



MARATHA VIDYA PRASARAK SAMAJ'S
KARMAVEER ADV. BABURAO GANPATRAO THAKARE
COLLEGE OF ENGINEERING



Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 &
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AISHE Code - C-41622

DEPARTMENT OF INFORMATION TECHNOLOGY

Course Outcomes and Program Outcomes

Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs)

PSO1	An ability to apply knowledge of mathematics, basic computing fundamental and problem-solving strategies to provide effective IT solutions.
PSO2	An ability to solve real-world problems using IoT, Cloud Computing, Data science, Computer Network & Security, Machine Learning and different hardware & software tools.
PSO3	An ability to communicate and work effectively as an individual, member or leader in team to manage projects effectively to achieve the desired goal

Course Outcomes (COs)

Note: Number of Outcomes for a Course is expected to be around 6

Course Name:	C201	Course Year:	2019-2020
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Course Name	Course Outcomes
C201.1	Apply permutation combination and counting principle to determine probabilities
C201.2	Use sets, proof techniques and mathematical proposition to check the truthfulness
C201.3	Demonstrate relations and functions
C201.4	Formulate problem using graph theory
C201.5	Solve problems on trees.
C201.6	Illustrate different operation on groups and rings

Course Name:	C213	Course Year:	2019-2020
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Course Name	Course Outcomes
C213.1	Explore 80386 microprocessor architecture
C213.2	Outline memory management of 80386 Microprocessor.
C213.3	Explore multitasking and interrupt mechanism of 80386 microprocessor.
C213.4	Illustrate architectural details of 8051 microcontroller.
C213.5	Use I/O ports programming of 8051 Microcontroller.
C213.6	Implement Peripheral Programming Interface of 8051 Microcontroller.

Course Name:	C301	Course Year:	2019-2020
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Course Name	Course Outcomes
C301.1	Construct finite state machines to solve problems in computing
C301.2	Write mathematical expressions for the formal languages
C301.3	Apply well defined rules for syntax verification
C301.4	Construct and analyze Push Down Automata and Post Machine for formal languages
C301.5	Construct and analyze Turing Machine for formal languages.
C301.6	Express the understanding of computational complexity, decidable and un decidable problems

Course Name:	C313	Course Year:	2019-2020
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Course Name	Course Outcomes
C313.1	Explore the need of cloud based solutions.
C313.2	Illustrate virtualization and common standards in cloud.
C313.3	Select effective techniques to program Cloud Systems for different application.
C313.4	Explore security mechanisms and issues in various cloud applications.
C313.5	Integrate cloud computing with IoT.
C313.6	Comprehend emerging trends in cloud computing.

Course Name:	C403	Course Year:	2019-2020
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Course Name	Course Outcomes
C403.1	Explore the concept of object oriented Modeling & Designing.
C403.2	Draw the use case & domain/class diagrams.
C403.3	Design the behavior modeling for given problem.
C403.4	Explore designing process of business, access and view layer class.
C403.5	Illustrate the different GRASP principles and GoF design patterns of Modeling.
C403.6	Apply different architectural design principles and guidelines in the real time application development.

Course Name:	C411	Course Year:	2019-2020
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Course Name	Course Outcomes
C411.1	To demonstrate the design knowledge of Ubiquitous Computing and its applications.
C411.2	To analyze and explore smart devices and services used in Ubiquitous Computing.
C411.3	Identify the significance of actuators and controllers in real time application design.
C411.4	Apply the concept of HCI to comprehend the design of automation applications.
C411.5	Evaluating Ubiquitous Computing privacy and identifying the challenges associated with Ubiquitous Computing privacy.

C213.5	2	3	3	-	-	-	-	-	-	-	-	2
C213.6	2	3	3	-	-	-	-	-	-	-	-	2
Average	2.33	2.60	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00

3. Course Name: C301

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301.1	3	3	3	3	--	--	--	--	--	--	--	2
C301.2	3	3	3	3	--	--	--	--	--	--	--	2
C301.3	3	3	3	3	--	--	--	--	--	--	--	2
C301.4	3	3	3	3	--	--	--	--	--	--	--	2
C301.5	3	3	3	3	--	--	--	--	--	--	--	2
C301.6	3	3	3	3	--	--	--	--	--	--	--	3
Average	3.00	3.00	3.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.17

4. Course Name: C313

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C313.1	3	3	2	1	2	-	1	-	-	-	-	2
C313.2	3	2	3	3	3	-	-	-	-	-	-	2
C313.3	3	2	2	3	3	-	-	-	-	-	-	3
C313.4	3	2	3	2	3	-	-	-	-	-	-	1
C313.5	3	2	3	2	3	2	2	-	-	-	-	3

Average	2.66	2.00	2.20	2.16	2.00	2.50	2.50	0.00	0.00	0.00	0.00	2.00
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1. Course Name: C201

Course	PSO1	PSO2	PSO3
C201.1	3	--	--
C201.2	3	--	--
C201.3	2	--	--
C201.4	2	1	--
C201.5	2	1	--
C201.6	2	--	--
Average	2.33	2.00	0.00

2. Course Name: C213

Course	PSO1	PSO2	PSO3
C213.1	-	-	-
C213.2	-	-	-
C213.3	-	-	-
C213.4	-	-	-
C213.5	2	2	-
C213.6	2	2	-
Average	2.00	2.00	2.00

3. Course Name: C301

Course	PSO1	PSO2	PSO3
C301.1	2	1	--
C301.2	2	1	--
C301.3	2	1	--
C301.4	2	1	--
C301.5	2	1	--
C301.6	2	1	--
Average	2.00	1.00	0.00

4. Course Name: C313

Course	PSO1	PSO2	PSO3
C313.1	3	3	-
C313.2	3	3	-
C313.3	3	3	-
C313.4	3	3	-
C313.5	3	3	-
C313.6	3	3	-
Average	3.00	3.00	0.00

5. Course Name: C403

Course	PSO1	PSO2	PSO3
C403.1	-	3	1
C403.2	-	3	1
C403.3	-	3	1
C403.4	-	1	1
C403.5	-	2	1
C403.6	-	2	1
Average	0.00	2.33	1.00

6. Course Name: C411

Course	PSO1	PSO2	PSO3
C411.1	1	1	-
C411.2	--	3	-
C411.3	--	3	-
C411.4	--	2	-
C411.5	--	-	-
C411.6	--	3	-
Average	1.00	2.40	0.00

Program level Course-PO matrix of all courses including first year courses

Table 1: Program level Course-PO matrix for all the courses

C214	3.00	2.50	2.17	2.50	--	--	--	--	--	--	--	2.00
C215	2.50	1.67	1.75	--	--	1.33	--	--	--	--	--	2.83
C216	2.00	2.00	2.00	--	2.00	--	--	--	--	--	--	2.00
C217	3.00	2.50	2.17	2.50	--	--	--	--	--	--	--	2.00
C218	2	2.5	2.4	2.33	2.25	2	--	--	--	2	3	2.2
C219	--	--	--	--	--	--	--	2.00	--	--	--	2.00
C301	3.00	3.00	3.00	3.00	--	--	--	--	--	--	--	2.14
C302	2.00	2.00	2.00	2.00	--	--	--	--	--	--	--	3.00
C303	2.75	2.00	3.00	2.00	2.66	2.00	--	--	3.00	--	2.00	2.50
C304	2.00	1.83	2.00	2.00	--	--	--	--	--	--	--	2.00
C305	2.00	2.00	2.33	1.00	2.25	2.16	2.16	--	--	--	--	3.00
C306	2.00	2.00	2.00	2.00	2.00	2.00	--	3.00	3.00	3.00	3.00	3.00
C307	2.00	2.60	3.00	--	--	--	--	--	--	--	--	2.00
C308	2.16	2.16	2.16	2.16	2.16	1.16	--	1.00	3.00	1.66	1.66	2.16
C309	--	--	--	--	--	1.00	1.00	1.00	--	--	--	--
C310	2.50	2.16	2.16	2.00	--	--	--	--	--	--	--	3.00
C311	2.00	2.00	2.00	2.00	--	--	--	--	--	--	--	2.00
C312	3.00	3.00	3.00	3.00	--	1.00	--	--	--	--	--	2.33
C313	2.83	2.17	2.67	2.33	2.83	1.50	1.67	--	--	--	--	2.33
C314	2.40	2.40	2.50	--	3.00	--	--	--	--	--	--	2.00
C315	2.00	--	1.00	--	2.00	--	--	--	--	--	--	1.75
C316	2.00	2.50	2.50	2.00	--	--	--	--	--	--	--	2.00
C317	2.00	2.50	2.25	--	--	--	--	--	--	--	--	2.00
C318	2.00	2.00	2.00	2.00	2.00	2.00	1.00	3.00	3.00	3.00	2.00	3.00
C319	--	--	--	--	--	1.00	--	1.00	--	--	--	--
C401	2.33	2.40	2.40	1.33	1.00	--	--	1.00	--	--	--	2.00
C402	2.50	2.50	2.80	2.80	3.00	1.00	1.00	--	--	--	--	2.20
C403	2.33	2.33	2.33	2.00	1.75	2.00	--	--	--	2.00	2.00	2.00

C404 E	2.83	2.17	2.50	2.83	2.50	1.00	2.00	--	--	--	1.00	1.33
C405 C	2.00	2.00	2.00	1.67	1.00	2.00	2.00	1.00	--	--	--	2.00
C406	2.25	1.80	2.60	2.00	2.50	1.00	1.00	--	--	--	--	2.00
C407	2.66	2.33	2.66	2.66	2.00	--	--	--	--	--	2.00	2.00
C408	2.75	2.50	2.50	2.00	2.25	2.00	2.00	2.50	3.00	2.75	2.75	3.00
C409	--	--	--	--	--	--	--	--	2.00	2.33	2.00	3.00
C410	2.16	2.00	2.00	2.00	--	1.00	--	1.00	--	--	--	3.00
C411	2.66	2.00	2.20	2.16	2.00	2.50	2.50	--	--	--	--	2.00
C412 A	2.83	2.50	1.33	1.75	2.00	2.33	--	--	--	--	1.00	1.66
C413 D	2.20	2.16	2.00	2.00	2.20	2.00	--	--	--	2.00	--	2.16
C414	2.33	2.00	2.00	2.00	--	2.00	2.00	--	--	--	--	2.00
C415	2.00	2.00	2.40	2.00	2.25	2.00	2.00	--	--	--	---	2.00
C416	2.50	3.00	3.00	3.00	3.00	3.00	3.00	2.50	3.00	2.75	2.75	2.50
C417	2.00	--	--	2.00	--	--	--	--	2.00	--	2.00	2.00

Table 2: Program level Course-PSO matrix of all courses including first year courses

Course	PSO1	PSO2	PSO3
C101	1.00	--	--
C102	--	--	1.00
C103	1.00	--	--
C104	--	--	1.00
C105	1.00	--	--
C106	--	--	1.00
C107	--	--	1.00
C108	1.00	--	--
C109	--	--	1.00
C110	1.00	--	1.00
C111	2.00	--	1.00
C112	--	--	--

C113	1.00	--	1.00
C114	--	--	1.00
C201	2.33	1.00	--
C202	2.00	--	--
C203	2.00	1.80	--
C204	2.00	2.00	--
C205	2.00	1.00	--
C206	2.00	2.00	--
C207	2.00	2.00	--
C208	2.00	2.00	--
C209	--	--	1.33
C210	--	--	--
C211	1.00	--	--
C212	2.00	1.00	--
C213	2.00	2.00	--
C214	2.83	1.83	--
C215	1.33	2.00	--
C216	--	2.00	--
C217	2.83	1.83	--
C218	3.00	1.00	--
C219	--	--	--
C301	2.00	1.00	--
C302	2.00	2.50	--
C303	2.00	2.00	3.00
C304	1.00	1.00	--
C305	2.00	2.00	--
C306	2.00	3.00	3.00
C307	2.00	2.00	--
C308	2.00	1.66	2.66
C309	--	--	--
C310	3.00	3.00	--
C311	2.00	--	--
C312	3.00	1.50	--
C313	3.00	3.00	--
C314	2.00	3.00	2.00

C315	--	2.00	--
C316	2.00	2.00	--
C317	2.00	2.00	--
C318	2.00	2.00	3.00
C319	--	--	--
C401	3.00	1.40	--
C402	2.00	2.00	--
C403	--	2.33	1.00
C404 - E	2.83	2.83	--
C405 - C	--	2.00	--
C406	2.00	2.00	--
C407	--	3.00	1.00
C408	2.00	2.00	3.00
C409	--	--	2.00
C410	1.75	1.50	--
C411	1.00	2.40	--
C412 A	1.00	1.00	1.83
C413 D	2.33	2.00	2.00
C414	1.66	2.00	--
C415	2.00	1.80	--
C416	2.00	2.00	3.00
C417	2.00	2.00	--

Attainment of Course Outcomes

Table 3 : Example of mark entry

Course Code: C214

Course Name: Data Structure & Files

	External Assessment	Internal Assessment	Indirect Assessment
		Unit Test	Course Exit Survey

Seat No.	Name of Student	University TH Exam	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6
S150298501	ABHIJEET PRAKASH PAWAR	63	10	9	8	9	3	8	3	3	3	3	2	2
S150298502	ADKE VAIBHAV BHASKAR	80	5	8	5	9	3	8	2	2	3	3	3	3
S150298503	AHER ANKITA SATISH	74	5	7	7	8	3	8	3	3	3	3	3	3
S150298504	AHER KSHITIJA SUNIL	73	5	8	7	NA	NA	NA	2	2	2	2	2	2
S150298506	AVHAD NIKITA PANDHARINATH	77	6	7	8	9	3	8	3	2	2	3	3	2
S150298507	BACHHAV ATHANG VIJAY	64	6	8	4	NA	NA	NA	3	2	3	3	3	3
S150298508	BANKAR PRAJAKTA KESHAV	78	10	8	8	10	3	9	3	3	3	3	3	3
S150298509	BHALERAO TEJASHRI AVINASH	76	10	9	8	10	3	9	3	3	3	3	3	3
S150298510	BHANSALI VIDHI PRAVIN	78	10	8	7	9	10	7	3	3	3	3	3	3
S150298511	BORADE OMKAR GOKUL	71	5	7	4	9	3	9	2	3	1	3	1	2
S150298512	BORSE VRUSHALI YASHWANT	76	10	6	4	NA	NA	NA	3	3	3	3	3	3
S150298513	CHANAGOND PRANAV SHRIKANT	67	5	7	1	8	3	7	2	2	2	2	1	1
S150298515	CHINTALURI PREETI SRINIVASARAO	81	10	8	7	10	10	7	3	3	3	3	2	3
S150298516	DESHMUKH HARSHADA SANJAY	55	NA	NA	NA	NA	NA	NA	2	2	2	2	2	2
S150298517	DESHPANDE SOHAM DHANANJAY	83	10	8	9	10	3	10	3	3	2	3	3	2
S150298518	DHAMNE PIYUSH ARVIND	78	10	8	8	10	3	9	3	3	3	3	3	3
S150298520	GAIDHANI RUCHIKA SURYABHAN	78	10	7	7	7	3	7	2	2	2	2	2	2
S150298522	GAIKWAD OMKAR KISHOR	76	10	7	7	9	3	9	2	2	2	2	2	2
S150298523	GAIKWAD SHRADDHA RAMESH	62	4	6	3	8	3	9	2	2	2	2	2	2

S150298524	GAIKWAD SNEHAL SUNIL	72	8	8	5	8	3	9	3	3	3	3	3	3
S150298527	JADHAV KAVITA DULLABH	67	2	7	1	10	3	8	3	3	3	3	3	3
S150298530	JOSHI VAISHANAVI SANJAY	65	10	7	3	9	3	8	2	2	2	2	2	2
S150298533	KHARCHE DISHA SANJAY	62	10	9	5	8	9	8	3	3	3	3	3	3
S150298534	KHULE PRATIK PRAKASH	60	6	2	1	NA	NA	NA	3	3	3	3	2	2
S150298535	KOR SUMIT SANJAY	68	10	7	4	NA	NA	NA	3	3	3	3	3	3
S150298536	KOTHARI SHUBHAM PRAMOD	69	10	7	4	9	3	9	3	3	3	3	3	3
S150298540	MAHURKAR SHRIPAD KIRAN	71	10	9	4	9	2	9	3	2	1	2	1	2
S150298541	MATSAGAR PRACHI DINKAR	73	10	8	6	NA	NA	NA	3	3	3	3	3	3
S150298542	MERCHANT FATEMA HASAN	77	9	8	8	9	3	8	2	2	2	2	2	2
S150298544	MORE SANDESH AMBADAS	75	3	8	3	3	0	0	3	3	3	3	3	3
S150298545	NAHAR ABHINANDAN ANIL	65	4	8	4	9	3	NA	3	3	3	3	3	3
S150298546	NERE SHUBHAM BHAUSAHEB	74	4	8	6	9	2	8	3	3	1	2	2	2
S150298547	NIKAM ADITYA SHARAD	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S150298548	NIKAM POOJA RAJENDRA	69	6	7	3	7	3	7	3	3	3	3	3	3
S150298550	PAGAR ROSHANI NANDKISHOR	60	6	8	8	7	3	9	3	3	3	3	3	3
S150298551	PAGAR SAKSHI YASHWANT	66	NA	NA	NA	8	3	8	2	2	2	2	2	2
S150298553	PAGARIYA PAYAL ANIL	77	10	10	7	9	8	8	2	2	2	2	2	2
S150298554	PARKHE ROHAN DADASAHEB	66	10	8	4	8	2	8	NA	NA	NA	NA	NA	NA
S150298555	PATEL PARTH HARSHAD	81	10	8	7	NA	NA	NA	1	3	2	3	3	3
S150298556	PATIL AASHLESHA KAMALAKAR	78	10	7	8	8	4	3	2	2	3	2	2	2

S150298558	PATIL SAILEE VIDYANAND	56	NA	NA	NA	6	3	6	2	2	2	2	2	2
S150298559	PATIL VRUSHALI ISHWAR	71	NA	NA	NA	9	3	9	2	3	2	3	3	3
S150298561	PAWAR ADITYA RAVINDRA	71	10	9	8	8	3	6	3	3	3	3	3	3
S150298564	PHAD TEJASWINI NANDU	80	8	9	7	8	3	8	3	3	3	3	3	3
S150298565	PIMPARE SAKSHI GOTIRAM	77	10	7	4	7	3	8	3	3	3	2	2	2
S150298566	RANE BHANUDAS NIVRUTTI	82	10	10	6	10	3	9	3	3	2	3	2	3
S150298567	RATHOD NUPUR MUKUND	67	10	9	8	6	3	8	3	3	3	3	3	3
S150298568	ROHIT SANJAY SHIMPI	53	NA	NA	NA	NA	NA	NA	2	3	3	2	2	3
S150298569	SARDA ATHARVA JITENDRA	79	NA	NA	NA	8	3	8	3	3	2	2	2	1
S150298570	SAWANT RUCHA ASHOK	73	10	7	8	8	3	9	3	3	3	3	2	2
S150298572	SHAH AAGAM AMISH	43	10	7	3	10	3	9	3	2	3	3	3	2
S150298573	SHAH ACHAL KIRTI	86	10	8	9	9	3	10	3	3	3	3	2	2
S150298574	SHARMA BHARAT KISHANLAL	69	10	5	8	NA	NA	NA	2	2	2	2	2	2
S150298575	SHELAR ROHAN ANANDA	78	5	7	5	9	3	9	3	3	3	3	3	3
S150298577	SHINDE ROHIT BALASAHEB	60	10	7	4	NA	NA	NA	3	3	3	3	3	3
S150298578	SONAWANE RUTVIK RATAN	73	10	8	4	9	3	8	3	2	2	2	2	2
S150298580	TANNU SWARALI RAJESH	67	9	9	6	NA	NA	NA	2	2	2	2	2	2
S150298581	THETE PRACHI PANDURANG	80	10	10	6	8	5	8	3	3	3	3	2	2
S150298582	THOK SHUBHAM ANNASAHEB	76	5	6	4	NA	NA	NA	3	3	2	3	2	3
S150298583	THOMBARE VAISHNAV DADA	78	6	6	0	8	3	7	3	3	3	3	3	3
S150298584	THORAT PAYAL GOVARDHAN	75	10	8	8	NA	NA	NA	2	2	2	2	2	2

S150298585	VERMA MEGHNA SATISH	86	10	8	9	9	10	9	3	3	3	3	3	3
S150298587	WAGH MANASI DILIP	71	10	7	9	NA	NA	NA	2	2	2	2	2	2
S150298589	GIRNARE TUSHAR SHASHIR	53	4	4	4	NA	NA	NA	3	3	3	3	3	3
Target value		53	6	6	6	6	6	6	--	--	--	--	--	--
Number of Students scoring more than target value		60	43	53	30	46	5	44	--	--	--	--	--	--
Percentage of Students scoring more than target value		93.75	75.44	92.98	52.63	97.87	10.64	95.65	88.33	88.33	83.89	87.78	81.67	82.78
Attainment Level		3	2					3						

Course Outcome Attainment

Table 4 :External Assessment

Theory (%)						Oral / Practical (%)						Term Work (%)					
CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
93.75	93.75	93.75	93.75	93.75	93.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5 :Internal Assessment:

Unit Test (%)						Term Work (%)					
CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
75.44	92.98	52.63	97.87	10.64	95.65	NA	NA	NA	NA	NA	NA

Table 6 :Indirect Assessment:

Course Exit Survey (%)					
CO1	CO2	CO3	CO4	CO5	CO6
88.33	88.33	83.88	87.77	81.66	82.77

Table 7 : CO attainment by external assessment

External assessment tool	CO Attainment
TH exam	3
OR exam	NA
Average	3

Table 8 : CO attainment by internal assessment

Internal assessment tool	CO Attainment
Unit test	2
Term work	NA
Average	2

Direct CO attainment is then computed as

$$\begin{aligned}
 &= 0.8 \times \text{CO attainment level in university examination} \\
 &+ 0.2 \times \text{CO attainment level in Internal assessment} \\
 &= 0.8 \times 3 + 0.2 \times 2 \\
 &= 2.8
 \end{aligned}$$

Table 9 : CO attainment by course exit survey

Indirect assessment tool	CO Attainment
Course exit survey	3

Overall CO attainment is then computed as

$$\begin{aligned}
 &= 0.9 \times \text{Direct CO attainment} + 0.1 \times \text{Indirect CO attainment} \\
 &= 0.9 \times 2.8 + 0.1 \times 3
 \end{aligned}$$

= 2.82

Record the attainment of Course Outcomes of all courses with respect to set attainment levels (40)

Course Outcome Attainment:

Table 10 : External Assessment

Course	Attainment Level -3 %	Theory (%)						Oral / Practical (%)						Term Work %					
		CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
C101	70	73.85	73.85	73.85	73.85	73.85	73.85	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C102	70	43.08	43.08	43.08	43.08	43.08	43.08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C103	70	66.15	66.15	66.15	66.15	66.15	66.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C104	70	79.69	79.69	79.69	79.69	79.69	79.69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C105	70	84.38	84.38	84.38	84.38	84.38	84.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C106	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C107	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C108	70	85.94	85.94	85.94	85.94	85.94	85.94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C109	70	75.00	75.00	75.00	75.00	75.00	75.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C110	70	59.68	59.68	59.68	59.68	59.68	59.68	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C111	70	56.25	56.25	56.25	56.25	56.25	56.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C112	70	81.25	81.25	81.25	81.25	81.25	81.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C113	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C114	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C201	70	74.19	74.19	74.19	74.19	74.19	74.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C202	70	77.27	77.27	77.27	77.27	77.27	77.27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C203	70	75.81	75.81	75.81	75.81	75.81	75.81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C204	70	81.16	81.16	81.16	81.16	81.16	81.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C205	70	84.13	84.13	84.13	84.13	84.13	84.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C206	70	NA	NA	NA	NA	NA	NA	73.77	73.77	73.77	73.77	NA	NA	NA	NA	NA	NA	NA	NA
C207	70	NA	NA	NA	NA	NA	NA	54.10	54.10	54.10	54.10	54.10	NA	NA	NA	NA	NA	NA	NA
C208	70	NA	NA	NA	NA	NA	NA	75.81	75.81	75.81	75.81	75.81	75.81	NA	NA	NA	NA	NA	NA

Table 11 : Indirect Assessment

Course	Attainment level-3 %	Unit Test (%)						Term work (%)					
		CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
C101	80	72.58	29.51	77.05	58.33	80.36	76.79	100.00	100.00	100.00	98.46	100.00	96.92
C102	80	27.59	58.62	58.93	83.93	48.39	77.42	95.38	92.31	96.92	100.00	NA	NA
C103	80	67.86	28.57	84.62	50.00	50.00	34.62	100.00	93.85	98.46	92.31	100.00	93.85
C104	80	81.82	67.92	100.00	91.23	91.23	91.23	92.19	92.19	92.19	92.19	92.19	92.19
C105	80	84.91	77.36	100.00	100.00	100.00	98.18	92.19	92.19	92.19	92.19	92.19	92.19
C106	80	NA	NA	NA	NA	NA	NA	96.77	96.77	96.77	96.77	NA	NA
C107	80	83.05	69.49	96.49	78.95	NA	NA	100.00	100.00	100.00	100.00	NA	NA
C108	80	56.86	52.94	100.00	98.28	100.00	100.00	95.31	95.31	95.31	95.31	95.31	95.31
C109	80	53.33	45.65	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	NA	NA
C110	80	75.00	70.00	72.73	32.73	31.03	22.41	90.32	91.94	90.32	87.10	100.00	90.32
C111	80	35.48	40.32	76.67	75.00	52.94	25.49	98.44	100.00	100.00	NA	100.00	100.00
C112	80	NA	NA	87.04	84.09	94.55	81.82	100.00	100.00	100.00	100.00	100.00	100.00
C113	80	NA	NA	NA	NA	NA	NA	86.72	86.72	86.72	NA	NA	NA
C114	80	88.00	76.00	89.58	75.00	NA	NA	98.08	98.08	90.38	82.69	NA	NA
C201	80	95.35	88.37	67.44	85.37	73.17	75.61	NA	NA	NA	NA	NA	NA
C202	80	48.48	69.70	59.09	53.03	53.03	45.45	NA	NA	NA	NA	NA	NA
C203	80	94.00	78.00	52.00	64.58	95.83	25.00	NA	NA	NA	NA	NA	NA
C204	80	81.82	81.82	58.18	87.18	56.41	48.72	NA	NA	NA	NA	NA	NA
C205	80	41.03	35.09	73.68	22.81	67.35	40.82	NA	NA	NA	NA	NA	NA
C206	80	NA	NA	NA	NA	NA	NA	89.00	89.00	89.00	89.00	NA	NA
C207	80	NA	NA	NA	NA	NA	NA	87.10	87.10	87.10	87.10	87.10	NA
C208	80	NA	NA	NA	NA	NA	NA	98.39	90.32	88.71	88.71	87.10	74.19
C209	80	NA	NA	NA	NA	NA	NA	92.31	92.31	92.31	92.31	92.31	92.31
C210	80	NA	NA	NA	NA	NA	NA	100	100	100	100	NA	NA
C211	80	53.23	1.61	96.77	83.64	81.82	86.49	81	80	78.13	85.94	83	78
C212	80	93.33	95	73.33	97.92	97.92	97.92	NA	NA	NA	NA	NA	NA
C213	80	38.98	20.34	38.98	62.5	70.31	71.88	NA	NA	NA	NA	NA	NA
C214	80	75.44	92.98	52.63	97.87	10.64	95.65	NA	NA	NA	NA	NA	NA
C215	80	98.39	96.77	79.03	100	100	100	NA	NA	NA	NA	NA	NA
C216	80	NA	NA	NA	NA	NA	NA	89	89	89	89	NA	NA
C217	80	NA	NA	NA	NA	NA	NA	92	92	92	92	92	92
C218	80	NA	NA	NA	NA	NA	NA	98.44	96.88	84.38	87.5	82.81	84.38
C219	80	NA	NA	NA	NA	NA	NA	100.00	100.00	100.00	NA	NA	NA
C301	80	74.19	77.42	66.13	74.24	63.64	86.36	NA	NA	NA	NA	NA	NA
C302	80	91.94	85.48	20.97	86.79	90.57	71.70	NA	NA	NA	NA	NA	NA
C303	80	84.75	79.66	86.44	83.05	88.14	89.83	NA	NA	NA	NA	NA	NA
C304	80	43.33	45.00	46.67	63.64	22.73	68.18	NA	NA	NA	NA	NA	NA

C305	80	62.50	71.88	51.56	81.25	68.75	60.94	NA	NA	NA	NA	NA	NA
C306	80	NA	NA	NA	NA	NA	NA	97.10	97.10	97.10	97.10	97.10	97.10
C307	80	NA	NA	NA	NA	NA	NA	95.65	95.65	95.65	95.65	95.65	NA
C308	80	NA	NA	NA	NA	NA	NA	92.75	92.75	92.75	92.75	92.75	92.75
C309	80	NA	NA	NA	NA	NA	NA	100.00	100.00	NA	NA	NA	NA
C310	80	100.00	87.93	96.49	89.58	91.67	100.00	NA	NA	NA	NA	NA	NA
C311	80	90.38	15.38	78.85	100.00	98.33	90.00	NA	NA	NA	NA	NA	NA
C312	80	74.19	77.42	66.13	74.24	63.64	86.36	NA	NA	NA	NA	NA	NA
C313	80	51.92	84.62	46.15	95.08	90.16	78.69	NA	NA	NA	NA	NA	NA
C314	80	68.63	98.04	25.49	84.75	67.80	69.49	NA	NA	NA	NA	NA	NA
C315	80	NA	NA	NA	NA	NA	NA	88.41	88.41	88.41	88.41	NA	NA
C316	80	NA	NA	NA	NA	NA	NA	98.55	98.55	98.55	98.55	98.55	98.55
C317	80	NA	NA	NA	NA	NA	NA	79.71	79.71	79.71	79.71	NA	NA
C318	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C319	80	NA	NA	NA	NA	NA	NA	100.00	100.00	NA	NA	NA	NA
C401	80	94.34	83.02	58.49	70.49	91.80	81.97	NA	NA	NA	NA	NA	NA
C402	80	18.33	66.67	11.67	88.71	90.32	0.00	NA	NA	NA	NA	NA	NA
C403	80	98.39	56.45	61.29	85.94	76.56	70.31	NA	NA	NA	NA	NA	NA
C404 - E	80	22.45	16.33	69.39	98.33	96.67	85.00	NA	NA	NA	NA	NA	NA
C405 - C	80	73.21	73.21	76.79	73.21	73.21	76.79	NA	NA	NA	NA	NA	NA
C406	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C407	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C408	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C409	80	NA	NA	NA	NA	NA	NA	100.00	100.00	100.00	NA	NA	NA
C410	80	70.31	60.94	50.00	79.69	78.13	67.19	NA	NA	NA	NA	NA	NA
C411	80	80.36	42.86	30.36	94.44	77.78	75.93	NA	NA	NA	NA	NA	NA
C412 A	80	100.00	88.73	90.14	90.14	88.73	95.77	NA	NA	NA	NA	NA	NA
C413 D	80	86.21	74.14	58.62	96.83	93.65	93.65	NA	NA	NA	NA	NA	NA
C414	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C415	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C416	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C417	80	NA	NA	NA	NA	NA	NA	100.00	100.00	100.00	100.00	NA	NA

Table 12 : Indirect Assessment

Course	Attainment level -3 %	Course Exit Survey (%)					
		CO1	CO2	CO3	CO4	CO5	CO6
C101	80	90.12	87.04	89.51	87.65	90.74	93.21
C102	80	94.25	93.68	97.13	93.68	98.85	93.89
C103	80	92.95	90.38	87.82	88.46	87.18	89.74
C104	80	91.36	89.51	87.04	82.72	88.89	84.57

C105	80	76.73	77.36	77.36	80.50	79.87	79.25
C106	80	NA	NA	NA	NA	NA	NA
C107	80	83.85	84.38	87.50	85.94	NA	NA
C108	80	95.15	95.15	89.09	87.27	87.88	82.42
C109	80	89.68	88.10	84.13	82.54	80.95	84.13
C110	80	81.40	75.97	77.52	81.40	76.74	80.62
C111	80	90.00	82.33	83.33	85.67	81.00	82.33
C112	80	66.67	66.67	66.67	66.67	66.67	100.00
C113	80	NA	NA	NA	NA	NA	NA
C114	80	89.92	89.15	85.27	80.62	NA	NA
C201	80	89.31	90.57	88.05	88.05	88.68	89.94
C202	80	94.2	89.86	89.86	93.48	89.86	92.75
C203	80	87.65	87.03	82.71	87.65	81.48	82.09
C204	80	89.33	82.33	86	80.67	79.67	85.33
C205	80	86.52	85.11	82.98	84.4	84.4	85.82
C206	80	86.92	87.58	85.62	81.04	NA	NA
C207	80	85.63	81.03	82.76	79.31	81.61	NA
C208	80	85.96	85.38	88.89	85.38	85.96	85.96
C209	80	NA	NA	NA	NA	NA	NA
C210	80	NA	NA	NA	NA	NA	NA
C211	80	91.15	88.54	89.06	88.54	88.02	88.02
C212	80	90	87.78	87.78	90.56	86.67	86.11
C213	80	87.36	89.08	86.21	85.06	84.48	83.33
C214	80	88.33	88.33	83.88	87.77	81.66	82.77
C215	80	91.33	91.33	90	91.33	87.33	88.33
C216	80	89.47	89.47	87.72	86.55	NA	NA
C217	80	89.08	86.78	85.63	84.48	NA	NA
C218	80	92.78	90	88.33	86.67	86.67	85.56
C219	80	NA	NA	NA	NA	NA	NA
C301	80	92.75	94.20	91.79	91.79	90.82	91.79
C302	80	94.18	91.01	92.06	91.01	91.01	93.12
C303	80	98.41	95.24	98.41	96.83	96.83	96.83
C304	80	89.90	88.89	88.38	86.87	89.39	88.38
C305	80	89.06	85.94	90.63	85.94	85.94	87.50
C306	80	95.77	93.12	92.06	90.48	91.53	91.53
C307	80	91.01	86.77	89.95	88.89	89.42	NA
C308	80	87.18	85.13	85.64	87.18	86.67	84.62
C309	80	NA	NA	NA	NA	NA	NA
C310	80	92.27	88.41	89.86	89.37	89.86	88.89
C311	80	95.08	93.44	92.90	92.35	90.16	93.99
C312	80	93.22	92.09	89.83	87.57	85.31	89.27

C313	80	94.44	94.95	91.41	89.39	90.91	93.43
C314	80	91.67	92.65	91.18	90.20	90.69	90.69
C315	80	90.82	88.41	87.92	88.41	NA	NA
C316	80	88.89	86.77	86.24	91.01	89.95	85.19
C317	80	92.03	88.55	88.55	90.54	NA	NA
C318	80	NA	NA	NA	NA	NA	NA
C319	80	NA	NA	NA	NA	NA	NA
C401	80	93.33	91.11	89.44	86.67	90.56	87.22
C402	80	87.57	86.44	84.18	85.31	86.44	90.96
C403	80	91.66	92.00	91.66	90.00	87.33	90.33
C404 - E	80	91.00	88.00	88.00	86.00	88.00	88.00
C405 - C	80	96.77	93.01	90.32	93.01	93.01	93.01
C406	80	92.31	91.03	89.10	86.54	91.03	NA
C407	80	95.00	95.60	93.00	NA	NA	NA
C408	80	NA	NA	NA	NA	NA	NA
C409	80	NA	NA	NA	NA	NA	NA
C410	80	95.16	91.40	91.94	92.47	90.32	93.55
C411	80	85.31	80.79	85.88	82.49	84.18	83.62
C412 A	80	93.75	92.36	91.67	90.97	88.89	88.19
C413 D	80	96.33	95.67	89.33	91.00	90.33	94.67
C414	80	95.00	92.67	94.33	NA	NA	NA
C415	80	84.78	83.33	82.61	76.81	83.33	84.06
C416	80	NA	NA	NA	NA	NA	NA
C417	80	NA	NA	NA	NA	NA	NA

Table 13 : Overall Course Attainment

Course	Direct CO Attainment			Indirect CO Attainment	Overall CO Attainment
	External	Internal	Total		
C101	3	2	2.8	3	2.82
C102	0	1.5	0.3	3	0.57
C103	2	1.5	1.9	3	2.01
C104	3	3	3	3	3
C105	3	3	3	2	2.9
C106	NA	3	3	NA	3
C107	NA	3	3	3	3
C108	3	3	3	3	3
C109	3	3	3	3	3
C110	2	1.5	1.9	2	1.91
C111	1	1.5	1.1	3	1.29
C112	3	3	3	2	2.9
C113	NA	3	3	NA	3
C114	NA	3	3	3	3
C201	3	3	3	3	3
C202	3	0	2.4	3	2.46
C203	3	1	2.6	3	2.64
C204	3	1	2.6	3	2.64
C205	3	0	2.4	3	2.46
C206	3	3	3	3	3
C207	1	3	1.4	3	1.56
C208	3	3	3	3	3
C209	NA	3	3	NA	3
C210	NA	3	3	NA	3
C211	3	2	2.8	3	2.82
C212	3	3	3	3	3
C213	3	0	2.4	3	2.46
C214	3	2	2.8	3	2.82
C215	3	3	3	3	3
C216	3	3	3	3	3
C217	3	3	3	3	3
C218	3	3	3	3	3
C219	NA	3	3	NA	3
C301	3	2	2.8	3	2.82
C302	3	2	2.8	3	2.82

C303	3	3	3	3	3
C304	3	0	2.4	3	2.46
C305	3	1	2.6	3	2.64
C306	3	3	3	3	3
C307	3	3	3	3	3
C308	NA	3	3	3	3
C309	NA	3	3	NA	3
C310	3	3	3	3	3
C311	2	2	2	3	2.1
C312	3	2	2.8	3	2.82
C313	3	2	2.8	3	2.82
C314	3	1	2.6	3	2.64
C315	3	3	3	3	3
C316	3	3	3	3	3
C317	3	2	2.8	3	2.82
C318	3	NA	3	NA	3
C319	NA	3	3	NA	3
C401	0	3	0.6	3	0.84
C402	2	0	1.6	3	1.74
C403	2	2	2	3	2.1
C404 - E	3	1	2.6	3	2.64
C405 - C	2	2	2	3	2.1
C406	3	NA	3	3	3
C407	3	NA	3	3	3
C408	1	NA	1	NA	1
C409	NA	3	3	NA	3
C410	3	1	2.6	3	2.64
C411	3	1	2.60	3	2.64
C412 A	3	3	3	3	3
C413 D	3	3	3	3	3
C414	3	NA	3	3	3
C415	3	NA	3	3	3
C416	3	NA	3	NA	3
C417	NA	3	3	NA	3

Attainment of Program Outcomes and Program Specific Outcomes

Results of evaluation of each PO & PSO

Table 14 : PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
--------	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------

C101	1.88	1.88	--	--	--	--	--	--	0.94	--	--	0.94
C102	0.38	0.38	--	--	--	0.19	--	--	0.19	--	--	0.19
C103	1.34	0.67	--	--	--	--	0.67	--	0.80	0.67	0.67	0.67
C104	2.00	2.00	--	--	--	1.00	--	--	2.00	1.00	--	1.00
C105	2.90	1.93	1.93	--	1.93	--	--	--	--	0.96	--	1.93
C106	1.00	--	--	--	--	1.00	--	--	1.00	1.00	--	1.00
C107	2.00	2.00	--	--	--	2.00	2.00	2.00	--	2.00	--	2.00
C108	2.00	2.00	--	--	--	--	--	--	1.00	--	--	1.00
C109	2.00	2.00	--	--	--	--	1.00	--	--	--	--	1.00
C110	1.60	1.27	-	1.27	1.27	--	--	--	1.27	1.27	--	1.27
C111	0.86	0.86	--	--	--	--	--	--	0.86	0.43	--	0.86
C112	1.93	0.97	--	--	1.93	--	--	--	0.97	0.97	--	0.97
C113	--	--	--	--	--	--	--	1.00	1.00	1.00	1.00	1.00
C114	2.00	2.00	1.00	--	--	2.00	2.00	2.00	--	2.00	--	2.00
C201	2.17	2.00	2.00	1.67	--	--	--	--	--	--	--	2.17
C202	1.64	1.77	1.64	--	--	--	--	--	--	--	--	1.64
C203	2.20	2.49	1.61	1.94	1.76	--	--	--	--	--	--	2.05
C204	2.05	2.20	2.05	1.94	--	--	--	--	--	--	--	1.76
C205	1.64	1.64	1.64	1.64	1.64	--	--	--	--	--	--	1.64
C206	2.25	2.00	2.00	2.00	2.00	--	--	--	--	--	--	2.00
C207	1.14	1.35	1.25	1.04	--	--	--	--	--	--	--	1.04
C208	2.00	2.00	2.00	2.00	-	--	--	--	--	--	--	2.00
C209	--	--	--	--	2.33	--	--	2.00	1.80	2.66	--	1.50
C210	--	--	--	--	--	2.00	--	2.00	--	--	--	2.00
C211	1.88	1.88	--	--	--	--	--	--	--	--	--	0.94
C212	2.16	2.00	2.00	2.00	2.00	--	--	--	--	--	2.00	2.00
C213	1.67	2.13	2.46	--	--	--	--	--	--	--	--	1.64
C214	2.82	2.35	2.04	2.35	--	--	--	--	--	--	--	1.88
C215	2.50	1.67	1.75	--	--	1.33	--	--	--	--	--	2.83
C216	2.00	2.00	2.00	--	2.00	--	--	--	--	--	--	2.00
C217	3.00	2.50	2.17	2.50	--	--	--	--	--	--	--	2.00
C218	2.00	2.50	2.40	2.33	2.25	2.00	-	-	-	2.00	3.00	2.2
C219	--	--	--	--	--	--	--	2.00	--	--	--	2.00
C301	2.82	2.82	2.82	2.82	--	--	--	--	--	--	--	2.04
C302	1.88	1.88	1.88	1.88	--	--	--	--	--	--	--	2.82
C303	2.75	2.00	3.00	2.00	3.00	2.00	--	--	--	--	1.00	2.50
C304	1.64	1.50	1.64	1.64	--	--	--	--	--	--	--	1.64
C305	1.76	1.76	2.05	0.88	1.98	1.90	1.90	--	--	--	--	2.64

C306	2.00	2.00	2.00	2.00	2.00	2.00	--	3.00	3.00	3.00	3.00	3.00
C307	2.00	2.60	3.00	--	--	--	--	--	--	--	--	2.00
C308	2.16	2.16	2.16	2.16	2.16	1.16	--	1.00	3.00	1.66	1.66	2.16
C309	--	--	--	--	--	1.00	1.00	1.00	-	-	-	-
C310	2.50	2.16	2.16	2.00	--	--	--	--	--	--	--	3.00
C311	1.40	1.40	1.40	1.40	--	--	--	--	--	--	--	1.40
C312	2.82	2.82	2.82	2.82	--	0.94	--	--	--	--	--	2.19
C313	2.66	2.04	2.51	2.19	2.66	1.41	1.57	--	--	--	--	2.19
C314	2.11	2.11	2.20	--	2.64	--	--	--	--	--	--	1.76
C315	2.00	--	1.00	--	2.00	--	--	--	--	--	--	1.75
C316	2.00	2.50	2.50	2.00	--	--	--	--	--	--	--	2.00
C317	1.88	2.35	2.12	--	--	--	--	--	--	--	--	1.88
C318	2.00	2.00	2.00	2.00	2.00	2.00	1.00	3.00	3.00	3.00	2.00	3.00
C319	--	--	--	--	--	1.00	--	1.00	--	--	--	--
C401	0.65	0.67	0.67	0.37	0.28	--	--	0.28	--	--	--	0.56
C402	1.45	1.45	1.64	1.62	1.74	0.58	0.58	--	--	--	--	1.28
C403	1.63	1.63	1.63	1.40	1.22	1.40	--	--	--	1.40	1.40	1.40
C404 - E	2.49	1.91	2.20	2.49	2.20	0.88	1.76	--	--	--	0.88	1.17
C405 - C	1.40	1.40	1.40	1.17	0.70	1.40	1.40	0.70	--	--	--	1.40
C406	2.25	1.80	2.60	2.00	2.50	1.00	1.00	--	--	--	---	2.00
C407	2.66	2.33	2.66	2.66	2.00	--	--	--	--	--	2.00	2.00
C408	0.92	0.83	0.83	0.67	0.75	0.67	0.67	0.83	1.00	0.92	0.92	1.00
C409	--	--	--	--	--	--	--	--	2.00	2.33	2.00	3.00
C410	1.90	1.76	1.76	1.76	--	0.88	--	0.88	--	--	--	2.64
C411	2.34	1.76	1.94	1.90	1.76	2.20	2.20	--	--	--	--	1.76
C412 A	2.83	2.50	1.33	1.75	2.00	2.33	--	--	--	--	1.00	1.66
C413 D	2.20	2.16	2.00	2.00	2.20	2.00	--	--	--	2.00	--	2.16
C414	2.33	2.00	2.00	2.00	--	2.00	2.00	--	--	--	--	2.00
C415	2.00	2.00	2.40	2.00	2.25	2.00	2.00	--	--	--	---	2.00
C416	2.50	3.00	3.00	3.00	3.00	3.00	3.00	2.50	3.00	2.75	2.75	2.50
C417	2.00	--	--	2.00	--	--	--	--	2.00	--	2.00	2.00

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment	2.14	2.05	2.12	2.05	2.10	1.75	1.75	1.80	1.82	1.85	1.92	1.98
Direct Attainment	1.98	1.89	1.98	1.88	1.94	1.51	1.51	1.57	1.60	1.65	1.70	1.79

In Direct Attainment	2.80	2.70	2.69	2.72	2.73	2.73	2.72	2.72	2.72	2.67	2.78	2.75
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Table 15 : PSO Attainment

Course	PSO1	PSO2	PSO3
C101	0.94	--	--
C102	--	--	0.19
C103	0.67	--	--
C104	--	--	1.00
C105	0.96	--	--
C106	--	--	1.00
C107	--	--	1.00
C108	1.00	--	--
C109	--	--	1.00
C110	0.63	--	0.63
C111	0.86	--	0.43
C112	--	--	--
C113	1.00	--	1.00
C114	--	--	1.00
C201	2.33	1.00	--
C202	1.64	--	--
C203	1.76	1.58	--
C204	1.76	1.76	--
C205	1.64	0.82	--
C206	2.00	2.00	--
C207	1.04	1.04	--
C208	2.00	2.00	--
C209	--	--	1.33
C210	--	--	--
C211	0.94	--	--
C212	2.00	1.00	--
C213	1.64	1.64	--
C214	2.66	1.72	--
C215	1.33	2.00	--
C216	-	2.00	--
C217	2.83	1.83	--
C218	3.00	1.00	--
C219	--	--	--
C301	1.88	0.94	--
C302	1.88	2.35	--
C303	2.00	2.00	3.00
C304	0.82	0.82	--
C305	1.76	1.76	--
C306	2.00	3.00	3.00
C307	2.00	2.00	--
C308	2.00	1.66	2.66
C309	--	--	--

C310	3.00	3.00	--
C311	1.40	--	--
C312	2.82	1.41	--
C313	2.82	2.82	--
C314	1.76	2.64	1.76
C315	--	2.00	--
C316	2.00	2.00	--
C317	1.88	1.88	--
C318	2.00	2.00	3.00
C319	--	--	--
C401	0.84	0.39	--
C402	1.16	1.16	--
C403	--	1.63	0.70
C404 - E	2.49	2.49	--
C405 - C	--	1.40	--
C406	2.00	2.00	--
C407	--	3.00	1.00
C408	0.66	0.66	1.00
C409	--	--	2.00
C410	1.54	1.32	--
C411	0.88	2.11	--
C412 A	1.00	1.00	1.83
C413 D	2.33	2.00	2.00
C414	1.66	2.00	--
C415	2.00	1.80	--
C416	2.00	2.00	3.00
C417	2.00	2.00	-

PSO Attainment Level

Course	PSO1	PSO2	PSO3
CO Attainment	1.93	1.95	1.78
Direct Attainment	1.71	1.75	1.52
In Direct Attainment	2.80	2.76	2.83