



**KBT COE**

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**COLLEGE OF ENGINEERING**

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 &  
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5 PROGRAMS ARE ACCREDITED BY  
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**A**  
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## DEPARTMENT OF CIVIL ENGINEERING

### 1. COURSE OUTCOMES AND PROGRAM OUTCOMES

#### PROGRAM OUTCOMES (POs) AND PROGRAM SPECIFIC OUTCOMES (PSOs)

<b>PSO1</b>	Graduates will apply technical knowledge, engineering skills, and competencies necessary for entering civil engineering career
<b>PSO2</b>	Graduates will demonstrate knowledge and techniques in engineering fields for effective management and professional development
<b>PSO3</b>	Graduates will apply technical and professional skills to be nationally competitive for employment/self-employment thereby benefit the society

#### COURSE OUTCOMES (COs)

**Course: - Building Techn. & Architectural planning code: -C201 A.Y. -2020-21 SEM-3<sup>rd</sup>**  
**Students will be able to**

<b>C201.1</b>	<b>Identify types of building and basic requirements of building construction and masonry.</b>
<b>C201.2</b>	<b>Make use of Architectural Principles and Building byelaws for building construction.</b>
<b>C201.3</b>	<b>Identify and select various building components according to their requirement.</b>
<b>C201.4</b>	<b>Plan effectively various types of Residential Building and green building according to their utility, functions with reference to National Building Code.</b>
<b>C201.5</b>	<b>Plan effectively various types of Public Buildings according to their utility functions with reference to National Building Code.</b>
<b>C201.6</b>	<b>Make use of Principles of Planning in Town Planning, Safety aspects, building services.</b>

**Course: - Geotechnical Engineering**  
**Students will be able to**

**code: - C211 A.Y. -2020-21 SEM-4<sup>th</sup>**

<b>C211.1</b>	Identify and classify the soil based on the index properties and its formation process.
<b>C211.2</b>	Explain permeability and seepage analysis of soil by construction of flow net.
<b>C211.3</b>	Illustrate the effect of compaction on soil and understand the basics of stress distribution.
<b>C211.4</b>	Determine shear strength of soil and its measurement under various drainage conditions.
<b>C211.5</b>	Evaluate the earth pressure due to backfill on retaining structures by using different theories.
<b>C211.6</b>	Analysis of stability of slopes for different types of soils.

**Course: - Fluid Mechanics II**  
**Students will be able to**

**Course code: -C305 A.Y. -2020-21 SEM-5<sup>th</sup>**

<b>C305.1</b>	Compute drag and lift coefficients for different practical problems
<b>C305.2</b>	Apply basic governing equations for analysis and design of open channel
<b>C305.3</b>	Compute uniform flow in open channel for various sections and hydraulic jump
<b>C305.4</b>	Determine forces and work done due to impact of jet and due to impeller of centrifugal pumps.
<b>C305.5</b>	Design various hydraulic turbines
<b>C305.6</b>	Analyze gradually varied flow in open channel

**Course: - Structural Design-II**  
**Students will be able to**

**Course code: -C310 A.Y. -2020-21 SEM-6<sup>th</sup>**

<b>C310.1</b>	Differentiate working and limit state method to analyze various sections.
<b>C310.2</b>	Design various reinforced beam sections and one way slab
<b>C310.3</b>	Design two-way slabs and staircase for different support conditions.
<b>C310.4</b>	Design various beam sections for flexure.
<b>C310.5</b>	Design flexural members for shear, bond, and torsion with redistribution of moments.
<b>C310.6</b>	Design column and isolated footing for different loading conditions.

**Course: - Environmental Engineering-I**  
**Students will be able to**

**Course code: -C411 A.Y. -2020-21 SEM-7<sup>th</sup>**

<b>C401.1</b>	Identify the sources, characterization and quantity of wastewater.
<b>C401.2</b>	Design of preliminary and primary wastewater treatment units.
<b>C401.3</b>	Design the secondary wastewater treatment units.

<b>C401.4</b>	Illustrate the low-cost wastewater treatment methods.
<b>C401.5</b>	Illustrate anaerobic wastewater treatment process.
<b>C401.6</b>	Interpret the various industrial wastewater treatment processes.

**Course:** - Quantity surveying, Contracts and Tenders **code:** -C408 A.Y. -2020-21 SEM-8<sup>th</sup>  
**Students will be able to**

<b>C408.1</b>	Explain terms related to estimation along with preparation of approximate estimate.
<b>C408.2</b>	Compute the quantities to prepare the detailed estimate
<b>C408.3</b>	Prepare specification and rate analysis for item.
<b>C408.4</b>	Prepare the Valuation of Property
<b>C408.5</b>	State the tender, types of tenders, tendering procedure, and methods of executing the work
<b>C408.6</b>	Compare contracts, types of contract and conditions of contract.

## 2. CO-PO AND PSO MATRICES OF ABOVE SELECTED COURSES

**Course:** - Course: - Building Technology & Architectural planning **code:** -C201 A.Y. -2020-21 SEM-3<sup>rd</sup>

**Mapping of CO with POs:**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
<b>C201.1</b>	3	1	-	-	-	-	-	-	-	-	-	-
<b>C201.2</b>	3	1	-	-	-	2	-	2	1	-	-	-
<b>C201.3</b>	3	1	-	-	-	-	-	-	-	-	-	-
<b>C201.4</b>	3	-	3	-	2	2	-	2	3	-	-	2
<b>C201.5</b>	3	-	3	-	2	2	-	2	3	-	-	2
<b>C201.6</b>	3	-	-	-	-	1	-	2	2	-	-	1
<b>C201</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>-</b>	<b>2</b>	<b>1.75</b>	<b>-</b>	<b>2</b>	<b>1.5</b>	<b>-</b>	<b>-</b>	<b>1.66</b>

**Course:** - Geotechnical Engineering **code:** - C211 A.Y. -2020-21 SEM-4<sup>th</sup>

**Mapping of CO with POs**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
<b>C211.1</b>	3	3	-	3	-	-	2	-	-	-	-	2
<b>C211.2</b>	3	2	-	3	-	-	2	-	-	-	-	2

C211.3	3	3	2	2	-	-	2	-	-	-	-	2
C211.4	2	2	-	3	-	-	3	-	-	-	-	3
C211.5	3	3	2	2	-	-	3	-	-	-	-	2
C211.6	3	2	3	2	2	-	3	-	-	-	-	2
C211	2.8	2.5	2.3	2.5	2.0	-	2.5	-	-	-	-	2.2

Course: - Fluid Mechanics II Course code: -C305 A.Y. -2020-21 SEM-5<sup>th</sup>

Mapping of CO with POs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C305.1	3	3	3	2	-	3	2	2	2	2	-	2
C305.2	3	3	3	2	-	3	2	2	2	2	-	2
C305.3	3	3	3	2	-	3	2	2	2	2	2	2
C305.4	3	3	3	2	-	3	2	2	2	2	-	2
C305.5	3	3	3	2	-	3	2	2	2	2	-	2
C305.6	3	3	3	2	-	3	2	2	2	2	-	2
C305	3	3	3	2	-	3	2	2	2	2	2	2

Course: - Structural Design-II

Course code: -C310 A.Y. -2020-21 SEM-6<sup>th</sup>

Mapping of CO with POs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C310.1	3	-	-	-	-	-	-	-	-	-	-	-
C310.2	3	2	3	2	-	-	-	3	3	2	-	3
C310.3	3	2	3	2	-	-	-	3	3	2	-	3
C310.4	3	2	3	2	-	-	-	3	3	2	-	3
C310.5	3	2	3	2	-	-	-	3	3	2	-	3
C310.6	3	2	3	2	-	-	-	3	3	2	-	3
C310	3	2	3	2	-	-	-	3	3	2	-	3

Course: - Environmental Engineering-I

Course code: -C411 A.Y. -2020-21 SEM-7<sup>th</sup>

Mapping of CO with POs

COs	Program outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

<b>C401.1</b>	<b>3</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>3</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>2</b>
<b>C401.2</b>	<b>3</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>-</b>	<b>2</b>
<b>C401.3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>-</b>	<b>2</b>
<b>C401.4</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>-</b>	<b>2</b>
<b>C401.5</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>2</b>
<b>C401.6</b>	<b>3</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>3</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>2</b>
<b>C401</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>-</b>	<b>2</b>

**Course: - Quantity surveying, Contracts and Tenders Course code: -C408 A.Y. -2020-21 SEM-8th**

**Mapping of CO with POs**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C408.1	3	2	2	2	-	3	2	3	2	2	3	3
C408.2	3	3	2	3	3	3	2	3	2	3	3	3
C408.3	3	3	2	3	-	3	2	3	2	3	3	3
C408.4	3	2	2	2	-	3	2	3	2	3	3	3
C408.5	-	-	2	-	2	3	2	2	2	3	2	3
C408.6	-	-	2	-	3	3	2	2	2	3	2	3
<b>C408</b>	<b>3</b>	<b>2.50</b>	<b>2</b>	<b>2.50</b>	<b>2.67</b>	<b>3</b>	<b>2</b>	<b>2.67</b>	<b>2</b>	<b>2.67</b>	<b>2.67</b>	<b>3</b>

**Course: - Course: - Building Technology & Architectural planning code: -C201 A.Y. -2020-21 SEM-3<sup>rd</sup>**

**Mapping of COs with PSOs:**

Course Outcomes	PSO1	PSO2	PSO3
C201.1	2	-	-
C201.2	2	-	-
C201.3	2	-	-
C201.4	2	2	2
C201.5	2	2	2
C201.6	2	-	-
C201	2	2	2

**Course: - Geotechnical Engineering code: - C211 A.Y. -2020-21 SEM-4<sup>th</sup>**

**Mapping of COs with PSOs:**

Course Outcomes	PSO1	PSO2	PSO3
C211.1	3	-	2
C211.2	3	-	2
C211.3	3	-	2
C211.4	3	-	3
C211.5	3	-	2
C211.6	3	-	3
<b>C211</b>	<b>3</b>	<b>-</b>	<b>2.33</b>

**Course: - Fluid Mechanics II**  
**Mapping of COs with PSOs:**

**Course code: -C305 A.Y. -2020-21 SEM-5<sup>th</sup>**

<b>Course Outcomes</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C305.1	3	2	3
C305.2	3	2	3
C305.3	3	2	3
C305.4	3	2	3
C305.5	3	2	3
C305.6	3	2	3
<b>C305</b>	<b>3</b>	<b>2</b>	<b>3</b>

**Course: - Structural Design-II**  
**Mapping of COs with PSOs:**

**Course code: -C310 A.Y. -2020-21 SEM-6<sup>th</sup>**

<b>Course Outcomes</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C310.1	3	-	3
C310.2	3	-	3
C310.3	3	-	3
C310.4	3	-	3
C310.5	3	-	3
C310.6	3	-	3
<b>C310</b>	<b>3</b>	<b>-</b>	<b>3</b>

**Course: - Environmental Engineering-I**  
**Mapping of COs with PSOs:**

**Course code: -C411 A.Y. -2020-21 SEM-7<sup>th</sup>**

<b>Course Outcomes</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C401.1	2	-	2
C401.2	3	2	2
C401.3	3	2	2
C401.4	3	2	2
C401.5	2	-	2
C401.6	2	-	2

<b>C401</b>	<b>2.5</b>	<b>2</b>	<b>2</b>
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**Course: - Quantity surveying, Contracts and Tenders : -C408 A.Y. -2020-21 SEM-8<sup>th</sup>**  
**Mapping of COs with PSOs:**

<b>Course Outcomes</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>C408.1</b>	<b>3</b>	<b>2</b>	<b>3</b>
<b>C408.2</b>	<b>3</b>	<b>2</b>	<b>3</b>
<b>C408.3</b>	<b>3</b>	<b>2</b>	<b>3</b>
<b>C408.4</b>	<b>3</b>	<b>2</b>	<b>3</b>
<b>C408.5</b>	<b>3</b>	<b>2</b>	<b>3</b>
<b>C408.6</b>	<b>3</b>	<b>2</b>	<b>3</b>
<b>C408</b>	<b>3</b>	<b>2</b>	<b>3.0</b>



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

A.Y. 2020-21

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

Course code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
C 101	2	2	-	-	-	-	-	-	1	-	-	1
C 102	2	2	-	-	-	1	-	-	1	-	-	1
C 103	2	1	-	-	-	-	1	-	1.2	1	1	1
C 104	2	2	-	-	-	1	-	-	2	1	-	1
C 105	3	2	2	-	2	-	-	-	-	1	-	2
C 106	1	-	-	-	-	1	-	-	1	1	-	1
C 107	2	2	-	-	-	2	2	2	-	2	-	2
C 108	2	2	-	-	-	-	-	-	1	-	-	1
C 109	2	2	-	-	-	-	1	-	-	-	-	1
C 110	2.5	2	-	2	2	-	-	-	2	2	-	2
C 111	2	2	-	-	-	-	-	-	2	1	-	2
C 112	2	1	-	-	2	-	-	-	1	1	-	1
C 113	-	-	-	-	-	-	-	1	1	1	1	1
C 114	2	2	1	-	-	2	2	2	-	2	-	2
C201	3	1	3	-	2	1.75	-	2	1.5	-	-	1.66
C202	2.33	2.5	-	-	-	-	-	-	2	2	-	-
C203	3	2.83	2.6	2	2.5	2.4	2	3	2	-	-	3
C204	2	2	-	-	-	-	-	-	1	-	-	1
C205	2	2	2	2	2	2	2	2	-	1	-	2
C206	3	1	2	-	3	2	1	2	3	-	-	1.5
C207	2.8	2.6	2	2	2.75	2.75	2	2.75	2	2	2	2.6
C208	2.5	2.17	2	2	-	2	-	2.33	2	-	-	2.83
C209	2	2	2	2	2	2	2	-	2	2	-	2
C210	2	-	-	-	-	2	2	2	-	-	2	2
C211	2.8	2.5	2.3	2.5	2	-	2.5	-	-	-	-	2.2
C212	3	2	2	2	2	2	-	2	3	2	2	2
C213	3	3	3	3	2	2	2	3	-	3	-	3

Course code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
C214	3	3	2	2	-	2	-	-	2	-	-	3
C215	2	2	-	-	1.67	2	-	-	-	-	2.16	1
C216	2.8	2.5	2.3	2.5	2	-	-	2.2	2	2	-	3
C217	3	2	2	2	2	2	-	2	3	2	2	2
C218	3	3	2.25	3	2	3	-	3	3	2.25	-	3
C219	2	2	2	3	2	2	2	2	3	3	3	2
C220	2	2	-	-	2	2	2	2	2	2	2	2
C301	3	2	2	2	-	2	2	-	2	2	2	3
C302	2	-	-	2	2	-	-	-	-	-	-	2
C303	3	3	3	2	3	2	-	3	3	3	-	3
C304	2.83	2.8	2	2	-	2	-	1	2	2	-	2.8
C305	3	2	2	-	2	2	2	2	2	2	-	2
C306	-	-	-	-	-	-	-	1.5	1.67	2.33	1.33	2
C307	3	2.5	2.5	1	2.5	3	-	-	2.7	-	2	2.3
C308	2	2	-	2	2	-	-	-	3	-	3	2
C309	3	3	3	3	3	2	2	-	-	-	-	2
C310	3	2	3	2	-	-	-	3	3	2	-	3
C311	2	2	2.33	2	2	2	3	2	2	2	-	2
C312	2.16	2	2	2	2	2	2	2	3	2.16	2	3
C401	3	2	3	2	2	2	3	2	2	2	-	2
C402	2.5	2.5	2.5	2.5	3	-	2	2.33	-	-	2	3
C403	3	3	3	2	2	2	-	2	3	3	-	3
C404 (2)	3	3	3	2.5	2	-	-	-	2	2	2.5	3
C404 (5)	2	2	2	2	2	2	2	2	-	2	-	2
C405 (4)	2.83	2.5	2.5	3	-	2	2	2	-	2	-	3
C406	2.85	2.95	2.54	2.55	2.12	2.63	2.73	2.72	2.93	2.48	2.44	2.65
C407	2.83	2.5	2.6	2.33	-	2	2	2	2	2	-	3
C408	2.5	2.67	2	2.67	2.5	3	2	2.6	2	2.83	2.5	3
C409 (4)	3	2	3	2	-	2	2	3	2	2	-	2

<b>Course code</b>	<b>PO 1</b>	<b>PO 2</b>	<b>PO 3</b>	<b>PO 4</b>	<b>PO 5</b>	<b>PO 6</b>	<b>PO 7</b>	<b>PO 8</b>	<b>PO 9</b>	<b>PO1 0</b>	<b>PO1 1</b>	<b>PO1 2</b>
C410 (1)	3	2	2	2	2	3	2	2	2	2	3	3
C411	2.91	2.92	2.74	2.64	2.26	2.46	2.65	2.69	2.93	2.69	2.39	2.74

A.Y. 2020-21

Table 2: Program level Course-PSO matrix for all the courses

Course code	PSO1	PSO2	PSO3
C 101	2	-	-
C 102	1	-	-
C 103	1	-	-
C 104	-	1	-
C 105	-	1	1
C 106	-	-	-
C 107	1	-	1
C 108	2	-	-
C 109	1	-	-
C 110	1	-	-
C 111	2	-	-
C 112	1	-	-
C 113	1	1	-
C 114	1	-	1
C201	2	2	2
C202	3	-	3
C203	3	2.25	2
C204	1	-	-
C205	2	-	2
C206	2	-	1

<b>Course code</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C207	2.6	2	2.6
C208	3	2	2
C209	2	-	2
C210	2	2	2
C211	3	-	2.33
C212	2	2	2
C213	3	-	3
C214	3	2	2
C215	1	2	-
C216	3	-	2.33
C217	2	2	2
C218	3	-	3
C219	3	2	2
C220	2	2	2
C301	2	2	2
C302	2	-	2
C303	2.83	-	3
C304	2.67	1	2.83
C305	2	-	2
C306	-	-	1.66
C307	3	-	2.33
C308	2	2	2
C309	2.5	-	2

<b>Course code</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C310	3	-	
C311	2	2	2
C312	3	2	2
C401	2.5	2	2
C402	3	2.16	3
C403	3	2	2
C404 (2)	3	2.5	2
C404 (5)	2	2	2
C405 (4)	3	2	2
C406	2.91	2.37	1.92
C407	2.67	2.5	2.67
C408	3	2	3
C409 (4)	3	-	2
C410 (1)	2	3	3
C411	2.94	2.57	2.35

## 2. Attainment of Course Outcomes

**Table 3: Example of Mark entry**

**Course Name: Structural Design- II**

Seat No.	Name of Student	External Assessment		Term Work	Internal Assessment						Indirect Assessment					
		University Exam	University OR Exam		Unit Test						Course Exit Survey					
					CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6
T150290001	Aher Tushar Prafulla	87	41	42	8	7	9	5	7	6	2	2	2	2	2	2
T150290002	Bagal Kulbhushan Kailas	79	39	40	8	6	7	8	7	8	NA	NA	NA	NA	NA	NA
T150290003	Bagul Riya Rajesh	82	42	43	10	10	9	8	7	6	3	3	3	3	3	3
T150290004	Bagul Rutuja Chintaram	75	40	42	10	8	9	5	5	6	3	3	3	3	3	3
T150290005	Baisane Rahul Prakash	82	35	36	7	9	7	7	5	7	NA	NA	NA	NA	NA	NA
T150290006	Bare Krushna Jalindranath	82	36	37	8	8	8	9	6	9	NA	NA	NA	NA	NA	NA
T150290007	Barke Pratik Shivaji	79	38	41	10	10	10	9	10	9	3	3	3	3	3	3
T150290008	Bava Sejal Ravsaheb	79	38	40	9	10	10	8	7	8	NA	NA	NA	NA	NA	NA
T150290009	Bhamare Dev Dinesh	83	35	37	10	10	10	7	9	8	NA	NA	NA	NA	NA	NA
T150290011	Bhamare Shubham Rajendra	86	35	38	9	10	10	9	6	8	3	3	3	3	3	3
T150290012	Chandwani Khushboo Dilip	80	42	43	10	10	9	7	8	8	3	2	2	2	2	2
T150290013	Chaudhari Adarsh Pradip	87	34	35	10	9	9	6	9	9	NA	NA	NA	NA	NA	NA
T150290014	Chaudhari Avinash Ambadas	83	38	40	9	10	10	10	7	7	2	2	3	2	3	2
T150290015	Chaudhari Nikhil Sunil	86	32	34	10	10	9	8	10	8	3	3	3	3	3	3
T150290016	Chopada Sakshi Prashant	76	43	43	9	10	9	8	9	9	NA	NA	NA	NA	NA	NA
T150290017	Dalvi Dipesh Dayaram	64	35	37	10	10	9	8	8	7	3	2	2	3	3	2
T150290018	Deore Ashutosh Sudhir	54	38	40	7	8	8	5	4	9	3	3	3	3	3	3
T150290019	Deore Hrutik Sanjya	84	33	35	6	7	9	8	3	6	NA	NA	NA	NA	NA	NA

Seat No.	Name of Student	External Assessment		T e r m W o r k	Internal Assessment						Indirect Assessment					
		U n i v e r s i t y T H E x a m	U n i v e r s i t y O R E x a m		Unit Test						Course Exit Survey					
					CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6
T150290020	Dhatingan Ashwin Kiran	84	30	34	9	10	6	9	9	7	NA	NA	NA	NA	NA	NA
T150290021	Gaikwad Aditya Kishor	88	35	36	9	9	8	7	4	7	3	3	3	3	3	3
T150290022	Gaikwad Ajay Bhila	82	36	37	8	7	8	8	5	7	2	3	2	3	3	3
T150290023	Gaikwad Digvijay Shriram	82	38	39	8	7	9	3	2	5	3	3	3	3	3	3
T150290024	Gangurde Hrishikesh Rajendra	72	38	40	9	9	8	7	4	3	NA	NA	NA	NA	NA	NA
T150290025	Gangurde Sarthak Sanjaykumar	97	38	40	10	10	10	9	9	9	1	3	3	3	3	3
T150290026	Gholap Sejal Ashutosh	95	39	41	9	10	10	9	7	8	3	3	3	3	3	3
T150290027	Gite Nikhil Annashaheb	94	40	42	9	10	10	9	9	9	1	1	1	0	0	1
T150290028	Jadhav Kiran Pundlik	80	35	38	10	9	9	9	5	7	3	3	3	3	3	3
T150290029	Jadhav Shraddha Tulshiram	82	40	42	10	9	9	9	8	9	2	2	2	2	2	2
T150290030	Kadlag Pranjal Dilip	75	30	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
T150290031	Kakad Prathamesh Gangadhar	84	40	42	8	8	10	8	5	9	NA	NA	NA	NA	NA	NA
T150290032	Kakad Priya Rajendra	71	40	42	9	10	9	9	5	8	3	3	3	3	3	3
T150290033	Kale Anvay Rajendra	97	40	42	10	9	10	9	8	9	3	3	3	3	3	3
T150290034	Kanishka Sanjay Bhamare	89	44	44	10	10	10	9	10	10	3	3	3	3	3	3
T150290035	Karanjekar Prathmesh Rajesh	99	44	44	9	9	8	8	10	8	3	3	3	3	3	3
T150290036	Katad Pratik Kiran	87	38	41	9	9	8	9	6	9	3	3	3	2	2	3
T150290037	Kokane Amol Santosh	99	36	39	9	10	10	9	10	9	3	3	3	3	3	3



Seat No.	Name of Student	External Assessment		Term Work	Internal Assessment						Indirect Assessment					
		University Exam	University OR Exam		Unit Test						Course Exit Survey					
					CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6
T150290038	Kumawat Sandip Sanjay	75	39	41	8	10	9	8	10	8	NA	NA	NA	NA	NA	NA
T150290039	Lokhande Gaurav Sunil	72	32	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
T150290040	Londhe Swapnil Suresh	89	35	37	8	8	6	8	6	8	3	3	3	3	3	3
T150290041	Mahajan Anjali Jitendra	91	42	43	8	10	10	9	8	10	3	3	3	2	3	3
T150290042	Mali Pratik Subhash	80	35	38	10	10	9	9	5	6						
T150290043	Matale Prasad Devidas	63	32	35	10	10	10	9	10	9	3	3	3	3	3	3
T150290044	Mate Rushikesh Ramdas	86	40	41	9	9	10	7	9	6	3	3	3	3	3	3
T150290045	Matsagar Ganesh Bharat	75	40	42	10	10	10	8	7	8	3	3	3	3	3	3
T150290046	Mayank	96	35	38	9	7	8	8	8	6	NA	NA	NA	NA	NA	NA
T150290047	Navale Dipali Ajay	76	38	40	9	9	8	9	7	9	3	3	3	3	3	3
T150290048	Navale Rohan Ramnath	87	30	32	7	9	10	9	7	9	3	3	3	3	3	3
T150290049	Navtakke Akshay Ashok	76	30	32	9	10	10	9	7	9	2	2	2	2	1	2
T150290050	Patait Piyush Rajendra	83	30	32	9	10	9	8	9	9	2	2	2	2	2	2
T150290051	Patil Ashutosh Madhukar	89	44	44	10	10	10	10	6	8	NA	NA	NA	NA	NA	NA
T150290052	Patil Rohan Vijay	75	30	30	10	9	9	9	6	9	NA	NA	NA	NA	NA	NA
T150290053	Patil Rutuja Kailas	81	38	40	7	7	5	8	8	8	NA	NA	NA	NA	NA	NA
T150290054	Pawar Ajinkya Mahendra	96	42	43	6	10	10	8	9	9	3	2	3	2	3	3
T150290055	Pawar Sanket Rajendra	94	42	43	9	10	10	7	7	8	3	3	3	3	3	3

Seat No.	Name of Student	External Assessment		T e r m W o r k	Internal Assessment						Indirect Assessment					
		U n i v e r s i t y T H E x a m	U n i v e r s i t y O R E x a m		Unit Test						Course Exit Survey					
					CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6
T150290056	Pratik Raghunath Dhattrak	87	32	35	9	8	9	8	9	7	3	3	3	3	3	3
T150290057	Rajbhoj Pratim Amol	92	35	38	8	8	7	8	7	5	NA	NA	NA	NA	NA	NA
T150290058	Ranveer Harshvardhan Chavan	71	36	37	10	10	10	9	8	10	NA	NA	NA	NA	NA	NA
T150290059	Raundal Anisha Sudam	76	38	40	9	8	9	10	8	9	2	2	3	3	2	2
T150290060	Saindane Darshana Nagraj	84	38	40	10	10	9	6	8	9	NA	NA	NA	NA	NA	NA
T150290061	Salunke Bhagyashri Gokul	73	38	40	10	8	7	8	7	8	NA	NA	NA	NA	NA	NA
T150290062	Sanika Sharad Kale	85	40	42	8	10	10	7	7	8	2	3	3	3	3	3
T150290063	Sanket Mahavir Jain	81	30	32	9	10	10	9	8	6	2	2	3	3	3	2
T150290065	Shah Bhavya Rakesh	87	30	32	10	9	9	10	4	8	2	2	2	2	2	2
T150290066	Shah Dhruvil Manish	90	30	32	9	10	10	9	5	10	NA	NA	NA	NA	NA	NA
T150290067	Shete Vishal Bhausaheb	87	32	36	8	9	9	8	7	6	3	3	3	3	3	3
T150290068	Shinde Shivani Sunil	86	39	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
T150290069	Shubham Laxman Patil	80	38	40	9	9	10	9	7	10	3	3	3	3	3	3
T150290071	Sonar Mangesh Rajendra	85	36	39	7	7	9	7	7	7	3	3	3	2	2	2
T150290072	Sonawane Nilesh Dilip	88	32	35	10	10	10	10	9	8	NA	NA	NA	NA	NA	NA
T150290073	Sonawane Samadhan Vishnu	90	32	35	10	9	10	8	7	7	3	3	3	2	3	3
T150290074	Thakare Akanksha Dnyaneshwar	84	43	43	7	7	6	9	5	6	NA	NA	NA	NA	NA	NA
T150290075	Vaishnavi Sameer Kshatriya	80	42	43	10	10	10	9	10	9	3	3	3	3	3	3

Seat No.	Name of Student	External Assessment		T e r m W o r k	Internal Assessment						Indirect Assessment					
		U n i v e r s i t y T H E x a m	U n i v e r s i t y O R E x a m		Unit Test						Course Exit Survey					
					CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6
Number of students appeared for the exam		72	72	72	65	65	65	65	65	65	45	45	45	45	45	45
Target value		51	31	31	6	6	6	6	6	6	-	-	-	-	-	-
Number of Students scoring more than target value		72	63	71	63	63	62	59	49	60	-	-	-	-	-	-
Percentage of Students scoring more than target value		100	87.5 0	98. 61	96.9 2	96.9 2	95.3 8	90.7 7	75.3 8	92.3 1	89.6 7	90.3 3	92. 67	89	90.3 3	90.3 3
Attainment Level		3	3	3	3						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
89.6 7	90.3 3	92.6 7	89	90.3 3	90.3 3	100	100	100	100	100	100	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
96.92	96.92	95.38	90.77	75.38	92.31	94.44	95.83	97.22	90.28	90.28	95.83

**Table 6 : Indirect Assessment:**

Course Exit Survey (%)					
CO1	CO2	CO3	CO4	CO5	CO6
89.67	90.33	92.67	89	90.33	90.33

**Table 7 : CO attainment by external assessment**

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

**Table 8 : CO attainment by internal assessment**

Internal assessment tool	CO Attainment
Unit test	3
Term work	3
Average	3

Direct CO attainment is then computed as

$$= 0.8 \times \text{CO attainment level in university examination} + 0.2 \times \text{CO attainment level in Internal assessment}$$

$$= 0.8 \times 3 + 0.2 \times 3$$

$$= 3$$

**Table 9: CO attainment by course exit survey**

<b>Indirect assessment tool</b>	<b>CO Attainment</b>
Course exit survey	3

Overall CO attainment is then computed as

$$= 0.9 \times \text{Direct CO attainment} + 0.1 \times \text{Indirect CO attainment}$$

$$= 0.9 \times 3 + 0.1 \times 3 = 3$$









Course code	Attainment Level %	External Direct Assessment																		
		University Exam						Practical/Oral %						Term work %						
		CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	
C309	70%	95.89	95.89	95.89	95.89	95.89	95.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C310	70%	89.67	90.33	92.67	89	90.33	90.33	100	100	100	100	100	100	100	NA	NA	NA	NA	NA	NA
C311	70%	98.63	98.63	98.63	98.63	98.63	98.63	98.63	98.63	98.63	98.63	98.63	98.63	98.63	NA	NA	NA	NA	NA	NA
C312	70%	NA	NA	NA	NA	NA	NA	100	100	100	100	100	100	NA	NA	NA	NA	NA	NA	NA
C401	70%	100	100	100	100	100	100	43.42	43.42	43.42	43.42	43.42	43.42	43.42	NA	NA	NA	NA	NA	NA
C402	70%	98.68	98.68	98.68	98.68	98.68	98.68	NA	NA	NA	NA	NA	NA	67.11	67.11	67.11	67.11	67.11	67.11	67.11
C403	70%	100	100	100	100	100	100	89.19	89.19	89.19	89.19	89.19	89.19	89.19	NA	NA	NA	NA	NA	NA
C404 (2)	70%	71.43	71.43	71.43	71.43	71.43	71.43	NA	NA	NA	NA	NA	NA	71.43	71.43	71.43	71.43	71.43	71.43	71.43
C404 (5)	70%	100	100	100	100	100	100	NA	NA	NA	NA	NA	NA	34.78	34.78	34.78	34.78	34.78	34.78	34.78
C405 (4)	70%	90.54	90.54	90.54	90.54	90.54	90.54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C406	70%	NA	NA	NA	NA	NA	NA	89.19	89.19	89.19	89.19	89.19	89.19	NA	NA	NA	NA	NA	NA	NA
C407	70%	100	100	100	100	100	100	100	100	100	100	100	100	100	NA	NA	NA	NA	NA	NA
C408	70%	95.95	95.95	95.95	95.95	95.95	95.95	71.62	71.62	71.62	71.62	71.62	71.62	71.62	NA	NA	NA	NA	NA	NA

Course code	Attainment Level 3 %	External Direct Assessment																	
		University Exam						Practical/Oral %						Term work %					
		CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6
C409 (4)	70%	98.68	98.68	98.68	98.68	98.68	98.68	NA	NA	NA	NA	NA	NA	69.74	69.74	69.74	69.74	69.74	69.74
C410 (1)	70%	100	100	100	100	100	100	NA	NA	NA	NA	NA	NA	41.89	41.89	41.89	41.89	41.89	41.89
C411	70%	NA	NA	NA	NA	NA	NA	100	100	100	100	100	NA	98.65	98.65	98.65	98.65	98.65	NA

**Table 11: Internal Assessment**

Course code	Attainment Level 3 %	Unit Test (%)						Term Work (%)					
		CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
C 101	80	75.41	68.85	73.33	61.67	84.21	78.95	100	98.41	95.24	96.83	NA	NA
C 102	80	86.44	81.36	95.08	91.8	96.36	89.09	98.39	98.39	96.77	NA	NA	NA
C 103	80	98.28	96.67	96.61	91.53	94	88.24	100	NA	100	98	100	NA
C 104	80	96.61	89.83	84.75	86.44	95	91.67	88.89	79.37	88.89	73.02	96.83	92.06
C 105	80	88.14	89.83	94.92	87.93	87.5	85.96	94.92	100	100	94.92	89.83	94.92
C 106	80	NA	NA	NA	NA	NA	NA	100	100	100	100	NA	NA
C 107	80	82.76	91.8	95	100	NA	NA	NA	NA	NA	NA	NA	NA
C 108	80	87.04	72.22	79.63	68.63	88.89	61.82	100	95.16	100	98.39	100	97
C 109	80	76.19	90.48	80.95	84.13	73.02	85.71	92.06	98.41	93.65	98.41	NA	NA



Course code	Attainment Level 3 %	Unit Test (%)						Term Work (%)					
		CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
C217	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C218	80	NA	NA	NA	NA	NA	NA	97.07	96.55	98.85	96.55	NA	NA
C219	80	NA	NA	NA	NA	NA	NA	96.59	95.45	72.73	NA	NA	NA
C220	80	100	100	100	100	NA	NA	NA	NA	NA	NA	NA	NA
C301	80	98.59	100	97.26	98.63	98.55	95.65	NA	NA	NA	NA	NA	NA
C302	80	98.57	100	98.61	98.63	98.59	98.59	NA	NA	NA	NA	NA	NA
C303	80	98.63	100	98.63	97.26	98.63	97.26	100	100	100	100	100	100
C304	80	83.08	72.73	75.76	97.06	83.58	94.92	NA	NA	NA	NA	NA	NA
C305	80	92.73	70.21	78.18	64.91	85.96	75.44	NA	NA	NA	NA	NA	NA
C306	80	NA	NA	NA	NA	NA	NA	98.63	98.63	100	100	100	98.63
C307	80	92.82	92.82	92.82	92.82	92.82	92.82	98.63	98.63	98.63	98.63	98.63	98.63
C308	80	100	100	95.77	98.61	98.61	94.44	NA	NA	NA	NA	NA	NA
C309	80	98.63	98.63	98.63	95.89	95.89	95.89	NA	NA	NA	NA	NA	NA
C310	80	96.92	96.92	95.38	90.77	75.38	92.31	100	100	100	100	100	100
C311	80	100	100	100	93.15	100	95.89	NA	NA	NA	NA	NA	NA
C312	80	NA	NA	NA	NA	NA	NA	100	100	100	100	100	-
C401	80	89.47	94.74	98.68	98.68	96.05	98.68	NA	NA	NA	NA	NA	NA
C402	80	100	100	100	100	100	100	NA	NA	NA	NA	NA	NA
C403	80	100	97.18	100	97.18	82.61	84.06	NA	NA	NA	NA	NA	NA
C404 (2)	80	100	100	85.71	85.71	100	100	NA	NA	NA	NA	NA	NA



**Table 12 : Indirect Assessment:**

Course code	Attainment Level 3 %	Course Exit Survey					
		CO1	CO2	CO3	CO4	CO5	CO6
C 101	80	84.44	79.44	78.89	75.56	88.89	88.1
C 102	80	83	83.7	85.9	84.4	88.1	85.5
C 103	80	86.67	84.67	86	82.67	84.62	85.26
C 104	80	86.81	83.33	85.42	83.33	80.56	84.72
C 105	80	79.17	79.86	78.47	78.47	77.78	79.17
C 106	80	91.67	90.28	86.11	88.89	NA	NA
C 107	80	82.8	85.48	87.63	85.48	NA	NA
C 108	80	87.68	83.33	86.96	81.88	84.06	81.88
C 109	80	88.29	89.19	87.39	85.59	81.08	84.68
C 110	80	82.91	82.05	81.2	82.05	88.89	88.03
C 111	80	81.33	76	76	73.33	88.41	86.96
C 112	80	89.68	86.51	90.48	86.51	85.71	82.54
C 113	80	NA	NA	NA	NA	NA	NA
C 114	80	84	86.67	86	86	NA	NA
C201	80	90.66	89	88.33	87	91.66	89.33
C202	80	86	86	84.33	83.33	89	87
C203	80	85.44	83.91	82.38	82.76	81.99	81.99
C204	80	93.67	92.67	91.00	92.00	89.67	89.67
C205	80	97.22	96.3	94.44	92.59	93.52	94.44
C206	80	90	93	88	93	NA	NA
C207	80	94.67	94.67	97.00	92.00	93.67	93.67
C208	80	93.5	95.12	95.93	93.5	95.12	94.31
C209	80	98.29	95.73	94.87	95.73	NA	NA
C210	80	92.86	90.48	92.06	90.48	-	-
C211	80	92.13	93.06	90.28	91.2	90.74	91.2
C212	80	93.63	92.65	93.14	91.67	93.63	94.44
C213	80	93.67	93.67	93.67	93.33	94.33	93.67
C214	80	96.19	92.38	92.38	91.43	93.33	93.81
C215	80	97	98	96	95	96	94

Course code	Attainment Level 3 %	Course Exit Survey					
		CO1	CO2	CO3	CO4	CO5	CO6
C216	80	92.13	93.06	90.28	91.2	90.74	91.2
C217	80	92.82	92.31	91.79	91.79	93.33	91.28
C218	80	93.67	93.67	93.67	93.0	NA	NA
C219	80	92.45	93.08	93.08	NA	NA	NA
C220	80	95.83	95.83	92.26	94.05	NA	NA
C301	80	93.01	91.4	89.25	89.78	89.78	91.94
C302	80	96.33	96	96	98	94.67	94.-67
C303	80	100	100	100	97.96	100	100
C304	80	96.24	94.37	93.9	93.9	92.86	93.43
C305	80	95.67	91.67	90	92.33	95	95
C306	80	92	87.33	91.33	88	90	91.33
C307	80	97.94	95.38	93.33	95.38	93.84	94.87
C308	80	95.33	93.67	93.67	92.33	91.67	94
C309	80	90.97	89.58	89.58	88.89	87.5	88.89
C310	80	89.67	90.33	92.67	89	90.33	90.33
C311	80	94.54	92.35	89.62	89.62	90.16	89.62
C312	80	NA	NA	NA	NA	NA	NA
C401	80	93.63	93.63	93.63	95.1	93.14	93.63
C402	80	99	94.67	99	99	96	96
C403	80	93.33	90.67	89.33	91.67	93.33	89.33
C404 (2)	80	95.24	95.24	95.24	95.24	95.24	95.24
C404 (5)	80	97.67	93.02	96.9	90.7	96.12	95.35
C405 (4)	80	93.69	91.44	90.99	89.64	90.54	90.54
C406	80	NA	NA	NA	NA	NA	NA
C407	80	95.83	90.97	90.97	90.97	88.88	90.97
C408	80	87.58	84.31	92.16	88.89	88.89	83.01
C409 (4)	80	93.33	91.67	95.67	90	91	92.67
C410 (1)	80	92.31	93.85	92.31	94.87	90.77	94.36
C411	80	96.3	96.3	95.68	94.44	96.3	NA

**Table 13 : Overall CO Attainment A.Y 2020-21**

Course code	Direct CO Attainment			Indirect CO Attainment (Course Exit survey)	Over All Attainment
	External Attainment	Internal Attainment	Total Direct Attainment		
C 101	3	2.5	2.9	3	2.91
C 102	3	3	3	3	3
C 103	3	3	3	3	3
C 104	3	3	3	3	3
C 105	3	3	3	2	2.9
C 106	NA	3	3	3	3
C 107	NA	3	3	3	3
C 108	3	2.5	2.9	3	2.91
C 109	3	3	3	3	3
C 110	3	3	3	3	3
C 111	3	1.5	2.7	3	2.73
C 112	3	3	3	3	3
C 113	NA	3	3	NA	3
C 114	NA	2	2	3	2.1
C201	3	3	3	3	3
C202	3	3	3	3	3
C203	2.5	3	2.6	3	2.64
C204	2	3	2.2	3	2.28
C205	3	3	3	3	3
C206	NA	0.6	0.6	3	0.84
C207	3	NA	3	3	3
C208	2	NA	2	3	1.74
C209	NA	3	3	3	3
C210	NA	3	3	3	3
C211	1.5	3	1.8	2.74	1.894
C212	3	3	3	3	3
C213	3	2	2.8	3	2.82
C214	3	2	2.4	3	2.82



Course code	Direct CO Attainment			Indirect CO Attainment (Course Exit survey)	Over All Attainment
	External Attainment	Internal Attainment	Total Direct Attainment		
C215	1	3	1.4	3	1.56
C216	0	-	0	3	0.274
C217	3	NA	3	3	3
C218	NA	3	3	3	3
C219	NA	3	3	NA	3
C220	NA	3	3	3	3
C301	3	3	3	3	3
C302	3	3	3	3	3
C303	3	3	3	3	3
C304	3	3	3	3	3
C305	3	2	2.8	3	2.82
C306	NA	3	3	3	3
C307	3	3	3	3	3
C308	3	3	3	3	3
C309	3	3	3	3	3
C310	3	3	3	3	3
C311	3	3	3	3	3
C312	3	3	3	-	3
C401	1.5	3	1.8	3	1.92
C402	1.5	3	1.8	3	1.92
C403	3	3	3	3	3
C404 (2)	2.5	3	2.6	3	2.64
C404 (5)	1.5	3	1.8	3	1.92
C405 (4)	3	3	3	3	3
C406	3	NA	3	NA	3
C407	3	3	3	3	3
C408	3	3	3	3	3

Course code	Direct CO Attainment			Indirect CO Attainment (Course Exit survey)	Over All Attainment
	External Attainment	Internal Attainment	Total Direct Attainment		
C409 (4)	2.5	3	2.6	3	2.64
C410 (1)	1.5	3	1.8	3	1.92
C411	3	NA	3	3	3

**2. ATTAINMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES**

**1. Results of evaluation of each PO & PSO**

**Table 14 : PO attainment values  
A.Y. 2020-21**

Course code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
C 101	1.94	1.94	-	-	-	-	-	-	0.97	-	-	0.97
C 102	2	2	-	-	-	1	-	-	1	-	-	1
C 103	2	1	-	-	-	-	1	-	1.2	1	1	1
C 104	2	2	-	-	-	1	-	-	2	1	-	1
C 105	2.9	1.93	1.93	-	1.93	-	-	-	-	0.96	-	1.93
C 106	1	-	-	-	-	1	-	-	1	1	-	1
C 107	2	2	-	-	-	2	2	2	-	2	-	2
C 108	1.94	1.94	-	-	-	-	-	-	0.97	-	-	0.97
C 109	2	2	-	-	-	-	1	-	-	-	-	1
C 110	2.5	2	-	2	2	-	-	-	2	2	-	2
C 111	1.82	1.82	-	-	-	-	-	-	1.82	0.91	-	1.82
C 112	2	1	-	-	2	-	-	-	1	1	-	1
C 113	-	-	-	-	-	-	-	1	1	1	1	1
C 114	1.4	1.4	0.7	-	-	1.4	1.4	1.4	-	1.4	-	1.4
C201	3	1	3	-	2	1.75	-	2	1.5	-	-	1.66
C202	2.33	2.5	-	-	-	-	-	-	2	2	-	-
C203	2.64	2.49	2.29	1.76	2.2	2.11	1.76	2.64	1.76	-	-	2.64
C204	1.52	1.52	-	-	-	-	-	-	1.52	-	-	0.76
C205	2	2	2	2	2	2	2	2	-	1	-	2
C206	0.84	0.28	0.56	-	0.84	0.56	0.28	0.56	0.84	-	-	0.42
C207	2.8	2.6	2	2	2.75	2.75	2	2.75	2	2	2	2.6
C208	1.45	1.26	1.16	1.16	-	1.16	-	1.35	1.16	-	-	1.64
C209	2	2	2	2	2	2	2	-	2	2	-	2
C210	2	-	-	-	-	2	2	2	-	-	2	2
C211	1.77	1.58	1.45	1.58	1.26	-	1.58	-	-	-	-	1.39
C212	3	2	2	2	2	2	-	2	3	2	2	2
C213	2.82	2.82	2.82	2.82	1.88	1.88	1.88	2.82	-	2.82	-	2.82

Course code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
C214	2.82	2.82	1.88	1.88	-	1.88	-	-	1.88	-	-	2.82
C215	1.04	1.04	-	-	0.86	1.04					1.12	0.52
C216	0.26	0.23	0.21	0.23	0.18	-	-	0.2	0.18	0.18	-	0.27
C217	3	2	2	2	2	2	-	2	3	2	2	2
C218	3	3	2.25	3	2	3	-	3	3	2.25	-	3
C219	2	2	2	3	2	2	2	2	3	3	3	2
C220	2	2	-	-	2	2	2	2	2	2	2	2
C301	3	2	2	2	-	2	2	-	2	2	2	3
C302	2	-	-	2	2	-	-	-	-	-	-	2
C303	3	3	3	2	3	2	-	3	3	3	-	3
C304	2.83	2.8	2	2	-	2	-	1	2	2	-	2.8
C305	2.82	1.88	1.88	-	1.88	1.88	1.88	1.88	1.88	1.88	-	1.88
C306	-	-	-	-	-	-	-	1.5	1.67	2.33	1.33	2
C307	3	2.5	2.5	1	2.5	3	-	-	2.7	-	2	2.3
C308	2	2	-	2	2	-	-	-	3	-	3	2
C309	3	3	3	3	3	2	2	-	-	-	-	2
C310	3	2	3	2	-	-	-	3	3	2	-	3
C311	2	2	2.33	2	2	2	3	2	2	2	-	2
C312	2.16	2	2	2	2	2	2	2	3	2.16	2	3
C401	1.92	1.28	1.92	1.28	1.28	1.28	1.92	1.28	1.28	1.28	-	1.28
C402	1.6	1.6	1.6	1.6	1.92	-	1.28	1.49	-	-	1.28	1.92
C403	3	3	3	2	2	2	-	2	3	3	-	3
C404 (2)	2.64	2.64	2.64	2.2	1.76	-	-	-	1.76	1.76	2.5	2.64
C404 (5)	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	-	1.28	-	1.28
C405 (4)	2.83	2.5	2.5	3	-	2	2	2	-	2	-	3
C406	2.85	2.95	2.54	2.55	2.12	2.63	2.73	2.72	2.93	2.48	2.44	2.65
C407	2.83	2.5	2.6	2.33	-	2	2	2	2	2	-	3
C408	2.5	2.67	2	2.67	2.5	3	2	2.6	2	2.83	2.5	3
C409 (4)	2.64	1.76	2.64	1.76	-	1.76	1.76	2.64	1.76	1.76	-	1.76

Course code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
C410 (1)	1.92	1.28	1.28	1.28	1.28	1.92	1.28	1.28	1.28	1.28	1.92	1.92
C411	2.91	2.92	2.74	2.64	2.26	2.46	2.65	2.69	2.93	2.69	2.39	2.74

### PO Attainment Level

Course	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO Attainment	2.28	2.07	2.12	2.07	2.00	1.99	1.91	2.01	2.03	1.92	2.03	1.99
Direct Attainment	2.18	1.94	2.01	1.92	1.89	1.84	1.74	1.86	1.90	1.76	1.89	1.83
InDirect Attainment	2.64	2.59	2.54	2.63	2.47	2.61	2.61	2.58	2.56	2.56	2.59	2.61

**Table 15 : PSO attainment values  
A.Y. 2020-21**

Course code	PSO1	PSO2	PSO3
C 101	1.94	-	-
C 102	1	-	-
C 103	1	-	-
C 104	-	1	-
C 105	-	0.96	0.96
C 106	-	-	-
C 107	1	--	1
C 108	1.94	-	-
C 109	1	-	-
C 110	1	-	-
C 111	1.82	-	-
C 112	1	-	-
C 113	1	1	-

<b>Course code</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C 114	0.7	--	0.7
C201	2	2	2
C202	3	-	3
C203	2.64	1.98	1.76
C204	0.76	-	-
C205	2	-	2
C206	0.56	-	0.56
C207	2.6	2	2.6
C208	1.74	1.16	1.16
C209	2	-	2
C210	2	2	2
C211	1.89	-	1.47
C212	2	2	2
C213	2.82	-	2.82
C214	2.82	2.82	1.88
C215	0.52	1.04	-
C216	0.17	-	0.13
C217	2	2	2
C218	3	-	3
C219	3	2	2
C220	2	2	2
C301	2	2	2
C302	2	-	2
C303	2.83	-	3
C304	2.67	1	2.83
C305	1.88	-	1.88
C306	-	-	1.66
C307	3	-	2.33
C308	2	2	2
C309	2.5	-	2
C310	3	-	3
C311	2	2	2

<b>Course code</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
C312	3	2	2
C401	1.6	1.28	1.28
C402	1.92	1.38	1.92
C403	3	2	2
C404 (2)	2.64	2.2	1.76
C404 (5)	1.28	1.28	1.28
C405 (4)	3	2	2
C406	2.91	2.37	1.92
C407	2.67	2.5	2.67
C408	3	2	3
C409 (4)	2.64	-	1.76
C410 (1)	1.28	1.92	1.92
C411	2.94	2.57	2.35

#### **PSO Attainment Level**

<b>Course</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
CO Attainment	2.05	1.90	2.04
Direct Attainment	1.92	1.74	1.89
InDirect Attainment	2.59	2.52	2.61