concepts of managing input output operations, decision making, branching and looping.
CO3	Understanding the concepts of character Arrays and Strings, User defined Functions.
CO4	Describes the concepts of Structures and Unions and Pointers.
CO5	Understanding about Dynamic memory allocation, Linked lists and Preprocessors.



PO → CO _i	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	1
CO2	3	2	3	2	2
CO3	3	2	1	3	1
CO4	3	3	2	2	2
CO5	3	3	3	3	2
AVERAGE	3	2.4	2.2	2.4	1.6



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB21S 204998	ABINAYA R	5	5	5	5	5	25	100
2	CB21S 204999	ANTORAGUNATH P	5	4	4	5	5	23	92
3	CB21S 205000	ARAVIND K	4	5	5	5	5	24	96
4	CB21S 205001	ARUN S	5	5	5	5	5	25	100
5	CB21S 205002	AYYAPAN D	5	5	5	5	5	25	100
6	CB21S 205003	BALAN P	5	5	5	4	5	24	96
7	CB21S 205004	BUSHRA FATHIMA J	5	5	5	5	5	25	100
8	CB21S 205005	CHRISTOPHER RAJA R	5	5	5	5	5	25	100
9	CB21S 205006	DEEPA M	5	5	5	5	5	25	100
10	CB21S 205007	DHINAKARAN R	5	5	5	4	4	23	92
11	CB21S 205008	DINESH S	5	5	5	5	5	25	100
12	CB21S 205009	IMTHIYAS I	5	4	5	4	5	23	92
13	CB21S 205011	KARTHIKESAN K	5	5	5	5	4	24	96
14	CB21S 205012	KATHIRESAN G	5	5	5	5	5	25	100
15	CB21S 205013	KEERTHANA R	5	5	5	5	5	25	100
16	CB21S 205014	MADHAVAN R	5	5	4	5	5	24	96
17	CB21S 205015	MEKALA B	5	5	5	5	5	25	100
18	CB21S 205016	MOHAMED ABBAS J	4	5	5	5	5	24	96
19	CB21S 205017	MOHAMED ARSATH B	5	5	5	4	4	23	92
20	CB21S 205018	MOHAMED ASHIK A	5	4	4	5	5	23	92
21	CB21S 205019	MUNIYAMUTHU S	4	5	5	5	5	24	96
22	CB21S 205020	PHELIX	5	5	5	4	5	24	96



23	CB21S 205021	RAJKUMAR S	5	5	5	5	5	25	100
24	CB21S 205022	ROHITH R	5	5	5	5	5	25	100
25	CB21S 205023	SADAM USSEN J	5	5	5	4	5	24	96
26	CB21S 205024	SANTHOSH. S	5	4	5	5	5	24	96
27	CB21S 205025	SANTHOSHKUMAR K	5	4	5	5	5	24	96
28	CB21S 205026	SATHASIVAM R	5	5	5	4	4	23	92
29	CB21S 205027	SATHIYANARAYANAN S	4	4	5	5	5	23	92
30	CB21S 205029	THULASI SANKAR G	5	5	5	5	5	25	100
31	CB21S 205030	UKESH K	5	5	5	4	5	24	96
32	CB21S 205031	VARSHA KANNAN	5	4	4	5	5	23	92
33	CB21S 205032	VISHNU I	5	5	5	4	5	24	96
34	CB21S 205033	YUGESH A	5	5	5	5	5	25	100
AVERAGE			4.882	4.794	4.882	4.735	4.882		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.88	75	79.88	93.976
CO2	4.79	75	79.79	93.871
CO3	4.88	75	79.88	93.976
CO4	4.74	75	79.74	93.812
CO5	4.88	75	79.88	93.976



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

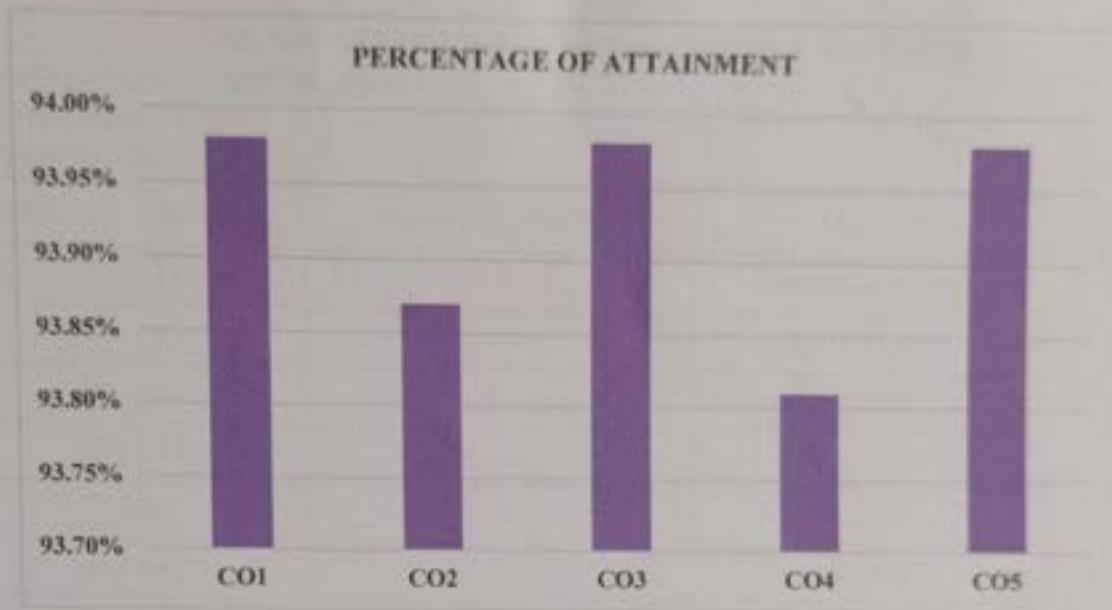
SUBJECT NAME: PROGRAMMING IN C

SUBJECT CODE:16SCCCS1

NO. OF STUDENTS: 34

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.98%
CO2	93.87%
CO3	93.98%
CO4	93.81%
CO5	93.98%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN C

SUBJECT CODE:16SCCCS1

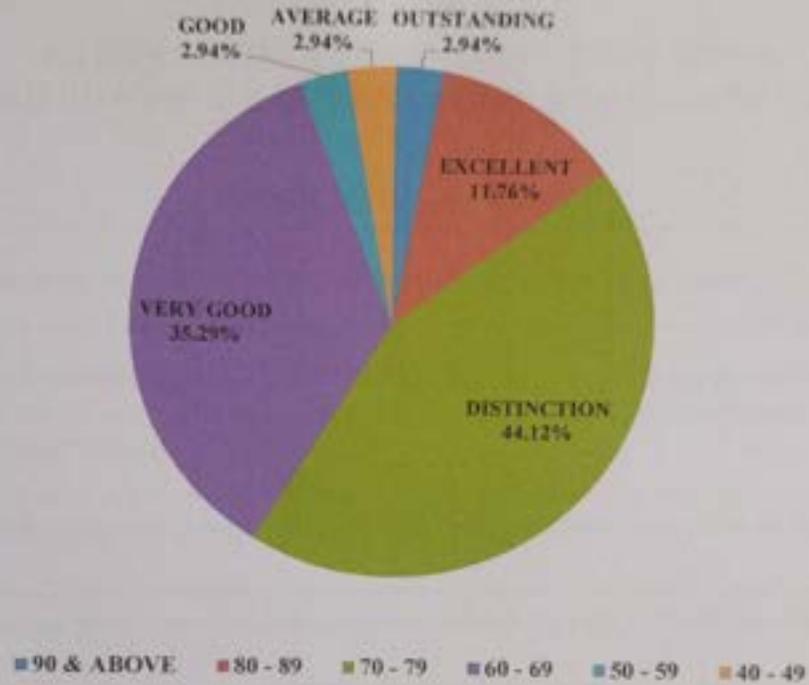
NO. OF STUDENTS: 34

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	1	OUTSTANDING
80 - 89	4	EXCELLENT
70 - 79	15	DISTINCTION
60 - 69	12	VERY GOOD
50 - 59	1	GOOD
40 - 49	1	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	2.94%	OUTSTANDING
80 - 89	11.76%	EXCELLENT
70 - 79	44.12%	DISTINCTION
60 - 69	35.29%	VERY GOOD
50 - 59	2.94%	GOOD
40 - 49	2.94%	AVERAGE



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



Wavy

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THANJAVUR-5

PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN JAVA - 16SCCCS3
COURSE OUTCOME

CO1	Describes the Introduction to OOPS and Introduction to Java Programming.
CO2	Understanding Java Data Types, Variable, Operations and Assignment, Control Structures, Arrays, Strings
CO3	Describes Classes, Modifiers, Packages, Interfaces.
CO4	Describes Exception Handling and Multi Threading in java.
CO5	Understanding Files and I/O Streams and Java Applets.



PO → CO ₁	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	3
CO2	3	2	3	3	3
CO3	2	2	2	2	1
CO4	3	2	3	3	3
CO5	3	2	3	3	1
AVERAGE	2.8	2	2.4	2.6	2.2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB20S 199597	ABDUL BASITH. M	5	4	4	5	5	23	92
2	CB20S 199598	ABISHEK. S	5	4	5	5	5	24	96
3	CB20S 199599	AJITH KUMAR. V	5	4	4	5	5	23	92
4	CB20S 199600	AKASH. L	5	4	4	5	5	23	96
5	CB20S 199601	ARAVINTHAN. V	4	5	5	5	5	24	100
6	CB20S 199602	BALAMURUGAN. S	5	5	5	5	5	25	92
7	CB20S 199603	DEENADAYALAN. P	5	5	5	4	4	23	92
8	CB20S 199604	JAMES ANTONY SAHAYARAJ. S	5	4	4	5	5	23	92
9	CB20S 199605	JAMES KUMAR. P	5	4	4	5	5	23	96
10	CB20S 199606	JAYASABARI. G	5	4	5	5	5	24	96
11	CB20S 199608	JOSEWACHRISTOPHERRAJ. B	4	5	4	5	5	23	92
12	CB20S 199609	KABILESH. M. J	5	4	5	5	4	23	92
13	CB20S 199610	KARTHIK RAJA. B	5	4	5	5	5	24	96
14	CB20S 199611	MOHAMED ASHIK. K	5	4	4	5	5	23	92
15	CB20S 199612	MUTHURAMAN. M	5	4	5	5	5	24	96
16	CB20S 199613	NITHISH. N	5	5	5	5	5	25	100
17	CB20S 199614	NIVAS. S	5	4	4	5	5	23	92
18	CB20S 199615	PANDEESWARI. G	5	4	5	5	4	23	92
19	CB20S 199616	PERVEASH MOHAMED. N	5	5	5	5	5	25	100



20	CB20S 199617	PRASANTH. R	5	5	5	4	5	24	96
21	CB20S 199618	PRIYANKA. E	5	4	4	5	5	23	92
22	CB20S 199619	SALMAN FARAS. S	5	5	5	5	4	24	96
23	CB20S 199620	SANDHIYA. R	4	5	4	5	5	23	92
24	CB20S 199621	SATHISH KUMAR. V	5	5	5	5	5	25	100
25	CB20S 199622	SATHYASEELAN. M	5	5	5	5	5	25	100
26	CB20S 199623	SHARMILA. M	5	5	5	5	5	25	100
27	CB20S 199624	SIVANESHWARAN. R	4	5	5	4	5	23	92
28	CB20S 199625	SIVAYALINI. P	5	5	5	5	5	25	100
29	CB20S 199626	SOBIKA. J	5	5	5	5	5	25	100
30	CB20S 199627	SOWMIYA. L	5	5	5	5	5	25	100
31	CB20S 199628	THAMILMANI. B	5	4	4	5	5	23	92
32	CB20S 199629	VIGNESH KUMAR. M	4	5	5	5	4	23	92
AVERAGE			4.844	4.531	4.656	4.906	4.844		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.84	75	79.84	93.93
CO2	4.53	75	79.53	93.56
CO3	4.66	75	79.66	93.72
CO4	4.91	75	79.91	94.01
CO5	4.84	75	79.84	93.93



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

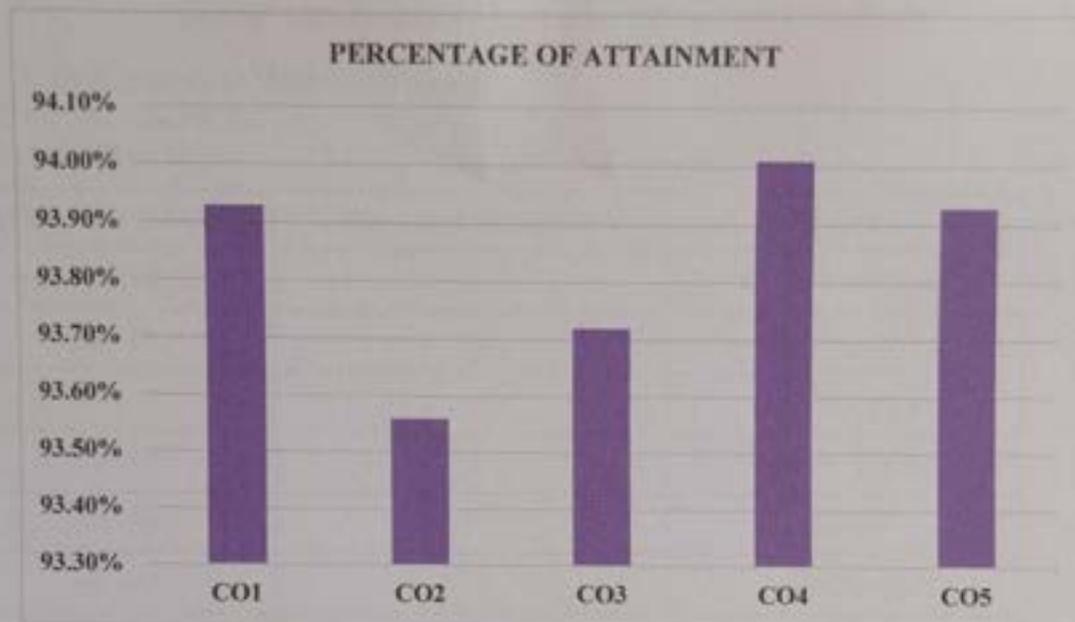
SUBJECT NAME: PROGRAMMING IN JAVA

SUBJECT CODE:16SCCCS3

NO. OF STUDENTS: 32

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.93%
CO2	93.56%
CO3	93.72%
CO4	94.01%
CO5	93.93%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN JAVA

SUBJECT CODE:16SCCCS3

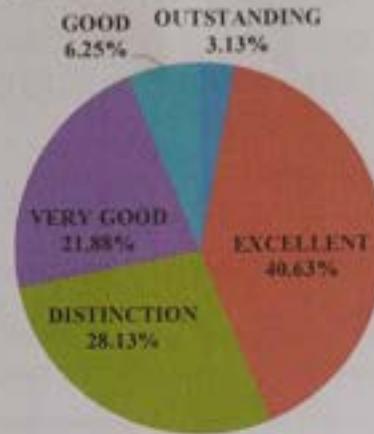
NO. OF STUDENTS: 32

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	1	OUTSTANDING
80 - 89	13	EXCELLENT
70 - 79	9	DISTINCTION
60 - 69	7	VERY GOOD
50 - 59	2	GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
90 & ABOVE	3.13%	OUTSTANDING
80 - 89	40.63%	EXCELLENT
70 - 79	28.13%	DISTINCTION
60 - 69	21.88%	VERY GOOD
50 - 59	6.25%	GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 90 & ABOVE ■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59



Udaya

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PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : DATABASE SYSTEMS - 16SCCCS4
COURSE OUTCOME

CO1	It provides the basic concepts of the database systems including Data Models, Storage Structure.
CO2	Describes the Structure of relational databases, Database schema, Relational operations , Relational algebra operations.
CO3	Understanding the concepts of Basic structure of SQL queries, Set operations, Transactions, Authorization.
CO4	Provides the concepts of Relational languages, Entity-relationship design issues, aspects of Database design.
CO5	Understanding about Features of good relational designs, normalization and more normal forms.



PO → CO ₁	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	2
CO2	3	3	3	3	2
CO3	3	3	3	3	3
CO4	3	2	2	3	2
CO5	3	3	3	3	1
AVERAGE	3	2.8	2.8	3	2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5

SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB20S 199598	ABISHEK. S	3	4	3	4	4	18	72
2	CB20S 199599	AJITH KUMAR. V	4	4	3	4	5	20	80
3	CB20S 199600	AKASH. L	5	5	5	5	5	25	100
4	CB20S 199601	ARAVINTHAN. V	3	4	3	4	4	18	100
5	CB20S 199602	BALAMURUGAN. S	4	5	4	4	5	22	88
6	CB20S 199603	DEENADAYALAN. P	5	4	4	5	4	22	88
7	CB20S 199604	JAMES ANTONY SAHAYARAJ. S	4	5	4	3	4	20	80
8	CB20S 199605	JAMES KUMAR. P	5	4	3	4	4	20	80
9	CB20S 199606	JAYASABARI. G	5	4	4	5	5	23	92
10	CB20S 199608	JOSEWACHRISTOPHERRAJ. B	4	4	4	3	4	19	76
11	CB20S 199609	KABILESH. M. J	5	5	5	5	5	25	100



12	CB20S 199610	KARTHIK RAJA. B	3	4	3	4	4	18	72
13	CB20S 199611	MOHAMED ASHIK. K	4	4	4	4	4	20	80
14	CB20S 199612	MUTHURAMAN. M	5	5	5	5	5	25	100
15	CB20S 199613	NITHISH. N	5	4	4	5	4	22	88
16	CB20S 199614	NIVAS. S	4	5	5	4	4	22	88
17	CB20S 199615	PANDEESWARI. G	5	5	5	4	5	24	96
18	CB20S 199616	PERVEASH MOHAMED .N	5	4	4	5	4	22	88
19	CB20S 199617	PRASANTH. R	3	4	4	4	4	19	76
20	CB20S 199618	PRIYANKA. E	5	5	5	5	5	25	100
21	CB20S 199619	SALMAN FARAS. S	5	5	5	5	5	25	100
22	CB20S 199621	SATHISH KUMAR. V	5	4	4	5	5	23	92
23	CB20S 199622	SATHYASEELAN. M	4	5	5	4	5	23	92
24	CB20S 199623	SHARMILA. M	5	5	5	5	5	25	100
25	CB20S 199624	SIVANESHWARAN. R	5	4	4	5	5	23	92
26	CB20S 199625	SIVAYALINI. P	5	5	5	5	5	25	100
27	CB20S 199626	SOBIKA. J	5	5	5	5	5	25	100
28	CB20S 199627	SOWMIYA. L	5	5	5	5	5	25	100
29	CB20S 199628	THAMILMANI. B	4	4	4	4	4	20	80
30	CB20S 199629	VIGNESH KUMAR. M	4	4	4	4	4	20	80
AVERAGE			4.433	4.467	4.233	4.433	4.533		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.43	75	79.43	93.45
CO2	4.47	75	79.47	93.49
CO3	4.23	75	79.23	93.21
CO4	4.43	75	79.43	93.45
CO5	4.53	75	79.53	93.56



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

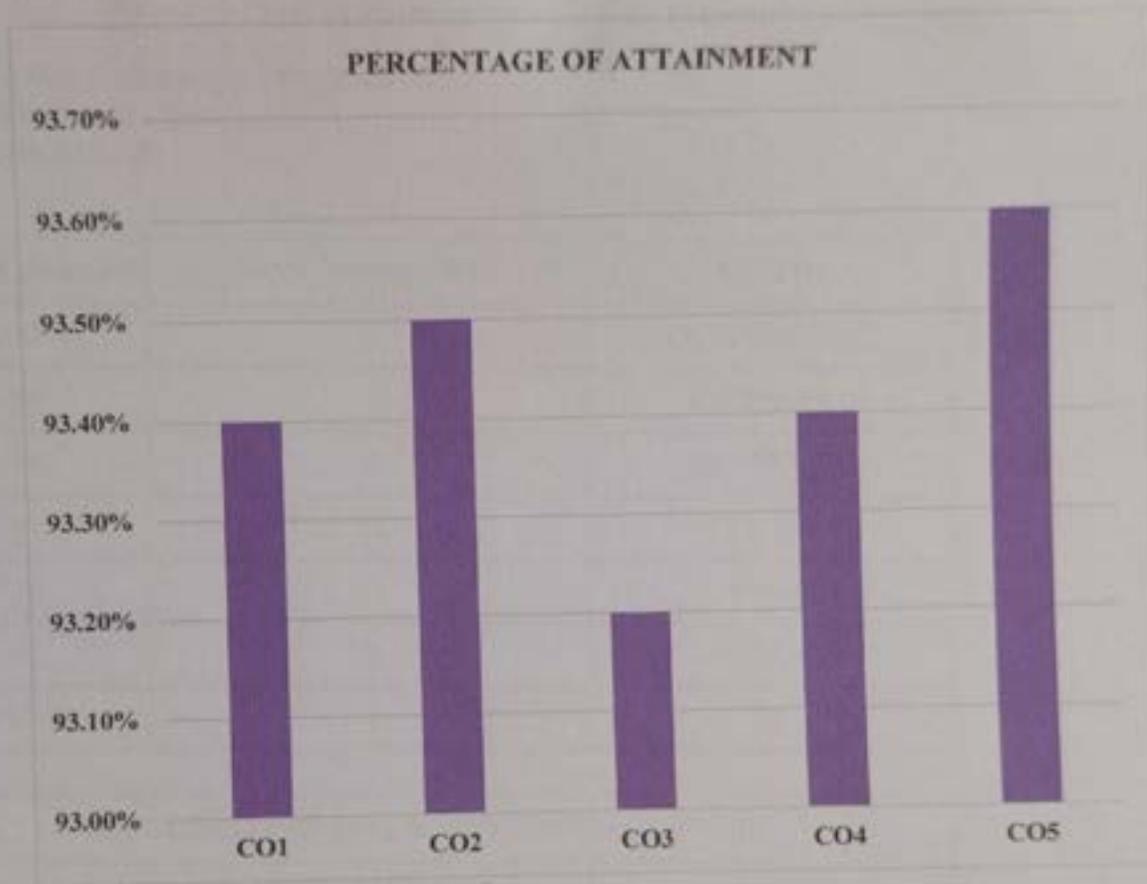
SUBJECT NAME: DATABASE SYSTEMS

SUBJECT CODE:16SCCCS4

NO. OF STUDENTS: 45

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.40%
CO2	93.50%
CO3	93.20%
CO4	93.40%
CO5	93.60%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: DATABASE SYSTEMS

SUBJECT CODE:16SCCCS4

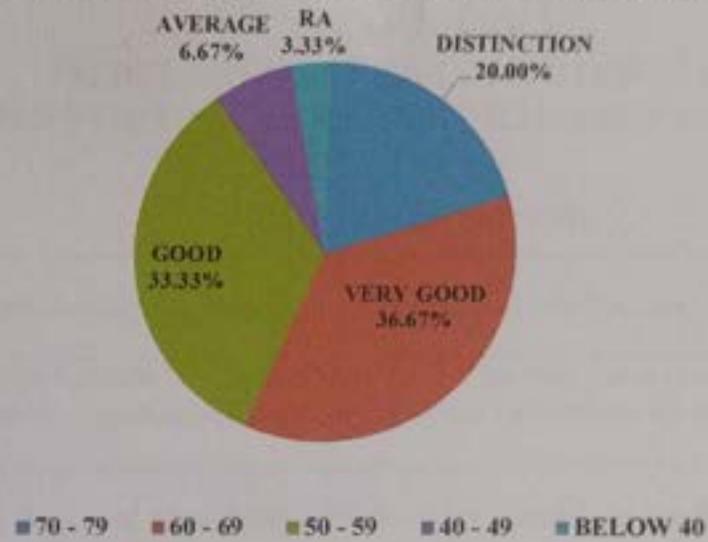
NO. OF STUDENTS: 45

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	0	EXCELLENT
70 - 79	6	DISTINCTION
60 - 69	11	VERY GOOD
50 - 59	10	GOOD
40 - 49	2	AVERAGE
BELOW 40	1	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
70 - 79	20.00%	DISTINCTION
60 - 69	36.67%	VERY GOOD
50 - 59	33.33%	GOOD
40 - 49	6.67%	AVERAGE
BELOW 40	3.33%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN C++ - 16SCCCS2

COURSE OUTCOME

CO1	Describes the procedural and object oriented paradigm with the concepts, benefits, applications functions.
CO2	Understanding the classes and objects, constructors & destructors, operator overloading.
CO3	Understanding the concepts of Inheritance, pointers, and polymorphism.
CO4	Describes the concepts of managing console I/O operations, files and exception handling.
CO5	Understanding about manipulating strings and Object oriented systems development.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	0
CO2	3	3	3	2	1
CO3	3	3	3	3	0
CO4	3	2	3	3	0
CO5	3	3	3	3	0
AVERAGE	3	2.6	2.8	2.6	0.2



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB21S 204998	ABINAYA. R	5	5	5	5	5	25	100
2	CB21S 204999	ANTORAGUNATH. P	3	4	4	3	3	17	68
3	CB21S 205000	ARAVIND. K	4	3	3	4	4	18	72
4	CB21S 205001	ARUN. S	3	4	4	3	4	18	72
5	CB21S 205002	AYYAPPAN. D	5	5	5	5	5	25	72
6	CB21S 205003	BALAN. P	4	4	4	4	4	20	80
7	CB21S 205004	BUSHRA FATHIMA. J	5	5	5	5	5	25	100
8	CB21S 205005	CHRISTOPHER RAJA. R	5	5	5	5	5	25	100
9	CB21S 205006	DEEPA. M	5	5	5	5	5	25	100
10	CB21S 205007	DHINAKARAN. R	5	4	4	3	4	20	80
11	CB21S 205008	DINESH. S	3	4	4	5	4	20	80
12	CB21S 205009	IMITHIYAS. I	3	4	4	4	4	19	76
13	CB21S 205011	KARTHIKESAN. K	4	4	4	4	4	20	80
14	CB21S 205012	KATHIRESAN. G	3	4	3	4	4	18	72
15	CB21S 205013	KEERTHANA. R	5	5	4	5	5	24	96
16	CB21S 205015	MEKALA. B	4	4	5	4	5	22	88
17	CB21S 205016	MOHAMMED ABBAS. J	3	4	4	3	4	18	72
18	CB21S 205017	MOHAMMEDARSATH. B	3	4	3	3	4	17	68



19	CB21S 205018	MOHAMMED ASHIK. A	3	3	4	3	4	17	68
20	CB21S 205019	MUNIYAMUTHU. S	3	4	3	4	4	18	72
21	CB21S 205020	PHLIX. C	4	4	4	4	4	20	80
22	CB21S 205021	RAJKUMAR. S	4	5	5	5	5	24	96
23	CB21S 205022	ROHITH. R	4	4	5	4	5	22	88
24	CB21S 205023	SADAM USSEN. J	5	4	4	4	5	22	88
25	CB21S 205025	SANTHOSH KUMAR. K	3	4	4	3	4	18	72
26	CB21S 205026	SATHASIVAM. R	4	4	4	4	4	20	80
27	CB21S 205027	SATHYANARAYANAN. S	3	4	3	4	4	18	72
28	CB21S 205029	THULASI SANKAR. G	5	5	5	5	5	25	100
29	CB21S 205030	UKESH. K	4	5	5	5	5	24	96
30	CB21S 205031	VARSHA KANNAN	4	4	3	4	4	19	76
31	CB21S 205032	VISHNU. I	3	3	3	4	3	16	64
32	CB21S 205033	YUGESH. A	5	5	5	5	5	25	100
AVERAGE			3.938	4.219	4.125	4.125	4.344		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	3.94	75	78.94	92.87
CO2	4.22	75	79.22	93.2
CO3	4.13	75	79.13	93.09
CO4	4.13	75	79.13	93.09
CO5	4.34	75	79.34	93.34



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

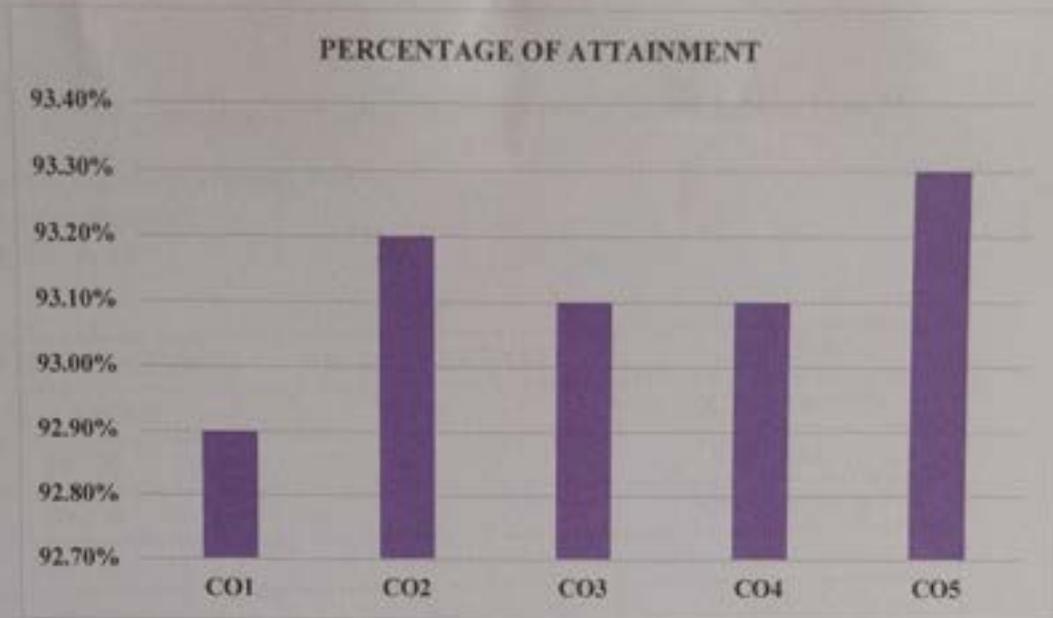
SUBJECT NAME: PROGRAMMING IN C++

SUBJECT CODE:16SCCCS2

NO. OF STUDENTS: 32

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.90%
CO2	93.20%
CO3	93.10%
CO4	93.10%
CO5	93.30%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN C++

SUBJECT CODE:16SCCCS2

NO. OF STUDENTS: 32

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	4	EXCELLENT
70 - 79	9	DISTINCTION
60 - 69	3	VERY GOOD
50 - 59	5	GOOD
40 - 49	4	AVERAGE
BELOW 40	7	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	12.50%	EXCELLENT
70 - 79	28.13%	DISTINCTION
60 - 69	9.38%	VERY GOOD
50 - 59	15.63%	GOOD
40 - 49	12.50%	AVERAGE
BELOW 40	21.88%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59 ■ 40 - 49 ■ BELOW 40



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PG DEPARTMENT OF COMPUTER SCIENCE

ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : OPERATING SYSTEMS - 16SCCCS8
COURSE OUTCOME

CO1	Describes Introduction to Operating System, History, Types, Development, Object-Oriented Design.
CO2	Understanding Memory Management - Early Memory, Partitions, Virtual memory.
CO3	Describes Processor Management , Multi-Core Technologies, Dead Locks, Concurrent Processes.
CO4	Describes Device Management, Types of Devices, Storage, Components of IO and management of IO.
CO5	Understanding File Management, Physical Storage Allocation, Access Methods, Access Control.



PO → CO ₁	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	2
CO2	3	3	3	3	3
CO3	2	3	2	2	2
CO4	3	2	2	3	3
CO5	3	2	3	3	2
AVERAGE	2.8	2.4	2.2	2.4	2.4



INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB19S 193606	ADHITHYA. R	5	4	4	5	5	23	92
2	CB19S 193607	AHAMED NIYAS. A	4	4	4	4	4	20	80
3	CB19S 193608	AMARESHWAR. PS	4	5	4	4	5	22	88
4	CB19S 193611	BALAJI.V.R	4	5	5	5	5	24	96
5	CB19S 193613	BOOMINATHAN. R	4	4	4	4	4	20	80
6	CB19S 193614	BHUVANESH. A	4	4	5	4	4	21	84
7	CB19S 193615	DEVARAJAN. S	5	5	5	5	5	25	100
8	CB19S 193616	ELAVARSAN. A	4	4	5	4	4	21	84
9	CB19S 193617	ELAVARSAN. K	5	4	4	5	5	23	92
	CB19S 193618	EZHILARASAN G	5	4	4	5	5	23	92
10	CB19S 193619	GNANASUNDHARI. R	5	5	5	5	5	25	100
11	CB19S 193620	GOMATHI. R	4	4	5	4	4	21	84
12	CB19S 193621	JAYAPRIYAN. J	5	4	4	5	5	23	92
13	CB19S 193622	JAGADESH. P	5	4	4	5	5	23	92
14	CB19S 193623	KARTHIK KUMAR. J.M.	4	4	4	4	4	20	80
15	CB19S 193624	KARTHIK. S	4	5	4	4	5	22	88
16	CB19S 193625	KARTHIKEYAN. P	4	5	5	5	5	24	96
17	CB19S 193626	KASI. S	4	4	4	4	4	20	80
18	CB19S 193627	KATHIRVEL. G	4	4	5	4	4	21	84
19	CB19S 193628	KIRUBAKARAN. M	4	5	4	4	5	22	88
20	CB19S 193629	MADHUBALA. B	5	5	5	5	5	25	100
21	CB19S 193630	MAHESWARAN. K	4	4	4	4	4	20	80
22	CB19S 193631	MANIKANDAN. M	4	5	4	4	5	22	88
23	CB19S 193632	MANIKATHAYANITHI. M	4	4	4	4	4	20	80



24	CB19S 193633	MANOJKUMAR. S	5	5	5	5	5	25	100
25	CB19S 193634	MOHAMED HAKKIM MOHSIN. M	5	5	5	5	5	25	100
26	CB19S 193635	MUKESH KANNAN. M	5	5	5	5	5	25	100
27	CB19S 193636	MUKILAN. P	4	5	4	4	5	22	88
28	CB19S 193637	PRABAKAR. L	4	4	5	4	4	21	84
29	CB19S 193638	PRAVEEN KUMAR. R	4	4	4	4	4	20	80
30	CB19S 193639	RACHSON. S	4	4	5	4	4	21	84
31	CB19S 193640	RAGUVARAN. R	5	5	5	5	5	25	100
32	CB19S 193641	RANJITH R	5	4	4	5	5	23	92
33	CB19S 193642	ROHIN AMALA RAJ. R	4	4	4	4	4	20	80
34	CB19S 193643	SABARISH. S	4	5	4	4	5	22	88
35	CB19S 193644	SANTHOSH. S	5	4	4	5	5	23	92
36	CB19S 193645	SATHISH KUMAR. M	4	4	5	4	4	21	84
37	CB19S 193646	SHAHUL HAMEED. A	5	4	4	5	5	23	92
38	CB19S 193647	SIVA. N	4	4	4	4	4	20	80
39	CB19S 193648	SIVASURIYA. P	4	4	5	4	4	21	84
40	CB19S 193649	SORNA. P. V	5	5	5	5	5	25	100
41	CB19S 193650	URUMAIYA. V	5	4	4	5	5	23	92
42	CB19S 193651	VENKATRAJ. B	4	5	4	4	5	22	88
43	CB19S 193652	VIGNESH. R	5	5	5	5	5	25	100
44	CB19S 193653	VIGNESH. S	4	4	4	4	4	20	80
AVERAGE			4.4	4.4	4.422	4.444	4.6		



EXPECTED ATTAINMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+	END SEM	TOTAL	%
CO1	4.4	75	79.4	93.412
CO2	4.4	75	79.4	93.412
CO3	4.42	75	79.42	93.435
CO4	4.44	75	79.44	93.459
CO5	4.6	75	79.6	93.647



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: OPERATING SYSTEM

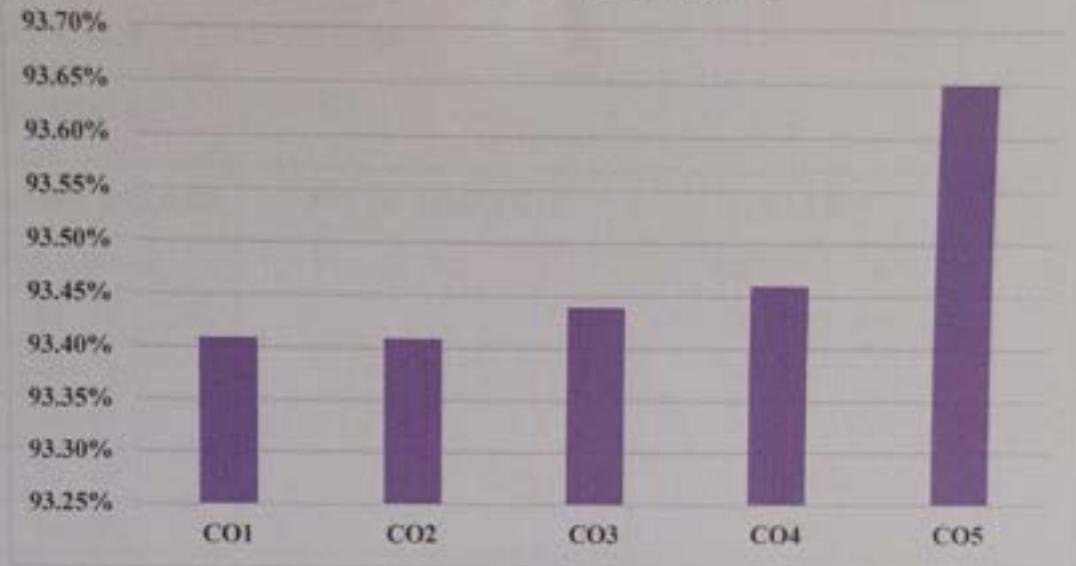
SUBJECT CODE:16SCCCS8

NO. OF STUDENTS: 44

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.41%
CO2	93.41%
CO3	93.44%
CO4	93.46%
CO5	93.65%



PERCENTAGE OF ATTAINMENT



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: OPERATING SYSTEM

SUBJECT CODE:16SCCCS8

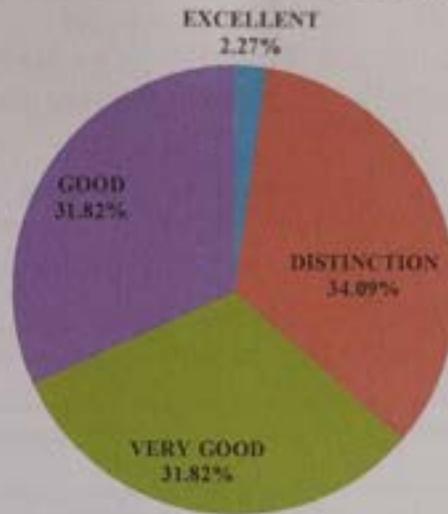
NO. OF STUDENTS: 44

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	1	EXCELLENT
70 - 79	15	DISTINCTION
60 - 69	14	VERY GOOD
50 - 59	14	GOOD
40 - 49	0	AVERAGE
BELOW 40	0	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	2.27%	EXCELLENT
70 - 79	34.09%	DISTINCTION
60 - 69	31.82%	VERY GOOD
50 - 59	31.82%	GOOD



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



■ 80 - 89 ■ 70 - 79 ■ 60 - 69 ■ 50 - 59



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PG DEPARTMENT OF COMPUTER SCIENCE
ATTAINMENT OF PROGRAM OUTCOMES AND COURSE OUTCOMES

PROGRAM OUTCOME

PO1	An ability to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
PO2	An ability to apply mathematical foundation, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoff involved in the design choices.
PO3	An ability to apply design and development principles in the construction of software systems of varying complexity.
PO4	An ability to acquire knowledge of modern software tools will be able to contribute effectively as a software engineers.
PO5	An ability to comprehend the related concepts to Computer Science with Allied papers.



COURSE : PROGRAMMING IN PHP - 16SCCCS9
COURSE OUTCOME

CO1	Understanding the concepts and essentials of PHP.
CO2	Understanding the concepts of creating functions, reading data in webpages, handling power.
CO3	Understanding about advanced object oriented programming.
CO4	Describes about the file handling, working with databases, sessions, cookies and FTP.
CO5	Understanding Advanced Ajax, Drawing images on the server.



PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	0
CO2	3	3	3	3	1
CO3	3	3	3	3	0
CO4	3	3	3	3	0
CO5	3	3	3	3	1
AVERAGE	3	3	3	3	0.4

INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME



CO	INTERNAL (25)		
	UNIT TEST (15)	SEMINAR (5)	ASSIGNMENT (5)
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1
TOTAL	15	5	5



SNO	REG. NO	NAME	CO1	CO2	CO3	CO4	CO5	TOTAL	% TO TOTAL INTERNAL MARK
1	CB19S 193606	ADHITHYA. R	4	5	4	5	4	22	88
2	CB19S 193607	AHAMED NIYAS. A	4	4	4	4	4	20	80
3	CB19S 193608	AMARESHWAR. PS	4	4	5	4	4	21	84
4	CB19S 193611	BALAJI.V.R	5	4	5	5	5	24	96
5	CB19S 193613	BOOMINATHAN. R	4	5	4	4	4	21	84
6	CB19S 193614	BHUVANESH. A	4	4	4	4	4	20	80
7	CB19S 193615	DEVARAJAN. S	5	5	5	5	5	25	100
8	CB19S 193616	ELAVARSAN. A	4	4	4	4	4	20	80
9	CB19S 193617	ELAVARSAN. K	5	5	4	5	5	24	96
10	CB19S 193618	EZHILARASAN. G	4	5	4	5	4	22	88
11	CB19S 193619	GNANASUNDHARI. R	5	5	5	5	5	25	100
12	CB19S 193620	GOMATHI. R	4	5	4	5	4	22	88
13	CB19S 193621	JAYAPRIYAN. J	4	5	5	5	4	23	92
14	CB19S 193622	JAGADESH. P	5	5	5	4	5	24	96
15	CB19S 193623	KARTHIK KUMAR. J.M.	4	4	4	4	4	20	80
16	CB19S 193624	KARTHIK. S	4	4	4	4	5	21	84
17	CB19S 193625	KARTHIKEYAN. K	5	5	4	5	5	24	96
18	CB19S 193626	KASI. S	4	4	5	4	4	21	84
19	CB19S 193627	KATHIRVEL. G	4	5	4	5	4	22	88
20	CB19S 193628	KIRUBAKARAN. M	4	4	5	4	4	21	84
21	CB19S 193629	MADHUBALA. B	5	5	5	5	5	25	100
22	CB19S 193630	MAHESWARAN. K	4	4	4	4	4	20	80
23	CB19S 193631	MANIKANDAN. M	4	4	5	4	4	21	84
24	CB19S 193632	MANIKATHAYANITHI. M	5	4	4	4	5	22	88
25	CB19S 193633	MANOJKUMAR. S	5	5	5	5	5	25	100
26	CB19S 193634	MOHAMED HAKKIM MOHSEN. M	5	5	5	5	5	25	100
27	CB19S 193635	MUKESH KANNAN. M	5	5	5	5	5	25	100
28	CB19S 193636	MUKILAN. P	5	4	4	5	5	23	92
29	CB19S 193637	PRABAKAR. L	5	5	4	4	5	23	92



30	CB19S 193638	PRAVEEN KUMAR, R	4	4	4	4	4	20	80
31	CB19S 193639	RACHSON, S	4	4	5	4	4	21	84
32	CB19S 193640	RAGUVARAN, R	5	5	5	5	5	25	100
33	CB19S 193641	RANJITH, R	4	5	5	5	4	23	92
34	CB19S 193642	ROHIN AMALA RAJ, R	5	4	4	4	5	22	88
35	CB19S 193643	SABARISH, S	4	4	4	4	4	20	80
36	CB19S 193644	SANTHOSH, S	4	5	5	5	4	23	92
37	CB19S 193645	SATHISH KUMAR, M	4	4	4	4	4	20	80
38	CB19S 193646	SHAHUL HAMEED, A	4	5	5	5	4	23	92
39	CB19S 193647	SIVA, N	4	4	4	5	4	21	84
40	CB19S 193648	SIVASURIYA, P	5	4	4	4	5	22	88
41	CB19S 193649	SORNA, P. V	5	5	5	5	5	25	100
42	CB19S 193650	URUMAIYA, V	4	5	5	5	4	23	92
43	CB19S 193651	VENKATRAJ, B	4	4	5	4	4	21	84
44	CB19S 193652	VIGNESH, R	5	5	5	5	5	25	100
45	CB19S 193653	VIGNESH, S	4	4	4	4	4	20	80
AVERAGE			4.4	4.511	4.489	4.511	4.422		



EXPECTED ATTAIMENT IN EACH CO - 85%

CO	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL	%
CO1	4.4	75	79.4	93.41
CO2	4.51	75	79.51	93.54
CO3	4.49	75	79.49	93.52
CO4	4.51	75	79.51	93.54
CO5	4.42	75	79.42	93.44



COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

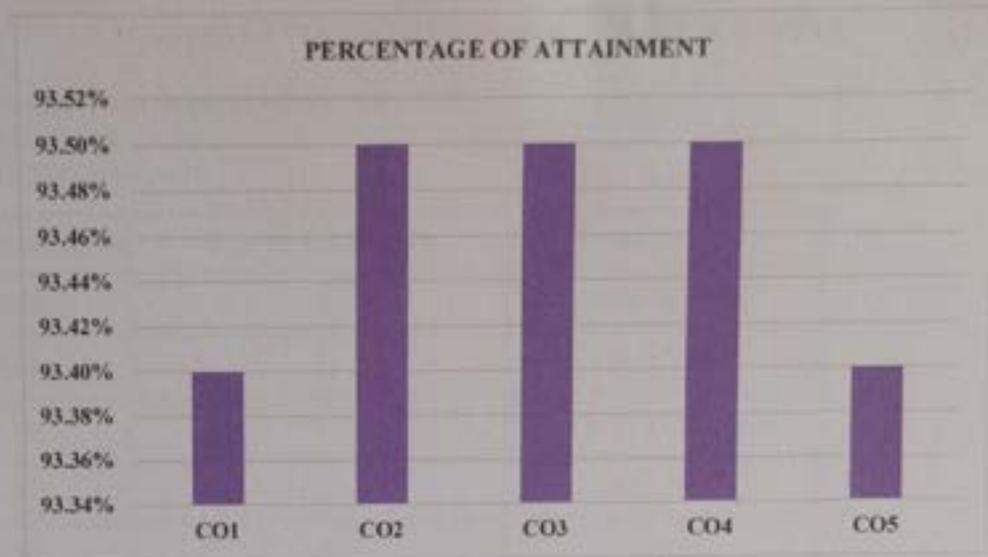
SUBJECT NAME: PROGRAMMING IN PHP

SUBJECT CODE:16SCCCS9

NO. OF STUDENTS: 45

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	93.40%
CO2	93.50%
CO3	93.50%
CO4	93.50%
CO5	93.40%





COURSE ATTAINMENT FOR B.Sc. COMPUTER SCIENCE

SUBJECT NAME: PROGRAMMING IN PHP

SUBJECT CODE:16SCCCS9

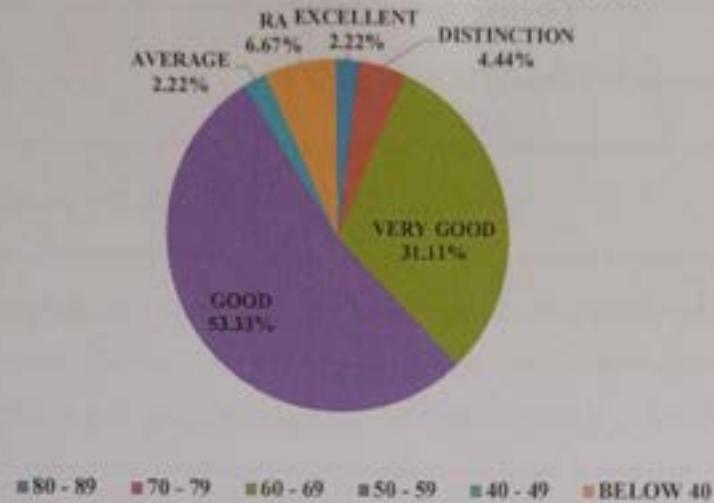
NO. OF STUDENTS: 45

CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	0	OUTSTANDING
80 - 89	1	EXCELLENT
70 - 79	2	DISTINCTION
60 - 69	14	VERY GOOD
50 - 59	24	GOOD
40 - 49	1	AVERAGE
BELOW 40	3	RA

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)	PERCENTAGE	STATUS
80 - 89	2.22%	EXCELLENT
70 - 79	4.44%	DISTINCTION
60 - 69	31.11%	VERY GOOD
50 - 59	53.33%	GOOD
40 - 49	2.22%	AVERAGE
BELOW 40	6.67%	RA



COURSE OUTCOME ASSESSMENT IN PERCENTAGE



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COURSE NAME : PROGRAMMING IN C LAB		COURSE CODE: 16SCCCSIP
On Completion of the course student will able to		
CO1	Develop C program using basic concepts.	
CO2	Implement Conditional control statements, Switch statements and Loop structures.	
CO3	Develop C program using the concepts of Arrays, Pointers.	
CO4	Solve the problem using concepts of Function, Recursion, Call by value & Call by Reference.	
CO5	Update the details of information using various file modes.	



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COURSE NAME : PROGRAMMING IN JAVA LAB		COURSE CODE: 16SCCCS3P
After Completion of the course student will able to		
CO1	Implement the Java program using arrays.	
CO2	Implement a Calculator to perform basic arithmetic operations.	
CO3	Solve the problem using the concepts of constructors, polymorphism and inheritance.	
CO4	Implement the java program using interface, multi threads, applets.	
CO5	Create a window using applets.	



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COURSE NAME : DIGITAL ELECTRONICS AND MICROPROCESSOR LAB		COURSE CODE: 16SCCCS5P
Upon Completion of the course student will able to		
CO1	Implement the practical related to Digital Electronics and Intel 8085 Microprocessors.	
CO2	Verify the logic gates, constructing the half and full adder.	
CO3	Implement K-Map to reduce the digital circuit, Shift Registers, Up Down Counters.	
CO4	Implement assembly language program for addition, subtraction, sum of series, data transfer.	
CO5	Implement assembly language program for finding maximum of N numbers and conversion of decimal to hexa decimal number.	



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COURSE NAME : DATABASE SYSTEMS LAB		COURSE CODE: 16SCCCS4P
On Completion of the course student will able to		
CO1	Provide the knowledge in developing DDL and DML commands.	
CO2	Develop MySQL queries to implement the set operations.	
CO3	Implement aggregate functions.	
CO4	Develop and implement Join operations.	
CO5	Implement nested queries and to create a views and expand it.	



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COURSE NAME : PROGRAMMING IN C++ LAB		COURSE CODE: 16SCCCS2P
After Completion of the course student will able to		
CO1	Perform concepts of Classes using C++ programming language.	
CO2	Implement Constructor and Destructor.	
CO3	Implement Operator Overloading.	
CO4	Solve the problem using Inheritance.	
CO5	Implement Files and Exception Handling in C++.	



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COURSE NAME : PROGRAMMING IN PHP LAB		COURSE CODE: 16SCCCS6P
Upon Completion of the course student will able to		
CO1	Implement PHP program to find factorial of a number.	
CO2	Implement Conditional statements in PHP program.	
CO3	Implement array concepts in PHP program.	
CO4	Implement the concepts of funbetions in PHP program.	
CO5	Implement the concepts of sessions, cookies and to design an authentication web page in PHP with MYSQL to check username and password.	



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COURSE NAME : MINI PROJECT		COURSE CODE: 16SMBECSPW
After Completion of the course student will able to		
CO1	Enable the students to develop a project with a latest technologies.	
CO2	Plan, Analyse, design, implement and apply various types of testing.	
CO3	Communicate effectively in both oral and writing.	
CO4	Learn about different software development process models and the different features of software for their selected problem.	
CO5	Know about recent tools and technologies in software industry and also the scope their specialized areas in different fields in the industry.	



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PRINCIPAL
 Bharath College of Science and Management
 Bharath Avenue (Near New Bus Stand)
 THANJAVUR - 613 005.

COURSE NAME : WEB TECHNOLOGIES LAB		COURSE CODE: P16CS15P
After Completion of the course student will able to		
CO1	Know about the fundamental concepts of Internet.	
CO2	Develop and implement the codes in XML.	
CO3	Develop and implement the codes in Java Script.	
CO4	Develop and implement the codes in JSP.	
CO5	Develop and implement the codes in ASP different components, objects, connecting and storing in database .	



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 THANJAVUR - 613 095.

COURSE NAME : DATAMINING LAB		COURSE CODE: P16CS33P
Upon Completion of the course student will able to		
CO1	Get hands on experience in developing applications using data mining tool.	
CO2	Implement Preprocessing for Data type Conversinh and Data Transformation.	
CO3	Implement Feature Selection by Filter, Wrapper and dimensionally Reduction.	
CO4	Implement Supervised Technique - Classifier and Unsupervised Technique - Clustering algorithms.	
CO5	Implement Association Rule, Experimenter and knowledge flow for feature selection and classification and clustering	



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COURSE NAME : DISTRIBUTED TECHNOLOGIES LAB		COURSE CODE: P16CS23P
On Completion of the course student will able to		
CO1	Develop the fundamental concepts of Internet, Javascript, XML, JSP, ASP.	
CO2	Implement several webserver controls in database using ASP.NET.	
CO3	Generate Crystal Report from an existing database.	
CO4	Design the web page using AdRotator, Image map, Multiview controls and Master pages.	
CO5	Establish the security features, manage the concepts of mobile applications and also the web servers.	



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COURSE NAME : OPEN SOURCE LAB		COURSE CODE: P16CS43P
After Completion of the course student will able to		
CO1	Develop the fundamental concepts of Internet, Javascript, XML, JSP, ASP.	
CO2	Implement the server side PHP program to display details of students from a HTML form.	
CO3	Implement the PHP program that adds products that are selected from a web page to Shopping cart.	
CO4	Implement the PHP program to access the data stored in MySQL data source.	
CO5	Implement the shell program to find the details of an user session and to change the extension of a given file.	



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COURSE NAME : PROJECT WORK		COURSE CODE: P16CSPW
After Completion of the course student will able to		
CO1	Enable the students to develop a project with a latest technologies and trained as a software professional skills.	
CO2	Plan, Analyse, design, implement and apply various types of testing.	
CO3	Communicate effectively in both oral and writing.	
CO4	Learn about different software development process models and the different features of software for their selected problem.	
CO5	Know about recent tools and technologies in software industry and also the scope their specialized areas in different fields in the industry.	



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 THANJAVUR - 613 005.