

COST MANAGEMENT OF ENGINEERING PROJECTS (GR20D5146)

II - M. Tech – I Semester

Academic Year: 2022 - 2023

Mr. Akula Prakash

Assistant Professor



Department of Civil Engineering

Gokaraju Rangaraju Institute of Engineering and Technology

Bachupally, Kukatpally, Hyderabad – 500 090.



Gokaraju Rangaraju Institute of Engineering and Technology
Department of Civil Engineering

COST MANAGEMENT OF ENGINEERING PROJECTS

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**Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)**

Bachupally, Kukatpally, Hyderabad – 500 090. (040) 6686 4440

Department of Civil Engineering

M.Tech (Structural Engineering)

COST MANAGEMENT OF ENGINEERING PROJECTS

Course Code: GR20D5146

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3	0	0	3

Pre – Requisite : Construction Process, Costs involved in Construction, Basic Management and Decision-making Skills.

COURSE OBJECTIVES:

1. To attain knowledge in Cost Management process and Costing System.
2. Ability to understand the basic concepts of Project planning, execution, and cost control
3. Discuss about Various types of costs and its behaviour along with Quality Management
4. Identify various types of Budgets involved in Cost Management process
5. Broaden the career potential of available techniques and problems available in Cost Management.

Course Outcomes:

1. Discuss various construction costs to manage a construction project.
2. Summarize different construction activities and its application related to cost based on the field requirements.
3. Identify Cost Behaviour of various types of cost and Quality Management
4. Identifying various construction Budgets involved Cost Management process.
5. Discussing various types of Techniques and Problem-solving techniques involved in Construction

Unit I

Introduction and Overview of the Strategic Cost Management Process, Cost concepts in decision-making; relevant cost, Differential cost, Incremental cost, Opportunity cost. Objectives of a Costing System; Inventory valuation; Creation of a Database for operational control; Provision of data for Decision-Making.

Unit II

Project: Meaning, Different types, why to manage, cost overruns centres, various stages of project execution: conception to commissioning. Project execution as conglomeration of technical and non-technical activities. Detailed Engineering activities. Pre project execution main clearances and documents Project team: Role of each member. Importance Project site: Data required with significance. Project contracts. Types and contents. Project execution Project cost control. Bar charts and Network diagram. Project commissioning: mechanical and process

Unit III

Cost Behaviour and Profit Planning Marginal Costing; Distinction between Marginal Costing and Absorption Costing; Break-even Analysis, Cost-Volume-Profit Analysis. Various decision-making

problems. Standard Costing and Variance Analysis. Pricing strategies: Pareto Analysis. Target costing, Life Cycle Costing. Costing of service sector. Just-in-time approach, Material Requirement Planning, Enterprise Resource Planning, Total Quality Management and Theory of constraints. Activity-Based Cost Management, Bench Marking; Balanced Score Card and Value-Chain Analysis.

Unit IV

Budgetary Control; Flexible Budgets; Performance budgets; Zero-based budgets. Measurement of Divisional profitability pricing decisions including transfer pricing.

Unit V

Quantitative techniques for cost management, Linear Programming, PERT/CPM, Transportation problems, Assignment problems, Simulation, Learning Curve Theory.

Reference Books

1. Cost Accounting A Managerial Emphasis, Prentice Hall of India, New Delhi.
2. Charles T. Horngren and George Foster, Advanced Management Accounting.
3. Robert S Kaplan Anthony A. Alkinson, Management & Cost Accounting.
4. Ashish K. Bhattacharya, Principles & Practices of Cost Accounting A. H. Wheeler publisher.
5. N.D. Vohra, Quantitative Techniques in Management, Tata McGraw Hill Book Co.Ltd



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Department of Civil Engineering

TIME TABLE

ROOM NO: 4112

II MTech (GR20) – I Semester

AY: 2022-23

DAY/ HOUR	09:00 - 10:00	10:10 - 11:10	11:00 - 12:00	12:00-1:00	1:00-2:00	2:00-3:00	3:00-4:00
Monday	CMEP						
Tuesday			CMEP				
Wednesday							
Thursday							
Friday							
Saturday							

CODE	Subject	Faculty
GR20D5146	COST MANAGEMENT OF ENGINEERING PROJECTS	Mr. Akula Prakash



Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

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Vision

To become a pioneering centre in Civil Engineering and technology with attitudes skills and knowledge.

Mission

M1: To produce well qualified and talented engineers by imparting quality education.

M2: To enhance the skills of entrepreneurship, innovativeness , management and life long learning in young engineers

M3: To inculcate professional ethics and make socially responsible engineers.

Programme Educational Objectives (PEOs)

PEO1: Graduates of the program will equip with professional expertise on the theories, process, methods and techniques for building high-quality structures in a cost-effective manner.

PEO2: Graduates of the program will be able to design structural components using contemporary softwares and professional tools with quality practices of international standards.

PEO3: Graduates of the program will be effective as both an individual contributor and a member of a development team with professional, ethical and social responsibilities.

PEO4: Graduates of the program will grow professionally through continuing education, training, research, and adapting to the rapidly changing technological trends globally in structural engineering.

Programme Outcomes(POs)

PO 1: An ability to independently carry out research / investigation and development to solve practical problems

PO 2: An ability to write and present a substantial technical report / document.

PO 3: Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor's.

PO 4: Assess the impact of professional engineering solutions in an environmental context along with societal, health, safety, legal, ethical and cultural issues and the need for sustainable development.

PO 5: Possesses critical thinking skills and solves core, complex and multidisciplinary structural engineering problems.

PO 6: Recognize the need for life-long learning to improve knowledge and competence.

Signature of HOD

Date:

Signature of faculty

Date:



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COURSE OBJECTIVES

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

S.No	Objectives
1	To attain knowledge in Cost Management process and Costing System.
2	Ability to understand the basic concepts of Project planning, execution, and cost control
3	Discuss about Various types of costs and its behavior along with Quality Management
4	Identify various types of Budgets involved in Cost Management process
5	Broaden the career potential of available techniques and problems available in Cost Management.

Signature of HOD

Signature of faculty

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COURSE OUTCOMES

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

On completion of this Subject/Course the student shall be able to:

CO Designation	Course Outcomes
CO1	Discuss various construction costs to manage a construction project.
CO2	Summarize different construction activities and its application related to cost based on the field requirements.
CO3	Identify Cost Behaviour of various types of cost and Quality Management
CO4	Identifying various construction Budgets involved Cost Management process.
CO5	Discussing various types of Techniques and Problem-solving techniques involved in Construction

Signature of HOD

Signature of faculty

Date:

Date:

STUDENT ROLL LIST



Gokaraju Rangaraju Institute of Engineering & Technology
M.Tech (STE) II Year I Semester
A.Y 2022- 2023

S.No	Roll No	Name
1	21241D2001	ATKAPURAM PRASHANTH
2	21241D2002	BANDI SRI RAM GOPAL
3	21241D2003	CHALLA MADHAVI
4	21241D2004	PAMMI DIVYA
5	21241D2005	DUMMA UMESH KUMAR
6	21241D2006	K LATHASREE
7	21241D2007	MARIYALA VAISHNAVI
8	21241D2008	MAVOORI PRANAV
9	21241D2009	MITTAPALLI NAGA ASHWINI
10	21241D2010	RAVULA VENKATA SURAJ REDDY
11	21241D2011	REPATI MOHAN BABU
12	21241D2012	SANDHYA CHERUKU
13	21241D2013	SHAIK FERAZ
14	21241D2014	SK SAI CHANDRA
15	21241D2015	THOTA HARSHAVARDHAN
16	21241D2016	VARIKUPPALA LALITHA
17	21241D2017	YAMBA RAMA GNANENDRA SAI
18	21241D2018	YENUMALA DEVESH GOUD
19	21241D2019	S PRASHANTH KUMAR
20	21241D2020	BAVANDLAPELLI THARUN TEJA
21	21241D2021	G NITISH KUMAR

Signature of HOD
Date:

Signature of faculty
Date



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GUIDELINES TO STUDY THE COURSE / SUBJECT

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Guidelines to students:

Guidelines to study the course: COST MANAGEMENT OF ENGINEERING PROJECTS

The course helps the students to learn and understand about the Overview of the Strategic Cost Management Process, Cost concepts in decision-making; Objectives of a Costing System; Project: Meaning, Different types, why to manage, cost overruns centres, Pre project execution main clearances and documents Project team: Role of each member. Importance Project site: Data required with significance. Project contracts. Types and contents. Project execution Project cost control. Bar charts and Network diagram. Cost Behaviour and Profit Planning Marginal Costing, Break-even Analysis, Cost-Volume-Profit Analysis. Various decision-making problems. Standard Costing and Variance Analysis. Just-in-time approach, Material Requirement Planning, Enterprise Resource Planning, Total Quality Management and Theory of constraints. Activity-Based Cost Management, Bench Marking; Balanced Score Card and Value-Chain Analysis. Budgetary Control; Flexible Budgets; Performance budgets; Zero-based budgets. Measurement of Divisional profitability pricing decisions including transfer pricing. Quantitative techniques for cost management, Linear Programming, PERT/CPM, Transportation problems, Assignment problems, Simulation, Learning Curve Theory.

The students should have the prerequisites:

- Construction Process
- Costs involved in Construction
- Basic Management
- Decision-making Skills.

Where will this subject help?

- Useful in performing the management process in Construction Industry
- Useful in assessing the Cost Concepts in managerial aspects.

Books/Material

1. Cost Accounting A Managerial Emphasis, Prentice Hall of India, New Delhi.
2. Charles T. Horngren and George Foster, Advanced Management Accounting.
3. Robert S Kaplan Anthony A. Alkinson, Management & Cost Accounting.
4. Ashish K. Bhattacharya, Principles & Practices of Cost Accounting A. H. Wheeler publisher.
5. N.D. Vohra, Quantitative Techniques in Management, Tata McGraw Hill Book Co.Ltd

Course Design and Delivery System (CDD):

- The Course syllabus is written into number of learning objectives and outcomes.
- These learning objectives and outcomes will be achieved through lectures, assessments, assignments, experiments in the laboratory, projects, seminars, presentations, etc.
- Every student will be given an assessment plan, criteria for assessment, scheme of evaluation and grading method.
- The Learning Process will be carried out through assessments of Knowledge, Skills and Attitude by various methods and the students will be given guidance to refer to the text books, reference books, journals, etc.

The faculty be able to –

- Understand the principles of Learning
- Understand the psychology of students
- Develop instructional objectives for a given topic
- Prepare course, unit and lesson plans
- Understand different methods of teaching and learning
- Use appropriate teaching and learning aids
- Plan and deliver lectures effectively
- Provide feedback to students using various methods of Assessments and tools of Evaluation
- Act as a guide, advisor, counselor, facilitator, motivator and not just as a teacher alone

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COURSE SCHEDULE

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

The Schedule for the whole Course / Subject is:

Unit. No.	Description	Duration (Date)		Total No. of Periods
		From	To	
1.	UNIT I	19-09-2022	10-10-2022	11
2.	UNIT II	11-10-2022	07-11-2022	10
3.	UNIT III	08-11-2022	06-12-2022	10
4.	UNIT IV	12-12-2022	27-12-2022	09
5.	UNIT V	02-01-2023	17-01-2023	09

Total No. of Instructional periods available for the course: **49** Hours

Signature of H.O.D

Date :

Signature of faculty

Date



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SCHEDULE OF INSTRUCTIONS COURSE PLAN

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

S.No.	Unit No	Date	No. of Classes	Topics	CO	COB
1	I	19-09-2022	1	Introduction to CMEP	1	1
2		19-09-2022	1	Introduction Strategic Cost Management Process	1	1
3		20-09-2022	1	Overview of the Strategic Cost Management Process	1	1
4		26-09-2022	1	Cost concepts in decision-making	1	1
5		26-09-2022	1	Relevant cost, Differential cost	1	1
6		27-09-2022	1	Incremental cost	1	1
7		03-10-2022	1	Opportunity cost	1	1
8		03-10-2022	1	Objectives of a Costing System	1	1
9		04-10-2022	1	Inventory valuation	1	1
10		10-10-2022	1	Creation of a Database for operational control	1	1
11	10-10-2022	1	Provision of data for Decision-Making	1	1	
12	II	11-10-2022	1	Project: Meaning, Different types	2	2
13		17-10-2022	1	Cost overruns centres, Various stages of project execution	2	2
14		17-10-2022	1	Conception to commissioning	2	2
15		18-10-2022	1	Project execution as conglomeration of technical and non- technical activities.	2	2
16		25-10-2022	1	Detailed Engineering activities.	2	2
17		31-10-2022	1	Pre project execution main clearances and documents, Project team: Role of each member.	2	2
18		31-10-2022	1	Project contracts. Types and contents.	2	2
19		01-11-2022	1	Project execution Project cost control	2	2
20		07-11-2022	1	Bar charts and Network diagram	2	2
21		07-11-2022	1	Project commissioning: mechanical and process	2	2

22	III	08-11-2022	1	Cost Behavior and Profit Planning	3	3		
23		14-11-2022	1	Marginal Costing, Distinction between Marginal Costing and Absorption Costing	3	3		
24		14-11-2022	1	Break-even Analysis, Cost-Volume-Profit Analysis	3	3		
25		15-11-2022	1	Various decision-making problems	3	3		
			MID – I Examination					
26		28-11-2022	1	Standard Costing and Variance Analysis	3	3		
27		28-11-2022	1	Pricing strategies: Pareto Analysis Target costing	3	3		
28		29-11-2022	1	Life Cycle Costing, Costing of service sector	3	3		
29		05-12-2022	1	Just-in-time approach Material Requirement Planning	3	3		
30		05-12-2022	1	Enterprise Resource Planning	3	3		
31		06-12-2022	1	Total Quality Management, Theory of constraints	3	3		
32	IV	12-12-2022	1	Activity-Based Cost Management, Bench Marking	4	4		
33		12-12-2022	1	Balanced Score Card Value-Chain Analysis	4	4		
34		13-12-2022	1	Budgetary Control	4	4		
35		19-12-2022	1	Flexible Budgets, Performance budgets	4	4		
36		19-12-2022	1	Zero-based budgets	4	4		
37		20-12-2022	1	Basic Problems on Various Budgets	4	4		
38		26-12-2022	1	Comparison of all types of Budgets	4	4		
39		26-12-2022	1	Measurement of Divisional profitability pricing decisions including transfer pricing.	4	4		
40		27-12-2022	1	Measurement of Divisional profitability pricing decisions including transfer pricing.	4	4		
41	V	02-01-2023	1	Quantitative techniques for cost management	5	5		
42		02-01-2023	1	Linear Programming	5	5		
43		03-01-2023	1	Linear Programming	5	5		
44		09-01-2023	1	Assignment problems	5	5		
45		09-01-2023	1	Assignment problems	5	5		
46		10-01-2023	1	PERT/CPM	5	5		
47		16-01-2023	1	Transportation problems	5	5		
48		16-01-2023	1	Transportation problems	5	5		
49		17-01-2023	1	Simulation and Learning Curve Theory	5	5		

Reference Books

1. Cost Accounting A Managerial Emphasis, Prentice Hall of India, New Delhi.
2. Charles T. Horngren and George Foster, Advanced Management Accounting.
3. Robert S Kaplan Anthony A. Alkinson, Management & Cost Accounting.
4. Ashish K. Bhattacharya, Principles & Practices of Cost Accounting A. H. Wheeler publisher.
5. N.D. Vohra, Quantitative Techniques in Management, Tata McGraw Hill Book C

Signature of H.O.D

Signature of faculty

Date :

Date:

- Note:
1. Ensure that all topics specified in the course are mentioned.
 2. Additional topics covered, if any, may also be specified in bold
 3. Mention the corresponding course objective and out come numbers against each topic



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**SCHEDULE OF INSTRUCTIONS
UNIT PLAN**

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

S.No.	Unit No	Date	No. of Classes	Topics	CO	COB
1	I	19-09-2022	1	Introduction to CMEP	1	1
2		19-09-2022	1	Introduction Strategic Cost Management Process	1	1
3		20-09-2022	1	Overview of the Strategic Cost Management Process	1	1
4		26-09-2022	1	Cost concepts in decision-making	1	1
5		26-09-2022	1	Relevant cost, Differential cost	1	1
6		27-09-2022	1	Incremental cost	1	1
7		03-10-2022	1	Opportunity cost	1	1
8		03-10-2022	1	Objectives of a Costing System	1	1
9		04-10-2022	1	Inventory valuation	1	1
10		10-10-2022	1	Creation of a Database for operational control	1	1
11		10-10-2022	1	Provision of data for Decision-Making	1	1

Books/Material

Reference Books

1. Cost Accounting A Managerial Emphasis, Prentice Hall of India, New Delhi.
2. Charles T. Horngren and George Foster, Advanced Management Accounting.
3. Robert S Kaplan Anthony A. Alkinson, Management & Cost Accounting.
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Signature of HOD
Date:

Signature of faculty
Date:



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**SCHEDULE OF INSTRUCTIONS
UNIT PLAN**

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

S.No.	Unit No	Date	No. of Classes	Topics	CO	COB
1	II	11-10-2022	1	Project: Meaning, Different types	2	2
2		17-10-2022	1	Cost overruns centres, Various stages of project execution	2	2
3		17-10-2022	1	Conception to commissioning	2	2
4		18-10-2022	1	Project execution as conglomeration of technical and non- technical activities.	2	2
5		25-10-2022	1	Detailed Engineering activities.	2	2
6		31-10-2022	1	Pre project execution main clearances and documents, Project team: Role of each member.	2	2
7		31-10-2022	1	Project contracts. Types and contents.	2	2
8		01-11-2022	1	Project execution Project cost control	2	2
9		07-11-2022	1	Bar charts and Network diagram	2	2
10		07-11-2022	1	Project commissioning: mechanical and process	2	2

Books/Material

Reference Books

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**SCHEDULE OF INSTRUCTIONS
UNIT PLAN**

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

S.No.	Unit No	Date	No. of Classes	Topics	CO	COB
1	III	08-11-2022	1	Cost Behavior and Profit Planning	3	3
2		14-11-2022	1	Marginal Costing, Distinction between Marginal Costing and Absorption Costing	3	3
3		14-11-2022	1	Break-even Analysis, Cost-Volume-Profit Analysis	3	3
4		15-11-2022	1	Various decision-making problems	3	3
5		28-11-2022	1	Standard Costing and Variance Analysis	3	3
6		28-11-2022	1	Pricing strategies: Pareto Analysis Target costing	3	3
7		29-11-2022	1	Life Cycle Costing, Costing of service sector	3	3
8		05-12-2022	1	Just-in-time approach Material Requirement Planning	3	3
9		05-12-2022	1	Enterprise Resource Planning	3	3
10		06-12-2022	1	Total Quality Management, Theory of constraints	3	3

Books/Material

Reference Books

1. Cost Accounting A Managerial Emphasis, Prentice Hall of India, New Delhi.
2. Charles T. Horngren and George Foster, Advanced Management Accounting.
3. Robert S Kaplan Anthony A. Alkinson, Management & Cost Accounting.
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Date:



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**SCHEDULE OF INSTRUCTIONS
UNIT PLAN**

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

S.No.	Unit No	Date	No. of Classes	Topics	CO	COB
1	IV	12-12-2022	1	Activity-Based Cost Management, Bench Marking	4	4
2		12-12-2022	1	Balanced Score Card Value-Chain Analysis	4	4
3		13-12-2022	1	Budgetary Control	4	4
4		19-12-2022	1	Flexible Budgets, Performance budgets	4	4
5		19-12-2022	1	Zero-based budgets	4	4
6		20-12-2022	1	Basic Problems on Various Budgets	4	4
7		26-12-2022	1	Comparison of all types of Budgets	4	4
8		26-12-2022	1	Measurement of Divisional profitability pricing decisions including transfer pricing.	4	4
9		27-12-2022	1	Measurement of Divisional profitability pricing decisions including transfer pricing.	4	4

Books/Material

Reference Books

1. Cost Accounting A Managerial Emphasis, Prentice Hall of India, New Delhi.
2. Charles T. Horngren and George Foster, Advanced Management Accounting.
3. Robert S Kaplan Anthony A. Alkinson, Management & Cost Accounting.
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**SCHEDULE OF INSTRUCTIONS
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Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

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Dept.: Civil Engineering

Designation: Assistant Professor

S.No.	Unit No	Date	No. of Classes	Topics	CO	COB
1	V	02-01-2023	1	Quantitative techniques for cost management	5	5
2		02-01-2023	1	Linear Programming	5	5
3		03-01-2023	1	Linear Programming	5	5
4		09-01-2023	1	Assignment problems	5	5
5		09-01-2023	1	Assignment problems	5	5
6		10-01-2023	1	PERT/CPM	5	5
7		16-01-2023	1	Transportation problems	5	5
8		16-01-2023	1	Transportation problems	5	5
9		17-01-2023	1	Simulation and Learning Curve Theory	5	5

Books/Material

Reference Books

1. Cost Accounting A Managerial Emphasis, Prentice Hall of India, New Delhi.
2. Charles T. Horngren and George Foster, Advanced Management Accounting.
3. Robert S Kaplan Anthony A. Alkinson, Management & Cost Accounting.
4. Ashish K. Bhattacharya, Principles & Practices of Cost Accounting A. H. Wheeler publisher.
5. N.D. Vohra, Quantitative Techniques in Management, Tata McGraw Hill Book Co.Ltd

Signature of HOD
Date:

Signature of faculty
Date



**Gokaraju Rangaraju Institute of Engineering and Technology
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Bachupally, Kukatpally, Hyderabad – 500 090. (040) 6686 4440**

LESSON PLAN

Academic Year : 2022 - 23 Date: 9/19/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 1 Duration of Lesson: 1 hr

Lesson Title: Introduction to CMEP

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Introduction to CMEP

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Introduction to CMEP

Assignment / Questions: Write a Short Note on Introduction to CMEP - CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 9/19/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 2 Duration of Lesson: 1 hr

Lesson Title: Introduction Strategic Cost Management Process

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Introduction Strategic Cost Management Process

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Introduction Strategic Cost Management Process

Assignment / Questions: Write a Short Note on Introduction Strategic Cost Management Process - CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 9/20/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 3 Duration of Lesson: 1 hr

Lesson Title: Overview of the Strategic Cost Management Process

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Overview of the Strategic Cost Management Process

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Overview of the Strategic Cost Management Process

Assignment / Questions: Write a Short Note on Overview of the Strategic Cost Management Process - CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 9/26/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 4 Duration of Lesson: 1 hr

Lesson Title: Cost concepts in decision-making

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Cost concepts in decision-making

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Cost concepts in decision-making

Assignment / Questions: Write a Short Note on Cost concepts in decision-making -
CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 9/26/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 5 Duration of Lesson: 1 hr

Lesson Title: Relevant cost, Differential cost

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Relevant cost, Differential cost

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Relevant cost, Differential cost

Assignment / Questions: Write a Short Note on Relevant cost, Differential cost - CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 9/27/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 6 Duration of Lesson: 1 hr

Lesson Title: Incremental cost

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Incremental cost

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

➤ Incremental cost

Assignment / Questions: Write a Short Note on Incremental cost - CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/3/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 7 Duration of Lesson: 1 hr

Lesson Title: Opportunity cost

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Opportunity cost

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

➤ Opportunity cost

Assignment / Questions: Write a Short Note on Opportunity cost - CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/3/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 8 Duration of Lesson: 1 hr

Lesson Title: Objectives of a Costing System

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Objectives of a Costing System

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Objectives of a Costing System

Assignment / Questions: Write a Short Note on Objectives of a Costing System - CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/4/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 9 Duration of Lesson: 1 hr

Lesson Title: Inventory valuation

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Inventory valuation

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

➤ Inventory valuation

Assignment / Questions: Write a Short Note on Inventory valuation - CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/10/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 10 Duration of Lesson: 1 hr

Lesson Title: Creation of a Database for operational control

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Creation of a Database for operational control

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Creation of a Database for operational control

Assignment / Questions: Write a Short Note on Creation of a Database for operational control
- CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/10/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 11 Duration of Lesson: 1 hr

Lesson Title: Provision of data for Decision-Making

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Provision of data for Decision-Making

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Provision of data for Decision-Making

Assignment / Questions: Write a Short Note on Provision of data for Decision-Making -
CO1,COB1

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/11/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 12 Duration of Lesson: 1 hr

Lesson Title: Project: Meaning, Different types

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Project: Meaning, Different types

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Project: Meaning, Different types

Assignment / Questions: Write a Short Note on Project: Meaning, Different types -
CO2, COB2

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/17/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 13 Duration of Lesson: 1 hr

Lesson Title: Cost overruns centres, Various stages of project execution

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Cost overruns centres, Various stages of project execution

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Cost overruns centres, Various stages of project execution

Assignment / Questions: Write a Short Note on Cost overruns centres, Various stages of project execution - CO2,COB2

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/17/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 14 Duration of Lesson: 1 hr

Lesson Title: Conception to commissioning

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Conception to commissioning

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Conception to commissioning

Assignment / Questions: Write a Short Note on Conception to commissioning - CO2,COB2

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/18/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 15 Duration of Lesson: 1 hr

Lesson Title: Project execution as conglomeration of technical and non- technical activities.

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Project execution as conglomeration of technical and non- technical activities.

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Project execution as conglomeration of technical and non- technical activities.

Assignment / Questions: Write a Short Note on Project execution as conglomeration of technical and non- technical activities. - CO2,COB2

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/25/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 16 Duration of Lesson: 1 hr

Lesson Title: Detailed Engineering activities.

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Detailed Engineering activities.

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Detailed Engineering activities.

Assignment / Questions: Write a Short Note on Detailed Engineering activities. - CO2,COB2

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/31/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 17 Duration of Lesson: 1 hr

Lesson Title: Pre project execution main clearances and documents, Project team: Role of each member.

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Pre project execution main clearances and documents, Project team: Role of each member.

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Pre project execution main clearances and documents, Project team: Role of each member.

Assignment / Questions: Write a Short Note on Pre project execution main clearances and documents, Project team: Role of each member. - CO2,COB2

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 10/31/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 18 Duration of Lesson: 1 hr

Lesson Title: Project contracts. Types and contents.

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Project contracts. Types and contents.

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Project contracts. Types and contents.

Assignment / Questions: Write a Short Note on Project contracts. Types and contents. -
CO2,COB2

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 11/1/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 19 Duration of Lesson: 1 hr

Lesson Title: Project execution Project cost control

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Project execution Project cost control

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Project execution Project cost control

Assignment / Questions: Write a Short Note on Project execution Project cost control -
CO2,COB2

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 11/7/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 20 Duration of Lesson: 1 hr

Lesson Title: Bar charts and Network diagram

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Bar charts and Network diagram

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

➤ Bar charts and Network diagram

Assignment / Questions: Write a Short Note on Bar charts and Network diagram -
CO2,COB2

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 11/7/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 21 Duration of Lesson: 1 hr

Lesson Title: Project commissioning: mechanical and process

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Project commissioning: mechanical and process

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Project commissioning: mechanical and process

Assignment / Questions: Write a Short Note on Project commissioning: mechanical and process - CO2,COB2

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 11/8/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 22 Duration of Lesson: 1 hr

Lesson Title: Cost Behavior and Profit Planning

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Cost Behavior and Profit Planning

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Cost Behavior and Profit Planning

Assignment / Questions: Write a Short Note on Cost Behavior and Profit Planning -
CO3,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 11/14/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 23 Duration of Lesson: 1 hr

Lesson Title: Marginal Costing, Distinction between Marginal Costing and Absorption Costing

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Marginal Costing, Distinction between Marginal Costing and Absorption Costing

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Marginal Costing, Distinction between Marginal Costing and Absorption Costing

Assignment / Questions: Write a Short Note on Marginal Costing, Distinction between Marginal Costing and Absorption Costing - CO3,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 11/14/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 24 Duration of Lesson: 1 hr

Lesson Title: Break-even Analysis, Cost-Volume-Profit Analysis

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Break-even Analysis, Cost-Volume-Profit Analysis

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Break-even Analysis, Cost-Volume-Profit Analysis

Assignment / Questions: Write a Short Note on Break-even Analysis, Cost-Volume-Profit Analysis - CO3,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 11/15/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 25 Duration of Lesson: 1 hr

Lesson Title: Various decision-making problems

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Various decision-making problems

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Various decision-making problems

Assignment / Questions: Write a Short Note on Various decision-making problems -
CO3,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 11/28/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 26 Duration of Lesson: 1 hr

Lesson Title: Standard Costing and Variance Analysis

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Standard Costing and Variance Analysis

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Standard Costing and Variance Analysis

Assignment / Questions: Write a Short Note on Standard Costing and Variance Analysis -
CO3,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 11/28/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 27 Duration of Lesson: 1 hr

Lesson Title: Pricing strategies: Pareto Analysis Target costing

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Pricing strategies: Pareto Analysis Target costing

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Pricing strategies: Pareto Analysis Target costing

Assignment / Questions: Write a Short Note on Pricing strategies: Pareto Analysis Target costing - CO3,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 11/29/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 28 Duration of Lesson: 1 hr

Lesson Title: Life Cycle Costing, Costing of service sector

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Life Cycle Costing, Costing of service sector

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Life Cycle Costing, Costing of service sector

Assignment / Questions: Write a Short Note on Life Cycle Costing, Costing of service sector
- CO3 ,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/5/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 29 Duration of Lesson: 1 hr

Lesson Title: Just-in-time approach Material Requirement Planning

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Just-in-time approach Material Requirement Planning

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Just-in-time approach Material Requirement Planning

Assignment / Questions: Write a Short Note on Just-in-time approach Material Requirement Planning - CO3 ,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/5/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 30 Duration of Lesson: 1 hr

Lesson Title: Enterprise Resource Planning

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Enterprise Resource Planning

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Enterprise Resource Planning

Assignment / Questions: Write a Short Note on Enterprise Resource Planning - CO3 ,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/6/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 31 Duration of Lesson: 1 hr

Lesson Title: Total Quality Management, Theory of constraints

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Total Quality Management, Theory of constraints

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Total Quality Management, Theory of constraints

Assignment / Questions: Write a Short Note on Total Quality Management, Theory of constraints - CO3 ,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/12/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 32 Duration of Lesson: 1 hr

Lesson Title: Activity-Based Cost Management, Bench Marking

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Activity-Based Cost Management, Bench Marking

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Activity-Based Cost Management, Bench Marking

Assignment / Questions: Write a Short Note on Activity-Based Cost Management, Bench Marking - CO4 ,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/12/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 33 Duration of Lesson: 1 hr

Lesson Title: Balanced Score Card Value-Chain Analysis

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Balanced Score Card Value-Chain Analysis

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Balanced Score Card Value-Chain Analysis

Assignment / Questions: Write a Short Note on Balanced Score Card Value-Chain Analysis - CO4 ,COB3

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/13/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 34 Duration of Lesson: 1 hr

Lesson Title: Budgetary Control

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Budgetary Control

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

➤ Budgetary Control

Assignment / Questions: Write a Short Note on Budgetary Control - CO4 ,COB4

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/19/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 35 Duration of Lesson: 1 hr

Lesson Title: Flexible Budgets, Performance budgets

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Flexible Budgets, Performance budgets

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Flexible Budgets, Performance budgets

Assignment / Questions: Write a Short Note on Flexible Budgets, Performance budgets -
CO4,COB4

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/19/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 36 Duration of Lesson: 1 hr

Lesson Title: Zero-based budgets

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Zero-based budgets

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Zero-based budgets

Assignment / Questions: Write a Short Note on Zero-based budgets - CO4,COB4

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/20/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 37 Duration of Lesson: 1 hr

Lesson Title: Basic Problems on Various Budgets

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Basic Problems on Various Budgets

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Basic Problems on Various Budgets

Assignment / Questions: Write a Short Note on Basic Problems on Various Budgets -
CO4, COB4

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/26/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 38 Duration of Lesson: 1 hr

Lesson Title: Comparison of all types of Budgets

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Comparison of all types of Budgets

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Comparison of all types of Budgets

Assignment / Questions: Write a Short Note on Comparison of all types of Budgets -
CO4,COB4

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/26/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 39 Duration of Lesson: 1 hr

Lesson Title: Measurement of Divisional profitability pricing decisions including transfer pricing.

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Measurement of Divisional profitability pricing decisions including transfer pricing.

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Measurement of Divisional profitability pricing decisions including transfer pricing.

Assignment / Questions: Write a Short Note on Measurement of Divisional profitability pricing decisions including transfer pricing. - CO4,COB4

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 12/27/2022

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 40 Duration of Lesson: 1 hr

Lesson Title: Measurement of Divisional profitability pricing decisions including transfer pricing.

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Measurement of Divisional profitability pricing decisions including transfer pricing.

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Measurement of Divisional profitability pricing decisions including transfer pricing.

Assignment / Questions: Write a Short Note on Measurement of Divisional profitability pricing decisions including transfer pricing. - CO4,COB4

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 1/2/2023

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 41 Duration of Lesson: 1 hr

Lesson Title: Quantitative techniques for cost management

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Quantitative techniques for cost management

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Quantitative techniques for cost management

Assignment / Questions: Write a Short Note on Quantitative techniques for cost management
- CO5,COB5

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 1/2/2023

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 42 Duration of Lesson: 1 hr

Lesson Title: Linear Programming

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Linear Programming

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

➤ Linear Programming

Assignment / Questions: Write a Short Note on Linear Programming - CO5,COB5

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 1/3/2023

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 43 Duration of Lesson: 1 hr

Lesson Title: Linear Programming

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Linear Programming

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

➤ Linear Programming

Assignment / Questions: Write a Short Note on Linear Programming - CO5,COB5

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 1/9/2023

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 44 Duration of Lesson: 1 hr

Lesson Title: Assignment problems

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Assignment problems

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Assignment problems

Assignment / Questions: Write a Short Note on Assignment problems - CO5,COB5

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 1/9/2023

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 45 Duration of Lesson: 1 hr

Lesson Title: Assignment problems

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Assignment problems

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Assignment problems

Assignment / Questions: Write a Short Note on Assignment problems - CO5,COB5

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 1/10/2023

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 46 Duration of Lesson: 1 hr

Lesson Title: PERT/CPM

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. PERT/CPM

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

➤ PERT/CPM

Assignment / Questions: Write a Short Note on PERT/CPM - CO5,COB5

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 1/16/2023

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 47 Duration of Lesson: 1 hr

Lesson Title: Transportation problems

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Transportation problems

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Transportation problems

Assignment / Questions: Write a Short Note on Transportation problems - CO5,COB5

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 1/16/2023

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 48 Duration of Lesson: 1 hr

Lesson Title: Transportation problems

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Transportation problems

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Transportation problems

Assignment / Questions: Write a Short Note on Transportation problems - CO5,COB5

Signature of faculty



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LESSON PLAN

Academic Year : 2022 - 23 Date: 1/17/2023

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Lesson No: 49 Duration of Lesson: 1 hr

Lesson Title: Simulation and Learning Curve Theory

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:

1. Simulation and Learning Curve Theory

TEACHING AIDS : Board, Power point presentation

TEACHING POINTS

:

- Simulation and Learning Curve Theory

Assignment / Questions: Write a Short Note on Simulation and Learning Curve Theory -
CO5,COB5

Signature of faculty



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TUTORIAL SHEET - 1

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

This Tutorial corresponds to Unit No. / Lesson: One

1. Write a Brief note on Strategic cost Management in Engineering Projects
2. Write a short note on Differential cost, Incremental cost, Opportunity cost.

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the Objectives/Outcomes to which these Questions / Problems / Exercises are related.

Objective Nos.: 1

Outcome Nos.: 1

Signature of HOD

Signature of faculty

Date:

Date:



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TUTORIAL SHEET - 2

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

This Tutorial corresponds to Unit No. / Lesson: Two

1. Write a short notes on
 - i) Project Team
 - ii) Role of Each member in Project Team
2. Explain the importance of Bar Charts and Network Diagrams representation in Project Planning and Scheduling
3. Explain the strategies for successful project completion
4. Discuss the cost concepts in decision making

Objective Nos.: 2

Outcome Nos.: 2

Signature of HOD

Date:

Signature of faculty

Date:



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TUTORIAL SHEET - 3

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering

Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

This Tutorial corresponds to Unit No. / Lesson: Three

1. Write a short note on
 - i) Break-even Analysis
 - ii) Cost-Volume-Profit Analysis
2. Explain Life Cycle costing and mention its importance in Cost behaviour aspects

Objective Nos.: 3

Outcome Nos.: 3

Signature of HOD

Signature of faculty

Date:

Date:



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TUTORIAL SHEET - 4

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

This Tutorial corresponds to Unit No. / Lesson: Four

1. Differentiate between Performance Budget and Zero-Based Budget
2. Identify the application of decision-making theories in Budgetary control

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the Objectives/Outcomes to which these Questions / Problems / Exercises are related.

Objective Nos.: 4

Outcome Nos.: 4

Signature of HOD

Date:

Signature of faculty

Date:



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TUTORIAL SHEET - 5

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

This Tutorial corresponds to Unit No. / Lesson: Five

1. Write a short note on
 - i) Transportation problems
 - ii) Assignment problems
2. Differentiate between CPM and PERT

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the Objectives/Outcomes to which these Questions / Problems / Exercises are related.

Objective Nos.: 5

Outcome Nos.: 5

Signature of HOD

Date:

Signature of faculty

Date:



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ASSIGNMENT - 1

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

This Tutorial corresponds to Unit No. / Lesson: One

1. Write a Brief note on Strategic cost Management in Engineering Projects
2. Write a short note on Differential cost, Incremental cost, Opportunity cost.

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the Objectives/Outcomes to which these Questions / Problems / Exercises are related.

Objective Nos.: 1

Outcome Nos.: 1

Signature of HOD

Signature of faculty

Date:

Date:



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ASSIGNMENT - 2

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

This Tutorial corresponds to Unit No. / Lesson: Two

1. Write a short notes on
 - i) Project Team
 - ii) Role of Each member in Project Team
2. Explain the importance of Bar Charts and Network Diagrams representation in Project Planning and Scheduling
3. Explain the strategies for successful project completion
4. Discuss the cost concepts in decision making

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the Objectives/Outcomes to which these Questions / Problems / Exercises are related.

Objective Nos.: 2

Outcome Nos.: 2

Signature of HOD

Date:

Signature of faculty

Date:



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ASSIGNMENT - 3

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

This Tutorial corresponds to Unit No. / Lesson: Three

1. Write a short note on
 - i) Break-even Analysis
 - ii) Cost-Volume-Profit Analysis
2. Explain Life Cycle costing and mention its importance in Cost behaviour aspects

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the Objectives/Outcomes to which these Questions / Problems / Exercises are related.

Objective Nos.: 3

Outcome Nos.: 3

Signature of HOD

Signature of faculty

Date:

Date:



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ASSIGNMENT - 4

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

This Tutorial corresponds to Unit No. / Lesson: Four

1. Differentiate between Performance Budget and Zero-Based Budget
2. Identify the application of decision-making theories in Budgetary control

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the Objectives/Outcomes to which these Questions / Problems / Exercises are related.

Objective Nos.: 4

Outcome Nos.: 4

Signature of HOD

Date:

Signature of faculty

Date:



**Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)
Bachupally, Kukatpally, Hyderabad – 500 090. (040) 6686 4440**

ASSIGNMENT - 5

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

This Tutorial corresponds to Unit No. / Lesson: Five

1. Write a short note on
 - i) Transportation problems
 - ii) Assignment problems
2. Differentiate between CPM and PERT

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the Objectives/Outcomes to which these Questions / Problems / Exercises are related.

Objective Nos.: 5

Outcome Nos.: 5

Signature of HOD

Date:

Signature of faculty

Date:



**Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)
Bachupally, Kukatpally, Hyderabad – 500 090. (040) 6686 4440**

EVALUATION STRATEGY

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

1. TARGET:

A) Percentage for pass: 100

b) Percentage of class: 100

Total Strength: 21

S.No.	Class / Division	No. of Students
1	First Class with distinction	05
2	First Class	13
3	Pass Class	03

2. COURSE PLAN& CONTENT DELIVERY

S.No	Plan	Brief Description
1	Practice classes	Theory classes
2	Assignments	Assignments for solving Practical issues

3. METHOD OF EVALUATION

3.1 Continuous Assessment Examinations

- Assignments: Assignments to assess the knowledge of the student on the basics and concepts in Strategic Cost Management, Project Teams and Types, Project Commissioning, Various types of Cost, Cost Budgeting, Various Costing Tools and Techniques.
- Seminars: To assess the knowledge of the student in Managerial Aspects
- Quiz: To assess the knowledge of the student in various concepts and basics of Construction Management.
- Internal Examination: Internal Examinations to assess their overall knowledge in CMEP.

3.2. Semester/End Examination

To test their abilities in the course Cost Management of Engineering Projects and to approve their abilities learnt during the same.

- 4.** List out any new topic(s) or any innovation you would like to introduce in teaching the subjects in this Semester.

Introduce Hands on Practice sessions with the help of Case Studies.

Signature of HOD

Signature of faculty



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Mappings of CO's, COB's Vs PO's, POB's

Course Objectives - Course Outcomes Relationship Matrix

Course Objectives \ Course Outcomes	1	2	3	4	5
	1		X		
2				X	
3	X				
4			X		
5					X

Course Outcomes - Program Outcomes relations (Contributions: High, Medium and Low)

Code	Subject	Course Outcomes	Program Outcomes					
			1	2	3	4	5	6
			GR20D5146	COST MANAGEMENT OF ENGINEERING PROJECTS	Discuss various construction costs to manage a construction project.		H	
Summarize different construction activities and its application related to cost based on the field requirements.		M				M	M	M
Identify Cost Behaviour of various types of cost and Quality Management	M	M				M	M	M
Identifying various construction Budgets involved Cost Management process.							M	H
Discussing various types of Techniques and Problem-solving techniques involved in Construction	H	M				M	M	H

Course Objectives - Program Outcomes (PO's) Relationship Matrix

Course Objectives \ Program Outcomes	Program Outcomes					
	1	2	3	4	5	6
1	X					X
2	X					X
3	X	X		X	X	X
4	X					X
5	X					X

Course Outcomes - Program Outcomes relations (PO's) Relationship Matrix

Course Outcomes \ Program Outcomes	Program Outcomes					
	1	2	3	4	5	6
1		H		M	H	H
2		M		M	M	M
3	M	M		M	M	M
4					M	H
5	H	M		M	M	H

Program Educational Objectives (PEOs)- Course Outcomes Relationship Matrix

Course Outcomes \ Program Educational Objectives	Program Educational Objectives			
	1	2	3	4
1	X	X	X	
2	X	X	X	X
3	X	X	X	
4	X	X		X
5	X	X	X	X



**Gokaraju Rangaraju Institute of Engineering and Technology
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RUBRIC TEMPLATE

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

		Beginning	Developing	Reflecting Development	Accomplished	Exemplary	Score
Name of the Student	Performance Criteria	1	2	3	4	5	
SK SAI CHANDRA (21241D2014)	Assessment of quantities of various materials	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Handling of Tendering Process	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Assess the value of property	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Estimate rate per unit work	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Valuation of buildings	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5



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COURSE COMPLETION STATUS

Academic Year : 2022 - 23

Semester : I

Name of the Program: M. Tech Structural Engineering Year: II year

Course/Subject: Cost Management of Engineering Projects

Course Code: GR20D5146

Name of the Faculty: Mr. Akula Prakash

Dept.: Civil Engineering

Designation: Assistant Professor

Actual Date of Completion & Remarks, if any

Units	Remarks	Objectives Achieved	Outcomes Achieved
Unit I	Unit covered on time	1	1
Unit II	Unit covered on time	2	2
Unit III	Unit covered on time	3	3
Unit IV	Unit covered on time	4	4
Unit V	Unit covered on time	5	5

Signature of HOD

Signature of faculty

Date:

Date:

Note: After the completion of each unit mention the number of Objectives & Outcomes Achieved

CODE: GR20D5146**GR 20****GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY***(Autonomous)***II M. Tech I Semester Mid- I Examinations, November 2022****DEPARTMENT OF CIVIL ENGINEERING****(STRUCTURAL ENGINEERING)****COST MANAGEMENT OF ENGINEERING PROJECTS****Date : 22/11/2022**

SUBJECTIVE					
(Answer ALL questions. All questions carry equal marks)					
Time: 75 Minutes			3 * 5 = 15 Marks		
S.No	Questions	Marks	CO	BL	PI
1	Write a Brief note on Strategic cost Management in Engineering Projects	[5]	1	L1	2.1.1
OR					
2	Write a short note on Differential cost, Incremental cost, Opportunity cost.	[5]	1	L1	4.1.1
3	Write a short note on i) Project Team ii) Role of Each member in Project Team	[5]	2	L1	1.1.2
OR					
4	Explain the strategies for successful project completion	[5]	2	L2	2.1.2
5	Discuss the cost concepts in decision making	[5]	1	L2	3.3.1
OR					
6	Explain the importance of Bar Charts and Network Diagrams representation in Project Planning and Scheduling	[5]	2	L2	3.1.3

CODE: GR20D5146**GR 20**

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
(Autonomous)

II M. Tech I Semester Mid- I Examinations, November 2022

DEPARTMENT OF CIVIL ENGINEERING
(STRUCTURAL ENGINEERING)

COST MANAGEMENT OF ENGINEERING PROJECTS

Date : 22/11/2022

OBJECTIVE		
Multiple Choice Questions (MCQs)		
(Answer ALL questions. All questions carry equal marks)		
Time: 15 Minutes	10 * 1/2 = 5 Marks	
1	Who is responsible for realistic and accurate estimation of the project? a) Stakeholders b) Project manager. c) Project team d) Project sponsor	[]
2	While determining budget a project manager uses _____ processes. a) Executing. b) Controlling c) Planning d) Communication	[]
3	Earned Value (EV) means _____. a) How much money earned. c) What is the value of completed work. b) How much time is spent. d) How much finds are spent	[]
4	What is actual cost (total cost) (AC)? a) Current estimated and authorized budget to complete the work. b) Cost of the work to complete the work. c) The total cost of accomplished work at its current stage. d) A planned budget assigned to complete the work	[]
5	What criterion makes you increase pessimistic estimation? a) Funding constrains determined by sponsor. b) Risks identified during planning. c) Time constrains specified by customer. d) Quality requirements provided by stakeholders	[]
6	Which process monitors the status of the project and keeps updated the information about the project budget and manages changes to the cost baseline? a) Determine Budget b) Estimate costs. c) Control costs. d) Control account	[]
7	What set of tools and techniques can be used for estimating costs? a) Same as used to estimate scope. b) Same as used to estimate resource c) Same as used to estimate risk. d) Same as used to estimate time	[]
8	Amount that vendor received for conducting a project called _____. a) Revenue. b) Net income. c) Gross Profit. d)Expense	[]
9	What does the Basis of Estimates explain? a) Indication of the confidence level of the estimate. b) How the estimates were developed, documentation on all assumptions c) All units, references, and ranges of estimate d) All answers are right.	[]
10	What action should try first for decreasing estimation of cost and/or time? a) Increasing time and budget. b) Reducing or eliminating the risks. c) Reasonable cut of project scope. d) Increasing thresholds tolerance	[]

CODE: GR20D5146**GR 20****GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY***(Autonomous)***II M. Tech I Semester Mid - II Examinations, January 2023****DEPARTMENT OF CIVIL ENGINEERING****(STRUCTURAL ENGINEERING)****COST MANAGEMENT OF ENGINEERING PROJECTS****Date : 21/01/2023****SUBJECTIVE****(Answer ALL questions. All questions carry equal marks)****Time: 75 Minutes****3 * 5 = 15 Marks**

S.No	Questions	Marks	CO	BL	PI
1	Summarize a short note on i) Break-even Analysis ii) Cost-Volume-Profit Analysis	[5]	3	L2	2.1.1
OR					
2	Explain Life Cycle costing and mention its importance in Cost behaviour aspects	[5]	3	L2	4.1.1
3	Differentiate between Performance Budget and Zero-Based Budget	[5]	4	L4	1.1.2
OR					
4	Identify the application of decision-making theories in Budgetary control	[5]	4	L3	2.1.2
5	Write a short note on i) Transportation problems ii) Assignment problems	[5]	5	L1	3.3.1
OR					
6	Differentiate between CPM and PERT	[5]	5	L4	3.1.3

CODE: GR20D5146**GR 20**

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
(Autonomous)

II M. Tech I Semester Mid - II Examinations, January 2023
DEPARTMENT OF CIVIL ENGINEERING
(STRUCTURAL ENGINEERING)
COST MANAGEMENT OF ENGINEERING PROJECTS

Date : 21/01/2023

Name of the Student : _____ **Roll Number :** _____

OBJECTIVE					
Multiple Choice Questions (MCQs)					
(Answer ALL questions. All questions carry equal marks)					
Time: 15 Minutes				10 * 1/2 = 5 Marks	
			CO	BL	PI
1	The difference between the time avail-to do a job and time required to do the job, is known as (A) Event (B) Float (C) Duration (D) Constraint	[]	5	2	1.2.3
2	A dummy activity (A) Is artificially introduced (B) Is represented by a dotted line (C) Does not consume time (D) All the above	[]	5	1	2.1.1
3	The reduction in project time normally results in (A) Decreasing the direct cost and increasing indirect cost (B) Increasing the direct cost and decreasing the indirect cost (C) Increasing the direct cost and indirect cost both (D) Decreasing the direct cost and indirect cost both	[]	3	2	1.2.3
4	Frederick W. Taylor introduced a system of working known as (A) Line organization (B) Line and staff organization (C) Functional organization (D) Effective organization	[]	3	1	5.1.1
5	CPM is (A) Synthesising in concepts (B) Is built of activities-oriented programme (C) Is based on time estimate (D) All the above	[]	5	1	5.2.2
6	The Overall in-charge of an organization at the site responsible for execution, is (A) Executive Engineer (B) Engineer (C) Junior Engineer (D) Assistant Engineer	[]	4	1	5.1.1
7	The first stage of a construction, is (A) Preparation of estimate (C) Survey of the site (B) Initiation of proposal (D) Preparation of tender	[]	4	1	3.1.1
8	Sinking fund is (A) The fund for rebuilding a structure when its economic life is over (B) Raised to meet maintenance costs (C) The total sum to be paid to the municipal authorities by the tenants (D) A part of the money kept in reserve for providing additional modifications	[]	4	2	3.3.1
9	Interfering float is the difference between (A) Total float and free float (B) Total float and independent float (C) Free float and independent float (D) None of the above	[]	5	1	2.1.1
10	_____ time estimate refers to activities: (A) Optimistic (B) Pessimistic (C) Most likely (D) All the above	[]	5	1	2.1.1

MID - I MARKS



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Civil Engineering

M.TECH (STRUCTURAL ENGINEERING)

MID - I Examination Marks - November 2022

Programme: **M. Tech** Year/ Sem: **II / I**
Course: **CMEP** MID : **I**

Course: **Theory** A.Y: **2022-23**
Faculty Name: **Mr. Akula Prakash**

S. No	Roll No	NAME OF THE STUDENT	Subjective Marks (15)	Objective Marks (5)	Total Marks (20)
1	21241D2001	ATKAPURAM PRASHANTH	6	2.5	9
2	21241D2002	BANDI SRI RAM GOPAL	8	2.5	11
3	21241D2003	CHALLA MADHAVI	11	2	13
4	21241D2004	PAMMI DIVYA	13	2	15
5	21241D2005	DUMMA UMESH KUMAR	10	2.5	13
6	21241D2006	K LATHASREE	12	2.5	15
7	21241D2007	MARIYALA VAISHNAVI	10	2	12
8	21241D2008	MAVOORI PRANAV	9	3	12
9	21241D2009	MITTAPALLI NAGA ASHWINI	9	3	12
10	21241D2010	RAVULA VENKATA SURAJ REDDY	8	3.5	12
11	21241D2011	REPATI MOHAN BABU	8	2	10
12	21241D2012	SANDHYA CHERUKU	11	2	13
13	21241D2013	SHAIK FEROZ	8	2	10
14	21241D2014	SK SAI CHANDRA	14	2	16
15	21241D2015	THOTA HARSHAVARDHAN	11	3	14
16	21241D2016	VARIKUPPALA LALITHA	14	3	17
17	21241D2017	YAMBA RAMA GNANENDRA SAI	5	3	8
18	21241D2018	YENUMALA DEVESH GOUD	7	3	10
19	21241D2019	S PRASHANTH KUMAR	AB	AB	AB
20	21241D2020	BAVANDLAPELLI THARUN TEJA	AB	AB	AB
21	21241D2021	G NITISH KUMAR	7	2	9



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING
M.TECH - STRUCTURAL ENGINEERING
MID I EXAMINATION - NOVEMBER 2022

Subject Name: CMEP

Year & Sem : II & I

S.No	Roll No	Q.No 1 CO1 (5M)	Q.No 2 CO1 (5M)	Q.No 3 CO2 (5M)	Q.No 4 CO2 (5M)	Q.No 5 CO1 (5M)	Q.No 6 CO2 (5M)
1	21241D2001	1			2	3	
2	21241D2002		3	3		2	1
3	21241D2003	3		4			4
4	21241D2004	4		4			5
5	21241D2005		3	4			3
6	21241D2006	4	4		4		4
7	21241D2007	2		4			4
8	21241D2008	2	3	4			
9	21241D2009		3	2			4
10	21241D2010		3	3			2
11	21241D2011	3		3			2
12	21241D2012		3	4			4
13	21241D2013	2		3			3
14	21241D2014		4	5			5
15	21241D2015		4	4			3
16	21241D2016	4		5		5	
17	21241D2017	2		2			1
18	21241D2018		4	3			
19	21241D2019	AB	AB	AB	AB	AB	AB
20	21241D2020	AB	AB	AB	AB	AB	AB
21	21241D2021		2	3	2		
Total		27	36	60	8	10	45
No of students attempted(NSA)		10	11	17	3	3	14
Attempt %=(NSA/Total no of students)*100		47.62	52.38	80.95	14.29	14.29	66.67
Attainment %		54.00	65.45	70.59	53.33	66.67	64.29

	CO1	CO2
Attempt%	47.62	73.81
Attainment %	54.00	67.44

MID - II MARKS

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Civil Engineering

M.TECH (STRUCTURAL ENGINEERING)

MID - II Examination Marks - January 2023

Programme: **M. Tech** Year/ Sem: II / I
Course: **CMEP** MID : II

Course: **Theory** A.Y: **2022-23**
Faculty Name: **Mr. Akula Prakash**

S. No	Roll No	NAME OF THE STUDENT	Subjective Marks (15)	Objective Marks (5)	Total Marks (20)
1	21241D2001	ATKAPURAM PRASHANTH	9	3.5	13
2	21241D2002	BANDI SRI RAM GOPAL	11	3	14
3	21241D2003	CHALLA MADHAVI	12	2.5	15
4	21241D2004	PAMMI DIVYA	13	4	17
5	21241D2005	DUMMA UMESH KUMAR	10	2.5	13
6	21241D2006	K LATHASREE	12	2.5	15
7	21241D2007	MARIYALA VAISHNAVI	10	2.5	13
8	21241D2008	MAVOORI PRANAV	10	3	13
9	21241D2009	MITTAPALLI NAGA ASHWINI	14	3.5	18
10	21241D2010	RAVULA VENKATA SURAJ REDDY	10	3.5	14
11	21241D2011	REPATI MOHAN BABU	8	3	11
12	21241D2012	SANDHYA CHERUKU	14	3.5	18
13	21241D2013	SHAIK FERAZ	11	2.5	14
14	21241D2014	SK SAI CHANDRA	15	3	18
15	21241D2015	THOTA HARSHAVARDHAN	15	3.5	19
16	21241D2016	VARIKUPPALA LALITHA	14	2.5	17
17	21241D2017	YAMBA RAMA GNANENDRA SAI	7	3	10
18	21241D2018	YENUMALA DEVESH GOUD	10	2	12
19	21241D2019	S PRASHANTH KUMAR	AB	AB	AB
20	21241D2020	BAVANDLAPELLI THARUN TEJA	AB	AB	AB
21	21241D2021	G NITISH KUMAR	9	2.5	12



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING
M.TECH - STRUCTURAL ENGINEERING
MID II EXAMINATION - January 2023

Subject Name: CMEP

Year & Sem : II & I

S.No	Roll No	Q.No 1 CO 3 (5M)	Q.No 2 CO 3 (5M)	Q.No 3 CO 4 (5M)	Q.No 4 CO 4 (5M)	Q.No 5 CO 5 (5M)	Q.No 6 CO 5 (5M)
1	21241D2001	4	2			5	
2	21241D2002	5			4		2
3	21241D2003	4		3			5
4	21241D2004	4		4			5
5	21241D2005	3	2	3			4
6	21241D2006	4			4		4
7	21241D2007	4			3	3	3
8	21241D2008	3			4		3
9	21241D2009	4			5		5
10	21241D2010	3			3	4	
11	21241D2011	2		3			3
12	21241D2012	4		5			5
13	21241D2013	4		3			4
14	21241D2014	5		5			5
15	21241D2015		5	5			5
16	21241D2016	5		4			5
17	21241D2017	2		2			3
18	21241D2018			5			5
19	21241D2019	AB	AB	AB	AB	AB	AB
20	21241D2020	AB	AB	AB	AB	AB	AB
21	21241D2021	4			2		3
Total		64	9	42	25	12	69
No of students attempted(NSA)		17	3	11	7	3	17
Attempt %=(NSA/Total no of students)*100		58.62	10.34	37.93	24.14	10.34	58.62
Attainment %		75.29	60.00	76.36	71.43	80.00	81.18

	CO4	CO5	CO6
Attempt%	34.48	31.03	34.48
Attainment %	67.65	73.90	80.59

OVERALL MARKS



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Civil Engineering

M.TECH (STRUCTURAL ENGINEERING)

OVERALL ASSESSMENT MARKS

Programme: **M. Tech**

Year: **II / I**

Course: **Theory**

A.Y: 2022-23

Course: **CMEP**

Faculty Name: **Mr. Akula Prakash**

S. No	Roll No	MID I	MID II	AVERAGE	ASSIGNMENT MARKS	ATTENDANCE	TOTAL
1	21241D2001	9	13	11	3	3	17
2	21241D2002	11	14	13	5	5	23
3	21241D2003	13	15	14	4	4	22
4	21241D2004	15	17	16	3	3	22
5	21241D2005	13	13	13	5	5	23
6	21241D2006	15	15	15	5	5	25
7	21241D2007	12	13	13	4	4	21
8	21241D2008	12	13	13	5	5	23
9	21241D2009	12	18	15	5	5	25
10	21241D2010	12	14	13	5	5	23
11	21241D2011	10	11	11	5	5	21
12	21241D2012	13	18	16	4	4	24
13	21241D2013	10	14	12	4	4	20
14	21241D2014	16	18	17	5	5	27
15	21241D2015	14	19	17	5	5	27
16	21241D2016	17	17	17	5	5	27
17	21241D2017	8	10	9	5	5	19
18	21241D2018	10	12	11	3	3	17
19	21241D2019	AB	AB	AB	3	3	6
20	21241D2020	AB	AB	AB	3	3	6
21	21241D2021	9	12	11	3	3	17

SEMESTER EXAMINATION MARKS



Gokaraju Rangaraju Institute of Engineering & Technology
(Autonomous)

Results

Year: M.Tech II Year - I Sem

Academic Year : 2022-23

STE

S.No	Roll No	GR20D5022	GR20D5144	GR20D5146	SGPA	Credits
1	21241D2002	10	8	8	8.38	16
2	21241D2009	8	8	9	8.19	16
3	21241D2014	9	8	8	8.19	16
4	21241D2003	9	8	7	8.00	16
5	21241D2012	8	8	7	7.81	16
6	21241D2016	8	7	10	7.75	16
7	21241D2006	9	6	10	7.31	16
8	21241D2005	9	6	9	7.13	16
9	21241D2008	8	6	9	6.94	16
10	21241D2004	7	6	8	6.56	16
11	21241D2007	7	6	8	6.56	16
12	21241D2013	6	6	9	6.56	16
13	21241D2001	7	6	7	6.38	16
14	21241D2010	6	6	6	6.00	16
15	21241D2015	0	8	8	6.50	13
16	21241D2011	0	7	6	5.50	13
17	21241D2021	0	6	7	5.06	13
18	21241D2017	0	6	0	3.75	10
19	21241D2018	0	0	0	0.00	0
20	21241D2019	0	0	0	0.00	0
21	21241D2020	0	0	0	0.00	0

GR20D5022 Design of Prestressed Concrete

GR20D5144 Dissertation Phase - I

GR20D5146 Cost Management of Engineering Projects



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
Department of Civil Engineering
Year: M.Tech II Year - I Sem
Structural Engineering
Academic Year : 2022-23

Total Strength of the Class:21

S.No	Name of the Subject	Subject Code	No. of students appeared	No. of students Passed	No. of students Failed	Student's Batch :2021-2023						Grade Point
						GP 10	GP 9	GP 8	GP 7	GP 6	Pass %	
Theory												
1	Design of Prestressed Concrete	GR20D5022	21	14	7	1	4	4	3	2	66.67	O
2	Dissertation Phase - I	GR20D5144	21	18	3	-	-	6	2	10	85.71	A+
3	Cost Management of Engineering Projects	GR20D5146	21	17	4	2	4	5	4	2	80.95	A

Subjects & Faculty Details		
S.No	Name of the Subject	Faculty
1	Design of Prestressed Concrete	Dr. T. Srinivas (1106)
2	Dissertation Phase - I	Mr. V. ramesh (1646)
3	Cost Management of Engineering Projects	Mr. A. Prakash (1502)

Arrear Position - Second Year First Semester			
Description	Arrear Details		
	All Pass	One Arrear	Two Arrears
No. of Students	14	3	3

Performance		
Class Toppers (Three Positions)		
S.No	Name of the Student	% of Marks
1	BANDI SRI RAM GOPAL	8.38
2	MITTAPALLI NAGA ASHWINI	8.19
3	S K SAI CHANDRA	8.19
4	CHALLA MADHAVI	8.00
Overall Pass :66.66%		Passed in First class :43%

HOD

SAMPLE ANSWER SCRIPTS (MID -I)



Gokaraju Rangaraju Institute of Engineering & Technology
 Department of Civil Engineering
 M.Tech. (Structural Engineering) II Year I Semester
 2022-23 Admitted Batch (GR20)

Mid-I Examination
 Attendance Sheet

Course Code: GR2005146

Course Title: CMEF

S.No	ROLL NUMBER	NAME OF THE STUDENT	Booklet No	Signature	Marks(20)
1	21241D2001	ATKAPURAM PRASHANTH	487491	✓	
2	21241D2002	BANDI SRI RAM GOPAL	464854	B. Bandi	
3	21241D2003	CHALLA MADHAVI	468022	Challa	
4	21241D2004	PAMMI DIVYA	465000	Pammi	
5	21241D2005	DUMMA UMESH KUMAR	468170	Dumma	
6	21241D2006	K LATHASREE	464859	K. Latha	
7	21241D2007	MARIYALA VAISHNAVI	464848	Mariyala	
8	21241D2008	MAVOORI PRANAV	468020	Mavoori	
9	21241D2009	MITTAPALLI NAGA ASHWINI	464999	Mittapalli	
10	21241D2010	RAVULA VENKATA SURAJ REDDY	468167	Ravula	
11	21241D2011	REPATI MOHAN BABU	464853	Repati	
12	21241D2012	SANDHYA CHERUKU	464934	Sandhya	
13	21241D2013	SHAIK FERAZ	468018	Shaik	
14	21241D2014	SK SAI CHANDRA	468012	Sk Saichandra	
15	21241D2015	THOTA HARSHAVARDHAN	468172	Thota	
16	21241D2016	VARIKUPPALA LALITHA	468013	Varikuppala	
17	21241D2017	YAMBA RAMA GNANENDRA SAI	461821	Yamba	
18	21241D2018	YENUMALA DEVESH GOUD	468021	Yenumala	
19	21241D2019	S PRASHANTH KUMAR	AB	AB	
20	21241D2020	BAVANDLAPELLI THARUN TEJA	AB	AB	
21	21241D2021	G NITISH KUMAR	468023	G Nitish	

No of Absent: 02
 No of Present: 19
 Total No of Students: 21

Signature of the Staff Member
 22/11/2022



Gokaraju Rangaraju Institute of Engineering & Technology
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Bachupally, Kukatpally, Hyderabad - 500090

I II **MID TERM EXAMINATION**

No.

..468019

H.T. No.

2 1 2 U 1 D 2 0 1 6

Name of the Examination M.Tech II-year I-Sem I-Mid

Course CMEP

Branch civil-STE

Date 22/11/22

Signature of the Invigilator

Q.NO.	1		2		3		4		5		6		TOTAL
	a	b	a	b	a	b	a	b	a	b	a	b	
MARKS	4				5				5				14

START WRITING FROM HERE

- ① strategic cost management in Engineering projects.
- Ans. strategic cost management is the program used in business used to regularly identify and analyzing the project with lowering cost and maximizing the total value.
- for example: In Engineering aspects for the completion of construction of ^{building project} complete the project with utilizing limited resources to complete the project with effectively.
- strategic cost management is the utilization of resources effectively
- strategic management process there is not only lowering the cost but also the requirement of the stakeholders implemented effectively.

→ In strategic cost management technique it not only lower down the cost of product but also creates an compatibility in the market.

frame work of strategic cost management.

→ first step is to identify the core function

→ The next step is to activity completion

→ The final step is the core activities.

steps involved in strategic cost management

1. Reviewing the cost management, project management

2. Team, train organizing the tasks, activities to the project management team

3. Findings

4. Monitoring and analyse the activities and change the management strategy if there is any changes in the cost management technique.

strategic cost management analysis.

strategic cost managements analysis for achieving the goals

1. value chain analysis (where we are)

2. strategic plan analysis (positioning)

3. cost control analysis.

value chain Analysis

→ In value chain analysis determine the

→ In strategic planning analysis. In this analysis approach identifying the positioning of the strategic cost management in an organization. For the effective production of the product.

→ In cost control analysis they categorized into two groups

- strategic cost
- structure cost.

wipro' obbers strategic cost management in 15-30%. Accenture also provides the strategic cost management for the productivity of the company.

→ In to days day to day the new techniques are comes in to the market the demand of the. the strategic cost management plays an major role in the project management system in the engineering projects for better approach to improve productivity of the products.

⑤. cost concepts in decision making

→ cost is the amount that we expenditure on the product.

→ costing is the accounting it starts with recording of spend/expense and ends with recording of the income/expense and ends with the reporting of statement predicting the statements

these are different cost

1. Indirect cost
2. Direct cost
3. Fixed cost
4. Variable cost
5. Sunk cost

for the effective cost managing account. achieved by two approaches

→ cost reduction

→ cost control

→ cost reduction: It is the permanent saving, it is non dynamic, the

→ cost control: It is the temporary saving, it is fully dynamic.

Decision making

Determination of selling cost

Determination of Budget

monitoring, relaxation

Decision making is the in cost controls an major in project management. for the effective and complete the project with out any loss. Decision making on cost is very major role

Decide cost concepts in decision making

A. Relevant costs.

1. Marginal cost

2. Differential cost

3. Opportunity cost.

Marginal cost:

Marginal cost is equal to the sum of variable cost plus overhead and indirect cost.

→ In this cost include direct material cost, machinery and labour cost.

Differential cost.

→ Differential cost is the change in cost based on activity performed at difference level and method obtained for an activity

→ If the change of cost is increased it is called as an incremental cost.

→ If the change of cost is decreased then it is called as a decremental cost.

For Example : For a firm A activity \$10,000 and B group \$15,000 change or difference is 5000
The example of cost incurred on cement bag

Opportunity cost.

→ Opportunity cost is the replace or may the op with an alternative choices

Example : In Banks the amount deposited is with drawn from the bank. The money left interest is an opportunity cost.

(3) ans Project : Project involves initiating, planning, Execution, monitoring and controlling, closing with aim to achieve with success goals and in with in stipulated time.

→ for the completion project there is need to be a project team.

→ project team perform the following duties

→ Determine the scope of project

→ Planning

→ Time

→ Quality

→ Costing

→ Risk management

→ Procurement

→ Stake holders procurement

→ Scheduling

In project team

1. Project manager

2. Project sponsor

3. Site Engineer

4. Executive manager

→ Project manager is the one who responsible for the whole project.

→ sets

→ project manager assign the work for the subordinates

→ Managing the project

→ Directing the project

→ Executive manager

→ take the observation and implementation of work.

→ observes the execution of work with the time and allocated resources

→ cost analysis

→ observes the activities and the allocated resources.

CODE: GR20D5146



V. Lalitha
21/2/2016
GR 20

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
(Autonomous)

II M. Tech I Semester Mid-I Examinations, November 2022
DEPARTMENT OF CIVIL ENGINEERING
(STRUCTURAL ENGINEERING)

3 d

COST MANAGEMENT OF ENGINEERING PROJECTS
Date : 22/11/2022

OBJECTIVE		
Multiple Choice Questions (MCQs)		
(Answer ALL questions. All questions carry equal marks)		
Time: 15 Minutes		10 * 1/2 = 5 Marks
1	Who is responsible for realistic and accurate estimation of the project? a) Stakeholders b) Project manager. c) Project team d) Project sponsor	b
2	While determining budget a project manager uses _____ processes. a) Executing. b) Controlling c) Planning d) Communication	c
3	Earned Value (EV) means _____. a) How much money earned. c) What is the value of completed work. b) How much time is spent. d) How much funds are spent	a
4	What is actual cost (total cost) (AC)? a) Current estimated and authorized budget to complete the work. b) Cost of the work to complete the work. c) The total cost of accomplished work at its current stage. d) A planned budget assigned to complete the work	a
5	What criterion makes you increase pessimistic estimation? a) Funding constrains determined by sponsor. b) Risks identified during planning. c) Time constrains specified by customer. d) Quality requirements provided by stakeholders	c
6	Which process monitors the status of the project and keeps updated the information about the project budget and manages changes to the cost baseline? a) Determine Budget b) Estimate costs c) Control costs. d) Control account	d
7	What set of tools and techniques can be used for estimating costs? a) Same as used to estimate scope. b) Same as used to estimate resource c) Same as used to estimate risk. d) Same as used to estimate time	d
8	Amount that vendor received for conducting a project called _____. a) Revenue. b) Net income. c) Gross Profit. d)Expense	a
9	What does the Basis of Estimates explain? a) Indication of the confidence level of the estimate. b) How the estimates were developed, documentation on all assumptions c) All units, references, and ranges of estimate d) All answers are right	d
10	What action should try first for decreasing estimation of cost and/or time? a) Increasing time and budget. b) Reducing or eliminating the risks. c) Reasonable cut of project scope. d) Increasing thresholds tolerance	b

graph activity



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I II MID TERM EXAMINATION

No.

364848

H.T. No.

2 1 2 4 1 0 2 0 0 7

Name of the Examination B.Tech. I sem. I sem.

Course CMEP

Branch ETC

Date 22/11/23

Signature of the Invigilator

Q.NO.	1		2		3		4		5		6		TOTAL
	a	b	a	b	a	b	a	b	a	b	a	b	
MARKS	2				4						4		10

START WRITING FROM HERE

2. Differential cost:

Differential cost is also known as incremental cost.

The difference between two approximate cost (or) values is called as differential cost.

For example, let us assume that, the cost of an object (or) a material used for engineering purpose is Rs 1,40,000/- and similarly an alternative material is of Rs 1,55,000/-. The difference in these two cost is differential cost.

$$1,55,000 - 1,40,000 = 15,000/- \Rightarrow \text{differential cost}$$

Incremental cost.

The difference between two cost is known as Incremental cost. The cost value increases throughout the year.

Opportunity cost.

For example, a student is working in a company and receiving an amount of Rs-30,000/- per month, to get good opportunities he/she want to study Master's, which means he/she cannot continue to work. They don't receive Rs30,000/- per month.

This amount is called opportunity cost.

3. (i) Project Team.

Project team consists of number of members in one team and leading the project. Each members have their respective role in completion of project. They all work together and complete the project on given time and reserved budget.

Project Team consists of.

1. Project Manager
2. Project Team Members.
3. Project sponser
4. Executive sponser.
5. Bussiness Analyst.

2nd Role of Each member in Project Team.

1. Project Manager.

Project manager plays a key role in completion of project.

He does the planning and estimation of project.

Select the members, as a team, and forms a project team.

Assigns the work to the team members.

Responsible for higher officials.

2. Project Team members.

Group of people working on a project are called project team members.

Works are assigned by project managers, team work on their respective responsibilities.

They are answerable to Project manager.

3. Project sponsor.

The main sponsor to the project.

Provides required amount to the project.

They have the authority to question.

a. Executive sponsor.

The additional sponsor for the project, helps in providing extra cost to the projects.

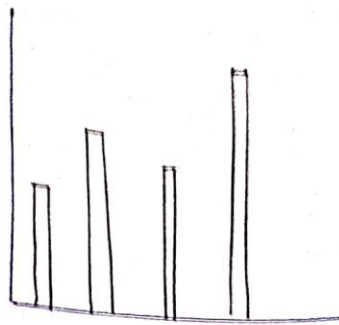
Helps with the estimation of the project.

e. Business Analyst.

Business analyst helps the project manager in estimation and planning.

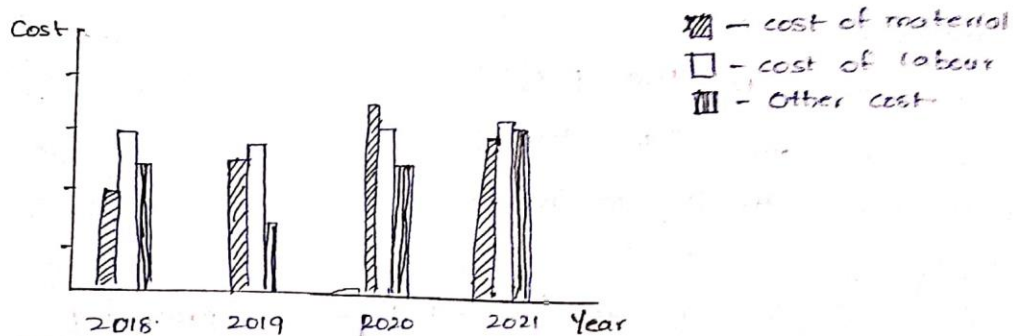
He deals with cost control and reduce the cost of the project.

6. Importance of Bar charts and Network diagram.



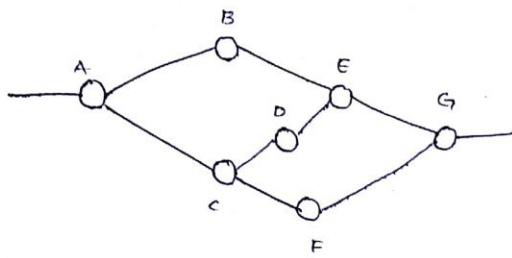
Bar charts.

Bar charts are helpful for planning a project. Bar charts (or bar graphs) help us to know about previous work with respect to that how can we improve in new project. For example, there is a bar chart for cost of material, labours, transport, etc from previous years, with the help of graph we can estimate the cost.



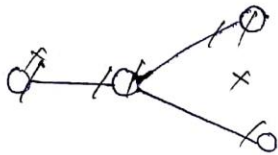
By help of above graph, we say see the variation in cost over years, this helps us to estimate cost for present running project.

Network Diagram.



The network diagrams helps us with scheduling the project. It tells us about the work completed, about reaching goals, upcoming works to be done etc.

For example, in construction of a structure, we dig the soil, lay foundation, then columns, beams, slabs, walls, etc. In network diagram.



(Or) In massive projects like dams, bridges, we have ^{number of.} schedules. Schedule - 1 will be like relocating people staying near project, digging of soil, performing all initial works. In schedule - 2 starting of main project works and so-on. The kind of network diagrams simplifies the schedule so that it can be easily understood.

CODE: GR20DS146

M. Vaishnavi
21241D2007.

GR 20



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY

(Autonomous)

H.M. Tech I Semester Mid- I Examinations, November 2022

DEPARTMENT OF CIVIL ENGINEERING

(STRUCTURAL ENGINEERING)

COST MANAGEMENT OF ENGINEERING PROJECTS

Date : 22/11/2022

2 d

OBJECTIVE		
Multiple Choice Questions (MCQs)		
(Answer ALL questions. All questions carry equal marks)		
Time: 15 Minutes		
10 * 1/2 = 5 Marks		
1	Who is responsible for realistic and accurate estimation of the project? a) Stakeholders b) Project manager c) Project team d) Project sponsor	b
2	While determining budget a project manager uses _____ processes. a) Executing b) Controlling c) Planning d) Communication	c
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9	What does the Basis of Estimates explain? a) Indication of the confidence level of the estimate. b) How the estimates were developed, documentation on all assumptions c) All units, references, and ranges of estimate d) All answers are right	d
10	What action should try first for decreasing estimation of cost and/or time? a) Increasing time and budget. b) Reducing or eliminating the risks. c) Reasonable cut of project scope. d) Increasing thresholds tolerance	b



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 Bachupally, Kukatpally, Hyderabad - 500090

I II MID TERM EXAMINATION

No. **281831** H.T. No. **2 1 2 4 1 D 2 7 1 7**

Name of the Examination 2nd year 1st sem 1st mid

Course M.Tech Branch Civil (SIT) Date 22-01-2022

Signature of the Invigilator

Q.NO.	1		2		3		4		5		6		TOTAL
	a	b	a	b	a	b	a	b	a	b	a	b	
MARKS	2				2						1		5

START WRITING FROM HERE

①

Strategic cost Management in Engineering projects

* With the project % should be considered by not looking all materials.

* Only required material should be considered and take for the construction.

* The project manager should be taken care of the whole project.

* He should try to reduce the cost by using his skills and experience.

* The project manager should guide the every team member to about their work.

* By explaining in correct way you can perfectly reduce the cost.

* By using this all strategies we can manage the cost in engineering projects.

③

i) Project Team:-

- * Each team has a certain members.
- * Each member will be assigned by some roles.
- * They should executed the roles promptly. then only the project competes with in the time.
- * The whole team has a team leader and a manager.
- * The manager will give work to the team leader.
- * Team leader will assign the role to the team members.

ii) Role of Each member in project Team

- * Project manager.
- * Project sponsor.
- * Team leader.
- * Project executor.
- * Project analyst.

Project Manager:-

Project manager assigns whole work to the team leader.

Project sponsor:-

The one who look after every ~~work~~ final works.

Team leader :-

He will guide every team member. what should they do.

⑥

* The importance of Bar charts and network diagrams is by all this only we know * how much the project was completed.

* how much amount we have invested on it.

* we can compare it with ~~for~~ over destination of cost. ~~whether~~ whether we are crossing the assumed estimation of cost.

Y.R. Ginanendra Sc

CODE: GR20D5146

GR 20

21241D2017



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
(Autonomous)

II M. Tech I Semester Mid- I Examinations, November 2022

DEPARTMENT OF CIVIL ENGINEERING
(STRUCTURAL ENGINEERING)

COST MANAGEMENT OF ENGINEERING PROJECTS

Date : 22/11/2022

3

21241D2017

OBJECTIVE		
Multiple Choice Questions (MCQs)		
(Answer ALL questions. All questions carry equal marks)		
Time: 15 Minutes		10 * 1/2 = 5 Marks
1	Who is responsible for realistic and accurate estimation of the project? a) Stakeholders b) Project manager. c) Project team d) Project sponsor	b c
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9	What does the Basis of Estimates explain? a) Indication of the confidence level of the estimate. b) How the estimates were developed, documentation on all assumptions c) All units, references, and ranges of estimate d) All answers are right.	d
10	What action should try first for decreasing estimation of cost and/or time? a) Increasing time and budget. b) Reducing or eliminating the risks. c) Reasonable cut of project scope. d) Increasing thresholds tolerance	b

SAMPLE ANSWER SCRIPTS (MID - II)



Gokaraju Rangaraju Institute of Engineering & Technology
 Department of Civil Engineering
 M.Tech. (Structural Engineering) II Year I Semester
 2022-23 Admitted Batch (GR20)

Mid-II Examination
 Attendance Sheet

Course Code: GR20DS146

Course Title: CMEP

21-01-2023

S.No	ROLL NUMBER	NAME OF THE STUDENT	Booklet No	Signature	Marks(20)
1	21241D2001	ATKAPURAM PRASHANTH	487636	[Signature]	
2	21241D2002	BANDI SRI RAM GOPAL	487619	[Signature]	
3	21241D2003	CHALLA MADHAVI	487682	[Signature]	
4	21241D2004	PAMMI DIVYA	487640	[Signature]	
5	21241D2005	DUMMA UMESH KUMAR	478611	[Signature]	
6	21241D2006	K LATHASREE	487679	[Signature]	
7	21241D2007	MARIYALA VAISHNAVI	425437	[Signature]	
8	21241D2008	MAVOORI PRANAV	457129	[Signature]	
9	21241D2009	MITTAPALLI NAGA ASHWINI	469289	[Signature]	
10	21241D2010	RAVULA VENKATA SURAJ REDDY	487604	[Signature]	
11	21241D2011	REPATI MOHAN BABU	457126	[Signature]	
12	21241D2012	SANDHYA CHERUKU	487662	[Signature]	
13	21241D2013	SHAIK FEROZ	487115	[Signature]	
14	21241D2014	SK SAI CHANDRA	469322	[Signature]	
15	21241D2015	THOTA HARSHAVARDHAN	367931	[Signature]	
16	21241D2016	VARIKUPPALA LALITHA	487004	[Signature]	
17	21241D2017	YAMBA RAMA GNANENDRA SAI	487622	[Signature]	
18	21241D2018	YENUMALA DEVESH GOUD	469301	[Signature]	
19	21241D2019	S PRASHANTH KUMAR	AB	AB	
20	21241D2020	BAVANDLAPELLI THARUN TEJA	AB	AB	
21	21241D2021	G NITISH KUMAR	487122	[Signature]	

No of Absent: 09
 No of Present:
 Total No of Students: 21

[Signature] 21-01-2023
 Signature of the Staff Member



D. H. R. S. C.

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Bachupally, Kukatpally, Hyderabad - 500090

I II **MID TERM EXAMINATION**

No. **367931**

H.T. No.

2 1 2 4 1 0 2 0 1 5

Name of the Examination II M.Tech I sem

Course CMEP

Branch CIVIL-STE

Date 21-01-2023

Signature of the Invigilator

Q.NO.	1		2		3		4		5		6		TOTAL
	a	b	a	b	a	b	a	b	a	b	a	b	
MARKS			5		5						5		15

START WRITING FROM HERE

Q1: (i)

Break Even Analysis:

> Analysis carried out during a certain project where no profit @, no loss is expected which sometimes refer to reputation of the company is in frontline to get a breakeven is known as Break-Even Analysis.

> most of the prestigious are planned on break-even analysis where no-profit, no loss is expected and estimated which they by completing it in stipulated time and budget helps them in getting more projects in future.

> Planning every project based upon break-even analysis gives loss in upcoming period of time.

> As everything is planned for no loss - no gain the functioning of the company might decline as they fail to produce revenue to the company and not getting salaries in time.

(ii) Cost-Volume Profit Analysis:

> Analysis that get carried out to analyze the resources and capital require to gain profit after the completion of the project by concisely assessing the cost and volume of the resources required and managing them. is Cost-Volume Profit Analysis.

> This analysis deals with cost management based upon control of resources to get the highest profits that project can offer.

> Decrease in amount of volume of resources degrades the quality of the structure so the control use of resources are practised for greater profits.

Q3:

Performance Budget:

1. Budget that is defined or calculated based on the purpose the project that it is going to serve is Performance Budget.
2. External factors such as limited amount of time, limited amount of capital, ample resources available plays a crucial role.
3. Defines the quality of the project and effectiveness after completion.
4. This also require the skilled professionals to calculate and estimate according to the requirements of the company.
5. Performance budgets helps in getting more prestigious projects in future but the limited requirements are in fact.

Zero-Based Budget:

1. Budget that doesn't follow or require external factors which might increase or decrease the value of the project is zero based budget.
2. No external factors effect the zero-based budget.
3. Defines the quality of the project in estimated budget.
4. Skilled professionals are required to estimate zero-based budget to get higher profits and keeping the standards of the company.
5. Zero-based budget is project friendly which help in taking the required time for finishing the project with all the requirements and even getting profits.

Q6:

CPM

- > Critical Path Method
- > This technique is based upon the no. of activities and their relations
- > Represented with tree diagrams, gantt charts, ~~flow~~
- > Critical path is plotted so that the total duration of the entire project is found.
- > network Analysis is done for finding out the critical activities that not to be disturbed (or) crashed.
- > Delaying of such activities leads to extension of total duration the project.

PERT

- > Project Evaluation Review Technique.
- > This technique is based upon the relations between the work carried out in a project.
- > represented by flow chart diagrams.
- > No such techniques for finding of total duration of the project. simply based upon type of work total duration of project is found.
- > simple identification of important tasks are done and precautions are taken to not disturb them.
- > Any disturbance to such tasks leads to increase in total duration

CODE: GR20D5146



GR 20

T. Havale

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
(Autonomous)

II M. Tech I Semester Mid - II Examinations, January 2023

DEPARTMENT OF CIVIL ENGINEERING

(STRUCTURAL ENGINEERING)

COST MANAGEMENT OF ENGINEERING PROJECTS

Name of the Student : T. Havale

Roll Number : 2124102015

Date : 21/01/2023

OBJECTIVE

Multiple Choice Questions (MCQs)

(Answer ALL questions. All questions carry equal marks)

Time: 15 Minutes

10 * 1/2 = 5 Marks

		CO	BL	PI
1	The difference between the time avail-to do a job and time required to do the job, is known as (A) Event (B) Float (C) Duration (D) Constraint	1	2	1.2.3
2	A dummy activity (A) Is artificially introduced (B) Is represented by a dotted line (C) Does not consume time (D) All the above	1	1	2.1.1
3	The reduction in project time normally results in (A) Decreasing the direct cost and increasing indirect cost (B) Increasing the direct cost and decreasing the indirect cost (C) Increasing the direct cost and indirect cost both (D) Decreasing the direct cost and indirect cost both	1	2	1.2.3
4	Frederick W. Taylor introduced a system of working known as (A) Line organization (B) Line and staff organization (C) Functional organization (D) Effective organization	1	1	5.1.1
5	CPM is (A) Synthesising in concepts (B) Is built of activities-oriented programme (C) Is based on time estimate (D) All the above	1	1	5.2.2
6	The Overall in-charge of an organization at the site responsible for execution, is (A) Executive Engineer (B) Engineer (C) Junior Engineer (D) Assistant Engineer	1	1	5.1.1
7	The first stage of a construction, is (A) Preparation of estimate (C) Survey of the site (B) Initiation of proposal (D) Preparation of tender	1	1	3.1.1
8	Sinking fund is (A) The fund for rebuilding a structure when its economic life is over (B) Ruised to meet maintenance costs (C) The total sum to be paid to the municipal authorities by the tenants (D) A part of the money kept in reserve for providing additional modifications	1	2	3.3.1
9	Interfering float is the difference between (A) Total float and free float (B) Total float and independent float (C) Free float and independent float (D) None of the above	1	1	2.1.1
10	_____ time estimate refers to activities: (A) Optimistic (B) Pessimistic (C) Most likely (D) All the above	1	1	2.1.1



Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous College Affiliated to JNTUH)

(12 Pages)

Bachupally, Kukatpally, Hyderabad - 500090

I II MID TERM EXAMINATION

No.

987679

H.T. No.

2124102006

Name of the Examination II M Tech 1st Sem Mid Term Examination

Course Cost Management of Engg projects Branch CIVIL Date 21/01/2022

Signature of the Invigilator

Q.NO.	1		2		3		4		5		6		TOTAL
	a	b	a	b	a	b	a	b	a	b	a	b	
MARKS	4						4				4		12

START WRITING FROM HERE

Q Ans:-

CPM

PERT

1) CPM defined as a critical path Method

1) PERT defined as a program evaluation review technique

2) CPM is a deterministic

2) PERT is determined as a probabilistic

3) CPM is an activity oriented

3) PERT is an event oriented

4) In CPM one free estimation is needed

4) In PERT three time estimate is responsible

5) In CPM float calculations are to be calculated.

5) In PERT slack calculations are to be calculated.

5) CPM is a used for construction of a project.

5) PERT is used for R&D project.

Ans - The Applications of decision making theories in Budgetary Control are:-

1) In Budgetary control first check the feasibility of time estimates.

2) Planning of the Budget is in the way to allocate correctly.

3) Revising the Budgetary control based on the availability of the material.

4) Step to step calculations are to be made for decision making theories in Budgetary control.

- 5) Allocation of resources should be made in the preparation of project.
- 6) Budget must be checked for an important reasons. It should be allocated to the respective terms.
- 7) In the theory of Budgetary control only use of construction materials to be needed and important norms and respective formulas to be noted down in the Budgetary theory.
- 8) And the responsibilities of using materials should be well known.
- 9) In Budget theory all the favourable & Non favourable norms to be applied in the Budgetary theory.
- 10) By considering the units, formulas and important availability applications have to be considered.

1. Ans) Break-even Analysis

- 1) In Break-even Analysis, the allocation of materials and other things will be allocated on the basis of the requirement of the owner.
- 2) If the owner wants to change the dimensions for the architecture purpose then the amount of changes occurred in the Budget is a Break-even Analysis.
- 3) The owner gives the tender to a contractor based on the Budget & allocation the contractor is used to construct.
- 4) The Break-even Analysis occurs in the architecture purpose.

Cost-volume-profit Analysis

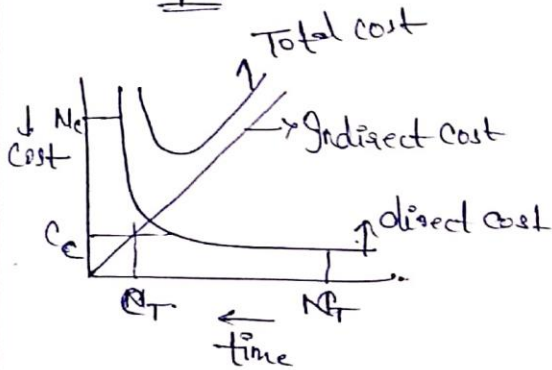
- 1) In Cost-volume-profit Analysis, the cost mainly depends on the based on material things.
- 2) Above the soil the superstructure is considered as m^2 & below the substructure the footing is considered in m^3 .
- 3) As per the volume the dimensions of the materials are charged.
- 4) Windows & doors are to be taken in number for the construction of a building.

5) In Break even Analysis the construction of a building is not continuous it is broken for some external reasons.

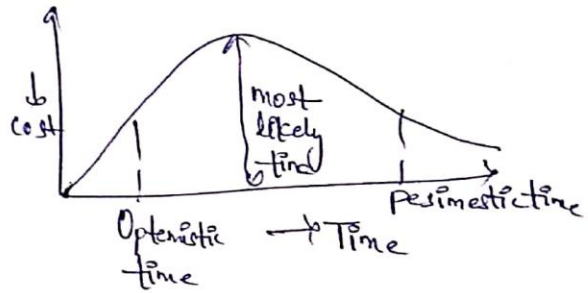
5) COST - vol - profit Analysis is based on the material procurement and availability of the material.

Ans:- Drawings

CPM



PERT



$$\text{Cost slope} = \frac{C_o - C_e}{t_T - t_T'}$$

→ If the time is increased the direct cost decreased.

→ If the time is increased the Indirect cost increases.

$$t_E = \frac{t_o + 4t_m + t_p}{6}$$

t_E = Expected time

t_o = optimistic time

t_m = most likely time

t_p = pessimistic time

Gokaraju Institute of Engineering & Technology
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CODE: GR20D5146

GR 20



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
(Autonomous)

II M. Tech I Semester Mid - II Examinations, January 2023
DEPARTMENT OF CIVIL ENGINEERING
(STRUCTURAL ENGINEERING)
COST MANAGEMENT OF ENGINEERING PROJECTS

Date: 21/01/2023

Name of the Student: K. Latha Sree Roll Number: 21241D2006

OBJECTIVE		10 * 1/2 = 5 Marks			
Multiple Choice Questions (MCQs)		CO	BL	PI	
Time: 15 Minutes		(Answer ALL questions. All questions carry equal marks)			
1	The difference between the time avail-to do a job and time required to do the job, is known as (A) Event (B) Float (C) Duration (D) Constraint	A	5	2	1.2.3
2	A dummy activity (A) Is artificially introduced (B) Is represented by a dotted line (C) Does not consume time (D) All the above	D	5	1	2.1.1
3	The reduction in project time normally results in (A) Decreasing the direct cost and increasing indirect cost (B) Increasing the direct cost and decreasing the indirect cost (C) Increasing the direct cost and indirect cost both (D) Decreasing the direct cost and indirect cost both	B	3	2	1.2.3
4	Frederick W. Taylor introduced a system of working known as (A) Line organization (B) Line and staff organization (C) Functional organization (D) Effective organization	B	3	1	5.1.1
5	CPM is (A) Synthesising in concepts (B) Is built of activities-oriented programme (C) Is based on time estimate (D) All the above	D	5	1	5.2.2
6	The Overall in-charge of an organization at the site responsible for execution, is (A) Executive Engineer (B) Engineer (C) Junior Engineer (D) Assistant Engineer	D	4	1	5.1.1
7	The first stage of a construction, is (A) Preparation of estimate (C) Survey of the site (B) Initiation of proposal (D) Preparation of tender	C	4	1	3.1.1
8	Sinking fund is (A) The fund for rebuilding a structure when its economic life is over (B) Raised to meet maintenance costs (C) The total sum to be paid to the municipal authorities by the tenants (D) A part of the money kept in reserve for providing additional modifications	D	4	2	3.3.1
9	Interfering float is the difference between (A) Total float and free float (B) Total float and independent float (C) Free float and independent float (D) None of the above	A	5	1	2.1.1
10	_____ time estimate refers to activities: (A) Optimistic (B) Pessimistic (C) Most likely (D) All the above	D	5	1	2.1.1

activity oriented 36 points



Gokaraju Rangaraju Institute of Engineering & Technology
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Bachupally, Kukatpally, Hyderabad - 500090

(12 Pages)

I II **MID TERM EXAMINATION**

No.

487622

H.T. No.

2 1 2 4 1 D 2 0 1 7

Name of the Examination

IInd year 1st sem 2nd mid

Course Mitech (CMP)

Branch STE

Date 21-01-2023

Signature of the Invigilator

Q.NO.	1		2		3		4		5		6		TOTAL
	a	b	a	b	a	b	a	b	a	b	a	b	
MARKS	2				2						3		7

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①

3) Break-even analysis:-

Break-even analysis means not be in loss or not gain any profit. That means will be zero you are. The profit is equal to zero and and the loss of investment is equal zero.

② Cost - Volume - Profit Analysis:

* The total investment is amount is considered as a share of the amount.

* The total amount which includes the investment is known as ~~gross~~

* The amount which is reduced the total amount of investment is known as profit.

* This is all about cost-volume-profit analysis.

6

CPM

- * It is based on time estimation
- * It is built of activities oriented programme
- * It can get ~~three~~ one output
- * Synthesising in concept
- * CPM means cont. Project management

PERT

- * It is not based on time estimation.
- * It is built of events oriented programme.
- * It can get three output.
- * Non-Synthesising in concept.
- * PERT means Project estimate ^{resource} ~~identist~~ technology.

(3)

Performance Budget

* Performance budget means the project having profits more.

* The investment of amount will be getting lots and lots of profit when compared to zero-based Budget.

Zero Based Budget

* Zero Based budget means investing zero but get a amount of profit.

* The investment of amount will not be getting lot of money when compared to Performance Budget.

③

Performance Budget

* Performance budget means the project having profits more.

* The investment of amount will be getting lots and lots of profit when compared to zero-based Budget.

Zero Based Budget

* Zero Based budget means investing zero but get a amount of profit.

* The investment of amount will not be getting lot of money when compared to Performance Budget.

CODE: GR20A140



GR 20

RAJARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
(Autonomous)

U.M. Tech I Semester Mid - II Examinations, January 2023

DEPARTMENT OF CIVIL ENGINEERING
(STRUCTURAL ENGINEERING)

COST MANAGEMENT OF ENGINEERING PROJECTS

Date: 21/01/2023

Name of the Student: M. R. Ganesan S. S. Roll Number: 21111D2017

OBJECTIVE		10 * 1/2 = 5 Marks			
Multiple Choice Questions (MCQs)		CO	BL	PI	
Time: 15 Minutes		(Answer ALL questions. All questions carry equal marks)			
1	The difference between the time avail-to do a job and time required to do the job, is known as (A) Event (B) Float (C) Duration (D) Constraint	B	5	2	1.2.3
2	A dummy activity (A) is artificially introduced (B) is represented by a dotted line (C) does not consume time (D) All the above	D	5	1	2.1.1
3	The reduction in project time normally results in (A) Increasing the direct cost and increasing indirect cost (B) Increasing the direct cost and decreasing the indirect cost (C) Increasing the direct cost and indirect cost both (D) Increasing the direct cost and indirect cost both	B	3	2	1.2.3
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5	CPM is (A) Synthesizing in concepts (B) Is built of activities-oriented programme (C) is based on time estimate (D) All the above	D	5	1	5.2.2
6	The overall in-charge of an organization at the site responsible for execution, is (A) Executive Engineer (B) Engineer (C) Junior Engineer (D) Assistant Engineer	D	4	1	5.1.1
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