COST MANAGEMENT OF ENGINEERING PROJECTS

(GR20D5146)

II - M. Tech – I Semester

Academic Year: 2021 - 2022

Mr. AKULA PRAKASH

ASSISTANT PROFESSOR

Department of Civil Engineering

Gokaraju Rangaraju Institute of Engineering and Technology

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

COURSE FILE Enclosures

1. Time Table
2. Syllabus copy for your course.
3. Course Plan
4. Unit Plan and
5. Lesson Plan
6. List of Program Objectives & Outcomes;
7. Course Objectives & Outcomes
8. List of various Mappings/Matrix for your Course
   a. Mapping between Course Objectives and Course Outcomes
   b. Mapping between Course Objectives and Program Outcomes(POs)
   c. Mapping between Course Outcomes and Mandatory/Program Outcomes(POs)
   d. Mapping between Courses with titles & codes and Mandatory/Program Outcomes(POs)
   e. Mapping between the PEOs and Course Outcomes
   f. Mapping between POs and Assignments and Assessments Methods
   g. Mapping between the Assessment Methods and PEOs
9. List of Assessments, Assignments/Seminar Topics, Projects, Experiments, etc. you have given to students and the Criteria used for evaluation
10. Assignment sheets,
11. Tutorial Sheets, and
12. Course Schedules
13. At least 1 to 3 Assessment Rubrics for your course
14. Evaluation Strategy
15. Guidelines to study the course
16. Students Roll lists (Both Sections)
17. Attach the Marks list of the students in respect of CAE -I (Continuous Assessment Exam), CAE-II, etc. and Final Exam for this Course in your course File.
18. Photocopy of the best, average and the worst answer sheets for CAE-I, & CAE-II be included in the Course File.
19. Model question papers if any, which you have distributed to the students in the beginning of the Semester for the Course may be included in the Course File.
20. Any Teaching/Learning Aids, additional resources like OHP transparencies, LCD Projection material, Soft & Hard Copies of handouts used may also be filed in it.
21. Course Completion Status
22. Grading Sheet of the Course for all students

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

TIME TABLE

II MTech (GR20) – I Semester **AY: 2021-22**

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

COST MANAGEMENT OF ENGINEERING PROJECTS

Course Code: GR20D5146	**L**	**T**	**P**	**C**
	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

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

SCHEDULE OF INSTRUCTIONS
COURSE PLAN

Academic **Y**ear : 2021 - 22

Semester : I

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

Course/Subject: COST MANAGEMENT OF ENGINEERING PROJECTS

Course Code: GR20D5146

Name of the Faculty: MR. AKULA PRAKASH Dept.: Civil Engineering

Designation: ASSISTANT PROFESSOR

Class : M.Tech. II/I

S. No.	Unit No	Date	No. of Classes	Topics	CO	COB
1	I	01-11-2021	1	**Introduction to CMEP**	1	1
2		01-11-2021	1	Introduction Strategic Cost Management Process	1	1
3		02-11-2021	1	Overview of the Strategic Cost Management Process	1	1
4		08-11-2021	1	Cost concepts in decision-making	1	1
5		08-11-2021	1	Relevant cost, Differential cost	1	1
6		09-11-2021	1	Incremental cost	1	1
7		15-11-2021	1	Opportunity cost	1	1
8		15-11-2021	1	Objectives of a Costing System	1	1
9		16-11-2021	1	Inventory valuation	1	1
10		22-11-2021	1	Creation of a Database for operational control	1	1
11		22-11-2021	1	Provision of data for Decision-Making	1	1
12	II	23-11-2021	1	**Project:** Meaning, Different types	2	2
13		29-11-2021	1	Cost overruns centres	2	2
14		29-11-2021	1	Various stages of project execution	2	2
15		30-11-2021	1	Conception to commissioning.	2	2
16		06-12-2021	1	Project execution as conglomeration of technical and non- technical activities.	2	2
17		06-12-2021	1	Detailed Engineering activities.	2	2
18		07-12-2021	1	Pre project execution main clearances and documents	2	2
19		13-12-2021	1	Project team: Role of each member.	2	2
20		13-12-2021	1	Importance Project site: Data required with significance.	2	2
21		14-12-2021	1	Project contracts. Types and contents.	2	2
22		20-12-2021	1	Project execution Project cost control	2	2
23		20-12-2021	1	Bar charts and Network diagram	2	2

24		21-12-2021	1	Project commissioning: mechanical and process	2	2
25	III	27-12-2021	1	Cost Behavior and Profit Planning	3	3
26		27-12-2021	1	Marginal Costing	3	3
27		28-12-2021	1	Distinction between Marginal Costing and Absorption Costing	3	3
28		03-01-2022	1	Break-even Analysis, Cost-Volume-Profit Analysis	3	3
29		03-01-2022	1	Various decision-making problems	3	3
30		04-01-2022	1	Standard Costing and Variance Analysis	3	3
31		10-01-2022	1	Pricing strategies: Pareto Analysis Target costing	3	3
32		10-01-2022	1	Life Cycle Costing, Costing of service sector	3	3
33		11-01-2022	1	Just-in-time approach Material Requirement Planning	3	3
34		17-01-2022	1	Enterprise Resource Planning	3	3
35		17-01-2022	1	Total Quality Management, Theory of constraints	3	3
36		18-01-2022	1	Activity-Based Cost Management, Bench Marking	3	3
37		24-01-2022	1	Balanced Score Card Value-Chain Analysis	3	3
38	IV	24-01-2022	1	Budgetary Control	4	4
39		25-01-2022	1	Flexible Budgets	4	4
40		31-01-2022	1	Performance budgets	4	4
41		31-01-2022	1	Zero-based budgets	4	4
42		01-02-2022	1	Comparison of all types of Budgets	4	4
43		07-02-2022	1	Measurement of Divisional profitability pricing decisions including transfer pricing.	4	4
44		07-02-2022	1	Measurement of Divisional profitability pricing decisions including transfer pricing.	4	4
45	V	08-02-2022	1	Quantitative techniques for cost management	5	5
46		14-02-2022	1	Linear Programming	5	5
47		14-02-2022	1	Assignment problems	5	5
48		15-02-2022	1	Assignment problems	5	5
49		21-02-2022	1	PERT/CPM	5	5
50		21-02-2022	1	Transportation problems	5	5
51		22-02-2022	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 Co.Ltd

Signature of HOD

Date:

Signature of faculty

Date:

Gokaraju Rangaraju Institute of Engineering and Technology
Department of Civil Engineering

COURSE SCHEDULE

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: M.Tech Structural Engineering Year: II year - I Sem
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.	Overview of CMEP	01-11-2021	22-11-2021	11
2.	Project types and Contracts	23-11-2021	21-12-2021	13
3.	Cost Behavior	27-12-2021	24-01-2022	13
4.	Budgetary Control	24-01-2022	07-02-2022	07
5.	Quantitative techniques for cost management	08-02-2022	22-02-2022	7

Total No. of Instructional periods available for the course: **51** Hours

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 01-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Introduction to CMEP

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS
:

- Introduction to CMEP

Assignment / Questions: Write a short note on CMEP : CO - 1. COB - 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 01-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Introduction Strategic Cost Management Process

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Introduction Strategic Cost Management Process

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Introduction Strategic Cost Management Process

Assignment / Questions:
Write a short note on Introduction Strategic Cost Management Process : CO - 1. COB - 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 02-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Overview of the Strategic Cost Management Process

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Overview of the Strategic Cost Management Process

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Overview of the Strategic Cost Management Process

Assignment / Questions:
Write a short note on Overview of the Strategic Cost Management Process : CO - 1. COB - 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 08-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Cost concepts in decision-making

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Cost concepts in decision-making

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Cost concepts in decision-making

Assignment / Questions:
Write a short note on Cost concepts in decision-making : CO - 1. COB - 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 08-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Relevant cost, Differential cost

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Relevant cost, Differential cost

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Relevant cost, Differential cost

Assignment / Questions:
Write a short note on Relevant cost, Differential cost : CO - 1. COB - 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 09-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Incremental cost

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Incremental cost

Assignment / Questions:

Write a short note on Incremental cost CO - 1. COB - 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 15-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Opportunity cost

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Opportunity cost

Assignment / Questions:
Write a short note on Opportunity cost CO - 1. COB - 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 15-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Objectives of a Costing System

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Objectives of a Costing System

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Objectives of a Costing System

Assignment / Questions:

Write a short note on Objectives of a Costing System CO - 1. COB - 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 16-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Inventory valuation

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Inventory valuation

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Inventory valuation

Assignment / Questions:
Write a short note on Inventory valuation CO - 1. COB – 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 22-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Creation of a Database for operational control

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Creation of a Database for operational control

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Creation of a Database for operational control

Assignment / Questions:
Write a short note on Creation of a Database for operational control : CO - 1. COB - 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 22-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Provision of data for Decision-Making

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Provision of data for Decision-Making

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Provision of data for Decision-Making

Assignment / Questions:

Write a short note on Provision of data for Decision-Making : CO - 1. COB - 1

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 23-11-2021

Semester : I

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

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 : 1hr

Lesson Title: **Project:** Meaning, Different types

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Project: Meaning, Different types

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Project: Meaning, Different types

Assignment / Questions:

Project: Meaning, Different types : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 29-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Cost overruns centres

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to calculate quantities of:
Cost overruns centres

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Cost overruns centres

Assignment / Questions:

Write a short note on Cost overruns centres : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 29-11-2021

Semester : I

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

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 : 1hr

Lesson Title: Various stages of project execution

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Various stages of project execution

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Various stages of project execution

Assignment / Questions:

Write a short note on Various stages of project execution : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 30-11-2021

Semester : I

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

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

Lesson Title: Conception to commissioning.

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Conception to commissioning.

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Conception to commissioning.

Assignment / Questions:

Write a short note on Conception to commissioning.: CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 06-12-2021

Semester : I

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

Course/Subject: Construction Technology and Project Management Course
Code: GR20D5146

Name of the Faculty: MR. AKULA PRAKASH Dept.: Civil Engineering

Designation: ASSISTANT PROFESSOR

Lesson No: 16 Duration of Lesson : 1hr

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

TEACHING AIDS : Online Teaching Tools, Newton Software
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. : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 06-12-2021

Semester : I

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

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 : 1hr

Lesson Title: Detailed Engineering activities.

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Detailed Engineering activities.

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Detailed Engineering activities.

Assignment / Questions:
Write a short note on Detailed Engineering activities. : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 07-12-2021

Semester : I

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

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 : 1hr

Lesson Title: Pre project execution main clearances and documents

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Pre project execution main clearances and documents

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Pre project execution main clearances and documents

Assignment / Questions:
Problems on Pre project execution main clearances and documents : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 13-12-2021

Semester : I

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

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 : 1hr

Lesson Title: Project team: Role of each member.

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Project team: Role of each member.

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Project team: Role of each member.

Assignment / Questions:
Write a short note on Project team: Role of each member. : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 13-12-2021

Semester : I

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

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 : 1hr

Lesson Title: Importance Project site: Data required with significance

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Pricing strategies: Importance Project site: Data required with significance

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Importance Project site: Data required with significance.

Assignment / Questions:
Write a short note on Importance Project site: Data required with significance. : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 14-12-2021

Semester : I

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

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 : 1hr

Lesson Title: Project contracts. Types and contents.

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Project contracts. Types and contents.

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Project contracts. Types and contents.

Assignment / Questions:
Write a short note on Project contracts. Types and contents. : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 20-12-2021

Semester : I

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

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 : 1hr

Lesson Title: Project execution Project cost control

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Project execution Project cost control

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Project execution Project cost control

Assignment / Questions:

Write a short note on Project execution Project cost control : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 20-12-2021

Semester : I

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

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 : 1hr 1 hr

Lesson Title: Bar charts and Network diagram

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Bar charts and Network diagram

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Bar charts and Network diagram

Assignment / Questions:
Write a short note on Bar charts and Network diagram : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 21-12-2021

Semester : I

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

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 : 1hr

Lesson Title: Project commissioning: mechanical and process

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Project commissioning: mechanical and process

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Project commissioning: mechanical and process

Assignment / Questions:
Write a short note on Project commissioning: mechanical and process : CO - 2. COB - 2

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 27-12-2021

Semester : I

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

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 : 1hr

Lesson Title: Cost Behavior and Profit Planning

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Cost Behavior and Profit Planning

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Cost Behavior and Profit Planning

Assignment / Questions:
Write a short note on Cost Behavior and Profit Planning : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 27-12-2021

Semester : I

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

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 : 1hr

Lesson Title: Marginal Costing

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Marginal Costing

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Marginal Costing

Assignment / Questions:
Write a short note on Marginal Costing : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 28-12-2021

Semester : I

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

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 : 1hr

Lesson Title: Distinction between Marginal Costing and Absorption Costing

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Distinction between Marginal Costing and Absorption Costing

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Distinction between Marginal Costing and Absorption Costing

Assignment / Questions:
Distinction between Marginal Costing and Absorption Costing : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 03-01-2022

Semester : I

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

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 : 1hr

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

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Break-even Analysis, Cost-Volume-Profit Analysis

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

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

Assignment / Questions:

Write a short note on Break-even Analysis, Cost-Volume-Profit Analysis : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 03-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Various decision-making problems

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
Various decision-making problems

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Various decision-making problems

Assignment / Questions:

Write a short note on Various decision-making problems : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 04-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Standard Costing and Variance Analysis

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Standard Costing and Variance Analysis

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Standard Costing and Variance Analysis

Assignment / Questions:

Write a short note on Standard Costing and Variance Analysis : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 10-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Pricing strategies: Pareto Analysis Target costing

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Pricing strategies: Pareto Analysis Target costing

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Pricing strategies: Pareto Analysis Target costing

Assignment / Questions:

Write a short note on Pricing strategies: Pareto Analysis Target costing : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 10-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Life Cycle Costing, Costing of service sector

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Life Cycle Costing, Costing of service sector

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Life Cycle Costing, Costing of service sector

Assignment / Questions:

Write a short note on Life Cycle Costing, Costing of service sector : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 11-01-2022

Semester : I

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

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 : 1hr

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

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Just-in-time approach Material Requirement Planning

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

Just-in-time approach Material Requirement Planning

Assignment / Questions:

Write a short note on Just-in-time approach Material Requirement Planning : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 17-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Enterprise Resource Planning

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Enterprise Resource Planning

Assignment / Questions:

Write a short note on Enterprise Resource Planning : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 17-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Total Quality Management, Theory of constraints

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Total Quality Management, Theory of constraints

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Total Quality Management, Theory of constraints

Assignment / Questions:

Write a short note on Total Quality Management, Theory of constraints : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 18-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Activity-Based Cost Management, Bench Marking

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Activity-Based Cost Management, Bench Marking

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Activity-Based Cost Management, Bench Marking

Assignment / Questions:

Write a short note on Activity-Based Cost Management, Bench Marking : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 24-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Balanced Score Card Value-Chain Analysis

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Balanced Score Card Value-Chain Analysis

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Balanced Score Card Value-Chain Analysis

Assignment / Questions:

Write a short note on Balanced Score Card Value-Chain Analysis : CO - 3. COB - 3

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 24-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Budgetary Control

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Budgetary Control

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Budgetary Control

Assignment / Questions:

Write a short note on Budgetary Control : CO - 4. COB - 4

Signature of faculty

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

LESSON PLAN

25

Academic **Y**ear : 2021 - 22 Date: 25-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Flexible Budgets

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Flexible Budgets

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Flexible Budgets

Assignment / Questions:

Write a short note on Flexible Budgets : CO - 4. COB - 4

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 31-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Performance budgets

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Performance budgets

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Performance budgets

Assignment / Questions:

Write a short note on Performance budgets : CO - 4. COB - 4

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 31-01-2022

Semester : I

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

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 : 1hr

Lesson Title: Zero-based budgets

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Zero-based budgets

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Zero-based budgets

Assignment / Questions:

Write a short note on Zero-based budgets : CO - 4. COB - 4

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 01-02-2022

Semester : I

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

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 : 1hr

Lesson Title: Zero-based budgets

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Zero-based budgets

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Zero-based budgets

Assignment / Questions:

Write a short note on Zero-based budgets : CO - 4. COB - 4

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 07-02-2022

Semester : I

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

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 : 1hr

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:

Measurement of Divisional profitability pricing decisions including transfer pricing.

TEACHING AIDS : Online Teaching Tools, Newton Software
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. :
CO - 4. COB - 4

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 07-02-2022

Semester : I

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

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 : 1hr

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:

Measurement of Divisional profitability pricing decisions including transfer pricing.

TEACHING AIDS : Online Teaching Tools, Newton Software
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. :
CO - 4. COB - 4

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 08-02-2022

Semester : I

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

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 : 1hr

Lesson Title: Quantitative techniques for cost management

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Quantitative techniques for cost management

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Quantitative techniques for cost management

Assignment / Questions:
Write a short note on Quantitative techniques for cost management : CO - 5. COB - 5

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 14-02-2022

Semester : I

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

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 : 1hr

Lesson Title: Linear Programming

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Linear Programming

Assignment / Questions:
Write a short note on Linear Programming : CO - 5. COB - 5

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 14-02-2022

Semester : I

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

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 : 1hr

Lesson Title: Assignment problems

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Assignment problems

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Assignment problems

Assignment / Questions:
Write a short note on Assignment problems : CO - 5. COB - 5

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 15-02-2022

Semester : I

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

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 : 1hr

Lesson Title Assignment problems

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Assignment problems

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Assignment problems

Assignment / Questions:
Write a short note on Assignment problems : CO - 5. COB - 5

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 21-02-2022

Semester : I

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

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 : 1hr

Lesson Title: PERT/CPM

INSTRUCTIONAL/LESSON OBJECTIVES:

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

PERT/CPM

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- PERT/CPM

Assignment / Questions:
Write a short note on PERT/CPM : CO - 5. COB - 5

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 21-02-2022

Semester : I

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

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: 50 Duration of Lesson : 1hr

Lesson Title: Transportation problems

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Transportation problems

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Transportation problems

Assignment / Questions:
Write a short note on Transportation problems : CO - 5. COB - 5

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 22-02-2022

Semester : I

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

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: 51 Duration of Lesson : 1hr

Lesson Title: Simulation

INSTRUCTIONAL/LESSON OBJECTIVES:

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

Simulation

TEACHING AIDS : Online Teaching Tools, Newton Software
TEACHING POINTS :

- Simulation
- Learning Curve Theory

Assignment / Questions:
Write about Simulation and Learning Curve Theory : CO - 5. COB - 5

Signature of faculty

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.

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

COURSE OBJECTIVES

Academic **Y**ear : 2021 - 22

Semester : I

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

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

Date: Date:

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

COURSE OUTCOMES

Academic **Y**ear : 2021 - 22

Semester : I

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

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

Date:

Signature of faculty

Date:

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

Course Objectives - Course Outcomes Relationship Matrix

Course Outcomes / Course Objectives	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		M	H	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

Program Outcomes / Course Objectives	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

Program Outcomes / Course 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

Program Educational Objectives / Course Outcomes	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

Assessment in Program Outcomes (PO's) Relationship Matrix

Assessment:

1. Assignment
2. Internal Examination
3. External Examination
4. Practical Projects
5. Viva

Program Outcomes / Assessments	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

Assignmants & Assessments-Program Educational Objectives (PEO's) Relationship Matrix

Assessment:

1. Assignment
2. Internal Examination
3. External Examination
4. Practical Projects
5. Viva

Program Educational Objectives / Assessments	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
(Autonomous)

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

ASSIGNMENT - 1

Academic **Y**ear : 2021 - 22

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

Date:

Signature of faculty

Date:

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

ASSIGNMENT - 2

Academic **Y**ear : 2021 - 22

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:

Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)

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

ASSIGNMENT - 3

Academic **Y**ear : 2021 - 22

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:

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

ASSIGNMENT - 4

Academic **Y**ear : 2021 - 22

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 **Y**ear : 2021 - 22

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

COURSE SCHEDULE

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: M.Tech Structural Engineering Year: II year - I Sem
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.	Overview of CMEP	01-11-2021	22-11-2021	11
2.	Project types and Contracts	23-11-2021	21-12-2021	13
3.	Cost Behavior	27-12-2021	24-01-2022	13
4.	Budgetary Control	24-01-2022	07-02-2022	07
5.	Quantitative techniques for cost management	08-02-2022	22-02-2022	7

Total No. of Instructional periods available for the course: **51** Hours

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

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

Rubric Template – CMEP

Academic **Y**ear : 2021 - 22

Semester : I

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

Course/Subject: COST MANAGEMENT OF ENGINEERING PROJECTS
Course Code: GR20D5146

Name of the Faculty: MR. AKULA PRAKASH Dept.: Civil Engineering

Designation: ASSISTANT PROFESSOR

Objectives:

Students Outcomes:

		Beginning	Developing	Reflecting Development	Accomplished	Exemplary	Score
Name of the Student	**Performance Criteria**	**1**	**2**	**3**	**4**	**5**	
MADHIKUNTLA SHIREESHA 2024ID2015	Discuss various construction costs to manage a construction project.	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Summarize different construction activities and its application related to cost based on the field requirements.	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Identify Cost Behaviour of various types of cost and Quality Management	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Identifying various construction Budgets involved Cost Management process.	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Discussing various types of Techniques and Problem-solving techniques involved in Construction	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5

Gokaraju Rangaraju Institute of Engineering and Technology Department of Civil Engineering

EVALUATION STRATEGY

Academic **Y**ear : 2021 - 22

Semester : I

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

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: 79.31

First class with distinction	2
First class	8
Pass class	16
Total strength	29

2. **COURSE PLAN & CONTENT DELIVERY**

S.No	Plan	Brief Description
1	Practice classes	Theory classes
2	Assignments	Assignments for solving numerical problems

3. **METHOD OF EVALUATION**

3.1 ■ Continuous Assessment Examinations (CAE-I, CAE-II)

3.2 ■ Assignments/Seminars

3.3 ☐ Mini Projects

3.4 ■ Quiz

3.5 ■ Semester/End Examination

3.6 ☐ Others

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

Signature of HOD
Date:

Signature of faculty
Date:

Gokaraju Rangaraju Institute of Engineering & Technology

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

M.Tech (Structural Engineeering)

Admitted Batch 2020-2022

S.No	ROLL NUMBER	NAME OF THE STUDENT
1	20241D2001	ADUVALA RAJESH KHANNA
2	20241D2002	DURGAM NISHIPRIYA
3	20241D2003	ASHALA SHARATH KUMAR
4	20241D2004	BODDUPALLI JAGADEESH
5	20241D2005	BOODIDA RAKESH KUMAR
6	20241D2006	H KARAN KUMAR
7	20241D2007	JADAV PAVAN KALYAN
8	20241D2008	JAKKULA SRINIVAS
9	20241D2009	JANGA AJAY KUMAR
10	20241D2010	JANGILI VIDYA SAGAR YADAV
11	20241D2011	KANDI USHA SRI
12	20241D2012	KOTLA SAI PRAKASH
13	20241D2013	KOTTE SAI KRISHNA
14	20241D2014	MADAM SAMKEERTHANA
15	20241D2015	MADHIKUNTLA SHIREESHA
16	20241D2016	MALYALA PRIYANKA
17	20241D2017	MANDALA NAVEEN
18	20241D2018	CHENNA JHANSI
19	20241D2019	MOHAMMED YASIR HUSSAIN
20	20241D2020	NARAPA SIVA BHASKAR REDDY
21	20241D2021	POLU SIREESH KUMAR REDDY
22	20241D2022	SAMA MADHAVI
23	20241D2023	SHAIK ANSAR AHMED
24	20241D2024	PANDRALA SANJANA
25	20241D2025	GUGULOTHU AMRUTHAKALA
26	20241D2026	JAGANNADHAM ROHITH KUMAR
27	20241D2027	DAIDA VERONICA PRIYADHARSHINI
28	20241D2028	ALETI GANESH
29	20241D2029	KAKI SAI TULASI PRASANTHI

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY

(Autonomous)

II M. Tech I Semester Mid- I Examinations, December 2021

DEPARTMENT OF CIVIL ENGINEERING

(STRUCTURAL ENGINEERING)

COST MANAGEMENT OF ENGINEERING PROJECTS

Date : 28/12/2021

SUBJECTIVE

(Answer ALL questions. All questions carry equal marks)

Time: 75 Minutes **3 * 5 = 15 Marks**

1	Write a Brief note on Strategic cost Management in Engineering Projects	**[5]**	**CO 1**	**L1**
	OR			
2	Write a short note on Differential cost, Incremental cost, Opportunity cost.	**[5]**	**CO 1**	**L1**
3	Write a short note on i) Project Team ii) Role of Each member in Project Team	**[5]**	**CO 2**	**L1**
	OR			
4	Explain the strategies for successful project completion	**[5]**	**CO 2**	**L2**
5	Discuss the cost concepts in decision making	**[5]**	**CO 1**	**L2**
	OR			
6	Explain the importance of Bar Charts and Network Diagrams representation in Project Planning and Scheduling	**[5]**	**CO 2**	**L2**

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY

II M. Tech I Semester Mid- I Examinations, December 2021

DEPARTMENT OF CIVIL ENGINEERING

(STRUCTURAL ENGINEERING)

COST MANAGEMENT OF ENGINEERING PROJECTS

Date : 28/12/2021

OBJECTIVE

Multiple Choice Questions (MCQs)

(Answer ALL questions. All questions carry equal marks)

Time: 15 Minutes **10 * ½ = 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	[ ]

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Civil Engineering

M.TECH (STRUCTURAL ENGINEERING)

MID - I Examination Marks - December 2021

Programme: **M. Tech**		Year/ Sem: **II / I**		Course: **Theory**	**A.Y: 2021-22**
Course: **CMEP**		MID : **I**		Faculty Name:	**Akula Prakash**

S. No	Roll No	NAME OF THE STUDENT	Subjective Marks (15)	Objective Marks (5)	Total Marks (20)
1	20241D2001	ADUVALA RAJESH KHANNA	10	1	11
2	20241D2002	DURGAM NISHIPRIYA	13	2	15
3	20241D2003	ASHALA SHARATH KUMAR	8	2	10
4	20241D2004	BODDUPALLI JAGADEESH	9	1.5	11
5	20241D2005	BOODIDA RAKESH KUMAR	11	2	13
6	20241D2006	H KARAN KUMAR	10	3	13
7	20241D2007	JADAV PAVAN KALYAN	11	2	13
8	20241D2008	JAKKULA SRINIVAS	10	2	12
9	20241D2009	JANGA AJAY KUMAR	10	1.5	12
10	20241D2010	JANGILI VIDYA SAGAR YADAV	9	1.5	11
11	20241D2011	KANDI USHA SRI	12	1.5	14
12	20241D2012	KOTLA SAI PRAKASH	10	1.5	12
13	20241D2013	KOTTE SAI KRISHNA	9	2	11
14	20241D2014	MADAM SAMKEERTHANA	7	2	9
15	20241D2015	MADHIKUNTLA SHIREESHA	13	3	16
16	20241D2016	MALYALA PRIYANKA	13	3	16
17	20241D2017	MANDALA NAVEEN	8	2	10
18	20241D2018	CHENNA JHANSI	AB	AB	AB
19	20241D2019	MOHAMMED YASIR HUSSAIN	11	2	13
20	20241D2020	NARAPA SIVA BHASKAR REDDY	13	3	16
21	20241D2021	POLU SIREESH KUMAR REDDY	11	1.5	13
22	20241D2022	SAMA MADHAVI	10	2.5	13
23	20241D2023	SHAIK ANSAR AHMED	12	3	15
24	20241D2024	PANDRALA SANJANA	12	1.5	14
25	20241D2025	GUGULOTHU AMRUTHAKALA	10	2	12
26	20241D2026	JAGANNADHAM ROHITH KUMAR	9	3	12
27	20241D2027	DAIDA VERONICA PRIYADHARSHINI	13	2	15
28	20241D2028	ALETI GANESH	5	2	7
29	20241D2029	KAKI SAI TULASI PRASANTHI	11	1.5	13

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

M.TECH - STRUCTURAL ENGINEERING

MID I EXAMINATION - DECEMBER 2021

Subject Name: CMEP Year & Sem : II & I

		Q.No 1	Q.No 2	Q.No 3	Q.No 4	Q.No 5	Q.No 6
S.No	Roll No	CO1 (5M)	CO1 (5M)	CO2 (5M)	CO2 (5M)	CO1 (5M)	CO2 (5M)
1	20241D2001	3	NA	4	NA	NA	3
2	20241D2002	NA	4	4	NA	NA	5
3	20241D2003	2	NA	3	NA	NA	3
4	20241D2004	2	NA	4	NA	NA	3
5	20241D2005	2	NA	5	NA	NA	4
6	20241D2006	3	NA	4	NA	NA	3
7	20241D2007	4	NA	NA	4	NA	3
8	20241D2008	2	NA	4	NA	NA	4
9	20241D2009	3	NA	3	NA	NA	4
10	20241D2010	NA	4	3	NA	NA	2
11	20241D2011	3	NA	5	NA	NA	4
12	20241D2012	3	NA	4	NA	NA	3
13	20241D2013	2	NA	4	NA	NA	3
14	20241D2014	0	NA	4	NA	NA	3
15	20241D2015	4	NA	5	NA	NA	4
16	20241D2016	4	NA	5	NA	4	NA
17	20241D2017	4	NA	NA	NA	NA	4
18	20241D2018	3	NA	4	NA	NA	4
19	20241D2019	3	NA	4	NA	NA	4
20	20241D2020	4	NA	4	NA	NA	5
21	20241D2021	3	NA	4	NA	NA	4
22	20241D2022	4	NA	4	NA	NA	2
23	20241D2023	3	NA	4	NA	NA	5
24	20241D2024	4	NA	5	NA	NA	3
25	20241D2025	3	1	4	NA	3	3
26	20241D2026	2	NA	4	NA	NA	3
27	20241D2027	4	NA	5	NA	NA	4
28	20241D2028	NA	NA	NA	NA	NA	5
29	20241D2029	3	NA	5	NA	NA	3
Total		77	9	108	4	7	100
No of students attempted(NSA)		26	3	26	1	2	28
Attempt %=(NSA/Total no		89.66	10.34	89.66	3.45	6.90	96.55
Attainment %		59.23	60.00	83.08	80.00	70.00	71.43

	CO1	CO2
Attempt%	89.66	93.10
Attainment %	59.23	77.25

Faculty Sign. **HOD Sign.**

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING
M.TECH (STRUCTURAL ENGINEERING)
II M.TECH. I SEM., II MID-TERM (SUBJECTIVE) EXAMINATION, JANUARY - 2020

SUB: Cost Management in Engineering Projects Date of Examination: 23/01/2021 (FN)

Time: 30 min Max. Marks: 10

Answer any **Two.**

1. Write a short note on
    i) Break-even Analysis
    ii) Cost-Volume-Profit Analysis

2. Differentiate between Performance Budget and Zero-Based Budget

3. Write a short note on
    i) Transportation problems
    ii) Assignment problems

***

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING
M.TECH (STRUCTURAL ENGINEERING)
II M.TECH. I SEM., II MID-TERM (OBJECTIVE) EXAMINATION, JANUARY – 2020

SUB: Cost Management in Engineering Projects Date of Examination: 23/01/2021 (FN)

Time: 10 min Max. Marks: 10

---

1. The difference between the time avail-to do a job and the time required to do the job, is known as[ ]
   (A) Event (B) **Float** (C) Duration (D) Constraint
2. A dummy activity
   (A) Is artificially introduced (B) Is represented by a dotted line [ ]
   (C) Does not consume time (D) **All the above**
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
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
5. CPM is [ ]
   (A) Synthesising in concepts (B) Is built of activities-oriented programme
   (C) Is based on time estimate (D) **All the above**
6. The Overall in-charge of an organization at the site responsible for the execution of the works, is[ ]
   (A) Executive Engineer (B) **Engineer** (C) Junior Engineer (D) Assistant Engineer
7. The first stage of a construction, is [ ]
   (A) Preparation of estimate (B) Survey of the site (C) **Initiation of proposal** (D) Preparation of tender
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 structures and structural modifications
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
10. Pick up the correct statement from the following: [ ]
    (A) Optimistic time estimate refers to activities (B) Pessimistic time estimate refers to activities
    (C) Most likely time estimate refers to activities (D) **All the above**

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Civil Engineering

M.TECH (STRUCTURAL ENGINEERING)

MID - II Examination Marks - January 2021

Programme: **M. Tech**	Year/ Sem: II / I		Course: **Theory**	**A.Y: 2021-22**
Course: **CMEP**	MID : II		Faculty Name:	**Akula Prakash**

S. No	Roll No	NAME OF THE STUDENT	Subjective Marks (15)	Objective Marks (5)	Total Marks (20)
1	20241D2001	ADUVALA RAJESH KHANNA	7	2.5	10
2	20241D2002	DURGAM NISHIPRIYA	12	1.5	14
3	20241D2003	ASHALA SHARATH KUMAR	4	2	6
4	20241D2004	BODDUPALLI JAGADEESH	10	2	12
5	20241D2005	BOODIDA RAKESH KUMAR	14	2.5	17
6	20241D2006	H KARAN KUMAR	11	1	12
7	20241D2007	JADAV PAVAN KALYAN	12	2	14
8	20241D2008	JAKKULA SRINIVAS	7	2	9
9	20241D2009	JANGA AJAY KUMAR	11	1.5	13
10	20241D2010	JANGILI VIDYA SAGAR YADAV	4	2	6
11	20241D2011	KANDI USHA SRI	12	2	14
12	20241D2012	KOTLA SAI PRAKASH	12	2.5	15
13	20241D2013	KOTTE SAI KRISHNA	7	1.5	9
14	20241D2014	MADAM SAMKEERTHANA	**AB**	**AB**	**AB**
15	20241D2015	MADHIKUNTLA SHIREESHA	14	2	16
16	20241D2016	MALYALA PRIYANKA	12	2	14
17	20241D2017	MANDALA NAVEEN	3	2	5
18	20241D2018	CHENNA JHANSI	14	1.5	16
19	20241D2019	MOHAMMED YASIR HUSSAIN	14	2	16
20	20241D2020	NARAPA SIVA BHASKAR REDDY	14	4	18
21	20241D2021	POLU SIREESH KUMAR REDDY	10	2	12
22	20241D2022	SAMA MADHAVI	11	3	14
23	20241D2023	SHAIK ANSAR AHMED	13	3	16
24	20241D2024	PANDRALA SANJANA	13	1.5	15
25	20241D2025	GUGULOTHU AMRUTHAKALA	13	1	14
26	20241D2026	JAGANNADHAM ROHITH KUMAR	11	2	13
27	20241D2027	DAIDA VERONICA PRIYADHARSHINI	11	1.5	13
28	20241D2028	ALETI GANESH	6	1.5	8
29	20241D2029	KAKI SAI TULASI PRASANTHI	10	3.5	14

No. of Absentees: 01

Total Strength: 29

Signature of Faculty

Signature of HOD

Signature of Principal

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

M.TECH - STRUCTURAL ENGINEERING

MID II EXAMINATION - FEBRUARY 2022

Subject Name: CMEP Year & Sem : II & I

		Q.No 1	Q.No 2	Q.No 3	Q.No 4	Q.No 5	Q.No 6
S.No	Roll No	CO 3 (5M)	CO 3 (5M)	CO 4 (5M)	CO 4 (5M)	CO 5 (5M)	CO 5 (5M)
1	20241D2001	NA	2	2	NA	NA	3
2	20241D2002	4	NA	NA	4	NA	4
3	20241D2003	NA	NA	NA	NA	NA	4
4	20241D2004	5	NA	NA	1	NA	4
5	20241D2005	5	NA	4	NA	NA	5
6	20241D2006	4	NA	3	NA	NA	4
7	20241D2007	NA	4	3	NA	5	NA
8	20241D2008	NA	3	NA	NA	NA	4
9	20241D2009	4	NA	5	NA	2	NA
10	20241D2010	4	NA	NA	NA	NA	NA
11	20241D2011	NA	4	NA	4	NA	4
12	20241D2012	4	NA	4	NA	NA	4
13	20241D2013	NA	NA	4	NA	NA	3
14	20241D2014	NA	NA	NA	NA	NA	NA
15	20241D2015	2.5	NA	4	NA	5	5
16	20241D2016	5	NA	3	3	NA	4
17	20241D2017	NA	1	NA	NA	NA	2
18	20241D2018	5	NA	4	NA	NA	5
19	20241D2019	5	NA	5	NA	NA	4
20	20241D2020	5	NA	5	NA	NA	4
21	20241D2021	3	NA	3	NA	NA	4
22	20241D2022	3	NA	NA	4	NA	4
23	20241D2023	5	NA	4	NA	NA	4
24	20241D2024	NA	5	3	NA	NA	5
25	20241D2025	5	NA	4	NA	4	3
26	20241D2026	4	NA	3	NA	4	NA
27	20241D2027	4	NA	NA	3	NA	4
28	20241D2028	NA	NA	3	NA	NA	3
29	20241D2029	4	2	NA	4	NA	NA
Total		80.5	21	66	23	20	90
No of students attempted(NSA)		19	7	18	7	5	23
Attempt %=(NSA/Total no		65.52	24.14	62.07	24.14	17.24	79.31
Attainment %		84.74	60.00	73.33	65.71	80.00	78.26

	CO4	CO5	CO6
Attempt%	44.83	43.10	48.28
Attainment %	72.37	69.52	79.13

Faculty Sign. **HOD Sign.**

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Civil Engineering

M.TECH (STRUCTURAL ENGINEERING)

OVERALL ASSESSMENT MARKS

Programme: **M. Tech** | Year/ Sem: II / I | Course: **Theory** | **A.Y: 2021-22**

Course: **CMEP** | Faculty Name: Akula Prakash

S. No	Roll No	MID I	MID II	AVERAGE	ASSIGNMENT MARKS	ATTENDANCE	TOTAL
1	20241D2001	11	10	11	5	5	21
2	20241D2002	15	14	15	5	5	25
3	20241D2003	10	6	8	5	5	18
4	20241D2004	11	12	12	5	5	22
5	20241D2005	13	17	15	5	5	25
6	20241D2006	13	12	13	5	5	23
7	20241D2007	13	14	14	5	5	24
8	20241D2008	12	9	11	5	5	21
9	20241D2009	12	13	13	5	5	23
10	20241D2010	11	6	9	5	5	19
11	20241D2011	14	14	14	5	5	24
12	20241D2012	12	15	14	5	5	24
13	20241D2013	11	9	10	5	5	20
14	20241D2014	9	AB	5	5	5	15
15	20241D2015	16	16	16	5	5	26
16	20241D2016	16	14	15	5	5	25
17	20241D2017	10	5	8	5	5	18
18	20241D2018	13	16	15	5	5	25
19	20241D2019	13	16	15	5	5	25
20	20241D2020	16	18	17	5	5	27
21	20241D2021	13	12	13	5	5	23
22	20241D2022	13	14	14	5	5	24
23	20241D2023	15	16	16	5	5	26
24	20241D2024	14	15	15	5	5	25
25	20241D2025	12	14	13	5	5	23
26	20241D2026	12	13	13	5	5	23
27	20241D2027	15	13	14	5	5	24
28	20241D2028	7	8	8	5	5	18
29	20241D2029	13	14	14	5	5	24

MODEL QUESTION PAPERS

COST MANAGEMENT OF ENGINEERING PROJECTS
(Structural Engineering)

Time: 2 hours Max Marks: 70

Answer any FIVE questions. All questions carry equal marks

5 * 14 = 70 Marks

1. **(a)** Discuss the cost concepts in Decision making. [14]
   (b) Enumerate the steps in strategic Cost Management.

2. **(a)** Elucidate the different types of Projects. [14]
   (b) Explain the strategies for successful Project Execution.

3. **(a)** What are different methods of pricing Strategies followed by companies? [14]
   (b) Discuss about Total Quality Management.

4. Distinguish between Fixed Budget, Flexible Budget and Performance Budget. [14]

5. **(a)** Explain the following terms in PERT/CPM: (i) Earliest time (ii) Latest time (iii) Total activity time (iv) Even slack and (v) Critical path. [14]
   (b) Draw a network diagram and find critical path for the following activities

Activity	Duration
1-2	10
1-3	15
2-4	10
2-5	15
3-5	12
4-6	11
5-6	9

6. **(a)** Restate various method of Inventory Valuation. [14]
   (b) Describe the Various Project Characteristics.

7. **(a)** Explain about Total Costing. [14]
   (b) Discuss Advantages and Disadvantages of Budgetary Control.

8. **(a)** What are various terms used in Networks? [14]
   (b) Elucidate the concept of Material Requirement Planning.

*****

Page1 of 1

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

COURSE COMPLETION STATUS

Academic **Y**ear : 2021 - 22

Semester : I

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

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	No. of Objectives Achieved	No. of Outcomes Achieved
Unit 1	Covered on time	1	1
Unit 2	Covered on time	1	1
Unit 3	Covered on time	1	1
Unit 4	Covered on time	1	1
Unit 5	Covered on time	1	1

Signature of HOD Signature of faculty

Date: Date

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
Department of Civil Engineering
Result Analysis - BTech IV Yr - I Sem (GR15 Regular) 2021 - 22

Student's Batch 2014-18 **Total Strength of the Class:**

Academic **Y**ear : 2021 - 22

Semester : I

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

Course/Subject: COST MANAGEMENT OF ENGINEERING PROJECTS
Course Code: GR20D5146

Name of the Faculty: Mr. AKULA PRAKASH Dept.: Civil Engineering

S.No	Name of the Subject	Subject Code	No. of students appeared	No. of students Passed	No. of students Failed	≥70%	60-69%	40-59%	Pass %
Theory									
1	COST MANAGEMENT OF ENGINEERING PROJECTS	GR20D 5146	29	26	03	02	8	16	89.66

Subjects & Faculty Details

S.No	Name of the Subject	Faculty
1	COST MANAGEMENT OF ENGINEERING PROJECTS	Mr. AKULA PRAKASH

Arrear Position - Fourth Year Second Semester

Arrear Details					
Description	All Pass	One Arrears	Two Arrears	Three or more Arrears	% Pass
No. of Students	23	3	3	-	89.66

Performance

Class Toppers (Three Positions)			
S.No	Name of the Student	Hall Ticket No.	% of Marks
1	ASHALA SHARATH KUMAR	20241D2003	9.25
2	ALETI GANESH	20241D2028	8.63
3	BOODIDA RAKESH KUMAR	20241D2005	8.44

Overall Pass : 79.31 % **Passed in First class : 68.97 %**

HOD,CE

SAMPLE ANSWER SCRIPTS

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 in 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 a 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 downs the cost of product but also creates an compatability 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 anal control analysis.

Value chain Analysis

→ In value chain analysis determine the

→ In strategic planning analysis . In this analysis approach identifiying the positioning of the strategic cost management in an organisation . for the effective production of the product.

→ In cost control analysis they categorized in to two groups
  → strategic cost
  → structure cost.

wipro' offers 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 Decission making

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

→ costing is the accounting is stands with recordin. spend/expense and ends with recording of the income/expanse and ends with the sta reporting of statement predicting the statement

There 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 permenant saving. It is non dynamic, the

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

Decission making
Determination of sailing cost
Determination of Budget
monitoring, Relaxation

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

Decis cost concepts in decission making

1. Relavent costs.
2. Marginal cost
3. Differential cost
4. 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 increassed it is called as an incremental cost.

→ If the change of cost is decreassed then it is called as an decremental cost.

for Example : For an firm A activity $ 10,000 and B group $ 15,000 change or difference is 5000

The Example is 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 to.

(3) Ans Project : Project involves initiating, planning, Execution, monitoring and controlling, closing with aim to achieve with succive 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.

- → heads
- → project manager assign the work for the sub ordinates
- → 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 activitys and the allocated resources.

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 finds 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

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

Q. 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 of 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/- ⇒ 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 recieving 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 recieve Rs 30,000/- per month.

This amount is called opportunity cost.

3. ii) 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.

2. 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, form a team, and forms a project team.
Assigns the work to the team members.
Answerable 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 sponser.

The main sponser to the project.
Provides required amount to the project.
They have the authority to question.

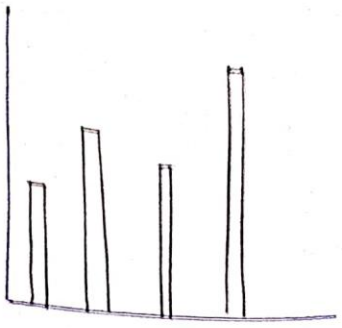
4. Executive sponser.

The additional sponser for the project, helps in providing extra cost to the projects.
Helps with the estimation of the project.

5. Business Analyst

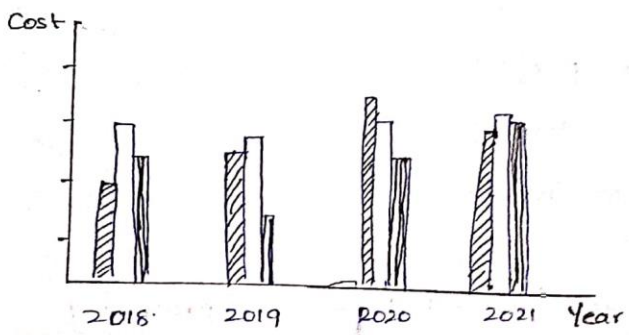
Business analyst helps the project manager in estimation and planning.
He deals with cost control and reduce the cost of the project.

6. Importance of Bar charts and Network diagram.



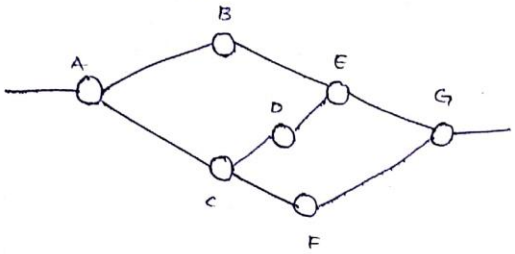
Bar charts.

Bar chats are helpfull for planning a project. Bar charts (or) Bar graphs helps us to known above 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.



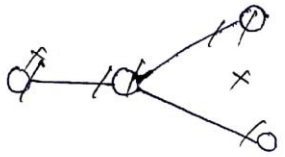
By help of above graph, we say see the variation in cost over years, this helps us to estimate cost for present running project.

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 allocating people staying near project, diging of soil, performing all initial works. In schedule - 2 starting of main project works and so-on. The kind of network diagroms simplifies the schedule so that it can be easily understood.

OBJECTIVE

Multiple Choice Questions (MCQs)

Time: 15 Minutes **(Answer ALL questions. All questions carry equal marks)**

10 * ½ = 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	1 b 1
2	While determining budget a project manager uses _____ processes. a) Executing b) Controlling c) Planning d) Communication	1 c 1
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	1 c 1
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	1 a 1
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	1 c 1
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	1 a 1
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	1 b 1
8	Amount that vendor received for conducting a project called _____. a) Revenue. b) Net income. c) Gross Profit. d)Expense	1 d 1
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.	1 d 1
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	1 b 1

*****

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 Managment in Engineering projects.

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

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

* 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 guad the every team member to about there work.

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

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

(3)

i) Project Team:-

* Each team has a cation members.

* Each member will be assived by some roles.

* They should excaced the roles proftly. then only the project compelties with in the time.

* The whole team has a team leader and a mannager.

* The mannager will give work to the team leader.

* Team leader will assgue the role to the team members.

ii) Role of Each member in project Team

* Project manager.
* Project Spouce.
* Team leader.
* Project exicuter.
* Project analysist.

Project Manager:-
Project manager assiane whole work to the team leader.

Project spouce:-
The one who look after every finaly works.

Team leader:-
He will guaid 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 compair it with over distination of cost. whether we are crossing the assumed estimation of cost.

OBJECTIVE

Multiple Choice Questions (MCQs)

(Answer ALL questions. All questions carry equal marks)

Time: 15 Minutes **10 * ½ = 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	[bc]
2	While determining budget a project manager uses _____ processes. a) Executing. b) Controlling c) Planning d) Communication	[b]
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	[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	[d]
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	[b]
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	[c]
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]

*****

SAMPLE ANSWER SCRIPTS (MID - II)

Course _____ Branch _____

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 prestegious 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 deviate as they fail to produce revenue to the company and not getting salaries in time.

(iii) 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 accessing 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 concise use of resources are practised for greater profits.

Q3:

Performance Budget:	Zero-Based Budget:
1. Budget that is defined (or) calculated based on the purpose the project that it is going to serve is Performance 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. External factors such as limited amount of time, limited amount of capital, ample resources available plays a crucial role.	2. no external factors effect the zero-based budget.
3. Defines the quality of the project and effectiveness after completion.	3. Defines the quality of the project in estimated budget.
4. This also require the skilled professionals to calculate and estimate according to the requirements of the company.	4. Skilled professionals are required to estimate zero-based budget to get higher profits and keeping the standards of the company.
5. Performance budgets helps in getting more prestigious projects in future but the limited requirements are in-fact.	5. Zero-based budget is profit friendly which helps in taking the required time for finishing the project with all the requirements and even getting profits.

Q6:

CPM	PERT
> Critical Path Method	> Project Evaluation Review Technique.
> This technique is based upon the no: of activities and their relations	> This technique is based upon the relations between the works carried out in a project.
> Represented with tree diagrams, gantt charts, flows	> Represented by flow chart diagrams.
> Critical path is plotted so that the total duration of the entire project is found.	> No such techniques for finding of total duration of the project. Simply based upon type of work total duration of projects is found.
> network Analysis is done for finding out the critical activities that not to be disturbed (or) crashed.	> Simple identification of important tasks are done and precautions are taken to not disturb them.
> Delaying of such activities leads to extention of total duration the project.	> Any disturbance to such tasks leads to increase in total duration

OBJECTIVE

Multiple Choice Questions (MCQs)

(Answer ALL questions. All questions carry equal marks)

Time: 15 Minutes

10 * ½ = 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	[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) 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	[A]	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	[B]	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	[A]	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	[C]	5	1	2.1.1

*****

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

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 determined as a	2) PERT is determined as a probabilistic
3) CPM is an activity oriented	3) PERT is an event oriented
4) In CPM one time estimation is needed	4) In PERT three time estimate is acceptable

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 projects.

(4Ans)- The Applications of decision making theories in Budgetary Control are:-

1) In Budgetary control first check the flexibility 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 maded 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 want to change the dimensions for the Architecture purpose then the Amount of changes occured in the Budget is a Break even Analysis.

3) The owner gives the tender to an contractor. based on the Budget & allocation the Contractor is used to construct

4) The Break-even Analysis occur 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 Super structure is considered as m^2 & below the Sub structure the footing considered in m^3.

3) As per the volume the dimensions of the materials are charged.

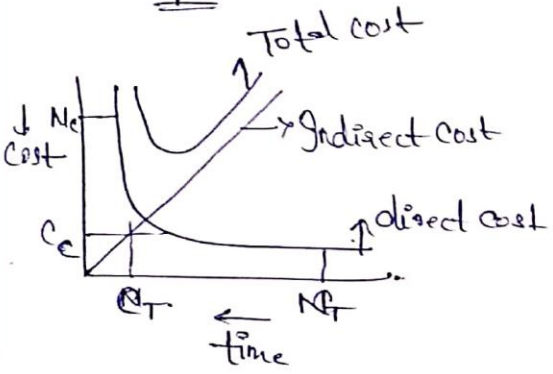
4) windows & Doors are to be taken in Number for the Construction of a building

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

5) COST -Vol-profit Analysis is based on the material Procurement and availability of the material.

Ans :- ||Drawing||

CPM

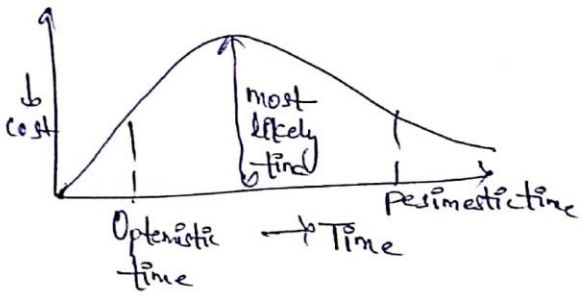


Cost Slope = $\frac{C_T - N_T}{\quad}$

→ If the time is increased the direct cost decreased.

→ If the time is increased the Indirect cost increases.

||Pert||



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

t_E = Expected time

t_o = optimistic time

t_m = most likely time

t_p = pesimistic time

OBJECTIVE

Multiple Choice Questions (MCQs)

(Answer ALL questions. All questions carry equal marks)

Time: 15 Minutes — **10 * ½ = 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	[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

*****

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

START WRITING FROM HERE

(1)

:) 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 inventimate is equal zero.

(ii) Cost - volume - Profit Analysis :

* The total investment in 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	PERT
* It is based on time estimation	* It is not based on time estimation.
* It is built of activities oriented programme	* It is built of events oriented programme.
* It can get ~~three~~ one output	* It can get three output.
* Synthesising in concepts	* Non-Synthesising in concept.
* CPM means cont. Project management	* PERT means Project estimate ~~redundant~~ resource technology.

(3)

Performance Budget	Zero Based Budget
* Performance budget means the project having profits more.	* Zero Based budget knows by providing zero but get no amount of profit.
* The investment of amount will be getting lots and lots of profit when compared to zero Based Budget.	* The investment of amount will not be getting lot lot of money when compared to Performance Budget.

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	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) 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) 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
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

*****