PAPER: **Hydraulic Structures** CODE: **CE(PE)701C** SEMESTER: 7th **Sem** Session: **2021- 2022**		
Hydraulic Structures CODE: CE(PE)701C	CO1	Identify the characteristics of various types of dams and their selection procedure.
	CO2	Perform the reconnaissance survey and, geophysical investigations necessary for selection of suitable dam site
	CO3	Estimate forces acting on a gravity dams and perform stability analysis.
	CO4	Estimate the seepage loss through embankment dams and suggest necessary remedial measures.
	CO5	Calculate the discharge through the overflow section and design the appropriate energy dissipation structures.

COURSE NAME	**Hydraulic Structures**
COURSE CODE	CE(PE)701C
SESSION OF COURSE	September 2021- January 2022
L-T-P :-	2 L-1T
SEMESTER	7th
CREDIT	3
BATCH	2018-2022

GRADING SCALE	
≥40 %	**1**
≥50 %	**2**
≥60 %	**3**

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CIVIL ENGINEERING DEPARTMENT

Hydraulic Structures CODE: CE(PE)701C

TIME:	60 min.	**Continuous assessment 1 (CA-1)**	FM: 25
SEC.: CE			AY: 2021-22

COs	**Qs**	**DESCRIPTION**	**MARKS**
	1		2
	2		2
	3		2
	4		2
	5		2
	6		2
	7		2
	8		2
	9		2
	10		2
	11		2
	12		2
	13		1

COs	**MARKS**
CO1	19
CO2	6
CO3	
CO4	
CO5	

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Hydraulic Structures CODE: CE(PE)701C

TIME:	60 min.	**Continuous assessment 2 (CA-2)**	FM: 25
SEC.: CE			AY: 2021-22

COs	**Qs**	**DESCRIPTION**	**MARKS**
	1		2
	2		2
	3		2
	4		2
	5		2
	6		2
	7		2
	8		2
	9		2
	10		2
	11		2
	12		2
	13		1

COs	**MARKS**
CO1	
CO2	
CO3	25
CO4	
CO5	

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Hydraulic Structures CODE: CE(PE)701C

		Continuous assessment 3 (CA-3)	FM: 25
SEC.: CE			AY: 2021-22

COs	**Qs**	**DESCRIPTION**	**MARKS**
	1		2
	2		2
	3		2
	4		2
	5		2
	6		2
	7		2
	8		2
	9		2
	10		2
	11		2
	12		2
	13		1

COs	**MARKS**
CO1	
CO2	
CO3	
CO4	25
CO5	

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Hydraulic Structures CODE: CE(PE)701C

		Continuous assessment 4 (CA-4)	FM: 25
SEC.: CE			AY: 2021-22

COs	**Qs**	**DESCRIPTION**	**MARKS**
	1		2
	2		2
	3		2
	4		2
	5		2
	6		2
	7		2
	8		2
	9		2
	10		2
	11		2
	12		2
	13		1

COs	**MARKS**
CO1	
CO2	
CO3	
CO4	
CO5	25

Quality of Questions : CE(PE)701C - (2021-22)														
CA-1	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	**Total**
Qustionwise marks	2	2	2	2	2	2	2	2	2	2	2	2	1	25
Bloom Taxonomy	U	R	R	R	R	R	U	P	R	R	R	R	R	
CA-2	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	**Total**
Qustionwise marks	2	2	2	2	2	2	2	2	2	2	2	2	1	25
Bloom Taxonomy	U	R	R	R	R	R	U	P	R	R	R	R	R	
CA-3	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	**Total**
Qustionwise marks	2	2	2	2	2	2	2	2	2	2	2	2	1	25
Bloom Taxonomy	U	R	R	R	R	R	U	P	R	R	R	R	R	
CA-4	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	**Total**
Qustionwise marks	2	2	2	2	2	2	2	2	2	2	2	2	1	25
Bloom Taxonomy	U	R	R	R	R	R	U	P	R	R	R	R	R	

Bloom Taxonomy	Notation
Remembering	R
Understanding	U
Applying	P
Analyzing	A
Evaluating	E

COs	CA-1	CA-2	CA-3	CA-4	Total
CO1	19				19
CO2	6				6
CO3		25			25
CO4			25		25
CO5				25	25
	25	25	25	25	100

University Roll No	Name	UNIVERSITY GRADE	University Percent (%)	Scores or Grading based on scale of 3	Target >=60%
12001318038	Vivek Kumar	E(27)	80	3	Y
12001318039	Vibhanshu Kumar	E(27)	80	3	Y
12001318040	Utkarsh Kumar	A(24)	70	3	Y
12001318041	Umesh Kumar Dutta	E(27)	80	3	Y
12001318042	Ujjwal Anand	A(24)	70	3	Y
12001318043	Tarun Dev	E(27)	80	3	Y
12001318044	Tanmoy Mandal	A(24)	70	3	Y
12001318046	Swati Kumari	E(27)	80	3	Y
12001318047	Swapnil Singh	E(27)	80	3	Y
12001318048	Suraj Anand	A(24)	70	3	Y
12001318049	Sumit Sagar	A(24)	70	3	Y
12001318050	Sudhanshu Ranjan	A(24)	70	3	Y
12001318052	Subhadeep Chatterjee	E(27)	80	3	Y
12001318053	Sourav Kumar Choudhary	E(27)	80	3	Y
12001318054	Somnath Halder	E(27)	80	3	Y
12001318055	Somenath Chatterjee	E(27)	80	3	Y
12001318056	Shubham Sharma	E(27)	80	3	Y
12001318057	Shubhadeep Sadhukhan	E(27)	80	3	Y
12001318058	Shovan Sundar Ghosh	E(27)	80	3	Y
12001318059	Sayan Hati	E(27)	80	3	Y
12001318060	Sany Konai	E(27)	80	3	Y
12001318062	Ritu Raj	A(24)	70	3	Y
12001318063	Rishabh Singh	E(27)	80	3	Y
12001318064	Ravi Kumar	E(27)	80	3	Y
12001318065	Rajnandani	E(27)	80	3	Y
12001318066	Rajeev Ranjan	E(27)	80	3	Y
12001318067	Rahul Sinku	E(27)	80	3	Y
12001318068	Priyanka Bharti	A(24)	70	3	Y
12001318069	Prama Niyogi	E(27)	80	3	Y
12001318070	Pijus Mandal	E(27)	80	3	Y
12001318071	Onkar Ashish	E(27)	80	3	Y
12001318072	Md Nazar Alam	E(27)	80	3	Y
12001318073	Md Aurangzeb Jauhar	E(27)	80	3	Y
12001318074	Md Aqib	A(24)	70	3	Y
12001318075	Manojyoti Saha	E(27)	80	3	Y
12001318076	Kumar Sanu	E(27)	80	3	Y
12001318077	Krishanu Nag	E(27)	80	3	Y
12001318078	Keshav Kumar Mandal	E(27)	80	3	Y
12001318079	Kalyan Mondal	E(27)	80	3	Y
12001318080	Jishu Saha	E(27)	80	3	Y
12001318081	Hritik Kumar Singh	E(27)	80	3	Y
12001318082	Eshita Gorain	E(27)	80	3	Y
12001318083	Buddhadev Santra	E(27)	80	3	Y
12001318084	Ayan Chakraborty	E(27)	80	3	Y
12001318085	Avisekh Biswakarma	E(27)	80	3	Y
12001318086	Atiwarsh	E(27)	80	3	Y
12001318087	Arijit Goswami	E(27)	80	3	Y
12001318088	Anuj Kumar	E(27)	80	3	Y
12001318089	Anuj Kumar	E(27)	80	3	Y
12001318090	Ankit Singh	E(27)	80	3	Y
12001318091	Ankit Kumar	E(27)	80	3	Y
12001318092	Ankit Kumar	E(27)	80	3	Y
12001318093	Akhilesh Prajapati	E(27)	80	3	Y
12001318094	Abhishek Kumar	A(24)	70	3	Y
12001319001	ARNAB MAHANTY	A(24)	70	3	Y
12001319002	SUSANTA DAS	E(27)	80	3	Y
12001319003	ABHIK NEOGI	A(24)	70	3	Y
12001319004	SUROJIT KUMAR JENA	E(27)	80	3	Y
12001319005	ANIK MAHARATNA	E(27)	80	3	Y
12001319006	SOURADIP BHATTACHARJEE	A(24)	70	3	Y
12001319007	BAISAKHI DHARA	A(24)	70	3	Y
12001319008	EMAJ ALI	A(24)	70	3	Y
12001319009	KALYAN BISWAS	E(27)	80	3	Y
12001319010	ANINDYA GHOSH	A(24)	70	3	Y
12001319011	MONOJIT METYA	E(27)	80	3	Y
12001319012	APARAJITA MUDI	A(24)	70	3	Y
12001319013	SANJEEV KUMAR PASWAN	E(27)	80	3	Y
12001319015	AMIT KUMAR	E(27)	80	3	Y
12001319016	RITESH KUMAR	E(27)	80	3	Y
12001319017	TRINAYANI MAJHI	A(24)	70	3	Y
12001319018	DIBAKAR CHAKRABORTY	E(27)	80	3	Y
12001319054	ZAHID IQBAL	A(24)	70	3	Y
12001319055	IMRAN ASHRAF	E(27)	80	3	Y
12001319056	IMTIAZ RASHID	A(24)	70	3	Y
12001319057	PRIYANKA KUMARI CHAUHAN	A(24)	70	3	Y
12001319059	MIZAN HAIDAR	E(27)	80	3	Y
12001319060	NIZAMUDDIN MIA	E(27)	80	3	Y
12001319061	MINHAZ KHAN	E(27)	80	3	Y
12001319062	MAINAK CHATTERJEE	E(27)	80	3	Y
12001319063	SOBHON DUTTA	E(27)	80	3	Y
12001319064	CHANDI DAS BANERJEE	A(24)	70	3	Y
12001319065	LITON BARMAN	A(24)	70	3	Y
12001319066	SUPRITAM MUKHERJEE	E(27)	80	3	Y
12001319067	SMRITI ANAND	E(27)	80	3	Y
12001319068	NEELAM KUMARI	E(27)	80	3	Y
				255	**85**
				3.00	

Maximum Marks		2	2	2	2	2	2	2	2	2	1	19	Total Marks Attemped (15)	Attainment Percent (%) Internal	Attainment Percent (%) University	CO-1 Final Attainment	Scores or Grading based on scale of 3	Target >=60%
Course Outcome		CO1																
University Roll No	Name	CA1-Q1	CA1-Q2	CA1-Q3	CA1-Q4	CA1-Q7	CA1-Q8	CA1-Q9	CA1-Q11	CA1-Q12	CA1-Q13	Total Obtained						
12001318038	Vivek Kumar	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318039	Vibhanshu Kumar	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318040	Utkarsh Kumar	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001318041	Umesh Kumar Dutta	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318042	Ujjwal Anand	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001318043	Tarun Dev	2	2	2	2	2	2	2	2	2	0	18	19	95	80	85	3	Y
12001318044	Tanmoy Mandal	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001318046	Swati Kumari	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318047	Swapnil Singh	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318048	Suraj Anand	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001318049	Sumit Sagar	2	2	2	2	2	2	2	2	2	0	18	19	95	70	78	3	Y
12001318050	Sudhanshu Ranjan	2	2	2	2	2	0	2	2	2	1	17	19	89	70	76	3	Y
12001318052	Subhadeep Chatterjee	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318053	Sourav Kumar Choudhary	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318054	Somnath Halder	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318055	Somenath Chatterjee	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318056	Shubham Sharma	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318057	Shubhadeep Sadhukhan	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318058	Shovan Sundar Ghosh	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318059	Sayan Hati	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318060	Sany Konai	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318062	Ritu Raj	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001318063	Rishabh Singh	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318064	Ravi Kumar	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318065	Rajnandani	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318066	Rajeev Ranjan	2	2	2	2	2	0	2	2	2	1	17	19	89	80	83	3	Y
12001318067	Rahul Sinku	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318068	Priyanka Bharti	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001318069	Prama Niyogi	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318070	Pijus Mandal	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318071	Onkar Ashish	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318072	Md Nazar Alam	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318073	Md Aurangzeb Jauhar	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318074	Md Aqib	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001318075	Manojyoti Saha	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318076	Kumar Sanu	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318077	Krishanu Nag	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318078	Keshav Kumar Mandal	2	2	2	2	2	0	2	2	2	1	17	19	89	80	83	3	Y
12001318079	Kalyan Mondal	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318080	Jishu Saha	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318081	Hritik Kumar Singh	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318082	Eshita Gorain	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318083	Buddhadev Santra	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318084	Ayan Chakraborty	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318085	Avisekh Biswakarma	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318086	Atiwarsh	2	2	0	2	2	0	2	2	2	1	15	19	79	80	80	3	Y
12001318087	Arijit Goswami	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318088	Anuj Kumar	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318089	Anuj Kumar	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318090	Ankit Singh	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318091	Ankit Kumar	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318092	Ankit Kumar	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318093	Akhilesh Prajapati	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001318094	Abhishek Kumar	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001319001	ARNAB MAHANTY	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001319002	SUSANTA DAS	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319003	ABHIK NEOGI	2	2	2	2	2	2	0	2	2	0	16	19	84	70	74	3	Y
12001319004	SUROJIT KUMAR JENA	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319005	ANIK MAHARATNA	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319006	SOURADIP BHATTACHARJEE	2	2	2	2	2	2	2	2	2	0	18	19	95	70	78	3	Y
12001319007	BAISAKHI DHARA	2	2	2	2	2	2	0	2	2	0	16	19	84	70	74	3	Y
12001319008	EMAJ ALI	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001319009	KALYAN BISWAS	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319010	ANINDYA GHOSH	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001319011	MONOJIT METYA	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319012	APARAJITA MUDI	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001319013	SANJEEV KUMAR PASWAN	2	2	2	0	2	0	2	2	2	1	15	19	79	80	80	3	Y
12001319015	AMIT KUMAR	2	2	2	2	2	0	0	0	0	0	10	19	53	80	72	3	Y
12001319016	RITESH KUMAR	2	2	2	2	2	0	2	2	2	1	17	19	89	80	83	3	Y
12001319017	TRINAYANI MAJHI	2	2	2	2	2	0	2	2	2	1	17	19	89	70	76	3	Y
12001319018	DIBAKAR CHAKRABORTY	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319054	ZAHID IQBAL	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001319055	IMRAN ASHRAF	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319056	IMTIAZ RASHID	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001319057	PRIYANKA KUMARI CHAUHAN	2	2	2	2	2	2	2	2	2	1	19	19	100	70	79	3	Y
12001319059	MIZAN HAIDAR	2	2	2	2	2	2	2	2	2	0	18	19	95	80	85	3	Y
12001319060	NIZAMUDDIN MIA	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319061	MINHAZ KHAN	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319062	MAINAK CHATTERJEE	2	2	2	2	2	2	0	2	2	0	16	19	84	80	81	3	Y
12001319063	SOBHON DUTTA	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319064	CHANDI DAS BANERJEE	2	0	2	0	2	0	0	2	0	0	8	19	42	70	62	3	Y
12001319065	LITON BARMAN	2	2	2	2	2	0	0	0	0	0	10	19	53	70	65	3	Y
12001319066	SUPRITAM MUKHERJEE	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319067	SMRITI ANAND	2	2	2	2	2	2	2	2	2	1	19	19	100	80	86	3	Y
12001319068	NEELAM KUMARI	2	2	2	2	2	2	2	2	2	0	18	19	95	80	85	3	Y
																	255	85
																	3.00	

Maximum Marks		2	2	2	6	Total Marks Attemped (6)	Attainment Percent (%) Internal	Attainment Percent (%) University	CO-2 Final Attainment	Scores or Grading based on scale of 3	Target >=60%
Course Outcome		CO2									
University Roll No	Name	CA1-Q5	CA1-Q6	CA1-Q10	Total Obtained						
12001318038	Vivek Kumar	2	2	2	6	6	100	80	86	3	Y
12001318039	Vibhanshu Kumar	2	2	2	6	6	100	80	86	3	Y
12001318040	Utkarsh Kumar	2	2	2	6	6	100	70	79	3	Y
12001318041	Umesh Kumar Dutta	2	2	2	6	6	100	80	86	3	Y
12001318042	Ujjwal Anand	2	2	2	6	6	100	70	79	3	Y
12001318043	Tarun Dev	2	2	2	6	6	100	80	86	3	Y
12001318044	Tanmoy Mandal	2	2	2	6	6	100	70	79	3	Y
12001318046	Swati Kumari	2	2	2	6	6	100	80	86	3	Y
12001318047	Swapnil Singh	2	2	2	6	6	100	80	86	3	Y
12001318048	Suraj Anand	2	2	2	6	6	100	70	79	3	Y
12001318049	Sumit Sagar	2	2	2	6	6	100	70	79	3	Y
12001318050	Sudhanshu Ranjan	2	0	2	4	6	67	70	69	3	Y
12001318052	Subhadeep Chatterjee	2	2	2	6	6	100	80	86	3	Y
12001318053	Sourav Kumar Choudhary	2	2	2	6	6	100	80	86	3	Y
12001318054	Somnath Halder	2	2	2	6	6	100	80	86	3	Y
12001318055	Somenath Chatterjee	2	2	2	6	6	100	80	86	3	Y
12001318056	Shubham Sharma	2	2	2	6	6	100	80	86	3	Y
12001318057	Shubhadeep Sadhukhan	2	2	2	6	6	100	80	86	3	Y
12001318058	Shovan Sundar Ghosh	2	2	2	6	6	100	80	86	3	Y
12001318059	Sayan Hati	2	2	2	6	6	100	80	86	3	Y
12001318060	Sany Konai	2	2	2	6	6	100	80	86	3	Y
12001318062	Ritu Raj	2	2	2	6	6	100	70	79	3	Y
12001318063	Rishabh Singh	2	2	2	6	6	100	80	86	3	Y
12001318064	Ravi Kumar	2	2	2	6	6	100	80	86	3	Y
12001318065	Rajnandani	2	2	2	6	6	100	80	86	3	Y
12001318066	Rajeev Ranjan	2	2	2	6	6	100	80	86	3	Y
12001318067	Rahul Sinku	2	2	2	6	6	100	80	86	3	Y
12001318068	Priyanka Bharti	2	2	2	6	6	100	70	79	3	Y
12001318069	Prama Niyogi	2	2	2	6	6	100	80	86	3	Y
12001318070	Pijus Mandal	2	2	2	6	6	100	80	86	3	Y
12001318071	Onkar Ashish	2	2	2	6	6	100	80	86	3	Y
12001318072	Md Nazar Alam	2	2	2	6	6	100	80	86	3	Y
12001318073	Md Aurangzeb Jauhar	2	2	2	6	6	100	80	86	3	Y
12001318074	Md Aqib	2	2	2	6	6	100	70	79	3	Y
12001318075	Manojyoti Saha	2	2	2	6	6	100	80	86	3	Y
12001318076	Kumar Sanu	2	2	2	6	6	100	80	86	3	Y
12001318077	Krishanu Nag	2	2	2	6	6	100	80	86	3	Y
12001318078	Keshav Kumar Mandal	2	0	2	4	6	67	80	76	3	Y
12001318079	Kalyan Mondal	2	2	2	6	6	100	80	86	3	Y
12001318080	Jishu Saha	2	2	2	6	6	100	80	86	3	Y
12001318081	Hritik Kumar Singh	2	2	2	6	6	100	80	86	3	Y
12001318082	Eshita Gorain	2	2	2	6	6	100	80	86	3	Y
12001318083	Buddhadev Santra	2	2	2	6	6	100	80	86	3	Y
12001318084	Ayan Chakraborty	2	2	2	6	6	100	80	86	3	Y
12001318085	Avisekh Biswakarma	2	2	2	6	6	100	80	86	3	Y
12001318086	Atiwarsh	2	0	2	4	6	67	80	76	3	Y
12001318087	Arijit Goswami	2	2	2	6	6	100	80	86	3	Y
12001318088	Anuj Kumar	2	2	2	6	6	100	80	86	3	Y
12001318089	Anuj Kumar	2	2	2	6	6	100	80	86	3	Y
12001318090	Ankit Singh	2	2	2	6	6	100	80	86	3	Y
12001318091	Ankit Kumar	2	2	2	6	6	100	80	86	3	Y
12001318092	Ankit Kumar	2	2	2	6	6	100	80	86	3	Y
12001318093	Akhilesh Prajapati	2	2	2	6	6	100	80	86	3	Y
12001318094	Abhishek Kumar	2	2	2	6	6	100	70	79	3	Y
12001319001	ARNAB MAHANTY	2	2	2	6	6	100	70	79	3	Y
12001319002	SUSANTA DAS	2	2	2	6	6	100	80	86	3	Y
12001319003	ABHIK NEOGI	2	2	2	6	6	100	70	79	3	Y
12001319004	SUROJIT KUMAR JENA	2	2	2	6	6	100	80	86	3	Y
12001319005	ANIK MAHARATNA	2	2	2	6	6	100	80	86	3	Y
12001319006	SOURADIP BHATTACHARJEE	2	2	2	6	6	100	70	79	3	Y
12001319007	BAISAKHI DHARA	2	2	2	6	6	100	70	79	3	Y
12001319008	EMAJ ALI	2	2	2	6	6	100	70	79	3	Y
12001319009	KALYAN BISWAS	2	2	2	6	6	100	80	86	3	Y
12001319010	ANINDYA GHOSH	2	2	2	6	6	100	70	79	3	Y
12001319011	MONOJIT METYA	2	2	2	6	6	100	80	86	3	Y
12001319012	APARAJITA MUDI	2	2	2	6	6	100	70	79	3	Y
12001319013	SANJEEV KUMAR PASWAN	2	0	2	4	6	67	80	76	3	Y
12001319015	AMIT KUMAR	2	0	0	2	6	33	80	66	3	Y
12001319016	RITESH KUMAR	2	2	2	6	6	100	80	86	3	Y
12001319017	TRINAYANI MAJHI	2	2	2	6	6	100	70	79	3	Y
12001319018	DIBAKAR CHAKRABORTY	2	2	2	6	6	100	80	86	3	Y
12001319054	ZAHID IQBAL	2	2	2	6	6	100	70	79	3	Y
12001319055	IMRAN ASHRAF	2	2	2	6	6	100	80	86	3	Y
12001319056	IMTIAZ RASHID	2	2	2	6	6	100	70	79	3	Y
12001319057	PRIYANKA KUMARI CHAUHAN	2	2	2	6	6	100	70	79	3	Y
12001319059	MIZAN HAIDAR	2	2	2	6	6	100	80	86	3	Y
12001319060	NIZAMUDDIN MIA	2	2	2	6	6	100	80	86	3	Y
12001319061	MINHAZ KHAN	2	2	2	6	6	100	80	86	3	Y
12001319062	MAINAK CHATTERJEE	2	2	2	6	6	100	80	86	3	Y
12001319063	SOBHON DUTTA	2	2	2	6	6	100	80	86	3	Y
12001319064	CHANDI DAS BANERJEE	0	2	0	2	6	33	70	59	2	
12001319065	LITON BARMAN	2	2	0	4	6	67	70	69	3	Y
12001319066	SUPRITAM MUKHERJEE	2	2	2	6	6	100	80	86	3	Y
12001319067	SMRITI ANAND	2	2	2	6	6	100	80	86	3	Y
12001319068	NEELAM KUMARI	2	2	2	6	6	100	80	86	3	Y
										254	**84**
										2.99	

Maximum Marks		2	2	2	2	2	2	2	2	2	2	2	2	1	25	Total Marks Attemped (25)	Attainment Percent (%) Internal	Attainment Percent (%) University	CO-3 Final Attainment	Scores or Grading based on scale of 3	Target >=60%
Course Outcome		CO3																			
University Roll No	Name	CA3-Q1	CA3-Q2	CA3-Q3	CA3-Q4	CA3-Q5	CA3-Q6	CA3-Q7	CA3-Q8	CA3-Q9	CA3-Q10	CA3-Q11	CA3-Q12	CA3-Q13	Total Obtained						
12001318038	Vivek Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318039	Vibhanshu Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318040	Utkarsh Kumar	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001318041	Umesh Kumar Dutta	2	2	2	2	2	2	2	2	2	2	2	2	0	24	25	96	80	85	3	Y
12001318042	Ujjwal Anand	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318043	Tarun Dev	2	2	2	2	2	2	2	2	2	2	2	2	0	24	25	96	80	85	3	Y
12001318044	Tanmoy Mandal	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318046	Swati Kumari	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318047	Swapnil Singh	2	0	2	2	2	2	2	2	2	0	2	2	0	20	25	80	80	80	3	Y
12001318048	Suraj Anand	2	2	2	0	2	2	2	2	2	2	2	2	0	22	25	88	70	75	3	Y
12001318049	Sumit Sagar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318050	Sudhanshu Ranjan	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001318052	Subhadeep Chatterjee	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318053	Sourav Kumar Choudhary	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318054	Somnath Halder	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318055	Somenath Chatterjee	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318056	Shubham Sharma	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318057	Shubhadeep Sadhukhan	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318058	Shovan Sundar Ghosh	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318059	Sayan Hati	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318060	Sany Konai	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318062	Ritu Raj	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318063	Rishabh Singh	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318064	Ravi Kumar	2	0	2	2	2	2	2	2	2	0	2	2	1	21	25	84	80	81	3	Y
12001318065	Rajnandani	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318066	Rajeev Ranjan	2	2	2	2	2	2	2	2	2	2	2	2	0	24	25	96	80	85	3	Y
12001318067	Rahul Sinku	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318068	Priyanka Bharti	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318069	Prama Niyogi	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318070	Pijus Mandal	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318071	Onkar Ashish	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318072	Md Nazar Alam	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318073	Md Aurangzeb Jauhar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318074	Md Aqib	0	2	0	2	0	0	2	2	0	0	0	2	0	10	25	40	70	61	3	Y
12001318075	Manojyoti Saha	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318076	Kumar Sanu	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318077	Krishanu Nag	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318078	Keshav Kumar Mandal	2	0	2	2	0	2	2	0	2	0	2	0	1	15	25	60	80	74	3	Y
12001318079	Kalyan Mondal	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318080	Jishu Saha	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318081	Hritik Kumar Singh	2	0	2	2	2	2	2	2	2	0	2	2	1	21	25	84	80	81	3	Y
12001318082	Eshita Gorain	2	0	2	2	0	2	2	2	2	0	2	2	1	19	25	76	80	79	3	Y
12001318083	Buddhadev Santra	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318084	Ayan Chakraborty	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318085	Avisekh Biswakarma	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318086	Atiwarsh	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318087	Arijit Goswami	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318088	Anuj Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318089	Anuj Kumar	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318090	Ankit Singh	2	0	2	2	2	2	2	2	2	0	2	2	1	21	25	84	80	81	3	Y
12001318091	Ankit Kumar	2	0	2	2	0	2	2	2	2	0	2	2	1	19	25	76	80	79	3	Y
12001318092	Ankit Kumar	2	0	2	2	2	2	2	2	2	0	2	2	1	21	25	84	80	81	3	Y
12001318093	Akhilesh Prajapati	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318094	Abhishek Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319001	ARNAB MAHANTY	2	0	2	2	2	2	2	2	2	0	2	2	1	21	25	84	70	74	3	Y
12001319002	SUSANTA DAS	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319003	ABHIK NEOGI	0	2	0	2	0	0	2	2	0	2	0	2	0	12	25	48	70	63	3	Y
12001319004	SUROJIT KUMAR JENA	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319005	ANIK MAHARATNA	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319006	SOURADIP BHATTACHARJEE	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319007	BAISAKHI DHARA	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001319008	EMAJ ALI	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319009	KALYAN BISWAS	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319010	ANINDYA GHOSH	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319011	MONOJIT METYA	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319012	APARAJITA MUDI	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001319013	SANJEEV KUMAR PASWAN	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319015	AMIT KUMAR	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319016	RITESH KUMAR	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319017	TRINAYANI MAJHI	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319018	DIBAKAR CHAKRABORTY	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319054	ZAHID IQBAL	0	2	0	2	0	0	2	2	0	0	0	2	0	10	25	40	70	61	3	Y
12001319055	IMRAN ASHRAF	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001319056	IMTIAZ RASHID	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319057	PRIYANKA KUMARI CHAUHAN	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319059	MIZAN HAIDAR	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319060	NIZAMUDDIN MIA	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319061	MINHAZ KHAN	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319062	MAINAK CHATTERJEE	2	2	2	0	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001319063	SOBHON DUTTA	2	0	2	2	0	2	2	2	2	0	2	2	1	19	25	76	80	79	3	Y
12001319064	CHANDI DAS BANERJEE	2	2	2	2	2	2	2	2	2	2	2	2	0	24	25	96	70	78	3	Y
12001319065	LITON BARMAN	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319066	SUPRITAM MUKHERJEE	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319067	SMRITI ANAND	2	0	2	2	2	2	2	2	2	0	2	2	1	21	25	84	80	81	3	Y
12001319068	NEELAM KUMARI	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
																				255	85
																				3.00	

Maximum Marks		2	2	2	2	2	2	2	2	2	2	2	2	1	25	Total Marks Attemped (25)	Attainment Percent (%) Internal	Attainment Percent (%) University	CO-3 Final Attainment	Scores or Grading based on scale of 3	Target >=60%
Course Outcome		CO3																			
University Roll No	Name	CA3-Q1	CA3-Q2	CA3-Q3	CA3-Q4	CA3-Q5	CA3-Q6	CA3-Q7	CA3-Q8	CA3-Q9	CA3-Q10	CA3-Q11	CA3-Q12	CA3-Q13	Total Obtained						
12001318038	Vivek Kumar	2	2	2	2	0	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318039	Vibhanshu Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318040	Utkarsh Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318041	Umesh Kumar Dutta	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318042	Ujjwal Anand	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318043	Tarun Dev	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318044	Tanmoy Mandal	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318046	Swati Kumari	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318047	Swapnil Singh	2	2	2	2	0	2	2	2	0	2	2	2	1	21	25	84	80	81	3	Y
12001318048	Suraj Anand	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318049	Sumit Sagar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318050	Sudhanshu Ranjan	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318052	Subhadeep Chatterjee	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318053	Sourav Kumar Choudhary	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318054	Somnath Halder	2	2	2	2	0	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318055	Somenath Chatterjee	2	2	2	2	0	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318056	Shubham Sharma	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318057	Shubhadeep Sadhukhan	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318058	Shovan Sundar Ghosh	2	2	2	2	0	2	2	2	0	2	2	2	1	21	25	84	80	81	3	Y
12001318059	Sayan Hati	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318060	Sany Konai	2	2	2	2	0	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318062	Ritu Raj	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318063	Rishabh Singh	0	2	2	2	0	2	2	2	0	2	2	2	1	19	25	76	80	79	3	Y
12001318064	Ravi Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318065	Rajnandani	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318066	Rajeev Ranjan	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318067	Rahul Sinku	2	2	2	2	0	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318068	Priyanka Bharti	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318069	Prama Niyogi	2	2	2	2	0	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318070	Pijus Mandal	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318071	Onkar Ashish	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318072	Md Nazar Alam	0	0	0	0	0	0	0	0	0	0	2	0	1	3	25	12	80	60	2	
12001318073	Md Aurangzeb Jauhar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318074	Md Aqib	0	0	0	0	0	0	0	0	0	0	2	0	1	3	25	12	70	53	2	
12001318075	Manojyoti Saha	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318076	Kumar Sanu	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318077	Krishanu Nag	2	2	2	2	0	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318078	Keshav Kumar Mandal	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318079	Kalyan Mondal	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318080	Jishu Saha	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318081	Hritik Kumar Singh	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318082	Eshita Gorain	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318083	Buddhadev Santra	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318084	Ayan Chakraborty	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318085	Avisekh Biswakarma	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318086	Atiwarsh	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318087	Arijit Goswami	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318088	Anuj Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318089	Anuj Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318090	Ankit Singh	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318091	Ankit Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318092	Ankit Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318093	Akhilesh Prajapati	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318094	Abhishek Kumar	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319001	ARNAB MAHANTY	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319002	SUSANTA DAS	2	2	2	2	0	2	2	2	0	2	2	2	1	21	25	84	80	81	3	Y
12001319003	ABHIK NEOGI	0	0	0	0	0	0	0	0	0	0	2	0	0	2	25	8	70	51	2	
12001319004	SUROJIT KUMAR JENA	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319005	ANIK MAHARATNA	2	2	2	2	0	2	2	2	0	2	2	2	1	21	25	84	80	81	3	Y
12001319006	SOURADIP BHATTACHARJEE	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319007	BAISAKHI DHARA	2	2	2	2	0	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001319008	EMAJ ALI	2	2	2	2	0	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001319009	KALYAN BISWAS	2	2	2	2	0	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001319010	ANINDYA GHOSH	2	2	2	2	0	2	2	2	0	2	2	2	1	21	25	84	70	74	3	Y
12001319011	MONOJIT METYA	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319012	APARAJITA MUDI	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319013	SANJEEV KUMAR PASWAN	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319015	AMIT KUMAR	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319016	RITESH KUMAR	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319017	TRINAYANI MAJHI	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319018	DIBAKAR CHAKRABORTY	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319054	ZAHID IQBAL	0	0	0	0	0	0	0	0	0	0	2	0	1	3	25	12	70	53	2	
12001319055	IMRAN ASHRAF	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319056	IMTIAZ RASHID	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319057	PRIYANKA KUMARI CHAUHAN	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319059	MIZAN HAIDAR	0	2	2	2	0	2	2	2	0	2	2	2	1	19	25	76	80	79	3	Y
12001319060	NIZAMUDDIN MIA	0	2	2	2	0	2	2	2	0	2	2	2	1	19	25	76	80	79	3	Y
12001319061	MINHAZ KHAN	0	2	2	2	0	2	0	2	0	2	2	2	1	17	25	68	80	76	3	Y
12001319062	MAINAK CHATTERJEE	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319063	SOBHON DUTTA	0	0	0	0	0	0	0	0	0	0	2	2	1	5	25	20	80	62	3	Y
12001319064	CHANDI DAS BANERJEE	2	0	0	2	0	2	0	2	0	0	0	0	0	8	25	32	70	59	2	
12001319065	LITON BARMAN	0	2	2	2	0	2	0	2	0	2	2	0	1	15	25	60	70	67	3	Y
12001319066	SUPRITAM MUKHERJEE	2	2	2	2	0	2	2	2	0	2	2	2	1	21	25	84	80	81	3	Y
12001319067	SMRITI ANAND	2	2	2	2	2	2	2	2	2	2	2	2	0	24	25	96	80	85	3	Y
12001319068	NEELAM KUMARI	0	2	2	2	0	2	2	2	0	2	2	2	1	19	25	76	80	79	3	Y
																				250	80
																				2.94	

Maximum Marks		2	2	2	2	2	2	2	2	2	2	2	2	1	25	Total Marks Attemped (25)	Attainment Percent (%) Internal	Attainment Percent (%) University	CO-3 Final Attainment	Scores or Grading based on scale of 3	Target >=60%
Course Outcome		CO3																			
University Roll No	Name	CA4-Q1	CA4-Q2	CA4-Q3	CA4-Q4	CA4-Q5	CA4-Q6	CA4-Q7	CA4-Q8	CA4-Q9	CA4-Q10	CA4-Q11	CA4-Q12	CA4-Q13	Total Obtained						
12001318038	Vivek Kumar	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001318039	Vibhanshu Kumar	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318040	Utkarsh Kumar	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	70	74	3	Y
12001318041	Umesh Kumar Dutta	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001318042	Ujjwal Anand	0	2	0	2	2	0	2	0	2	2	0	2	1	15	25	60	70	67	3	Y
12001318043	Tarun Dev	2	2	0	2	2	2	2	2	2	2	2	2	0	22	25	88	80	82	3	Y
12001318044	Tanmoy Mandal	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001318046	Swati Kumari	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318047	Swapnil Singh	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318048	Suraj Anand	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001318049	Sumit Sagar	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001318050	Sudhanshu Ranjan	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001318052	Subhadeep Chatterjee	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318053	Sourav Kumar Choudhary	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318054	Somnath Halder	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001318055	Somenath Chatterjee	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318056	Shubham Sharma	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318057	Shubhadeep Sadhukhan	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318058	Shovan Sundar Ghosh	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318059	Sayan Hati	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318060	Sany Konai	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318062	Ritu Raj	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001318063	Rishabh Singh	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001318064	Ravi Kumar	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318065	Rajnandani	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001318066	Rajeev Ranjan	2	2	0	2	2	0	2	2	2	2	0	2	0	18	25	72	80	78	3	Y
12001318067	Rahul Sinku	2	2	0	2	2	2	2	2	2	2	2	2	0	22	25	88	80	82	3	Y
12001318068	Priyanka Bharti	2	2	0	2	2	2	2	2	2	2	2	2	0	22	25	88	70	75	3	Y
12001318069	Prama Niyogi	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318070	Pijus Mandal	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318071	Onkar Ashish	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001318072	Md Nazar Alam	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318073	Md Aurangzeb Jauhar	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318074	Md Aqib	2	0	0	0	0	0	0	0	0	0	0	2	1	5	25	20	70	55	2	
12001318075	Manojyoti Saha	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318076	Kumar Sanu	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001318077	Krishanu Nag	2	2	0	2	2	2	2	2	2	2	2	2	0	22	25	88	80	82	3	Y
12001318078	Keshav Kumar Mandal	2	2	0	2	2	2	2	2	2	2	0	2	0	20	25	80	80	80	3	Y
12001318079	Kalyan Mondal	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318080	Jishu Saha	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318081	Hritik Kumar Singh	2	2	0	2	2	2	2	2	2	2	2	2	0	22	25	88	80	82	3	Y
12001318082	Eshita Gorain	2	2	0	2	2	0	2	0	2	2	0	2	1	17	25	68	80	76	3	Y
12001318083	Buddhadev Santra	2	2	0	2	2	0	2	0	2	2	0	2	1	17	25	68	80	76	3	Y
12001318084	Ayan Chakraborty	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318085	Avisekh Biswakarma	2	2	0	2	2	2	2	2	2	2	2	2	0	22	25	88	80	82	3	Y
12001318086	Atiwarsh	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001318087	Arijit Goswami	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318088	Anuj Kumar	2	2	0	2	2	2	2	2	2	2	2	2	0	22	25	88	80	82	3	Y
12001318089	Anuj Kumar	2	2	0	2	2	2	2	2	2	2	2	2	0	22	25	88	80	82	3	Y
12001318090	Ankit Singh	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318091	Ankit Kumar	2	2	0	2	2	2	2	2	2	2	0	2	0	20	25	80	80	80	3	Y
12001318092	Ankit Kumar	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001318093	Akhilesh Prajapati	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001318094	Abhishek Kumar	2	2	0	2	2	2	2	2	2	2	2	2	0	22	25	88	70	75	3	Y
12001319001	ARNAB MAHANTY	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319002	SUSANTA DAS	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001319003	ABHIK NEOGI	0	0	0	2	2	0	2	2	0	0	0	0	0	8	25	32	70	59	2	
12001319004	SUROJIT KUMAR JENA	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319005	ANIK MAHARATNA	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001319006	SOURADIP BHATTACHARJEE	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001319007	BAISAKHI DHARA	2	2	0	2	2	0	2	0	2	2	0	2	1	17	25	68	70	69	3	Y
12001319008	EMAJ ALI	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001319009	KALYAN BISWAS	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001319010	ANINDYA GHOSH	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001319011	MONOJIT METYA	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319012	APARAJITA MUDI	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319013	SANJEEV KUMAR PASWAN	2	2	0	2	2	0	2	0	2	2	0	2	0	16	25	64	80	75	3	Y
12001319015	AMIT KUMAR	2	2	0	2	2	0	2	0	2	2	0	2	0	16	25	64	80	75	3	Y
12001319016	RITESH KUMAR	2	2	0	2	2	0	2	0	2	2	0	2	0	16	25	64	80	75	3	Y
12001319017	TRINAYANI MAJHI	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	70	79	3	Y
12001319018	DIBAKAR CHAKRABORTY	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319054	ZAHID IQBAL	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001319055	IMRAN ASHRAF	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319056	IMTIAZ RASHID	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	70	77	3	Y
12001319057	PRIYANKA KUMARI CHAUHAN	2	2	0	2	2	0	2	2	2	2	0	2	1	19	25	76	70	72	3	Y
12001319059	MIZAN HAIDAR	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001319060	NIZAMUDDIN MIA	2	2	0	2	2	2	2	2	2	2	0	2	1	21	25	84	80	81	3	Y
12001319061	MINHAZ KHAN	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001319062	MAINAK CHATTERJEE	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001319063	SOBHON DUTTA	2	2	2	2	2	2	2	2	2	2	2	2	1	25	25	100	80	86	3	Y
12001319064	CHANDI DAS BANERJEE	2	2	0	2	2	2	2	2	2	2	2	2	0	22	25	88	70	75	3	Y
12001319065	LITON BARMAN	2	2	0	2	2	0	2	0	2	2	0	2	0	16	25	64	70	68	3	Y
12001319066	SUPRITAM MUKHERJEE	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001319067	SMRITI ANAND	2	2	0	2	2	2	2	2	2	2	2	2	1	23	25	92	80	84	3	Y
12001319068	NEELAM KUMARI	2	2	0	2	2	0	2	2	2	2	0	2	1	19	25	76	80	79	3	Y
																				253	83
																				2.98	

TARGET - 70% STUDENT MUST ACHIEVE 60% AND ABOVE

TOTAL NO. OF STUDENTS FOR BATCH = 85				
COURSE OUTCOMES	GRADING AVG ON SCALE OF 3	DISTRIBUTION %		
		3	2	1
CO1	3	100.00	0.00	0.00
CO2	2.99	98.82	1.18	0.00
CO3	3	100.00	0.00	0.00
CO4	2.94	94.11	5.89	0.00
CO5	2.98	97.65	2.35	0.00

NUMBER OF STUDENTS SCORING >= 60%

COURSE OUTCOMES	% OF STUDENT ACHIEVED CO	CO RESULT
CO1	100.00	Y
CO2	98.82	Y
CO3	100.00	Y
CO4	94.11	Y
CO5	97.65	Y

PO ATTAINMENT														
Course Code	**Course Name**	**COs**	**CO Attainment (30% Internal + 70% External)**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CE(PC)701C	**Hydraulic Structures**	**CO1**	3	3(100%)	3(100%)	2(66.67%)	3(100%)	2(66.67%)	0	0	0	0	0	0	1(33.33%)
		CO2	2.99	3(98.82%)	3(98.82%)	3(98.82%)	2(65.88%)	0	0	0	0	0	0	0	0
		CO3	3	3(100%)	3(100%)	2(66.67%)	2(66.67%)	0	0	0	0	0	0	0	0
		CO4	2.94	3(94.11%)	3(94.11%)	3(94.11%)	2(62.74%)	0	0	0	0	0	0	0	0
		CO5	2.98	3(97.65%)	3(97.65%)	3(97.65%)	2(65.10%)	0	1(32.55%)	1(32.55%)	0	0	0	0	1(32.55%)

CO AND PO SCALE		
	3	Strongly related
	2	Moderate
	1	Low

CO TO PO MAPPING														
Course Code	**Course Name**	**COs**	**CO Attainment**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CE(PE)701C	**Hydraulic Structures**	**CO1**	3	3	3	2	3	2	0	0	0	0	0	0	1
		CO2	2.99	3	3	3	2	0	0	0	0	0	0	0	0
		CO3	3	3	3	2	2	0	0	0	0	0	0	0	0
		CO4	2.94	3	3	3	2	0	0	0	0	0	0	0	0
		CO5	2.98	3	3	3	2	0	1	1	0	0	0	0	1
		Direct Attainment		2.98	3.00	3.00	2.55	3.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00

Indirect Attainment = 25% Progam Exit Survey + 50%Alumni survey + 25% Employer Survey

Total Attainment = 80% Direct Attainment + 20% Indirect Attainment

Indirect		**Program Outcomes (POs)**											
		PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
	Program Exit Survey (25%)	3	3	3	3	3	3	3	3	3	3	3	3
	Alumni Survey	2	2	2	2	2	2	2	2	2	2	2	2
	Employer Survey	3	3	3	3	3	3	3	3	3	3	3	3
Indirect Attainment		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Direct Attainment		2.98	3.00	3.00	2.55	3.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Total Attainment		**2.88**	**2.90**	**2.90**	**2.54**	**2.90**	**0.50**	**1.30**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**

CO TO PSO MAPPING							
Course Code	**Course Name**	**COs**	**CO Attainment (30% Internal + 70% External)**	**PSO1**	**PSO2**	**PSO3**	**PSO4**
CE(PE)701C	**Hydraulic Structures**	**CO1**	3	3	3	2	1
		CO2	2.99	3	3	2	1
		CO3	3	3	3	2	1
		CO4	2.94	3	3	2	1
		CO5	2.98	3	3	2	1
			Direct Attainment	2.98	3.00	3.00	2.00

CO AND PSO SCALE	**3**	Strongly related
	2	Moderate
	1	Low

PSO ATTAINMENT						
Course Code	**Course Name**	**COs**	**PSO1**	**PSO2**	**PSO3**	**PSO4**
CE(PE)701C	**Hydraulic Structures**	**CO1**	3(100%)	3(100%)	2(66.67%)	1(33.33%)
		CO2	3(98.82%)	3(98.82%)	2(65.88%)	1(32.94%)
		CO3	3(100%)	3(100%)	2(66.67%)	1(33.33%)
		CO4	3(94.11%)	3(94.11%)	2(62.74%)	1(31.37%)
		CO5	3(96.72%)	3(96.72%)	2(64.48%)	1(32.24%)

Indirect Attainment = 25% Progam Exit Survey + 50%Alumni survey + 25%				
Total Attainment = 80% Direct Attainment + 20% Indirect Attainment				
Details	**PSOs**			
	PSO-1	**PSO-2**	**PSO-3**	**PSO-4**
Program Exit Survey	3	3	3	3
Alumni Survey	2	2	2	2
Employer Survey	3	3	3	3
Indirect Attainment	2.5	2.5	2.5	2.5
Direct Attainment	2.98	3.00	3.00	2.00
Total Attainment	**2.88**	**2.90**	**2.90**	**2.10**

Hydraulic Structures_CE(PE)701C				
7th Sem_2021-22				
Identification of Weak Student (Poor marks) through CA1 Result				
Sl.	**University Roll No**	**Name**	**Attainment Percent (%) Internal**	**Scores or Grading based on scale of 3**
1	12001319064	CHANDI DAS BANERJEE	40	1
2	12001319065	LITON BARMAN	56	2

Corrective Measures for Weak students Students				
Sl.No.	**Univ. Roll**	**Name**	**Action Taken**	**Date**
1	12001319064	CHANDI DAS BANERJEE	Advice to study, provided study notes	
2	12001319065	LITON BARMAN	Advice to study, provided study notes	

Hydraulic Structures_CE(PE)701C				
7th Sem_2021-22				
Identification of Weak Student (Poor marks) through CA2 Result				
Sl.	**University Roll No**	**Name**	**Attainment Percent (%) Internal**	**Scores or Grading based on scale of 3**
1	12001318074	Md Aqib	40	1
2	12001319003	ABHIK NEOGI	48	1
3	12001319054	ZAHID IQBAL	40	1

Corrective Measures for Weak students Students				
Sl.No.	**Univ. Roll**	**Name**	**Action Taken**	**Date**
1	12001318074	Md Aqib	Advice to study, provided study notes	
2	12001319003	ABHIK NEOGI	Advice to study, provided study notes	
3	12001319054	ZAHID IQBAL	Advice to study, provided study notes	

Hydraulic Structures_CE(PE)701C				
7th Sem_2021-22				
Identification of Weak Student (Poor marks) through CA3 Result				
Sl.	**University Roll No**	**Name**	**Attainment Percent (%) Internal**	**Scores or Grading based on scale of 3**
1	12001318072	Md Nazar Alam	12	
2	12001318074	Md Aqib	12	
3	12001319003	ABHIK NEOGI	8	
4	12001319054	ZAHID IQBAL	12	
5	12001319063	SOBHON DUTTA	20	
6	12001319064	CHANDI DAS BANERJEE	32	

Corrective Measures for Weak students Students				
Sl.No.	**Univ. Roll**	**Name**	**Action Taken**	**Date**
1	12001318072	Md Nazar Alam	Advice to study, provided study notes	
2	12001318074	Md Aqib	Advice to study, provided study notes	
3	12001319003	ABHIK NEOGI	Advice to study, provided study notes	
4	12001319054	ZAHID IQBAL	Advice to study, provided study notes	
5	12001319063	SOBHON DUTTA	Advice to study, provided study notes	
6	12001319064	CHANDI DAS BANERJEE	Advice to study, provided study notes	

Hydraulic Structures_CE(PE)701C				
7th Sem_2021-22				
Identification of Weak Student (Poor marks) through CA4 Result				
Sl.	**University Roll No**	**Name**	**Attainment Percent (%) Internal**	**Scores or Grading based on scale of 3**
1	12001318074	Md Aqib	20	
2	12001319003	ABHIK NEOGI	32	

Corrective Measures for Weak students Students				
Sl.No.	**Univ. Roll**	**Name**	**Action Taken**	**Date**
1	12001318074	Md Aqib	Advice to study, provided study notes	
2	12001319003	ABHIK NEOGI	Advice to study, provided study notes	

Identification of Weak Student (Backlog/Poor marks/Poor grading) through End Semester			
Sl.	**Univ. Roll**	**Name**	**Univ. Exam Grade**
NO STUDENT FOUND			

Corrective Measures for Weak Students			
Sl.	**Univ. Roll**	**Name**	**Action Taken**
NA			

Course Details: PAPER: Control System CODE:PC-EE503 SEMESTER: 5th (EE) Session: 2021-22 ODD

Prepared By: Ms. Mou Das Mahapatra

Course Outcome	Description of COURSE OUTCOMES	BLOOM'S LEVEL	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
PC-EE503.1	Develop mathematical model of different type of system and different control system components.	R, U	2	2	2	1	-	-	-	-	-	-	-	2
PC-EE503.2	Analyse stability of LTI system using techniques in time domain and in frequency domain.	A, E	2	3	3	3	-	-	-	-	-	-	3	3
PC-EE503.3	Design different control law or algorithms to control or compensate LTI systems.	A, E,C	2	3	3	3	-	-	-	-	-	-	3	3
PC-EE503.4	Apply state variable techniques for analysis of linear systems	U, P	3	2	3	2	-	-	-	-	-	-	3	2
PC-EE503.5	Analyze the stability of linear discrete system	A,E	3	3	2	2	-	-	-	-	-	-	-	2
PC-EE503.6	Solve numerical problems on LTI system modelling, responses, error dynamics and stability.	A, E	2	3	3	2	-	-	-	-	-	-	-	2
Average CO			2.33	2.67	2.67	2.17							3.00	2.33

Course Outcome	PSO1	PSO2	PSO3	PSO4
CO1	1	1	1	1
CO2	3	3	1	2
CO3	3	3	3	2
CO4	3	2	1	2
CO5	3	2	1	1
CO6	3	2	1	1
Average CO	2.67	2.17	1.33	2.25

Bloom Taxonomy	Notation
Remembering	R
Understanding	U
Applying	P
Analyzing	A
Evaluating	E
Creating	C

Quality of Questions : PC-EE503 (2021-22)												
CA1	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Q11**	**Total**
Qustionwise marks	2	2	2	2	3	2	2	2	2	4	2	25
CO	1	1	1	1	2,6	1	1	1	1	1	1	
Bloom Taxonomy	U, R	U, R	U, R	U, R	A, E	U, R	U, R	U, R	U, P	U, P	U, R	
CA2	**Q1**	**Q2**	**Q3**									**Total**
Qustionwise marks	7	7	11									25
CO	1	2	2									
Bloom Taxonomy	U,A	U, A	U, E									
CA3	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**							**Total**
Qustionwise marks	5	5	5	5	5							25
CO	2,6	2,6	2,6	2,6	2,6							
Bloom Taxonomy	R,E	R,E	R,E	R,E	R,E							
CA4	**Q**											**Total**
Qustionwise marks	25											25
CO	1-6											
Bloom Taxonomy	All											

ELECTRICAL ENGINEERING

Course Details: PAPER: Control System CODE: PC-EE503 SEMESTER: 5th (EE) Session: 2021-22 ODD

		INTERNAL							EXTERNAL
	ASSESSMENT TOOL	CLASS TEST-1		ASSIGNMENT-1		CLASS TEST-2		VIVA	UNIV. EXAM
ROLLNO	NAME	CO1	CO2,6	CO1	CO2	CO2	CO6	CO1-6	GRADE
12001618055	Shamsad Hussain	16	2	5	15	11	10	20	A(24)
12001619009	SHAIL PRITEE	18	3	6	15	9	11	23	E(27)
12001619012	SAURAV SUMAN	18	2	6	16	10	11	23	E(27)
12001619013	Sourav Ghosh	17	3	6	17	11	11	19	E(27)
12001619014	Purnendu Konar	18	2	6	17	10	11	22	E(27)
12001619015	ASHISH KUMAR DAYAL	17	3	6	17	9	11	22	E(27)
12001619018	AJIT YADAV	15	3	6	14	10	11	24	E(27)
12001619020	SHALU JHA	19	2	5	18	11	10	23	E(27)
12001619021	ANISH KUMAR	19	2	6	17	10	11	24	A(24)
12001619022	ANIKET MAJI	15	2	5	18	11	10	19	A(24)
12001619023	DEBASISH MONDAL	16	3	6	14	9	11	22	E(27)
12001619024	ARUNAVA BANERJEE	17	2	7	16	9	12	20	A(24)
12001619025	APURVA SHARMA	17	3	7	16	10	12	24	E(27)
12001619026	SANAT SUNDAR SAREN	17	3	5	18	11	10	23	E(27)
12001619027	KRISHNA KANT	17	3	6	17	9	11	24	E(27)
12001619028	RAVIKAR KUMAR	16	2	6	17	10	11	23	E(27)
12001619029	SWETA	19	3	7	18	10	10	24	E(27)
12001619030	SUJAY PODDAR	15	3	5	18	11	10	19	A(24)
12001619031	ROHAN KAR	17	2	6	17	10	11	23	E(27)
12001619032	PRITHVI RAJ KASHYAP	16	3	7	17	10	10	23	E(27)
12001619033	ANKITA KUMARI	17	3	5	18	9	13	23	A(24)
12001619034	SHASHI PRAKASH	17	3	6	18	10	11	23	E(27)
12001619035	NISHANT ANAND	15	3	5	18	10	10	19	A(24)
12001619036	Shubham raj	16	3	7	16	11	12	23	O(30)
12001619037	BAIBHAV BANIK	15	2	5	18	11	10	23	B(21)
12001619038	Jyotirmoy Pal	16	2	5	18	11	10	22	E(27)
12001619039	Mainak gorai	17	2	5	18	11	10	19	A(24)
12001619040	SOHAM KOLEY	16	2	7	16	11	12	21	A(24)
12001619041	AAKASH BANERJEE	16	2	6	17	10	11	24	E(27)
12001619043	ABHISHEK BHAGAT	16	2	5	18	11	10	23	A(24)
12001619045	SANGRAM DAS	18	2	6	17	9	11	23	A(24)
12001619046	SAURABH KUMAR	17	3	7	16	9	12	23	E(27)
12001619047	ARIJIT BAJAR	17	2	7	16	9	12	24	E(27)
12001619048	HRISHIKESH BANERJEE	17	2	7	17	10	10	24	E(27)
12001619049	RANJAN KUMAR JHA	18	2	6	15	10	11	23	A(24)
12001619050	GYAN PRAKASH	17	3	6	18	11	11	23	A(24)
12001619051	ANUPRIYA	18	3	6	18	11	11	19	E(27)

Benchmark	Attainment Level
60% students get more than the threshold	1
70% students get more than the threshold	2
80% students get more than	3

TL = 20% Internal + 80% UE

12001619052	ABHRADEEP DEY	17	3	7	16	11	12	19	E(27)
12001619053	KUNAL GHOSH	16	3	6	17	10	11	24	E(27)
12001619054	RAHUL KUMAR SINGH	19	2	6	17	9	11	24	A(24)
12001619055	ARYAN ANAND	17	3	7	16	9	12	23	E(27)
12001619056	Ravi Chandra	17	3	5	18	11	10	23	E(27)
12001619057	SRIJAN BANERJEE	17	3	6	17	10	11	23	A(24)
12001619058	NILANJAN ROY	18	2	5	18	11	10	24	E(27)
12001619059	ARPITA SANTRA	17	3	6	17	10	11	23	A(24)
12001619060	MD TAUFIQUE ZAMAN	17	3	5	18	10	10	24	E(27)
12001619061	SOURAV MANDAL	18	3	7	16	9	12	22	E(27)
12001619062	SIDDHARTH KUMAR	17	2	5	16	10	10	23	A(24)
12001619063	Sonu kumar	17	2	4	15	9	9	16	A(24)
12001619064	ABHISHEK RAJ	16	3	7	12	8	8	16	E(27)
12001619065	AKASH KUMAR SINGH	14	2	3	16	8	8	15	A(24)
12001619066	ARNAB GHOSH	19	3	7	15	9	12	23	E(27)
12001619067	LUPTAK BHOWMICK	18	3	6	17	11	13	24	E(27)
12001619069	SOUVIK MONDAL	17	3	6	15	10	13	19	E(27)
12001619070	ARKADEEP SHYAM	16	3	6	13	6	4	15	E(27)
12001619071	SOURABH GHOSAL	18	3	5	16	11	9	23	E(27)
12001619072	SNEHA DAS	17	3	6	17	11	13	23	E(27)
12001619073	SUNETRA SARKAR	18	3	6	17	11	13	23	E(27)
12001619074	PRATIK SENGUPTA	16	3	7	16	11	12	23	E(27)
12001619075	SUDIPTA MISHRA	18	2	5	16	9	12	18	A(24)
12001619076	SAMIM AKTHER	18	3	7	16	11	11	19	E(27)
12001619077	ANKAN CHAKRABORTY	18	2	7	15	9	10	24	E(27)
12001619078	RAKESH BANERJEE	18	2	7	13	11	10	19	E(27)
12001619079	MILAN KUMAR MANDAL	17	3	7	14	8	9	22	E(27)
12001619080	RAUSHAN KUMAR JHA	16	2	6	15	11	11	19	A(24)
12001619081	RITWIK RUDRA	18	3	7	15	9	12	16	E(27)
12001619082	Sarthak Nag	19	3	7	17	12	12	20	E(27)
12001619083	BAIDEHI BHATTACHARYA	20	2	7	17	11	13	24	E(27)
12001619084	KUMARI SURABHI	18	3	7	16	11	10	16	A(24)
12001619085	Shravan kumar	18	3	5	15	11	12	16	A(24)
12001619086	PRIYANSHU RAJ	19	3	7	17	11	13	24	E(27)
12001619087	AVINIT KUMAR SINGH	19	2	5	16	11	11	24	A(24)
12001619089	SUSHMITA KUMARI	18	3	6	17	11	13	19	E(27)
12001619091	CHANDAN KARMAKAR	16	3	6	14	10	11	16	E(27)
12001619092	RITAM SARKAR	13	3	5	16	10	10	16	E(27)
12001619093	ABHISEK GORAI	16	2	6	13	11	11	16	A(24)
12001619095	ARNAB MAHATO	17	3	7	16	10	12	19	E(27)
12001619096	NABIN KUMAR DAS	16	2	4	6	8	8	15	A(24)
12001619097	RITTICK SUKLA	18	3	6	16	10	11	24	E(27)
12001619098	SUVAJIT CHAKRABORTRY	17	2	5	15	11	11	16	A(24)
12001619099	PARICHAY CHEL	15	2	5	16	10	11	18	A(24)
12001619100	SOURAV DAS	19	2	7	17	11	13	24	A(24)
12001619101	ANIRBAN MAITI	14	3	6	14	10	11	18	E(27)
12001619102	BASIL HUSSAIN	16	3	6	14	11	11	18	E(27)
12001619103	DEBOJYOTI BISWAS	16	3	6	18	10	11	19	E(27)
12001619104	NEHAL AKHTAR	18	2	5	18	11	13	24	A(24)

12001619105	AMIT KUMAR SARKAR	18	2	5	17	10	12	18		A(24)
12001619106	SHAMIM HUSSAIN	17	2	6	17	11	11	18		E(27)
12001619107	NIRMALYA NASKAR	17	2	5	14	9	9	14		A(24)
12001619108	Sutanay Maji	18	2	7	16	11	13	23		E(27)
12001619109	BISWAJIT PAUL	16	3	6	16	10	11	18		E(27)
12001619110	PREETI PAUL	17	2	6	18	11	13	23		B(21)
12001619111	Basundhara Maji	20	2	6	18	11	13	18		A(24)
12001619113	DEEPTORSHI DAS	15	2	5	14	10	10	15		A(24)
12001619114	JOYDEB ROY	17	3	6	17	11	11	19		E(27)
12001619115	SANGEET	20	3	7	13	10	12	15		E(27)
12001620062	Arundhati Mukherjee	16	3	6	14	11	10	17		E(27)
12001620063	RAJ SHEKHAR	19	3	6	16	11	13	22		E(27)
12001620064	NABAMITA DUTTA	19	3	7	17	11	13	23		E(27)
12001620065	ARINDAM PANDIT	15	2	4	17	8	8	18		A(24)
12001620066	SUBHADIP ROY	19	2	6	16	8	9	19		E(27)
12001620067	PRASANTA KUMAR DAS	14	2	6	13	9	12	15		A(24)
12001620068	GOURAB SARKAR	14	2	5	15	11	10	19		A(24)
12001620069	SANJAY HAZRA	18	2	6	14	10	11	18		E(27)
12001620070	CHIRANJIT MONDAL	16	3	7	13	11	9	19		E(27)
12001620071	ANUBHAB CHAKRABORTY	19	3	7	17	12	12	20		E(27)
12001620072	BODHISATTYA GUHA	16	3	6	14	10	11	19		A(24)
12001620073	SAMRAT DEBNATH	20	2	7	17	11	12	21		E(27)
12001620074	SUMAN SEN	18	2	6	14	10	11	19		E(27)
12001620075	ABHIJIT SHIL	20	2	7	16	11	13	21		E(27)
12001620076	SOURAV DE	17	3	7	12	10	12	19		E(27)
12001620077	MD SHAHID	18	3	7	17	11	13	24		O(30)
12001620078	AKHIL S PILLAI	18	2	7	14	9	12	20		E(27)
12001620079	SK ALIUL	14	2	5	15	9	10	18		A(24)
12001620080	SHIRSENDU PATRA	13	2	6	13	10	11	19		A(24)
12001620081	KUNTAL SURAL	15	2	6	14	10	12	19		A(24)
12001620082	MANAS CHATTARAJ	19	2	7	14	9	12	19		E(27)
12001620083	SUBHADEEP RUIDAS	13	3	7	12	9	12	24		E(27)
12001620084	SHIRSHENDU BISWAS	14	2	7	12	10	12	19		E(27)
12001620085	RISHI DAS	17	3	7	13	10	12	19		E(27)
12001620086	INDRANIL MONDAL	17	3	6	14	11	11	23		E(27)
12001620087	RANAJIT ROY	18	3	7	14	10	13	20		E(27)
12001620088	ABHISHEK KUMAR SHAW	16	3	6	16	10	11	19		E(27)
12001620089	Supratik Bera	17	3	7	14	9	12	19		E(27)

Strength	124									
	CO Marks	22	3	7	18	12	13	25	70	
	Competence level, 60% threshold	13.2	1.8	4.2	10.8	7.2	7.8	15	C	**Threshold, (>= 50%)**
	Target Level	1	1	1	1	1	1	1	1	**Target Level**
	No. of Students above threshold (Z)	121	124	120	123	123	123	123	124	**No. of Students above threshold**
	(Z/S)*100	97.6	100.0	96.8	99.2	99.2	99.2	99.2	100.0	
	Attainment	3	3	3	3	3	3	3	3	

Course Details: PAPER: Control System CODE:PC-EE503 SEMESTER: 5th (EE)

Session: 2021-22 ODD

COs	CO1	CO2	CO3	CO4	CO5	CO6
Class Test-1	3	3				3
ASSIGNMENT-1	3	3				
Class Test-2		3				3
VIVA	3	3	3	3	3	3
Internal Attainment (Avg.)	3	3	3	3	3	3
External (Univ.) Attainment	3	3	3	3	3	3
Direct CO Attainment (20% Internal + 80% External)	3	3	3	3	3	3
CO Attainment (Avg.)	3					
CO Target	1	1	1	1		
Remarks	Attained	Attained	Attained	Attained		

Course Outcomes							Remarks
Level	CO1	CO2	CO3	CO4	CO5	CO6	
Target	1	1	1	1	1	1	**Attained**
Attainment	3	3	3	3	3	3	

Attainment of POs and PSOs:

Direct Attainment

Course Code	Level	Program Outcomes (POs)												PSOs				
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	
EE503	Target	1.40	1.60	1.60	1.30	0.00	0.00	0.00	0.00	0.00	0.00	1.80	1.40	1.60	1.30	0.80	0.90	AVG
	Attainment	3.00	3.00	3.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
	Remarks	A	A	A	A	NA	NA	NA	NA	NA	NA	A	A	A	A	A	A	

PO DEFINATIONS

Program Outcomes		
PO	**Graduate Attributes**	**Description of Pos**
PO1	Engineering knowledge	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems in Electrical Engineering.
PO2	Problem analysis	Identify, formulate, research literature, and analyse complex Electrical Engineering. problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design/development of solutions:	Design solutions for complex Electrical Engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems:	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in Electrical Engineering.
PO5	Modern tool usage:	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex Electrical Engineering activities with an understanding of the limitations.
PO6	The engineer and society:	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional Electrical engineering practice.
PO7	Environment and sustainability:	Understand the impact of the professional Electrical Engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics:	Apply ethical principles and commit to professional ethics and responsibilities and norms of the Electrical Engineering practice.
PO9	Individual and team work:	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings in Electrical Engineering.
PO10	Communication	Communicate effectively on complex Electrical Engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Project management and finance	Demonstrate knowledge and understanding of the Electrical Engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life-long learning	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change in Electrical Engineering.

Justification of Mapping: PC EE 503	
PC-EE503.1	The students will be able to develop mathematical model of different type of system having mathematical and basic engineering knowledge (PO1). The students can appraise different control mechanism, functioning of different control devices and components of control system which require defining problems and providing solutions by designing and conducting experiments (PO2 and PO4). They can gain sufficient knowledge to design solutions for complex system (PO3). They might engage themselves for resolving engineering problems and contemporary issues to acquire lifelong learning (PO12).
	They can have strong usage of design and execute feasible solution for complex engineering problems theoretically as well as experimentally using the fundamental knowledge of engineering mathematics (PSO1 and PSO2). They will be able to upgrade knowledge with recent advancement in science(PSO3) and technology through life-long learning(PSO4)
PC-EE503.2	The students can perform time domain and frequency domain analysis of different system and determine different transient parameters. It attributes to strong mathematical and basic engineering knowledge (PO1). The students will know to define problems, **investigate complex** problems and provide solutions by designing and conducting experiments with a strong relation to (PO2),(PO3) and (PO4). They might engage themselves for resolving engineering problems to form new ideas (PO11) and contemporary issues to acquire lifelong learning (PO12).
	They can have strong usage of design and execute feasible solution for complex engineering problems using the fundamental knowledge of engineering mathematics (PSO1), (PSO2). They will be able to upgrade knowledge with recent advancement in science and technology to work in a multidisciplinary team and to drive their technical skills towards societal beneficial activities (PSO3) through life-long learning (PSO4).
PC-EE503.3	The students will be able to develop control law or algorithms to control or compensate different dynamical systems. It requires strong mathematical knowledge (PO1). The students will know to investigate complex problems by developing control law or algorithms and provide solutions by designing and conducting experiments with a strong relation to (PO2), (PO3) and (PO4). They might engage themselves for resolving engineering problems to form new ideas (PO11). It will help them to resolve engineering problems and contemporary issues to acquire lifelong learning (PO12). They can have strong usage of design and execute feasible solution for complex engineering problems using the fundamental knowledge of engineering mathematics (PSO1), (PSO2). They will be able to upgrade knowledge with recent advancement in science and technology to work in a multidisciplinary team and to drive their technical skills towards societal beneficial activities (PSO3) through life-long learning (PSO4).
PC-EE503.4	By developing dynamic model of electrical system and mechanical system by state variable method, its required knowledge of mathematics (PO1) and it is focus on research (PO2), design solution of complex engineering (PO3), synthesis of data interpretation (PS4) . Also Would able to engage in lifelong learning (PO12) and manage project in multidisciplinary environments (PO11). The student takes his first step in applying his MATHEMATICS knowledge for the societal by knowing the fundamentals with Highly mapping with (PSO1), Medium mapping with (PSO2), (PSO4) and Low mapping(PSO3).
PC-EE503.5	Students can applying the knowledge of Discrete-time signals analysis (PO1); It can also analyse the problem (PO2); Able to develop the process to meet the specified needs (PO3); Also they could use modern tools to solve complex problems prevailing in the formation of difference equation (PO4). Also they should indulge in life-long learning(PO12).
	The student takes his first step in applying his engineering knowledge for the societal by knowing the fundamentals with Highly mapping with (PSO1), Medium mapping (PSO2) and weakly mapping with (PSO3) and (PO4).

PC-EE503.6	The students learn to solve numerical real life base problems on LTI system modelling, responses, error dynamics and stability having mathematical knowledge (PO1) which strongly maps with (PO2), (PO3) and (PO4). They might engage themselves for resolving engineering problems and contemporary issues to acquire lifelong learning (PO12).
	They can have strong usage of design and execute feasible solution for complex engineering problems using the fundamental knowledge of engineering mathematics (PSO1) and (PSO2). They will be able to upgrade knowledge with recent advancement in science and technology (PSO3) in a multidisciplinary team and to drive their technical skills towards societal beneficial activities through life-long learning(PSO4).

BCREC, DURGAPUR

Session: 2021-22 PC EE503(EE2)

CA1 questions Full Marks: 25

1. What is the electrical analogous(parallel circuit) of Torque in mechanical system. 2

CO1 & BT- U, R

1. V
2. I
3. C
4. R

2. What is the electrical analogous(series circuit) of velocity in mechanical system. 2

CO1 & BT- U, R

1. current
2. charge
3. flux
4. voltage

3.Transfer function of a system is defined as the ratio of output to input in 2

CO1 & BT- U, R

1. Z-transformer
2. Fourier transform
3. Laplace transform
4. All of these

4. Closed loop poles are 2

CO1 & BT- U, R

1. Zeros of 1+G(S). H(s)
2. Zeros of G(s) H(s)
3. Poles of G(s) H(s)
4. Poles of 1 + G(s) H(s)

5. The characteristics equation $s2 + 5s + 10 = 0$ has____ negative roots. 3

CO2,6 & BT- A, E

1. 1
2. 2
3. 0
4. None of the above

6. Characteristics of open loop system 2
CO1 & BT- U, R

1. improve stability
2. easy to design
3. more robust
4. none of the above

7. Transfer function of passive low pass filter 2
CO1 & BT- U, R

1. 1/(1+RCS)
2. 1/(1+RC)
3. 1+RCS
4. R/(1+RCS)

8. 1/RCS gain of passive low pass filter will be 2
CO1 & BT- U, R

1. before the summing point
2. after the summing point
3. direct to the summing point
4. none of the above

9. Impedance of the armature portion of DC motor is 2
CO1 & BT- U, P

1. 1/(R+LS)
2. 1/(L+RS)
3. R+LS
4. L+RS

10. Forward path gain of armature control DC motor , where Kt =torque constant, Ra, La = resistance and inductance of armature, J= moment of inertia, B= friction 4 CO1 & BT- U, P

1. Kt/((Ra+SLa)(JS+B))
2. Kt/(Ra+SLa)
3. Kt/(JS+B)
4. ((Ra+SLa)(JS+B))/Kt

11. Field control method of DC motor has 2 CO1 & BT- U, R

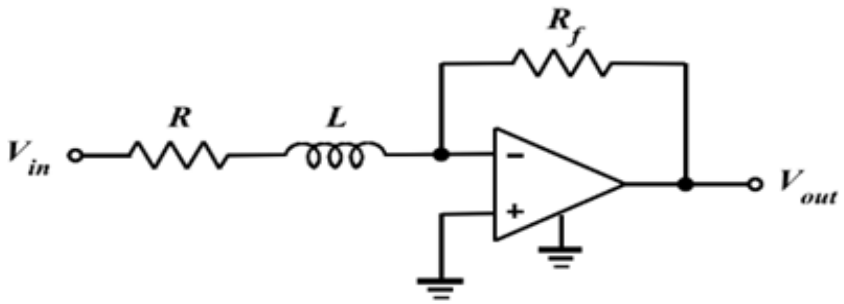
1. no feed back path
2. feed back path
3. unity gain feed back path
4. Option 2 and 3 both

BCREC, DURGAPUR

Session: 2021-22 PC EE503(EE2)

CA2 questions Full Marks: 25

1. Represent the armature control of the DC motor by a block diagram. CO1, BT-U, A
2. Find the transfer function of the following circuit CO2 , BT-U, A



3. Draw the root locus plot (DRAW IN LINEAR GRAPH PAPER) of the following system and find the range of system stability.

G(s)H(s) = K / (s (s+6) (s^2+4s+13)) CO2, BT-U, E

BCREC, DURGAPUR

Session: 2021-22 PC EE503(EE2)

CA3 questions Full Marks: 25

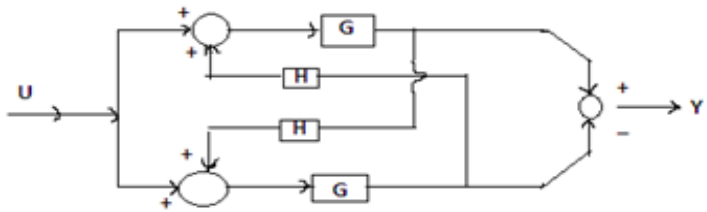
1. A casual system having the transfer function H(s) = 1/(s+2) is exited with 10 u (t). The time at which the output reaches 99% of its steady state values is ……

CO2,6 & BT- R, E

(a) 2.7 sec (b) 2.5 sec

(c) 2.3 sec (d) 2.1 sec

2. The overall transfer function of the system in fig is

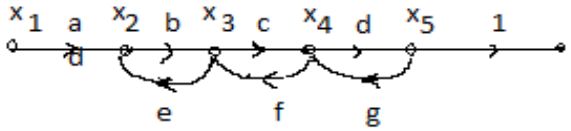


(a) G/(1-GM) (b) 2G/(1-GM)

(c) GM/(1-GM) (d) 2G/(1-M)

3. Consider the single flow graph shown in Fig . The gain x_5/x_2 is

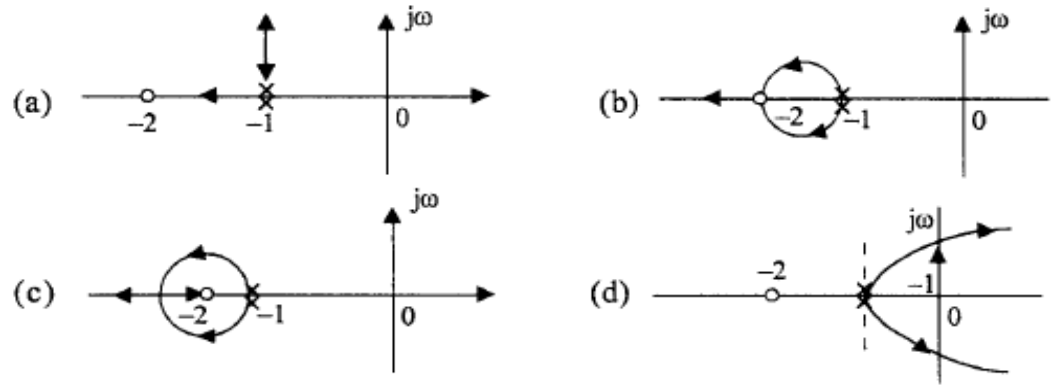
CO2,6 & BT- R, E



(a) [1-(be+ef+dg)]/abcd (b) bedg/[1-(be+cf+dg)

(c) abcd/[1-(be+cf+dg)+bedg] (d) [1-(be+ef+dg)+bedg]/abcd

4. Given a unity feedback system with open-loop transfer function $G(s) = [K(s+2)]/(s+1)^2$ The correct root-locus plot of the system is CO2,6 & BT- R, E



Ans c

5. A system has 3 zeros & 4 poles. The number of root locus branches is equal to

CO2,6 & BT- R, E

a) 3 b) 4 c) 1 d) 7

BCREC, DURGAPUR

Session: 2021-22 PC EE503(EE2)

CA4(Viva) Full Marks: 25