ESTIMATION AND COSTING

(GR18A4001)

IV- B. Tech – I Semester

Academic Year: 2021 - 2022

Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH

Professor /Assistant Professor

Department of Civil Engineering

Gokaraju Rangaraju Institute of Engineering and Technology

Bachupally, Kukatpally, Hyderabad – 500 090.

Gokaraju Rangaraju Institute of Engineering and Technology
Department of Civil Engineering

Estimation and Costing

Course File Check List

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GOKARAJU RANGARAJU
INSTITUTE OF ENGINEERING AND TECHNOLOGY
ESTIMATING AND COSTING

Course Code: GR18A4001	**L**	**T**	**P**	**C**
IV Year. I Semester	**3**	**1**	**0**	**4**

Course Objectives: The objectives of this course is to make the student to

1. Understanding the process of quantity survey.
2. Estimating the quantities of materials for buildings and roads.
3. Calculate rate per unit of any item.
4. Provide knowledge on Contracts and tendering process.
5. Assessing the value of a property

Course Outcomes: After completion of this course, students will be able to

1. Calculate the quantities of different items in a building and different types of roads and
   structures.
2. Handle the tendering process for executing any civil engineering work.
3. Assess the value of any property.
4. Recognize the process and importance of cost estimation, cost budgeting and cost control.
5. Estimate the rate per unit of any item of work.

UNIT I

General items of work in building: Standard Units, Principles of working out quantities for detailed and abstract estimates, approximate methods of Estimating. Detailed Estimates of Buildings –center line method, long wall short wall method.

UNIT II

Earthwork for roads hill roads (two level sections only) and canals. Quantities of materials for different types of roads.

UNIT III

Rate Analysis –Working out data for various items of work over head and contingent charges. Reinforcement bar bending and bar requirement schedules.

UNIT IV

Contracts: Types of contracts – contract Documents – Conditions of contract, contract procedures, Tendering process, Rights and responsibilities of parties to contracts

UNIT V

Valuation of buildings: Purpose and principles of valuation, Depreciation, methods of calculating depreciation, methods of valuation, Rental method, development method, profit based method

TEXT BOOKS:

1. Estimating & Costing by B.N.Dutta, UBS publishers
2. Estimating & Costing by G.S.Birdie.
3. Valuation of real properties by S.C. Rangawala, Charotar publishing house

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

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

Department of Civil Engineering

TIME TABLE

IV B. Tech (GR18) – I Semester **A.Y : 2021-22** **Section : A**

DAY/ HOUR	10:20 – 11:15	11:15 – 12:10	12:10 – 01:05	01:05 – 01:40	01:40 – 02:30	02:30 – 03:20	03:20 – 04:10
Monday	E & C	E & C		LUNCH BREAK			
Tuesday	E & C	E & C					
Wednesday							
Thursday							
Friday							
Saturday							

IV B. Tech (GR18) – I Semester **A.Y : 2021-22** **Section : A**

DAY/ HOUR	10:20 – 11:15	11:15 – 12:10	12:10 – 01:05	01:05 – 01:40	01:40 – 02:30	02:30 – 03:20	03:20 – 04:10
Monday				LUNCH BREAK	E & C	E & C	
Tuesday							
Wednesday							
Thursday							
Friday					E & C	E & C	
Saturday							

Course Code	Subject	Section	Faculty
GR18A4001	Estimation and Costing	A	Dr. G. V. V. Satyanarayana
		B	Mr. Akula Prakash

Programme Educational Objectives (PEO's)

1. Graduates of the programme will be successful career in technical and professional career.
2. Graduates of the programme will have proficiency in solving real time Civil Engineering projects.
3. Graduates of the programme will continue to engage in lifelong learning with ethical and social responsibility.

Program Outcomes (PO's)

Graduates of the Civil Engineering programme will be able to

a. apply knowledge of mathematics, science and fundamentals of Civil Engineering.
b. analyse problem and interpret the data.
c. design a system component, or process to meet desired needs in Civil Engineering within realistic constraints.
d. identify, formulate, analyse and interpret data to solve Civil Engineering problems.
e. use modern engineering tools such as CAD and GIS for the Civil Engineering practice.
f. understand the impact of engineering solutions in a global, economic and societal context.
g. understand the effect of Civil Engineering solutions on environment and to demonstrate the need for sustainable development.
h. understanding of professional and ethical responsibility.
i. work effectively as an individual or in a team and to function on multi-disciplinary context.
j. communicate effectively with engineering community and society.
k. demonstrate the management principles in Civil Engineering projects.
l. recognize the need for and an ability to engage in life-long learning.

Program Specific Outcomes (PSO's)

PSO1: Recognize the need for a sustainable environment and design smart infrastructure considering the global challenges.

PSO2: Create and develop innovative designs with new era materials through research and development.

Signature of HOD
Date:

Signature of faculty
Date:

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

COURSE OBJECTIVES

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

S.No	Objectives
1	Understanding the process of quantity survey.
2	Estimating the quantities of materials for buildings and roads.
3	Calculate rate per unit of any item.
4	Provide knowledge on Contracts and tendering process.
5	Assessing the value of a property

Signature of HOD Signature of faculty

Date: Date:

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

COURSE OUTCOMES

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year
Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

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

CO Designation	**Course Outcomes**
CO1	Calculate the quantities of different items in a building and different types of roads and structures.
CO2	Handle the tendering process for executing any civil engineering work.
CO3	Assess the value of any property.
CO4	Recognize the process and importance of cost estimation, cost budgeting and cost control.
CO5	Estimate the rate per unit of any item of work.

Signature of HOD Signature of faculty

Date: Date:

STUDENT ROLL LIST

Gokaraju Rangaraju Institute of Engineering & Technology
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009
B.Tech Civil Engg. IV Yr-I Sem- Section A- GR18 2021 -22

S.No	Reg No	Student Name
1	17241A0153	Sujith Kumar Shinde
2	17241A0157	Vuppula Mithunkumar Reddy
3	18241A0101	Ajmeera Ganesh
4	18241A0102	Anabotula Sravani
5	18241A0103	Anumatla Manoj
6	18241A0104	Byna Rishitha
7	18241A0105	Bura Tharasri
8	18241A0106	Pudari Badrinath Goud
9	18241A0107	Balasani Rohith
10	18241A0108	Bandari Veeraswamy
11	18241A0109	Bandi Varun Kumar
12	18241A0110	Bashipaka Pradeep
13	18241A0111	Bathula Nikhil
14	18241A0112	Batikiri Veerendra Swamy
15	18241A0113	Bhukya Soujanya
16	18241A0114	Bhukya Varun Naik
17	18241A0115	Boddu Pavan
18	18241A0116	Byagari Rangaraju
19	18241A0117	Chada Ruchita
20	18241A0118	Chinthakuntla Thriveen
21	18241A0119	Cv Jaswanth Surya
22	18241A0120	Dosapati Nishu
23	18241A0121	G Prashanth
24	18241A0122	Gaddipati Lohitha
25	18241A0123	Gangam Rohit Reddy
26	18241A0124	Gottemukkala Govardhan
27	18241A0125	Hrishikesh Bansal
28	18241A0126	Janapati Raju
29	18241A0127	Jyothika Mannava
30	18241A0128	K Harshitha Reddy
31	18241A0129	Kolan Reshikesh Reddy
32	18241A0130	Karri Bharath Chandra Reddy
33	18241A0131	Kuppala Nihar
34	18241A0132	Kurva Lavanya
35	18241A0133	Maddimsetty Sri Charan
36	18241A0134	Maganoor Manaswini
37	18241A0135	Maloth Bhavsingh
38	18241A0136	Malothu Naveena
39	18241A0137	Manda Ithihas
40	18241A0138	Mohammad Ashfaq Ahmed
41	18241A0139	Mohammed Omer Shareef
42	18241A0140	Mukundu Naveen
43	18241A0141	Nalumasu Sahithi
44	18241A0142	Nampelly Ravi Kumar
45	18241A0143	Narra Shashidhar Reddy

46	18241A0144	Patlola Vinay Reddy
47	18241A0145	Pattambetty Pavankumar
48	18241A0146	Pola Tharun
49	18241A0147	Posani S V A Kalyan
50	18241A0148	Pulle Manichadra
51	18241A0149	Rajulapati Rohit Naga Sai
52	18241A0150	Sura Subbaram Reddy
53	18241A0153	Sunkari Vikas
54	18241A0154	Thirupathi Rao Salla
55	18241A0155	Trivikram Reddy
56	18241A0156	Thrupti Shreya
57	18241A0157	Vakamalla Bhavya Sree
58	18241A0158	Vemula Manisha
59	18241A0159	Vuppula Keerthana
60	18241A0160	Yalla Anitha
61	19245A0101	KANCHERLA BHARATH
62	19245A0102	ELUPULA KUMARASWAMY
63	19245A0103	BRAHMADEVARA BHAVITHA
64	19245A0104	DASARI NAMRATHA
65	19245A0105	T CHANDANA
66	19245A0106	KOLA HARITHA

Gokaraju Rangaraju Institute of Engineering & Technology
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009
B.Tech Civil Engg. IV Yr-I Sem- Section B - GR18 2021 -22

S.No	Reg No	Student Name
1	16241A0161	Abdul Samad
2	18241A0161	A Nachiketh
3	18241A0162	Aleti Jagadish
4	18241A0163	Amirneni Anusha
5	18241A0164	Anireddy Avinash
6	18241A0165	Ashitha Golla
7	18241A0166	Animesh Baathuk
8	18241A0167	Boppu Lokesh
9	18241A0168	Budagam Harshith
10	18241A0169	Chilumula Sridhar
11	18241A0170	Dandre Vennela
12	18241A0171	Doti Upender
13	18241A0172	Eda Manasa
14	18241A0173	Gonda Harshini
15	18241A0174	Gore Kamalakar Sailesh
16	18241A0175	Gore Kamalakar Sandeep
17	18241A0176	Guddati Arun
18	18241A0177	Vijay Narasimha Reddy Kolagtla
19	18241A0178	Kancharakuntla Deepika
20	18241A0179	Kota Rashmitha
21	18241A0180	Kothuri Pranay
22	18241A0181	Kudala Rama

23	18241A0182	Kummari Srilekha
24	18241A0183	Kunchala Adarsh
25	18241A0184	Kurra Neeraj Prasad
26	18241A0185	Kyama Pavan
27	18241A0186	M Shekhar
28	18241A0187	Malraj Manvitha
29	18241A0188	Matharasi Sai Kumar
30	18241A0189	Md Ameer Sohail
31	18241A0190	Md Amir
32	18241A0191	Medari Vikram Aditya
33	18241A0192	Mediga Karthik
34	18241A0193	Moniesh Reddy Sunkara
35	18241A0194	Kaushik Nadella
36	18241A0195	Nikhitha Kasuvojula
37	18241A0196	Nunavath Suman
38	18241A0197	P Kishore
39	18241A0198	Peesu Spandana Reddy
40	18241A0199	Prathyusha Maddala
41	18241A01A0	Bavanari Pratyush
42	18241A01A1	Putta Rohith
43	18241A01A2	Rahul Pradhan
44	18241A01A3	Rampelli Pravalika
45	18241A01A4	Rangu Soniya
46	18241A01A5	Rentala Adarsh Reddy
47	18241A01A6	Ritish J
48	18241A01A7	Seelam Rahul Goud
49	18241A01A8	Shaik Afeez
50	18241A01A9	Shaik Shoaib
51	18241A01B0	Shivarathri Sai Kumar
52	18241A01B1	Shivarathri Tharun
53	18241A01B2	Sowmika Boyapati
54	18241A01B3	Vishruth Reddy T N
55	18241A01B4	Tekula Prashanth Reddy
56	18241A01B5	Teegala Someshwar Reddy
57	18241A01B6	Thatipamula Vigna Sai
58	18241A01B7	Thota Sri Sai
59	18241A01B8	Vedati Manikanta Karthik
60	18241A01B9	Vallapu Reddy Sushrutha
61	18241A01C0	Yanala Rithish Reddy
62	19245A0107	CHOUGONI SHIVASHANKAR
63	19245A0108	KOTA ANVESH
64	19245A0109	POLAGANI CHANDU GOUD
65	19245A0110	SADGARI KARTHIK
66	19245A0111	GUGULOTHU PAVAN
67	19245A0112	A RAGHAVENDRA

Signature of HOD
Date:

Signature of faculty
Date

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

GUIDELINES TO STUDY THE COURSE/SUBJECT

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Guidelines to students:

Guidelines to study the course: Estimation and Costing

The course helps the students to learn and understand about the Estimation of various building components. The course makes the students to understand the Assessment of Earthwork Estimations of various types of embankments, culverts, bridges and various types of Roads. It also makes the students to Analyze the Rates of Various items which helps in performing the Valuation during the Contractual Process.

The students should have the prerequisites:

- Knowledge of Mathematical formulae and Applications
- Knowledge of various structural elements of Buildings.

Where will this subject help?

- Useful in performing the Estimation of various building components
- Useful in determining the Quantities of Earthworks of various types of embankments, culverts, bridges, and various types of Roads
- Useful in to Analyze the Rates of Various items which helps in performing the Valuation during the Contractual Process

Books/Material

1. Estimating & Costing by B.N.Dutta, UBS publishers
2. Estimating & Costing by G.S.Birdie.
3. Valuation of real properties by S.C. Rangawala, Charotar publishing house.

Web Sites
Building Cost Estimation : https://onlinecourses.swayam2.ac.in/nou20_cs11/preview

Course Design and Delivery System (CDD):

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

The faculty be able to –

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

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 SCHEDULE

Academic **Y**ear : 2021 - 22
Semester : I
Name of the Program: B.Tech, Civil Engineering Year: IV year
Course/Subject: Estimation and Costing Course Code: GR18A4001
Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering
Designation: PROFESSOR / ASSISTANT PROFESSOR

The Schedule for the whole Course / Subject is:

Section -A

Unit. No.	Description	Duration (Date)		Total No. of Periods
		From	To	
1.	General Items of Buildings	16.8.2021	27.9.2021	20
2.	Earthwork Estimation	28.9.2021	05.10.2021	06
3.	Rate Analysis	11.10.2021	09.11.2021	16
4.	Contract Documents	15.11.2021	22.11.2021	06
5.	Valuation of Buildings	23.11.2021	07.12.2021	08

Total No. of Instructional periods available for the course: **56** Hours

Section -B

Unit. No.	Description	Duration (Date)		Total No. of Periods
		From	To	
1.	General Items of Buildings	16-08-2021	14-09-2021	14
2.	Earthwork Estimation	15-09-2021	04-10-2021	8
3.	Rate Analysis	05-10-2021	26-10-2021	10
4.	Contract Documents	27-10-2021	22-11-2021	11
5.	Valuation of Buildings	23-11-2021	08-12-2021	8

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

Signature of H.O.D
Date :

Signature of faculty
Date

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: B.Tech, Civil Engineering Year: IV year

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH

Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Class : B.Tech. IV/I (Section – A)

S.No.	Unit No.	Date	Topics
1.	I	16.8.2021	Introduction about estimating and costing
2.		17.8.2021	General items of work in buildings
3.		21.8.2021	Standard units principles of working out quantities for detailed estimates
4.		23.8.2021	Standard units principles of working out quantities for abstract estimates
5.		24.8.2021	Approximate methods of estimating
6.		28.8.2021	Earth work for roads
7.		06.9.2021	Earth work for canals
8.		06.9.2021	Earth work for canals
9.		07.9.2021	Solved old question paper problems
10.		07.9.2021	Solved old question paper problems
11.		13.9.2021	Introduction about Detailed estimation of Buildings
12.		13.9.2021	Methods involved in detailed estimates
13.		14.9.2021	Estimation of a single roomed building by Long short wall method
14.		14.9.2021	Estimation of a single roomed building by centreline wall method
15.		20.9.2021	Estimation of a two roomed building by Long short wall method
16.		20.9.2021	Estimation of a two roomed building by centre line wall method
17.		21.9.2021	Estimation of a single bed roomed building by Long short wall method
18.		21.9.2021	Estimation of a single bed roomed building by centre line wall method
19.		27.9.2021	Detailed estimation of a 2BHK building by Long short wall method
20.		27.9.2021	Detailed estimation of a 2BHK building by centre line wall method
21.	II	28.9.2021	Introduction various methods to calculate the volume of earth work
22.		28.9.2021	Estimate the earthwork in a road work when road having uniform slope in cutting and banking along longitudinal direction
23.		04.10.2021	Estimate the earthwork in a road work when road having different slopes in cutting and banking along longitudinal direction
24.		04.10.2021	Estimate the earthwork in a canal work when ground having uniform

			slope in cutting and banking along longitudinal direction
25.		05.10.2021	Estimate the earthwork in a road work when ground having different slopes in cutting and banking along longitudinal direction as well as in transverse direction
26.		05.10.2021	Estimate earth work required for canal lining or turfing for road work
27.	III	11.10.2021	Introduction about analysis of rates and their importance in estimations
28.		11.10.2021	Work out data for various items of work in buildings
29.		12.10.2021	Importance of Lead and Lift charges in earthworks
30.		12.10.2021	Data sheet for earthwork in foundation and Cement concrete
31.		18.10.2021	Data sheet for Stone masonry in foundation, Brickwork in super structure and Reinforced Cement concrete in lintels, slabs Etc.,
32.		18.10.2021	Data sheet for cement plastering and white or colour washing
33.		19.10.2021	Data sheet for wooden paneled door and Glazed window
34.		19.10.2021	Data sheet for well foundation or Cassion foundations
35.		25.10.2021	Differentiate between over head and contigent charges
36.		25.10.2021	Introduction about bar bending schedule
37.		26.10.2021	Estimate steel required for a simply supported beam
38.		26.10.2021	Estimate steel required for a continuous beam
39.		08.11.2021	Estimate steel required for a simply supported one way and two way slab
40.		08.11.2021	Estimate steel required for a T-beam bridge
41.		09.11.2021	Estimate steel required for any irrigation works
42.		09.11.2021	Estimate steel required for water tank
43.	IV	15.11.2021	Introduction about contract term
44.		15.11.2021	Discuss the various types of contracts with their merits and demerits
45.		16.11.2021	Discuss the various types of contracts with their merits and demerits
46.		16.11.2021	Contract document and their salient features
47.		22.11.2021	Contract document and their salient features
48.		22.11.2021	Discuss the various conditions of contract
49.	V	23.11.2021	Introduction about Valuation of buildings
50.		23.11.2021	Discuss the various terms involved in Vauation
51.		29.11.2021	Importance of valuation
52.		29.11.2021	Estimate value of building by various methods
53.		06.12.2021	Estimate the value of building by rental method
54.		06.12.2021	Fixation of rent for a residential building
55.		07.12.2021	Fixation of rent for a commercial building
56.		07.12.2021	Fixation of rent for a office building

Books/Material

1. Estimating & Costing by B.N.Dutta,
2. Estimating & Costing by G.S.Birdie.

Class : B.Tech. IV/I (Section – B)

S.No.	Unit No.	Date	Topics
1	I	16-08-2021	**Introduction to Estimating & Costing**
2		17-08-2021	Introduction to Estimating & Costing
3		18-08-2021	Standard Units
4		23-08-2021	Principles of Working out Quantities for Detailed and Abstract Estimates
5		24-08-2021	Principles of Working out Quantities for Detailed and Abstract Estimates
6		25-08-2021	Approximate Methods of Estimating
7		30-08-2021	Approximate Methods of Estimating
8		31-08-2021	Detailed Estimates of Buildings-Long wall and Short wall method (General Method)
9		01-09-2021	Detailed Estimates of Buildings-Long wall and Short wall method (General Method)
10		06-09-2021	Detailed Estimates of Buildings-Long wall and Short wall method (General Method)
11		07-09-2021	Detailed Estimates of Buildings-Long wall and Short wall method (General Method)
12		08-09-2021	Detailed Estimates of Buildings-Centre Line Method
13		13-09-2021	Detailed Estimates of Buildings-Centre Line Method
14		14-09-2021	Detailed Estimates of Buildings-Centre Line Method
15	II	15-09-2021	**Earthwork for Roads**
16		20-09-2021	Earthwork for Roads
17		21-09-2021	Earthwork for Hill Roads
18		22-09-2021	Earthwork for Hill Roads
19		27-09-2021	Earthwork for Canals
20		28-09-2021	Earthwork for Canals
21		29-09-2021	Quantities of Materials - Different Types of Roads
22		04-10-2021	Quantities of Materials - Different Types of Roads
23	III	05-10-2021	**Rate Analysis**
24		06-10-2021	Workingout Data for Various Items
25		11-10-2021	Workingout Data for Various Items
26		12-10-2021	Overhead and Contingent Charges
27		13-10-2021	Overhead and Contingent Charges
28		18-10-2021	Reinforcement Bar Bending
29		19-10-2021	Reinforcement Bar Bending
30		20-10-2021	Reinforcement Bar Bending
31		25-10-2021	Bar Requirement Schedules
32		26-10-2021	Bar Requirement Schedules

33	IV	27-10-2021	**Types of Contracts**
34		01-11-2021	Types of Contracts
35		02-11-2021	Contract Documents
36		03-11-2021	Contract Documents
37		08-11-2021	Conditions of Contract
38		09-11-2021	Conditions of Contract
39		10-11-2021	Contract Procedures
40		15-11-2021	Contract Procedures
41		16-11-2021	Tendering Process
42		17-11-2021	Tendering Process
43		22-11-2021	Rights & Responsibilities of Parties to Contracts
44	V	23-11-2021	**Valuation of Buildings**
45		24-11-2021	Purpose and Principles of Valuation
46		29-11-2021	Depreciation
47		30-11-2021	Methods of Computing Depreciation
48		01-12-2021	Methods of Valuation
49		06-12-2021	Rental Method
50		07-12-2021	Development Method.
51		08-12-2021	Profit Based Method.

Books/Material

1. Estimating & Costing by B.N.Dutta,
2. Estimating & Costing by G.S.Birdie.

Signature of H.O.D

Date :

Signature of faculty

Date:

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

Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)

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

SCHEDULE OF INSTRUCTIONS
UNIT PLAN

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH

Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

S.No.	Unit No.	Date	Topics
1.	I	16.8.2021	Introduction about estimating and costing
2.		17.8.2021	General items of work in buildings
3.		21.8.2021	Standard units principles of working out quantities for detailed estimates
4.		23.8.2021	Standard units principles of working out quantities for abstract estimates
5.		24.8.2021	Approximate methods of estimating
6.		28.8.2021	Earth work for roads
7.		06.9.2021	Earth work for canals
8.		06.9.2021	Earth work for canals
9.		07.9.2021	Solved old question paper problems
10.		07.9.2021	Solved old question paper problems
11.		13.9.2021	Introduction about Detailed estimation of Buildings
12.		13.9.2021	Methods involved in detailed estimates
13.		14.9.2021	Detailed estimation of a single roomed building by Long short wall method
14.		14.9.2021	Detailed estimation of a single roomed building by centreline wall method
15.		20.9.2021	Detailed estimation of a two roomed building by Long short wall method
16.		20.9.2021	Detailed estimation of a stwo roomed building by centre line wall method
17.		21.9.2021	Detailed estimation of a single bed roomed building by Long short wall method
18.		21.9.2021	Detailed estimation of a single bed roomed building by centre line wall method
19.		27.9.2021	Detailed estimation of a 2BHK building by Long short wall method
20.		27.9.2021	Detailed estimation of a 2BHK building by centre line wall method

Books/Material

1. Estimating & Costing by B.N.Dutta,
2. Estimating & Costing by G.S.Birdie.

Signature of HOD
Date:

Signature of faculty
Date:

Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)

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

SCHEDULE OF INSTRUCTIONS
UNIT PLAN

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH

Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

S.No.	Unit No.	Date	Topics
1	II	28.9.2021	Introduction various methods to calculate the volume of earth work
2		28.9.2021	Estimate the earthwork in a road work when road having uniform slope in cutting and banking along longitudinal direction
3		04.10.2021	Estimate the earthwork in a road work when road having different slopes in cutting and banking along longitudinal direction
4		04.10.2021	Estimate the earthwork in a canal work when ground having uniform slope in cutting and banking along longitudinal direction
5		05.10.2021	Estimate the earthwork in a road work when ground having different slopes in cutting and banking along longitudinal direction as well as in transverse direction
6		05.10.2021	Estimate earth work required for canal lining or turfing for road work

Books/Material

1. Estimating & Costing by B.N.Dutta,
2. Estimating & Costing by G.S.Birdie.

Signature of HOD
Date:

Signature of faculty
Date:

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

SCHEDULE OF INSTRUCTIONS
UNIT PLAN

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH

Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

S.No.	Unit No.	Date	Topics
1	III	11.10.2021	Introduction about analysis of rates and their importance in estimations
2		11.10.2021	Work out data for various items of work in buildings
3		12.10.2021	Importance of Lead and Lift charges in earhworks
4		12.10.2021	Data sheet for earthwork in foundation and Cement concrete in foundation
5		18.10.2021	Data sheet for Stone masonry in foundation, Brickwork in super structure and Reinforced Cement concrete in lintels, slabs Etc.,
6		18.10.2021	Data sheet for cement plastering and white or colour washing
7		19.10.2021	Data sheet for wooden paneled door and Glazed window
8		19.10.2021	Data sheet for well foundation or Cassion foundations
9		25.10.2021	Differentiate between over head and contigent charges
10		25.10.2021	Introduction about bar bending schedule
11		26.10.2021	Estimate steel required for a simply supported beam
12		26.10.2021	Estimate steel required for a continuous beam
13		08.11.2021	Estimate steel required for a simply supported one way slab and two way slab
14		08.11.2021	Estimate steel required for a T-beam bridge
15		09.11.2021	Estimate steel required for any irrigation works
16		09.11.2021	Estimate steel required for water tank

Books/Material

1. Estimating & Costing by B.N.Dutta,
2. Estimating & Costing by G.S.Birdie.

Signature of HOD
Date:

Signature of faculty
Date:

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

SCHEDULE OF INSTRUCTIONS
UNIT PLAN

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH

Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

S.No.	Unit No.	Date	Topics
1	IV	15.11.2021	Introduction about contract term
2		15.11.2021	Discuss the various types of contracts with their merits and demerits
3		16.11.2021	Discuss the various types of contracts with their merits and demerits
4		16.11.2021	Contract document and their salient features
5		22.11.2021	Contract document and their salient features
6		22.11.2021	Discuss the various conditions of contract

Books/Material

1. Estimating & Costing by B.N.Dutta,
2. Estimating & Costing by G.S.Birdie.

Signature of HOD
Date:

Signature of faculty
Date:

Gokaraju Rangaraju Institute of Engineering and Technology
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SCHEDULE OF INSTRUCTIONS
UNIT PLAN

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH

Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

S.No.	Unit No.	Date	Topics
1	V	23.11.2021	Introduction about Valuation of buildings
2		23.11.2021	Discuss the various terms involved in Vauation
3		29.11.2021	Importance of valuation
4		29.11.2021	Estimate value of building by various methods
5		06.12.2021	Estimate the value of building by rental method
6		06.12.2021	Fixation of rent for a residential building
7		07.12.2021	Fixation of rent for a commercial building
8		07.12.2021	Fixation of rent for a office building

Books/Material

1. Estimating & Costing by B.N.Dutta,
2. Estimating & Costing by G.S.Birdie.

Signature of HOD
Date:

Signature of faculty
Date:

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)
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LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 16.8.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 1. Duration of Lesson: 1hr

Lesson Title: Introduction about estimating and costing

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Understand the importance of estimating and costing
2. Illustrate various costs required in any given project.

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Fundamentals
- Estimating and costing

Assignment / Questions: Describe the various costs required in any given project. [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 17.8.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 2 Duration of Lesson: 1hr

Lesson Title: General items of work in buildings

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Understand the complete system of construction estimation
2. Illustrate various steps involved in the processes.

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Fundamentals
- Procedures

Assignment / Questions:
Discuss various steps involved in the estimating processes. [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 21.8.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 3 Duration of Lesson: 1hr

Lesson Title: Standard units principles of working out quantities for detailed estimates

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Understand the principles of working out quantities in any construction process.
2. Evaluate and maintain construction quantities

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Principles - importance
- Types of estimates
- Standard units

Assignment / Questions:
What are the various principles of working out quantities in any construction process.?
[CO1]

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LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 23.8.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 4 Duration of Lesson: 1hr

Lesson Title: Standard units principles of working out quantities for abstract estimates

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Understand the principles of working out quantities in any construction process.
2. Evaluate and maintain construction quantities

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Principles - importance
- Types of estimates
- Standard units

Assignment / Questions:
How do you assess the construction quantities? [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 24.8.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 5 Duration of Lesson: 1hr

Lesson Title: Approximate methods of estimating

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Integrate various Methods involved in detailed estimates

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Approximate methods of estimating

Assignment / Questions:
List out various Approximate methods of estimating [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 28.8.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 6 Duration of Lesson: 1hr

Lesson Title: Earth work for roads

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Integrate various Methods involved in Earthwork Estimation for Roads

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Earth work for roads

Assignment / Questions:
Problems on Earth work for roads [CO1]

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: 06.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 7 Duration of Lesson: 1hr

Lesson Title: Earth work for canals

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Integrate various Methods involved in Earthwork Estimation for Canals

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Earth work for canals

Assignment / Questions:
Problems on Earth work for canals [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 06.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 8 Duration of Lesson: 1hr

Lesson Title: Earth work for canals

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Integrate various Methods involved in Earthwork Estimation for Canals

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Earth work for canals

Assignment / Questions:
Problems on Earth work for canals [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 07.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 9 Duration of Lesson: 1hr

Lesson Title: Solving old question paper problems

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Solving old question paper problems

Assignment / Questions: Solving old question paper problems

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: 07.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 10 Duration of Lesson: 1hr

Lesson Title: Solving old question paper problems

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Solving old question paper problems

Assignment / Questions: Solving old question paper problems

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 13.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 11 Duration of Lesson: 1hr

Lesson Title: Introduction about Detailed estimation of Buildings

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Understand the importance of Detailed estimation

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Importance of Detailed estimation
- Methods involved in detailed estimates

Assignment / Questions:

1. Mention various methods involved in detailed estimation [CO1]

Signature of faculty

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LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 13.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 12 Duration of Lesson: 1hr

Lesson Title: Methods involved in detailed estimates

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Integrate various Methods involved in detailed estimates

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Importance of Detailed estimation
- Methods involved in detailed estimates

Assignment / Questions:

1. Mention various methods involved in detailed estimation [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 14.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 13 Duration of Lesson: 1hr

Lesson Title: Detailed estimation of a single roomed building by Long short wall method

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate single roomed building by center line wall method and Long short wall method

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Introduction to center line wall method
- Problems on single roomed building by center line wall method
- Problems on single roomed building by Long short wall method

Assignment / Questions:

1. Problems on Detailed estimation of a single roomed building by center line wall method and Long short wall method [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 14.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 14 Duration of Lesson: 1hr

Lesson Title: Detailed estimation of a single roomed building by centreline wall method

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Problems on two roomed building by center line wall method and Long short wall method

Assignment / Questions:

1. Problems on Detailed estimation of a two roomed building by center line wall method [CO1]

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: 20.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 15 Duration of Lesson: 1hr

Lesson Title: Detailed estimation of a two roomed building by Long short wall method

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate two roomed building by Long short wall method

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Problems on two roomed building by Long short wall method

Assignment / Questions:

1. Problems on Detailed estimation of a two roomed building by Long wall Short wall method [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 20.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 16 Duration of Lesson: 1hr

Lesson Title: Detailed estimation of a stwo roomed building by centre line wall method

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate two roomed building by center line wall method

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Problems on two roomed building by center line wall method

Assignment / Questions:

1. Problems on Detailed estimation of a two roomed building by center line wall method [CO1]

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: 21.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 17 Duration of Lesson: 1hr

Lesson Title: Detailed estimation of a single bed roomed building by Long short wall method

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate single roomed building by Long short wall method

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Problems on single roomed building by Long short wall method

Assignment / Questions:

1. Problems on Detailed estimation of a single roomed building by Long short wall method [CO1]

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: 21.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 18 Duration of Lesson: 1hr

Lesson Title: Detailed estimation of a single bed roomed building by centre line method

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate single roomed building by center line wall method

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Problems on single roomed building by center line wall method

Assignment / Questions:

1. Problems on Detailed estimation of a single roomed building by center line method [CO1]

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: 27.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 19 Duration of Lesson: 1hr

Lesson Title: Detailed estimation of a 2BHK building by Long short wall method

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate 2BHK by Long short wall method

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Problems on single roomed building by Long short wall method

Assignment / Questions:

1. Problems on Detailed estimation of a 2BHK by Long short wall method [CO1]

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: 27.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 20 Duration of Lesson: 1hr

Lesson Title: Detailed estimation of a 2BHK building by centre line method

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate 2BHK by centre line method

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Problems on single roomed building by centre line method

Assignment / Questions:

1. Problems on Detailed estimation of a 2BHK by centre line method [CO1]

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: 28.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 21 Duration of Lesson: 1hr

Lesson Title: Introduction various methods to calculate the volume of earth work

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Introduction various methods to calculate the volume of earth work

Assignment / Questions: Introduction various methods to calculate the volume of earth work [CO1]

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: 28.9.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 22 Duration of Lesson: 1hr

Lesson Title: Estimate the earthwork in a road work when road having uniform slope in cutting and banking along longitudinal direction

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Calculate the earthwork in a road work when road having uniform slope in cutting and banking along longitudinal direction

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Completely filling
- Completely cutting

Assignment / Questions:

Problems on earthwork in a road work when road having uniform slope in cutting and banking along longitudinal direction [CO1]

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: 04.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 23 Duration of Lesson: 1hr

Lesson Title: Estimate the earthwork in a road work when road having different slopes in cutting and banking along longitudinal direction

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Calculate the earthwork in a road work when ground having different slopes in cutting and banking along longitudinal direction as well as in transverse direction

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Completely filling
- Completely cutting
- Partial cutting - Partial filling

Assignment / Questions:

Problems on earthwork in a road work when ground having different slopes in cutting and banking along longitudinal direction as well as in transverse direction [CO1]

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: 04.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 24 Duration of Lesson: 1hr

Lesson Title: Estimate the earthwork in a canal work when ground having uniform slope in cutting and banking along longitudinal direction

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Calculate the earthwork in a canal work when ground having uniform slope in cutting and banking along longitudinal direction

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Estimate the earthwork in a canal work when ground having uniform slope in cutting and banking along longitudinal direction

Assignment / Questions: Estimate the
Problems on earthwork in a canal work when ground having uniform slope in cutting and banking along longitudinal direction [CO1]

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: 05.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 25 Duration of Lesson: 1hr

Lesson Title: Estimate the earthwork in a road work when ground having different slopes in cutting and banking along longitudinal direction as well as in transverse direction

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Estimate the earthwork in a road work when ground having different slopes in cutting and banking along longitudinal direction as well as in transverse direction

Assignment / Questions:
Estimate the earthwork in a road work when ground having different slopes in cutting and banking along longitudinal direction as well as in transverse direction [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 05.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 26 Duration of Lesson: 1hr

Lesson Title: Estimate earth work required for canal lining or turfing for road work

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Estimate earth work required for canal lining or turfing for road work

Assignment / Questions:
Problems on Estimating the earth work required for canal lining or turfing for road work [CO1]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 11.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 27 Duration of Lesson: 1hr

Lesson Title: Introduction about analysis of rates and their importance in estimations

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. analysis of rates
2. importance of analysis

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Introduction about
- Standard scheduled rates
- importance of analysis

Assignment / Questions:

Write a short notes on analysis of rates and its importance ? [CO5]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 11.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 28 Duration of Lesson: 1hr

Lesson Title: Work out data for various items of work in buildings

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Work out data for various items of work in buildings

Assignment / Questions:
Tabulate Work out data for various items of work in buildings [CO5]

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: 12.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 29 Duration of Lesson: 1hr

Lesson Title: Importance of Lead and Lift charges in earhworks

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Meanings of Lead and Lift
2. Lead and Lift Statements

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Meanings of Lead and Lift
- Lead and Lift charges
- Lead and Lift charges calculations in earth works

Assignment / Questions:

Discuss the importance of Lead and Lift charges in earth works [CO5]

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: 12.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 30 Duration of Lesson: 1hr

Lesson Title: Data sheet for earthwork in foundation and Cement concrete in foundation

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Earthwork in foundation estimations
2. Cement concrete in foundation

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Earthwork in foundation estimations
- Cement concrete in foundation

Assignment / Questions:

Write a short note on Earthwork in foundation estimations and Cement concrete in foundation [CO5]

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: 18.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 31 Duration of Lesson: 1hr

Lesson Title: Data sheet for Stone masonry in foundation, Brickwork in super structure and Reinforced Cement concrete in lintels, slabs Etc.,

INSTRUCTIONAL/LESSON OBJECTIVES:
On completion of this lesson the student shall be able to calculate quantities of:

1. Stone masonry in foundation
2. Brickwork in super structure
3. Cement plastering

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Stone masonry in foundation
- Brickwork in super structure
- Cement plastering

Assignment / Questions:

Problems on Stone masonry in foundation, Brickwork in super structure and Cement plastering [CO5]

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: 18.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 32 Duration of Lesson: 1hr

Lesson Title: Data sheet for cement plastering and white or colour washing

INSTRUCTIONAL/LESSON OBJECTIVES:
On completion of this lesson the student shall be able to calculate quantities of:

1. Cement Plastering
2. White or Color Washing

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

1. Cement Plastering
2. White or Color Washing

Assignment / Questions:
Problems on Cement Plastering and White or Color Washing [CO5]

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: 19.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 33 Duration of Lesson: 1hr

Lesson Title: Data sheet for wooden paneled door and Glazed window

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Wooden Paneled Door
2. Glazed Window

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

:

1. Wooden Paneled Door
2. Glazed Window

Assignment / Questions:
Problems on Wooden Paneled Door and Glazed Window [CO5]

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: 19.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 34 Duration of Lesson: 1hr

Lesson Title: Data sheet for well foundation or Cassion foundations

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Data sheet for well foundation or Cassion foundations

Assignment / Questions: Data sheet for well foundation or Cassion foundations [CO5]

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: 25.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 35 Duration of Lesson: 1hr

Lesson Title: Differentiate between over head and contigent charges

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Differentiate between over head and contigent charges

Assignment / Questions:
Write the Differentiate between over head and contigent charges [CO5]

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: 25.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 36 Duration of Lesson: 1hr

Lesson Title: Introduction about bar bending schedule

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Introduction about bar bending schedule

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- bar bending schedule
- Importance of bar bending schedule

Assignment / Questions:

Problems on bar bending schedule [CO5]

Signature of faculty

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

LESSON PLAN

Academic **Y**ear : 2021 - 22 Date: 26.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 37 Duration of Lesson: 1hr

Lesson Title: Estimate steel required for a simply supported beam

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate the steel required for a simply supported beam

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Estimate the steel required for a simply supported beam

Assignment / Questions:

Problems on Estimation of steel required for a simply supported beam [CO5]

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: 26.10.2021

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 38 Duration of Lesson: 1hr

Lesson Title: Estimate steel required for a continuous beam

INSTRUCTIONAL/LESSON OBJECTIVES:
On completion of this lesson the student shall be able to:

1. Estimate the steel required for continuous beam

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- continuous beam

Assignment / Questions:
Problems on Estimating the Quantities of Steel in continuous beam [CO5]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 39 Duration of Lesson: 1hr

Lesson Title: Estimate steel required for a simply supported one way slab and two way slab

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate the steel required for simply supported one way slab
2. Estimate the steel required for simply supported two way slab

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Estimate steel required for a simply supported one way slab and two way slab

Assignment / Questions: Problems on Estimating the Quantities of steel required for a simply supported one way slab and two way slab [CO5]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 40 Duration of Lesson: 1hr

Lesson Title: Estimate steel required for a T-beam bridge

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate the steel required for T-beam bridge

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Estimate steel required for a T-beam bridge

Assignment / Questions: Problems on Estimating the Quantities of steel required for a T-beam bridge [CO5]

Signature of faculty

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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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 41 Duration of Lesson: 1hr

Lesson Title: Estimate steel required for any irrigation works

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate the steel required for Irrigation Works

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Estimate steel required for any irrigation works

Assignment / Questions: Problems on Estimating the Quantities of steel required for any irrigation works [CO5]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 42 Duration of Lesson: 1hr

Lesson Title: Estimate steel required for water tank

INSTRUCTIONAL/LESSON OBJECTIVES:

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

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Estimate steel required for water tank

Assignment / Questions: Problems on Estimating the Quantities of steel required for water tank [CO5]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 43 Duration of Lesson: 1hr

Lesson Title: Introduction about contract term

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Introduction about contract term and definition

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Contract
- Contract term

Assignment / Questions:
Write a short note on Contract term [CO2]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 44 Duration of Lesson: 1hr

Lesson Title: Discuss the various types of contracts with their merits and demerits

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Various types of contracts

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Types of contracts

Assignment / Questions:
Write a short note on Various types of contracts [CO2]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 45 Duration of Lesson: 1hr

Lesson Title: Discuss the various types of contracts with their merits and demerits

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Classify the Merits and demerits of contracts

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Merits of contracts
- Demerits of contracts

Assignment / Questions:

Classify the Merits and demerits of contracts [CO2]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 46 Duration of Lesson: 1hr

Lesson Title: Contract document and their salient features

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Understand Contract document and their salient features

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Contract document
- Salient features

Assignment / Questions:
Write a short note on Contract document [CO2]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 47 Duration of Lesson: 1hr

Lesson Title: Contract document and their salient features

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Understand Contract document and their salient features

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Contract document
- Salient features

Assignment / Questions:
Write a short note on Contract document [CO2]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 48 Duration of Lesson: 1hr

Lesson Title: Discuss the various conditions of contract

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Illustrate various conditions of contract

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Various conditions of contract

Assignment / Questions:
Write a short note on various conditions of contract [CO2]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 49 Duration of Lesson: 1hr

Lesson Title: Introduction about Valuation of buildings

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Introduction about Valuation of buildings

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Introduction about Valuation of buildings

Assignment / Questions:

Write a short note on Introduction about Valuation of buildings [CO3]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 50 Duration of Lesson: 1hr

Lesson Title: Discuss the various terms involved in Valuation

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Understand the various terms involved in Valuation

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Valuation
- Various terms involved in Valuation

Assignment / Questions:

Discuss various terms involved in Valuation [CO3]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 51 Duration of Lesson: 1hr

Lesson Title: Importance of valuation

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Understand the Importance of valuation

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Importance of valuation

Assignment / Questions:
Write a short note on Importance of valuation [CO3]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 52 Duration of Lesson: 1hr

Lesson Title: Estimate value of building by various methods

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate value of building by various methods

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Methods of valuation

Assignment / Questions:

Discuss various methods involved in valuation of building [CO3]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 53 Duration of Lesson: 1hr

Lesson Title: Estimate the value of building by rental method

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Estimate value of building by Rental methods

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS :

- Methods of valuation

Assignment / Questions:

Discuss various methods involved in valuation of building [CO3]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 54 Duration of Lesson: 1hr

Lesson Title: Fixation of rent for a residential building

INSTRUCTIONAL/LESSON OBJECTIVES:

On completion of this lesson the student shall be able to:
1. Assess the rent of a Residential Building

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Fixation of rent for a residential building

Assignment / Questions:
Problems on Fixing of rent for a residential building [CO4]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 55 Duration of Lesson: 1hr

Lesson Title: Fixation of rent for a commercial building

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Assess the rent of a Commercial Building

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Fixation of rent for a commercial building

Assignment / Questions:
Problems on Fixing of rent for a commercial building [CO4]

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: Dr . G. V. V. SATYANARAYANA / Mr. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Lesson No: 56 Duration of Lesson: 1hr

Lesson Title: Fixation of rent for a office building

INSTRUCTIONAL/LESSON OBJECTIVES:

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

1. Assess the rent of a office Building

TEACHING AIDS : Board, Power point presentation
TEACHING POINTS
:

- Fixation of rent for a office building

Assignment / Questions:
Problems on Fixing of rent for office building [CO4]

Signature of faculty

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

TUTORIAL SHEET - 1

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

This Tutorial corresponds to Unit No. / Lesson: One

1. Differentiate between Abstract Estimate and Detailed Estimate?
2. What are the standard units of measurements for the following works
   (i) Slab concrete (ii) Plastering
   (iii) Tile works (iv) Plumbing
   (v) Cement concrete in foundation (vi) Damp Proof course
   (vii) Wooden Ventilators (viii) Drainage pipes

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

Objective Nos.: 1

Outcome Nos.: 1

Signature of HOD Signature of faculty

Date: Date:

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

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

TUTORIAL SHEET - 2

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

This Tutorial corresponds to Unit No. / Lesson: Two

1. Explain different types of method in earthwork calculation with their limitations

2. The ground levels along the centre line of a proposed road are given below:

Chainage (m)	0	100	200	300	400	500
R L of ground (m)	95	96.5	97.25	98.5	98.75	99

The road is to be formed with uniform formation level at 100 m throughout the length and the width of formation of road is 10 m with side slopes are 2 : 1 in both embankment and cutting. Determine the volume of the earthwork using trapezoidal method. Also draw the longitudinal profile of road and any one cross section.

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

TUTORIAL SHEET - 3

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

This Tutorial corresponds to Unit No. / Lesson: Three

Prepare the rate analysis for
(i) Brick floor 10cm thick surface pointed with cement mortar.
(ii) Brick tile laid in 1:6 cement mortar and surface pointed with 1:2 cement mortar.

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

TUTORIAL SHEET - 4

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

This Tutorial corresponds to Unit No. / Lesson: Four

1. Write a detail note on Tendering Process with a neat sketch [5M]
2. Write a short note on Rights and responsibilities of parties to contracts [5M]
3. List and Explain various types of contracts and Contract Documents in detail

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

TUTORIAL SHEET - 5

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

This Tutorial corresponds to Unit No. / Lesson: Five

1. A three storied building is standing on a plot of landing measurement 1200sq.m. Plinth area of each storey is 600sq.m. the building is of RCC framed structure, and the future life may be taken as 70years. The building fetches a gross rent of Rs 2000 per month. Work out the capitalized value of the property based on 6% net yield. For sinking fund 3% compound interest may be assumed. Cost of the land may be taken as Rs 60 per sq.m (Other data required may be assumed suitably

2. Calculate the standard rent of a government residential building newly constructed from the following data :
   Cost of the land – Rs 10000, Cost of construction of the building = Rs 40000, Cost of Roads within the compound and fencing = Rs 2000, Cost of Sanitary and water supply works = 8% of cost of building, Cost of electric installation including and fans = 10% of cost of building, Municipal House Tax – Rs 400 per annum, Water Tax – Rs 250 per annum, Property Tax – Rs 140 per annum

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

ASSIGNMENT - 1

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

This Tutorial corresponds to Unit No. / Lesson: One

1. Differentiate between Abstract Estimate and Detailed Estimate?
2. What are the standard units of measurements for the following works
   (i) Slab concrete (ii) Plastering
   (iii) Tile works (iv) Plumbing
   (v) Cement concrete in foundation (vi) Damp Proof course
   (vii) Wooden Ventilators (viii) Drainage pipes

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

Objective Nos.: 1

Outcome Nos.: 1

Signature of HOD Signature of faculty

Date: Date:

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

This Tutorial corresponds to Unit No. / Lesson: Two

1. Explain different types of method in earthwork calculation with their limitations

2. The ground levels along the centre line of a proposed road are given below:

Chainage (m)	0	100	200	300	400	500
R L of ground (m)	95	96.5	97.25	98.5	98.75	99

The road is to be formed with uniform formation level at 100 m throughout the length and the width of formation of road is 10 m with side slopes are 2 : 1 in both embankment and cutting. Determine the volume of the earthwork using trapezoidal method. Also draw the longitudinal profile of road and any one cross section.

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

This Tutorial corresponds to Unit No. / Lesson: Three

Prepare the rate analysis for
(i) Brick floor 10cm thick surface pointed with cement mortar.
(ii) Brick tile laid in 1:6 cement mortar and surface pointed with 1:2 cement mortar.

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

This Tutorial corresponds to Unit No. / Lesson: Four

1. Write a detail note on Tendering Process with a neat sketch [5M]
2. Write a short note on Rights and responsibilities of parties to contracts [5M]
3. List and Explain various types of contracts and Contract Documents in detail

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: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

This Tutorial corresponds to Unit No. / Lesson: Five

1. A three storied building is standing on a plot of landing measurement 1200sq.m. Plinth area of each storey is 600sq.m. the building is of RCC framed structure, and the future life may be taken as 70years. The building fetches a gross rent of Rs 2000 per month. Work out the capitalized value of the property based on 6% net yield. For sinking fund 3% compound interest may be assumed. Cost of the land may be taken as Rs 60 per sq.m (Other data required may be assumed suitably

2. Calculate the standard rent of a government residential building newly constructed from the following data :
   Cost of the land – Rs 10000, Cost of construction of the building = Rs 40000, Cost of Roads within the compound and fencing = Rs 2000, Cost of Sanitary and water supply works = 8% of cost of building, Cost of electric installation including and fans = 10% of cost of building, Municipal House Tax – Rs 400 per annum, Water Tax – Rs 250 per annum, Property Tax – Rs 140 per annum

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the Objectives/Outcomes to which these Questions / Problems / Exercises are related.
Objective Nos.: 5
Outcome Nos.: 5

Signature of HOD
Date:

Signature of faculty
Date:

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

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

EVALUATION STRATEGY

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

1. TARGET:

A) Percentage for pass: 98.50 %

b) Percentage of class: 95.48 %

Total Strength: 133

S.No.	Class / Division	No. of Students
1	First Class with distinction	32
2	First Class	34
3	Pass Class	65

2. COURSE PLAN& CONTENT DELIVERY

S.No	Plan	Brief Description
1	Practice classes	56 Theory classes for Section A 51 Theory classes for Section B
3	Assignments	Assignments for solving numerical problems

3. METHOD OF EVALUATION

3.1 Continuous Assessment Examinations

- Assignments: Assignments to assess the knowledge of the student on the basics and concepts in Estimation of Building Quantities, Earthwork Estimations of Embankments, Hill Roads, Culverts, Rate Analysis, Bar Bending Scheduling, Contracts, Tendering and Valuation of Buildings.
- Seminars: To assess the knowledge of the student in Estimation and Costing
- Quiz: To assess the knowledge of the student in various concepts and basics of E&C.
- Internal Examination: Internal Examinations to assess their overall knowledge in E&C.

3.2. Semester/End Examination

To test their abilities in the course Estimation and Costing and to approve their abilities learnt during the same.

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

Introduce Hands on Practice sessions with a case studies.

Signature of HOD Signature of faculty

MAPPING

GR18A4001/ **Estimation and Costing**	**Course Outcomes**				
Course Objectives	1	2	3	4	5
1		X			
2				X	
3	X				
4			X		
5					X

GR18A4001/ **Estimation and Costing**	**Course Outcomes**				
Assessments	1	2	3	4	5
1	X				
2		X			
3			X		
4				X	
5					X

GR18A4001/ **Estimation and Costing**	**Course Objectives**				
Assessments	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	Programme Outcomes													
			a	b	c	d	e	f	g	h	i	j	k	l	PSO1	PSO2
IV Year I Semester																
GR18A4001	E&C	1	M	H	M	H			M			M	M			
		2			M						H		M		M	
		3			M			H	M	M				M	M	M
		4	M			M	M		M		M		M		M	M
		5	M	M		M		M								

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

Program Outcomes / Course Objectives	a	b	c	d	e	f	g	h	i	j	k	l	PSO1	PSO2
1	X					X	X	X	X	X	X	X		
2	X					X	X	X	X	X	X	X	M	
3	X	X		X	X	X	X	X	X	X	X	X	M	M
4	X					X	X	X	X	X	X	X	M	M
5	X					X	X	X	X	X	X	X		

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

RUBRIC TEMPLATE

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

		Beginning	Developing	Reflecting Development	Accomplished	Exemplary	Score
Name of the Student	**Performance Criteria**	**1**	**2**	**3**	**4**	**5**	
18241A0195	Assessment of quantities of various materials	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Handling of Tendering Process	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Assess the value of property	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Estimate rate per unit work	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5
	Valuation of buildings	Low level	Able to understand	Ability to explain	Full knowledge	Thoroughly analyzing & applying	5

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

COURSE COMPLETION STATUS

Academic **Y**ear : 2021 - 22

Semester : I

Name of the Program: B.Tech, Civil Engineering Year: IV year Section: A & B

Course/Subject: Estimation and Costing Course Code: GR18A4001

Name of the Faculty: DR . G. V. V. SATYANARAYANA / MR. AKULA PRAKASH
Dept.: Civil Engineering

Designation: PROFESSOR / ASSISTANT PROFESSOR

Actual Date of Completion & Remarks, if any

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

Signature of HOD Signature of faculty

Date: Date:

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

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

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

Department of Civil Engineering

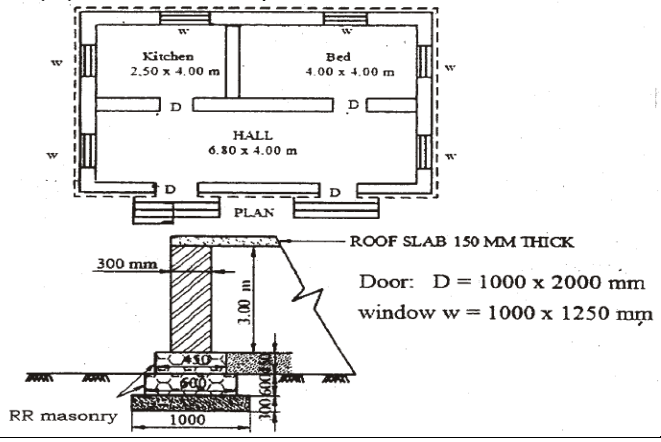
Academic Year: **2021-22** | **I-Mid Term Examination (Descriptive)** | Date: 18/10/2021

Year: IV | **Sub: Estimation and Costing** | Duration: **90 min**

Semester: I | **Code: GR18A4001** | Max Marks: **15**

Answer any Three questions.

All questions carry equal marks.

S. No.	Question	Marks	CO	BL	PI
1. a.	What is quantity surveying and list out their advantages?	3	1	1	2.4.1
1. b.	What are the standard units of measurements for the following works: (i) Cement concrete in foundation (ii) Damp Proof course (iii) Wooden Ventilators (iv) Drainage pipes	2	1	1	1.3.1
2.	Prepare the detailed estimate for the following items of work for the building as shown in the figure (i) RR Masonry in foundation (ii) RCC for roof slab 150 mm thick (iii) Brick work in super structure 	5	1	6	2.4.1
3.	The ground levels along the centre line of a proposed road are given below: Chainage (m): 0, 100, 200, 300, 400, 500 R L of ground (m): 95, 96.5, 97.25, 98.5, 98.75, 99 The road is to be formed with uniform formation level at 100 m throughout the length and the width of formation of road is 10 m with side slopes are 2 : 1 in both embankment and cutting. Determine the volume of the earthwork using trapezoidal method. Also draw the longitudinal profile of road and any one cross section	5	2	6	2.4.1
4.	Explain different types of method in earthwork calculation with their limitations.	5	2	5	1.3.1

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

Department of Civil Engineering

IV B.Tech. I Semester **MID I EXAMINATION** Time: 11.15 AM to 11.45 AM

Subject Code: GR18A4001 **ESTIMATING AND COSTING** Date: 18/10/2021

PART-B

Choose the correct answers **Marks:10 * 0.5 = 5M**

1. In Long and Short wall method of estimation, the length of long wall is the centre to centre distance between the walls and _____ [ ]

A) $\frac{1}{4}$ breadth of wallon each side B) $\frac{1}{2}$ breadth of wall on each side

C) Breadth of the wall D) None of these

2. The concrete work for the following part of the building if thickness is predefined then units of measurement are in sq.m [ ]

A) D.P.C B) Roof Slab C) Flooring D) All of the above

3. The accuracy of measurement in case of linear items of work will be ___ [ ]

A) 0.001 m B) 0.01m C) 0.1 m D) All of the above

4. The approximate estimate of a hospital building based on service unit _____ [ ]

A) Patient B) Doctors C) Bed D) All of the above

5. The correct Prismoidal formula for volume of earthwork is [ ]

A) L[First area + Last area + Σ Even areas + 2 Σ odd areas]

B) $\frac{L}{3}$ [First area + Last area + Σ Even areas + 2 Σ odd areas]

C) $\frac{L}{3}$ [First area + Last area + 4 Σ Even areas + 2 Σ odd areas]

D) $\frac{L}{2}$ [First area + Last area + 4 Σ Even areas + 2 Σ odd areas]

6. The extension of mean area method is known as _____ [ ]

A) Mid area method B) Prismoidal method C) Simpson's rule D) Trapezoidal method

7. The area of a sloping surface (Turfing) for two sides of a protective embankment if mean height d, side slopes (S : 1) and length L is [ ]

A) d x d x s B) 2 L D $\sqrt{(1+D^2}$ C) L D $\sqrt{(1+D^2}$ D) None of the above

8. If B is the width of formation, d is the height of the embankment, side lopes S : 1 for a highway with no transverse slope, then the area of cross section is [ ]

A) [BD + $\frac{L}{2}$ SD^2] B) BD C) [BD + SD^2] D) SD^2

9. If the R.L. of Formation is greater than R.L of ground then earthwork will be in ____ [ ]

A) Banking B) Cutting C) Either in cutting or banking D) None of the above

10. The depth of section at changing point will be [ ]

A) Unity B) Zero C) Either Unity or Zero D) ∝

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

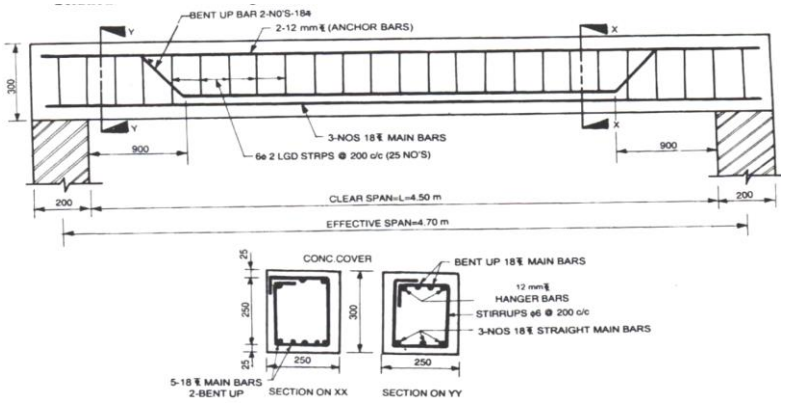
Bachupally, Kukatpally, Hyderabad – 500 090. (040) 6686 4440

Academic Year: **2021-22** | **II-Mid Term Examination (Descriptive)** | Date: 09/12/2021

Year: IV | **Sub: Estimation and Costing** | Duration: **90 min**

Semester: I | **Code: GR18A4001** | Max Marks: **15**

Answer any Three questions.
All questions carry equal marks

S. No.	Question	Marks	CO	BL	PI
1.	Prepare bar bending schedule of a rectangular simply supported RCC beam with the following data: Clear span =4.5m, Width of beam = 250mm, Concrete cover = 25 mm Overall depth of beam = 300mm. Materials: HYSD bars, M20 grade concrete, Main reinf. = 5 Nos -18 mm diameter bars with 2 bars bent up at 900mmfrom inside supports, Anchor/hanger bars= 2-12 mm diameter Stirrups = 6 mm diameter @ 200 mm c/c. 	5	3	6	2.4.1
2 a.	Prepare the rate analysis for Brick floor 10cm thick surface pointed with cement mortar.	2.5	5	6	1.4.1
2 b.	Evaluate different materials required for CC 1:4:8	2.5	5	5	1.4.1
3.	List and Explain various types of contracts and Contract Documents in detail	5	4	4	1.3.1
4 a	List out advantages of Valuation	2.5	3	4	2.3.2
4 b	List out various methods of Depreciation	2.5	3	4	2.1.3

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)
Department of Civil Engineering

IV B.Tech. I Semester **MID II EXAMINATION** Time: 11.05 AM to 10.15 AM
Subject Code: GR18A4001 **ESTIMATING AND COSTING** Date: 19/12/2021
Name of the Student : _____ Roll No : _____

PART-B

Choose the correct answers **Marks:10 * 0.5 = 5M**

1. Rate analysis is a process of deriving rate of unit item from the cost of its--- [ ]
   A) Material Cost B) Equipment Cost C) Labour Cost D) All of the above

2. Usually contractor's profit is taken _____ % for rate analysis of an item [ ]
   A) 5 B) 10 C) 15 D) 20

3. Purpose of rate analysis is to _____ [ ]
   A) To market value of an item B) To determine current rate of an item
   C) To know the quantities of materials required D) To know the types of labour required

4. Hook allowance for HYSD bars for 90° anchorage [ ]
   A) 8 ϕ B) 9 ϕ C) 16 ϕ D) 16 ϕ

5. When contractor is only supplying materials then such contracts are called as _[ ]
   A) Item Rate Contract B) Turn Key Contract
   C) Material supply Contract D) Labour Contract

6. Which of this is not an advantage of Lump-Sum Contract? [ ]
   A) Speed in construction B) Detailed measurement not required
   C) Project cost is already known D) Owner does not require funds to start project

7. A lump-sum contract is also a type of _____ Contract [ ]
   A) Item Rate Contract B) Turn Key Contract C) Cost + contract D) % rate contract

8. The value at the end of the utility period without being dismantled is known as _[ ]
   A) Book Value B) Market value C) Salvage value D) Scrap value

9. Which among the following methods of calculating depreciation involves the study of property in detail and extent of physical deterioration worked out? [ ]
   A) Sinking Fund method C) Straight line method
   B) Constant percentage method D) Quantity survey method

10. The loss of property due to outdated fashion is known as [ ]
    A) Depreciation B) Obsolescence C) Capitalized value D) All of the above

MID-1 MARKS SECTION – A & B

Gokaraju Rangaraju Institute of Engineering & Technology					
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009					
B.Tech Civil Engg. IV Yr-I Sem- Section A- GR18 2021 -22					
Estimation and Costing - MID I MARKS					
S.No	**Reg No**	**Student Name**	**Sub**	**Objective**	**Total**
1	17241A0153	Sujith Kumar Shinde	4	2	6
2	17241A0157	Vuppula Mithunkumar Reddy	3	2	5
3	18241A0101	Ajmeera Ganesh	2.5	3	6
4	18241A0102	Anabotula Sravani	13	3	16
5	18241A0103	Anumatla Manoj	9	4	13
6	18241A0104	Byna Rishitha	5	3	8
7	18241A0105	Bura Tharasri	7	3	10
8	18241A0106	Pudari Badrinath Goud	1	1	2
9	18241A0107	Balasani Rohith	3	2	5
10	18241A0108	Bandari Veeraswamy	11	4	15
11	18241A0109	Bandi Varun Kumar	2	3	5
12	18241A0110	Bashipaka Pradeep	7	3	10
13	18241A0111	Bathula Nikhil	3	2	5
14	18241A0112	Batikiri Veerendra Swamy	7	4	11
15	18241A0113	Bhukya Soujanya	6	4	10
16	18241A0114	Bhukya Varun Naik	12	5	17
17	18241A0115	Boddu Pavan	4	4	8
18	18241A0116	Byagari Rangaraju	4.5	3	8
19	18241A0117	Chada Ruchita	8.5	4	13
20	18241A0118	Chinthakuntla Thriveen	3.5	3	7
21	18241A0119	Cv Jaswanth Surya	3	2	5
22	18241A0120	Dosapati Nishu	5.5	3	9
23	18241A0121	G Prashanth	1.5	4	6
24	18241A0122	Gaddipati Lohitha	9	3	12
25	18241A0123	Gangam Rohit Reddy	0	1	1
26	18241A0124	Gottemukkala Govardhan	5.5	3	9
27	18241A0125	Hrishikesh Bansal	4	2	6
28	18241A0126	Janapati Raju	6	4	10
29	18241A0127	Jyothika Mannava	12	4	16
30	18241A0128	K Harshitha Reddy	0	0	0
31	18241A0129	Kolan Reshikesh Reddy	8.5	3	12
32	18241A0130	Karri Bharath Chandra Reddy	11	4	15
33	18241A0131	Kuppala Nihar	5.5	2	8
34	18241A0132	Kurva Lavanya	11	4	15
35	18241A0133	Maddimsetty Sri Charan	1	4	5
36	18241A0134	Maganoor Manaswini	12	5	17
37	18241A0135	Maloth Bhavsingh	5	2	7

38	18241A0136	Malothu Naveena	16	4	20
39	18241A0137	Manda Ithihas	6	5	11
40	18241A0138	Mohammad Ashfaq Ahmed	11	5	16
41	18241A0139	Mohammed Omer Shareef	10	4	14
42	18241A0140	Mukundu Naveen	0	0	0
43	18241A0141	Nalumasu Sahithi	10	4	14
44	18241A0142	Nampelly Ravi Kumar	9.5	3	13
45	18241A0143	Narra Shashidhar Reddy	9.5	5	15
46	18241A0144	Patlola Vinay Reddy	2	4	6
47	18241A0145	Pattambetty Pavankumar	6	4	10
48	18241A0146	Pola Tharun	7	4	11
49	18241A0147	Posani S V A Kalyan	8	2	10
50	18241A0148	Pulle Manichadra	2	1	3
51	18241A0149	Rajulapati Rohit Naga Sai	12.5	4	17
52	18241A0150	Sura Subbaram Reddy	2.5	4	7
53	18241A0153	Sunkari Vikas	11	4	15
54	18241A0154	Thirupathi Rao Salla	13	4	17
55	18241A0155	Trivikram Reddy	3.5	4	8
56	18241A0156	Thrupti Shreya	10	4	14
57	18241A0157	Vakamalla Bhavya Sree	13	4	17
58	18241A0158	Vemula Manisha	12.5	5	18
59	18241A0159	Vuppula Keerthana	11	4	15
60	18241A0160	Yalla Anitha	12	5	17
61	19245A0101	KANCHERLA BHARATH	13.5	4	18
62	19245A0102	ELUPULA KUMARASWAMY	12	4	16
63	19245A0103	BRAHMADEVARA BHAVITHA	13	5	18
64	19245A0104	DASARI NAMRATHA	13.5	4	18
65	19245A0105	T CHANDANA	12.5	4	17
66	19245A0106	KOLA HARITHA	12	4.5	17

Gokaraju Rangaraju Institute of Engineering & Technology

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

B.Tech Civil Engg. IV Yr-I Sem- Section B - GR18 2021 -22

Estimation and Costing - MID I MARKS

S.No	Reg No	Student Name	Sub	Objective	Total
1	16241A0161	Abdul Samad	5	1	6
2	18241A0161	A Nachiketh	7	2.5	10
3	18241A0162	Aleti Jagadish	4	2.5	7
4	18241A0163	Amirneni Anusha	10	3.5	14
5	18241A0164	Anireddy Avinash	5	4	9
6	18241A0165	Ashitha Golla	10	1.5	12
7	18241A0166	Animesh Baathuk	5	4	9
8	18241A0167	Boppu Lokesh	5	3	8
9	18241A0168	Budagam Harshith	3	3	6
10	18241A0169	Chilumula Sridhar	15	3	18
11	18241A0170	Dandre Vennela	14	3.5	18
12	18241A0171	Doti Upender	10	4	14
13	18241A0172	Eda Manasa	14	4	18
14	18241A0173	Gonda Harshini	15	3	18
15	18241A0174	Gore Kamalakar Sailesh	7	5	12
16	18241A0175	Gore Kamalakar Sandeep	3	1	4
17	18241A0176	Guddati Arun	8	5	13
18	18241A0177	Vijay Narasimha Reddy Kolagtla	4	5	9
19	18241A0178	Kancharakuntla Deepika	14	2.5	17
20	18241A0179	Kota Rashmitha	5	0.5	6
21	18241A0180	Kothuri Pranay	3	2	5
22	18241A0181	Kudala Rama	4	1	5
23	18241A0182	Kummari Srilekha	15	5	20
24	18241A0183	Kunchala Adarsh	5	5	10
25	18241A0184	Kurra Neeraj Prasad	6	3.5	10
26	18241A0185	Kyama Pavan	3	2	5
27	18241A0186	M Shekhar	5	1.5	7
28	18241A0187	Malraj Manvitha	15	5	20
29	18241A0188	Matharasi Sai Kumar	2	2.5	5
30	18241A0189	Md Ameer Sohail	11	2	13
31	18241A0190	Md Amir	8	3	11
32	18241A0191	Medari Vikram Aditya	8	2	10
33	18241A0192	Mediga Karthik	8	2	10
34	18241A0193	Moniesh Reddy Sunkara	4	1.5	6
35	18241A0194	Kaushik Nadella	6	2.5	9
36	18241A0195	Nikhitha Kasuvojula	14	4	18
37	18241A0196	Nunavath Suman	9	3	12
38	18241A0197	P Kishore	2	1.5	4
39	18241A0198	Peesu Spandana Reddy	10	2.5	13

40	18241A0199	Prathyusha Maddala	12	4	16	
41	18241A01A0	Bavanari Pratyush	10	3.5	14	
42	18241A01A1	Putta Rohith	3	2	5	
43	18241A01A2	Rahul Pradhan	10	2.5	13	
44	18241A01A3	Rampelli Pravalika	13	3	16	
45	18241A01A4	Rangu Soniya	8	3	11	
46	18241A01A5	Rentala Adarsh Reddy	9	2.5	12	
47	18241A01A6	Ritish J	4	2.5	7	
48	18241A01A7	Seelam Rahul Goud	2	4	6	
49	18241A01A8	Shaik Afeez	7	3.5	11	
50	18241A01A9	Shaik Shoaib	1	3.5	5	
51	18241A01B0	Shivarathri Sai Kumar	2	1.5	4	
52	18241A01B1	Shivarathri Tharun	3	4	7	
53	18241A01B2	Sowmika Boyapati	9	4	13	
54	18241A01B3	Vishruth Reddy T N	6	2.5	9	
55	18241A01B4	Tekula Prashanth Reddy	3	3.5	7	
56	18241A01B5	Teegala Someshwar Reddy	6	3	9	
57	18241A01B6	Thatipamula Vigna Sai	4	3.5	8	
58	18241A01B7	Thota Sri Sai	9	4.5	14	
59	18241A01B8	Vedati Manikanta Karthik	10	5	15	
60	18241A01B9	Vallapu Reddy Sushrutha	10	4	14	
61	18241A01C0	Yanala Rithish Reddy	5	4	9	
62	19245A0107	CHOUGONI SHIVASHANKAR	12	5	17	
63	19245A0108	KOTA ANVESH	6	4	10	
64	19245A0109	POLAGANI CHANDU GOUD	5	3.5	9	
65	19245A0110	SADGARI KARTHIK	9	3.5	13	
66	19245A0111	GUGULOTHU PAVAN	10	3.5	14	
67	19245A0112	A RAGHAVENDRA	5	3	8	

MID-II MARKS SECTION -A & B

Gokaraju Rangaraju Institute of Engineering & Technology
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

B.Tech Civil Engg. IV Yr-I Sem- Section A- GR18 2021 -22
Estimation and Costing - MID II MARKS

S.No	Reg No	Student Name	Sub	Objective	Total
1	17241A0153	Sujith Kumar Shinde	7	4	11
2	17241A0157	Vuppula Mithunkumar Reddy	4	2	6
3	18241A0101	Ajmeera Ganesh	3	2	5
4	18241A0102	Anabotula Sravani	9	4	13
5	18241A0103	Anumatla Manoj	7	5	12
6	18241A0104	Byna Rishitha	7.5	4	12
7	18241A0105	Bura Tharasri	8	4.5	13
8	18241A0106	Pudari Badrinath Goud	1.5	1.5	3
9	18241A0107	Balasani Rohith	5.5	2	8
10	18241A0108	Bandari Veeraswamy	10	4.5	15
11	18241A0109	Bandi Varun Kumar	1	2.5	4
12	18241A0110	Bashipaka Pradeep	7.5	4	12
13	18241A0111	Bathula Nikhil	4.5	4	9
14	18241A0112	Batikiri Veerendra Swamy	8.5	4	13
15	18241A0113	Bhukya Soujanya	9.5	1.5	11
16	18241A0114	Bhukya Varun Naik	13	4.5	18
17	18241A0115	Boddu Pavan	7.5	3.5	11
18	18241A0116	Byagari Rangaraju	7.5	1.5	9
19	18241A0117	Chada Ruchita	7.5	5	13
20	18241A0118	Chinthakuntla Thriveen	4	4	8
21	18241A0119	Cv Jaswanth Surya	3.5	1.5	5
22	18241A0120	Dosapati Nishu	6.5	2	9
23	18241A0121	G Prashanth	4	1	5
24	18241A0122	Gaddipati Lohitha	9	2	11
25	18241A0123	Gangam Rohit Reddy	4	4	8
26	18241A0124	Gottemukkala Govardhan	6	3	9
27	18241A0125	Hrishikesh Bansal	3.5	1.5	5
28	18241A0126	Janapati Raju	8.5	4.5	13
29	18241A0127	Jyothika Mannava	10	4	14
30	18241A0128	K Harshitha Reddy	7.5	4	12
31	18241A0129	Kolan Reshikesh Reddy	4	4	8
32	18241A0130	Karri Bharath Chandra Reddy	7.5	4	12
33	18241A0131	Kuppala Nihar	9	4.5	14
34	18241A0132	Kurva Lavanya	9	4	13
35	18241A0133	Maddimsetty Sri Charan	3	4	7
36	18241A0134	Maganoor Manaswini	13.5	4.5	18

37	18241A0135	Maloth Bhavsingh	9	2	11
38	18241A0136	Malothu Naveena	12	4.5	17
39	18241A0137	Manda Ithihas	8.5	4.5	13
40	18241A0138	Mohammad Ashfaq Ahmed	8.5	5	14
41	18241A0139	Mohammed Omer Shareef	9	5	14
42	18241A0140	Mukundu Naveen	0	AB	0
43	18241A0141	Nalumasu Sahithi	8	4	12
44	18241A0142	Nampelly Ravi Kumar	11.5	5	17
45	18241A0143	Narra Shashidhar Reddy	10	4.5	15
46	18241A0144	Patlola Vinay Reddy	5	4.5	10
47	18241A0145	Pattambetty Pavankumar	3	5	8
48	18241A0146	Pola Tharun	7.5	5	13
49	18241A0147	Posani S V A Kalyan	6.5	4.5	11
50	18241A0148	Pulle Manichadra	7	4	11
51	18241A0149	Rajulapati Rohit Naga Sai	12	4	16
52	18241A0150	Sura Subbaram Reddy	2	4.5	7
53	18241A0153	Sunkari Vikas	11	5	16
54	18241A0154	Thirupathi Rao Salla	11	4.5	16
55	18241A0155	Trivikram Reddy	5	5	10
56	18241A0156	Thrupti Shreya	6	5	11
57	18241A0157	Vakamalla Bhavya Sree	10	5	15
58	18241A0158	Vemula Manisha	7.5	5	13
59	18241A0159	Vuppula Keerthana	10	4.5	15
60	18241A0160	Yalla Anitha	9	4.5	14
61	19245A0101	KANCHERLA BHARATH	9.5	5	15
62	19245A0102	ELUPULA KUMARASWAMY	10	3.5	14
63	19245A0103	BRAHMADEVARA BHAVITHA	13.5	5	19
64	19245A0104	DASARI NAMRATHA	12	3	15
65	19245A0105	T CHANDANA	13	3	16
66	19245A0106	KOLA HARITHA	10	3	13

Gokaraju Rangaraju Institute of Engineering & Technology
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009
B.Tech Civil Engg. IV Yr-I Sem- Section B - GR18 2021 -22
Estimation and Costing - MID II MARKS

S.No	Reg No	Student Name	Sub	Objective	Total
1	16241A0161	Abdul Samad	2	4.5	7
2	18241A0161	A Nachiketh	7	4	11
3	18241A0162	Aleti Jagadish	8	4	12
4	18241A0163	Amirneni Anusha	12	3.5	16
5	18241A0164	Anireddy Avinash	7	3	10
6	18241A0165	Ashitha Golla	7	4.5	12
7	18241A0166	Animesh Baathuk	5	4.5	10
8	18241A0167	Boppu Lokesh	6	4	10
9	18241A0168	Budagam Harshith	3	3	6
10	18241A0169	Chilumula Sridhar	4	5	9
11	18241A0170	Dandre Vennela	9	2.5	12
12	18241A0171	Doti Upender	8	3.5	12
13	18241A0172	Eda Manasa	11	4	15
14	18241A0173	Gonda Harshini	15	4	19
15	18241A0174	Gore Kamalakar Sailesh	5	3	8
16	18241A0175	Gore Kamalakar Sandeep	6	3	9
17	18241A0176	Guddati Arun	6	2.5	9
18	18241A0177	Vijay Narasimha Reddy Kolagtla	4	3.5	8
19	18241A0178	Kancharakuntla Deepika	8	4.5	13
20	18241A0179	Kota Rashmitha	3	2.5	6
21	18241A0180	Kothuri Pranay	7	2.5	10
22	18241A0181	Kudala Rama	10	3.5	14
23	18241A0182	Kummari Srilekha	10	4.5	15
24	18241A0183	Kunchala Adarsh	7	1.5	9
25	18241A0184	Kurra Neeraj Prasad	7	4.5	12
26	18241A0185	Kyama Pavan	4	1.5	6
27	18241A0186	M Shekhar	7	2	9
28	18241A0187	Malraj Manvitha	13	4.5	18
29	18241A0188	Matharasi Sai Kumar	10	4	14
30	18241A0189	Md Ameer Sohail	12	4	16
31	18241A0190	Md Amir	10	2	12
32	18241A0191	Medari Vikram Aditya	7	2.5	10
33	18241A0192	Mediga Karthik	13	3.5	17
34	18241A0193	Moniesh Reddy Sunkara	4	2.5	7
35	18241A0194	Kaushik Nadella	6	4	10
36	18241A0195	Nikhitha Kasuvojula	15	4	19
37	18241A0196	Nunavath Suman	8	3.5	12
38	18241A0197	P Kishore	4	0.5	5
39	18241A0198	Peesu Spandana Reddy	10	2.5	13
40	18241A0199	Prathyusha Maddala	12	4.5	17

41	18241A01A0	Bavanari Pratyush	7	4	11
42	18241A01A1	Putta Rohith	8	4	12
43	18241A01A2	Rahul Pradhan	11	5	16
44	18241A01A3	Rampelli Pravalika	10	4	14
45	18241A01A4	Rangu Soniya	8	4.5	13
46	18241A01A5	Rentala Adarsh Reddy	11	4	15
47	18241A01A6	Ritish J	9	4	13
48	18241A01A7	Seelam Rahul Goud	7	4	11
49	18241A01A8	Shaik Afeez	8	4.5	13
50	18241A01A9	Shaik Shoaib	5	4.5	10
51	18241A01B0	Shivarathri Sai Kumar	4	1	5
52	18241A01B1	Shivarathri Tharun	5	4	9
53	18241A01B2	Sowmika Boyapati	8	5	13
54	18241A01B3	Vishruth Reddy T N	8	4	12
55	18241A01B4	Tekula Prashanth Reddy	8	4.5	13
56	18241A01B5	Teegala Someshwar Reddy	8	4.5	13
57	18241A01B6	Thatipamula Vigna Sai	7	4.5	12
58	18241A01B7	Thota Sri Sai	8	4.5	13
59	18241A01B8	Vedati Manikanta Karthik	7	4.5	12
60	18241A01B9	Vallapu Reddy Sushrutha	10	5	15
61	18241A01C0	Yanala Rithish Reddy	9	4	13
62	19245A0107	CHOUGONI SHIVASHANKAR	5	2	7
63	19245A0108	KOTA ANVESH	10	4	14
64	19245A0109	POLAGANI CHANDU GOUD	11	4	15
65	19245A0110	SADGARI KARTHIK	11	2.5	14
66	19245A0111	GUGULOTHU PAVAN	10	3	13
67	19245A0112	A RAGHAVENDRA	6	3.5	10

Gokaraju Rangaraju Institute of Engineering & Technology
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009
B.Tech Civil Engg. IV Yr-I Sem- Section A- GR18 2021 -22
Estimation and Costing - Overall Marks

Roll Number	Student Name	MID I (20)	MID II(20)	AVERAGE	Tutorial (5)	Assessment (5)	TOTAL (30)
17241A0153	Sujith Kumar Shinde	6	11	9	5	5	19
17241A0157	Vuppula Mithunkumar Reddy	5	6	6	5	5	16
18241A0101	Ajmeera Ganesh	6	5	6	5	5	16
18241A0102	Anabotula Sravani	16	13	15	5	5	25
18241A0103	Anumatla Manoj	13	12	13	5	5	23
18241A0104	Byna Rishitha	8	12	10	5	5	20
18241A0105	Bura Tharasri	10	13	12	5	5	22
18241A0106	Pudari Badrinath Goud	2	3	3	5	5	13
18241A0107	Balasani Rohith	5	8	7	5	5	17
18241A0108	Bandari Veeraswamy	15	15	15	5	5	25
18241A0109	Bandi Varun Kumar	5	4	5	5	5	15
18241A0110	Bashipaka Pradeep	10	12	11	5	5	21
18241A0111	Bathula Nikhil	5	9	7	5	5	17
18241A0112	Batikiri Veerendra Swamy	11	13	12	5	5	22
18241A0113	Bhukya Soujanya	10	11	11	5	5	21
18241A0114	Bhukya Varun Naik	17	18	18	5	5	28
18241A0115	Boddu Pavan	8	11	10	5	5	20
18241A0116	Byagari Rangaraju	8	9	9	5	5	19
18241A0117	Chada Ruchita	13	13	13	5	5	23
18241A0118	Chinthakuntla Thriveen	7	8	8	5	5	18
18241A0119	Cv Jaswanth Surya	5	5	5	5	5	15
18241A0120	Dosapati Nishu	9	9	9	5	5	19
18241A0121	G Prashanth	6	5	6	5	5	16
18241A0122	Gaddipati Lohitha	12	11	12	5	5	22
18241A0123	Gangam Rohit Reddy	1	8	5	5	5	15
18241A0124	Gottemukkala Govardhan	9	9	9	5	5	19
18241A0125	Hrishikesh Bansal	6	5	6	5	5	16
18241A0126	Janapati Raju	10	13	12	5	5	22
18241A0127	Jyothika Mannava	16	14	15	5	5	25
18241A0128	K Harshitha Reddy	0	12	6	5	5	16
18241A0129	Kolan Reshikesh Reddy	12	8	10	5	5	20
18241A0130	Karri Bharath Chandra	15	12	14	5	5	24

	Reddy						
18241A0131	Kuppala Nihar	8	14	11	5	5	21
18241A0132	Kurva Lavanya	15	13	14	5	5	24
18241A0133	Maddimsetty Sri Charan	5	7	6	5	5	16
18241A0134	MagaPor Manaswini	17	18	18	5	5	28
18241A0135	Maloth Bhavsingh	7	11	9	5	5	19
18241A0136	Malothu Naveena	20	17	19	5	5	29
18241A0137	Manda Ithihas	11	13	12	5	5	22
18241A0138	Mohammad Ashfaq Ahmed	16	14	15	5	5	25
18241A0139	Mohammed Omer Shareef	14	14	14	5	5	24
18241A0140	Mukundu Naveen	0	0	0	0	0	0
18241A0141	Nalumasu Sahithi	14	12	13	5	5	23
18241A0142	Nampelly Ravi Kumar	13	17	15	5	5	25
18241A0143	Narra Shashidhar Reddy	15	15	15	5	5	25
18241A0144	Patlola Vinay Reddy	6	10	8	5	5	18
18241A0145	Pattambetty Pavankumar	10	8	9	5	5	19
18241A0146	Pola Tharun	11	13	12	5	5	22
18241A0147	Posani S V A Kalyan	10	11	11	5	5	21
18241A0148	Pulle Manichadra	3	11	7	5	5	17
18241A0149	Rajulapati Rohit Naga Sai	17	16	17	5	5	27
18241A0150	Sura Subbaram Reddy	7	7	7	5	5	17
18241A0153	Sunkari Vikas	15	16	16	5	5	26
18241A0154	Thirupathi Rao Salla	17	16	17	5	5	27
18241A0155	Trivikram Reddy	8	10	9	5	5	19
18241A0156	Thrupti Shreya	14	11	13	5	5	23
18241A0157	Vakamalla Bhavya Sree	17	15	16	5	5	26
18241A0158	Vemula Manisha	18	13	16	5	5	26
18241A0159	Vuppula Keerthana	15	15	15	5	5	25
18241A0160	Yalla Anitha	17	14	16	5	5	26
19245A0101	KANCHERLA BHARATH	18	15	17	5	5	27
19245A0102	ELUPULA KUMARASWAMY	16	14	15	5	5	25
19245A0103	BRAHMADEVARA BHAVITHA	18	19	19	5	5	29
19245A0104	DASARI NAMRATHA	18	15	17	5	5	27
19245A0105	T CHANDANA	17	16	17	5	5	27
19245A0106	KOLA HARITHA	17	13	15	5	5	25

Gokaraju Rangaraju Institute of Engineering & Technology
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009
B.Tech Civil Engg. IV Yr-I Sem- Section B- GR18 2021 -22
Estimation and Costing - Overall Marks

Roll Number	Student Name	MID I (20)	MID II(20)	AVERAGE	Tutorial (5)	Assessment (5)	TOTAL (30)
16241A0161	Abdul Samad	6	7	7	5	5	17
18241A0161	A Nachiketh	10	11	11	5	5	21
18241A0162	Aleti Jagadish	7	12	10	5	5	20
18241A0163	Amirneni Anusha	14	16	15	5	5	25
18241A0164	Anireddy Avinash	9	10	10	5	5	20
18241A0165	Ashitha Golla	12	12	12	5	5	22
18241A0166	Animesh Baathuk	9	10	10	5	5	20
18241A0167	Boppu Lokesh	8	10	9	5	5	19
18241A0168	Budagam Harshith	6	6	6	5	5	16
18241A0169	Chilumula Sridhar	18	9	14	5	5	24
18241A0170	Dandre Vennela	18	12	15	5	5	25
18241A0171	Doti Upender	14	12	13	5	5	23
18241A0172	Eda Manasa	18	15	17	5	5	27
18241A0173	Gonda Harshini	18	19	19	5	5	29
18241A0174	Gore Kamalakar Sailesh	12	8	10	5	5	20
18241A0175	Gore Kamalakar Sandeep	4	9	7	5	5	17
18241A0176	Guddati Arun	13	9	11	5	5	21
18241A0177	Vijay Narasimha Reddy Kolagtla	9	8	9	5	5	19
18241A0178	Kancharakuntla Deepika	17	13	15	5	5	25
18241A0179	Kota Rashmitha	6	6	6	5	5	16
18241A0180	Kothuri Pranay	5	10	8	5	5	18
18241A0181	Kudala Rama	5	14	10	5	5	20
18241A0182	Kummari Srilekha	20	15	18	5	5	28
18241A0183	Kunchala Adarsh	10	9	10	5	5	20
18241A0184	Kurra Neeraj Prasad	10	12	11	5	5	21
18241A0185	Kyama Pavan	5	6	6	5	5	16
18241A0186	M Shekhar	7	9	8	5	5	18
18241A0187	Malraj Manvitha	20	18	19	5	5	29
18241A0188	Matharasi Sai Kumar	5	14	10	5	5	20
18241A0189	Md Ameer Sohail	13	16	15	5	5	25
18241A0190	Md Amir	11	12	12	5	5	22
18241A0191	Medari Vikram Aditya	10	10	10	5	5	20
18241A0192	Mediga Karthik	10	17	14	5	5	24
18241A0193	Moniesh Reddy Sunkara	6	7	7	5	5	17
18241A0194	Kaushik Nadella	9	10	10	5	5	20
18241A0195	Nikhitha Kasuvojula	18	19	19	5	5	29
18241A0196	Nunavath Suman	12	12	12	5	5	22
18241A0197	P Kishore	4	5	5	5	5	15

18241A0198	Peesu Spandana Reddy	13	13	13	5	5	23
18241A0199	Prathyusha Maddala	16	17	17	5	5	27
18241A01A0	Bavanari Pratyush	14	11	13	5	5	23
18241A01A1	Putta Rohith	5	12	9	5	5	19
18241A01A2	Rahul Pradhan	13	16	15	5	5	25
18241A01A3	Rampelli Pravalika	16	14	15	5	5	25
18241A01A4	Rangu Soniya	11	13	12	5	5	22
18241A01A5	Rentala Adarsh Reddy	12	15	14	5	5	24
18241A01A6	Ritish J	7	13	10	5	5	20
18241A01A7	Seelam Rahul Goud	6	11	9	5	5	19
18241A01A8	Shaik Afeez	11	13	12	5	5	22
18241A01A9	Shaik Shoaib	5	10	8	5	5	18
18241A01B0	Shivarathri Sai Kumar	4	5	5	5	5	15
18241A01B1	Shivarathri Tharun	7	9	8	5	5	18
18241A01B2	Sowmika Boyapati	13	13	13	5	5	23
18241A01B3	Vishruth Reddy T N	9	12	11	5	5	21
18241A01B4	Tekula Prashanth Reddy	7	13	10	5	5	20
18241A01B5	Teegala Someshwar Reddy	9	13	11	5	5	21
18241A01B6	Thatipamula Vigna Sai	8	12	10	5	5	20
18241A01B7	Thota Sri Sai	14	13	14	5	5	24
18241A01B8	Vedati Manikanta Karthik	15	12	14	5	5	24
18241A01B9	Vallapu Reddy Sushrutha	14	15	15	5	5	25
18241A01C0	Yanala Rithish Reddy	9	13	11	5	5	21
19245A0107	CHOUGONI SHIVASHANKAR	17	7	12	5	5	22
19245A0108	KOTA ANVESH	10	14	12	5	5	22
19245A0109	POLAGANI CHANDU GOUD	9	15	12	5	5	22
19245A0110	SADGARI KARTHIK	13	14	14	5	5	24
19245A0111	GUGULOTHU PAVAN	14	13	14	5	5	24
19245A0112	A RAGHAVENDRA	8	10	9	5	5	19

SAMPLE ANSWER SCRIPTS (MID -I)

Gokaraju Rangaraju Institute of Engineering & Technology
(Autonomous College Affiliated to JNTUH) (12 Pages)
Bachupally, Kukatpally, Hyderabad - 500090

I | II MID TERM EXAMINATION

No. 375511 H.T. No. 1 8 2 4 1 A 0 1 2 2

Name of the Examination IV B.tech I Sem Mid I

Course Estimating & Costing Branch Civil Date 15-10-2021

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

Sol) Given formation level = 100m formation width = b = 10m

side slopes = n:1 = 2:1

Chainage (m)	RL of ground (m)	RL of formation (m)	Depth d (m)	Area (m²) bd + nd²	Length (m)
0	95	100	5	100	100
100	96.5	100	3.5	59.5	100
200	97.25	100	2.75	42.63	100
300	98.5	100	1.5	19.5	100
400	98.75	100	1.25	15.63	100
500	99	100	1	12	100

Scanned with CamScanner

Trapezoidal Method

Volume of earthwork $= L\left(\frac{A_1+A_n}{2} + A_2+A_3+A_4+\text{----}\right)$

Here $L = 100\,m$ $A_1 = 100\,m^2$ $A_2 = 59.5\,m^2$ $A_3 = 42.63\,m^2$ $A_4 = 19.5\,m^2$ $A_5 = 15.63\,m^2$

$A_6 = 12\,m^2$

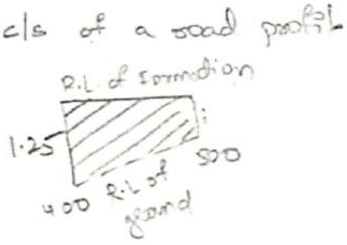
Volume of earthwork $= 100\left(\frac{100+12}{2} + 59.5 + 42.63 + 19.5 + 15.63\right)$

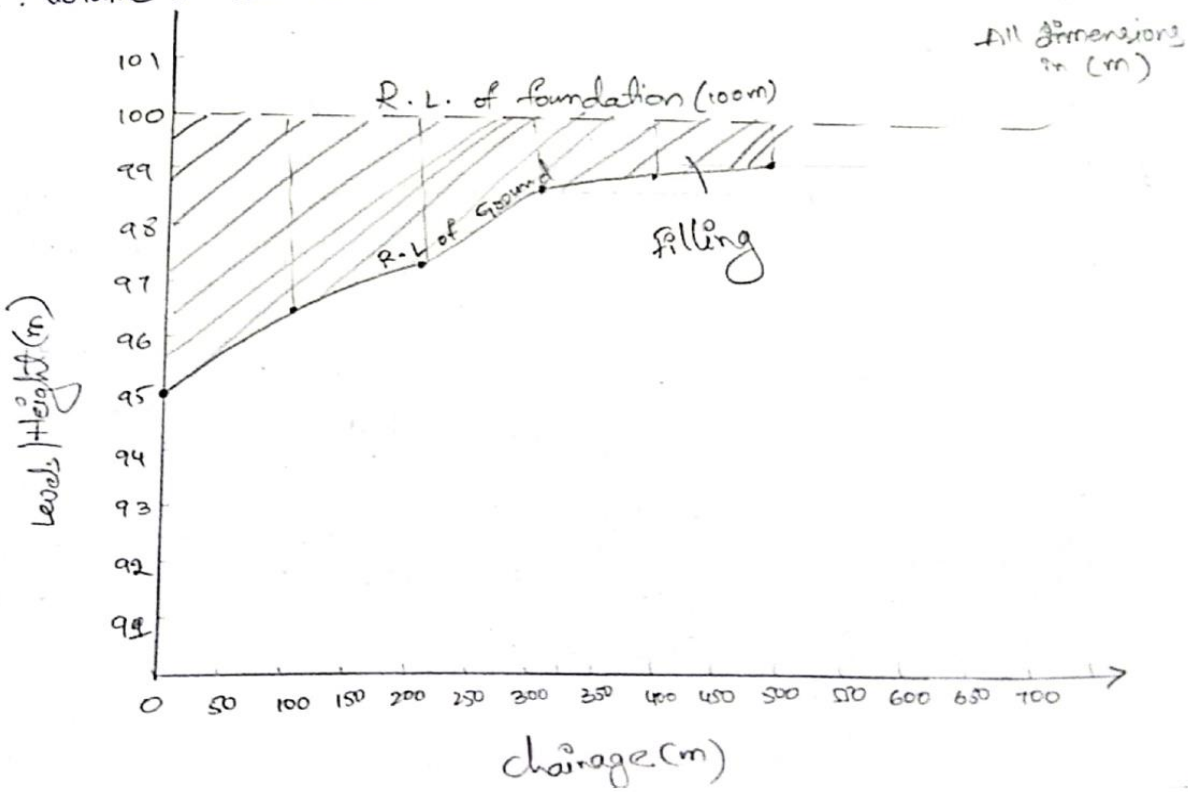
$= 100\,(56 + 137.26)$

$= 100 \times 193.26$

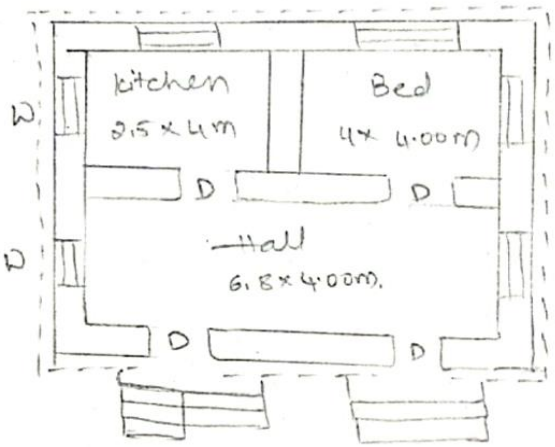
$= 19326\,m^3$

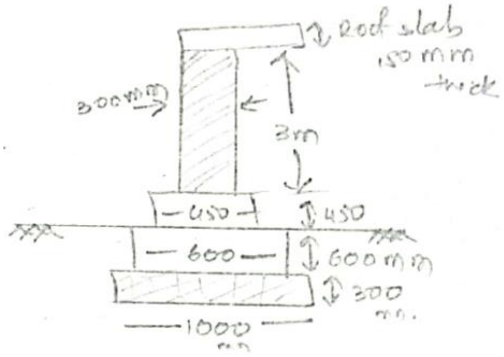
$\therefore$ Volume of earthwork $= 19326\,m^3$.





2301





Given D = 1000 × 2000 mm

W = 1000 × 1200 mm

Long wall & short wall method

c/c of Long wall = $\frac{0.3}{2} + 6.8 + \frac{0.3}{2} = 8.3$m

c/c of short wall = $\frac{0.3}{2} + 6.8 + \frac{0.3}{2} = 7.1$m

X Long / W Description		Length (m)	Breadth (m)	Height (m)	No's	Quantity (m³)	Remarks
Earthwork in Excavation.	(LW)	8.4	01	0.9	2	~~3.888~~ 25.38	$\frac{0.1}{2} + 8.3 + \frac{0.1}{2} = 8.4$
	SW	6.1	01	0.9	2.	1.26	$7.1 - \frac{0.1}{2} - \frac{0.1}{2} = 6.1$
					Total	3528	
R.R masonry in foundation	LW	8.4	01	0.3	3	0.756	$\frac{0.1}{2} + 8.3 + \frac{0.1}{2} = 8.4$
	SW	6.1	01	0.3	2	0.42	$7.1 - \frac{0.1}{2} - \frac{0.1}{2} = 6.1$
					Total	1.176	

Description		Length (m)	Breadth (m)	Height (m)	No's	Quantity (m^3)	Remarks
1st footing Earthwork in excavation	LW	9.4	1	0.9	3	25.38	$\frac{0.6}{2}+8.4+\frac{0.6}{2}=9.4$
	SW	6.1	1	0.9	2	16.92	$7.1-\frac{1}{2}-\frac{1}{2}=6.1$
					Total	42.3	
R.R masonry in foundation	LW	9.4	1	0.3	3	8.46	$\frac{1}{2}+8.4+\frac{1}{2}=9.4$
	SW	6.1	1	0.3	2	3.66	$7.1-\frac{1}{2}-\frac{1}{2}=6.1$
					Total	12.12	
1st footing	LW	9	0.6	0.6	3	9.72	$\frac{0.6}{2}+8.4+\frac{0.6}{2}=9$
	SW	6.5	0.6	0.6	2	4.68	$7.1-\frac{0.6}{2}-\frac{0.6}{2}=6.5$
					Total	14.4	
Plinth level	LW	7.95	0.45	0.45	3	4.83	$\frac{0.45}{2}+8.4+\frac{0.45}{2}=7.95$
	SW	6.65	0.45	0.45	2	2.69	$9.4-\frac{0.45}{2}-\frac{0.45}{2}=6.65$
					Total	7.52	
Filling		Total excavation - (masonry + footing) = 42.3 − (12.12 + 14.4) = 15.78 m^3					
Brick masonry in super structure	LW	8.7	0.3	3	3	23.49	$\frac{0.3}{2}+8.4+\frac{0.3}{2}=8.7$
	SW	6.8	0.3	3	2	12.24	$7.1-\frac{0.3}{2}-\frac{0.3}{2}=6.8$
					Total	35.73	
RCC for roof slab 100mm thick	LW	8.7	0.3	–	3	7.83	
	SW	6.8	0.3	–	2	4.08	
					Total	11.91	

Description	Length (m)	Breadth (m)	Height (m)	No's	Quantity	Remarks
Deductions						
Door	1	0.3	2	4	2.4	
Windows	1	0.3	1.25	6	2.25	
				Total	4.65	

Brick work = $35.73 - 4.65 = 31.08 m^3$

4 Ans The various methods of earthwork are

(i) Mid sectional method

(ii) Mean sectional area method

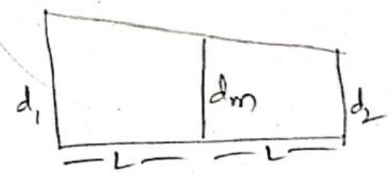
(iii) Trapezoidal method

(iv) Prismoidal (or) Simpson's method.

Mid sectional / Mid ordinate / Mean depth method.

This method is the traditional method; Here, we calculate the mean depths of the section & then area of the section.

Volume of the item = mean depth area × length



Mean depth area = $bd_m + nd_m^2$

where b = formation width

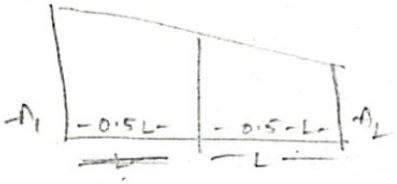
$d_m = \frac{d_1 + d_2}{2}$

n = side slope

Limitations - Easy but calculations are long.
Time taking process.

Mean Sectional area method.

Here, we consider mean (or) average of two sections



Volume of earthwork = mean area of section × length b/w sections

$$\text{Mean area} = \frac{A_1 + A_2}{2}$$

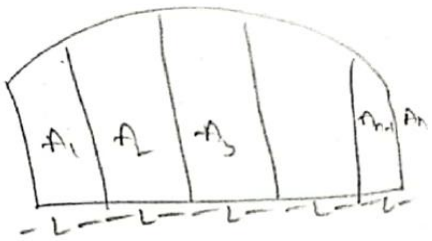
$A_1 = bd_1 + nd_1^2$

$A_2 = bd_2 + nd_2^2$

Limitations - Time taking process
slopes are given and not considering even (or) odd numbers

Trapezoidal Method

It is the extension of the mean sectional area method.



$$\text{Volume} = L\left(\frac{A_1 + A_n}{2} + A_2 + A_3 \cdots + A_{n-1}\right)$$

L = length between the sections

$A_1, A_2 \ldots$ = Area of sections.

It can be used for any section with even (or) odd sections.

Accurate.

$A = bd^0 + nd^2$

Prismoidal Method.

Vol of item $= \frac{L}{6}(A_1 + 4A_m + A_2)$

If the mean depth (or) area between any two sections is considered.

Vol of item/work $= \frac{L}{3}\left((A_1 + A_n) + 4(\text{even values}) + 2(\text{odd values})\right)$

This formula is used for number of areas given.

This is most commonly used method for accuracy.

K. Sailekha
18241A0182

8

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

Department of Civil Engineering

IV B.Tech. I Semester | **MID I EXAMINATION** | Time: 11.15 AM to 11.45 AM

Subject Code: GR18A4001 | **ESTIMATING AND COSTING** | Date: 18/10/2021

PART-B

Choose the correct answers **Marks: 10 * 0.5 = 5M**

1. In Long and Short wall method of estimation, the length of long wall is the centre to centre distance between the walls and _____ [B]
   A) $\frac{1}{4}$ breadth of wallon each side B) $\frac{1}{2}$ breadth of wall on each side
   C) Breadth of the wall D) None of these

2. The concrete work for the following part of the building if thickness is predefined then units of measurement are in sq.m [D]
   A) D.P.C B) Roof Slab C) Flooring D) All of the above

3. The accuracy of measurement in case of linear items of work will be ___ [B]
   A) 0.001 m B) 0.01m C) 0.1 m D) All of the above

4. The approximate estimate of a hospital building based on service unit _____ [C]
   A) Patient B) Doctors C) Bed D) All of the above

5. The correct Prismoidal formula for volume of earthwork is [C]
   A) L[First area + Last area + Σ Even areas + 2 Σ odd areas]
   B) $\frac{L}{3}$[First area + Last area + Σ Even areas + 2 Σ odd areas]
   C) $\frac{L}{3}$[First area + Last area + 4 Σ Even areas + 2 Σ odd areas]
   D) $\frac{L}{2}$[First area + Last area + 4 Σ Even areas + 2 Σ odd areas]

6. The extension of mean area method is known as _____ [D]
   A) Mid area method B) Prismoidal method C) Simpson's rule D) Trapezoidal method

7. The area of a sloping surface (Turfing) for two sides of a protective embankment if mean height d, side slopes (S : 1) and length L is [B]
   A) d x d x s B) 2 L D $\sqrt{(1+D^2}$ C) L D $\sqrt{(1+D^2}$ D) None of the above

8. If B is the width of formation, d is the height of the embankment, side lopes S : 1 for a highway with no transverse slope, then the area of cross section is [C]
   A) [BD + $\frac{L}{2}$ SD^2] B) BD C) [BD + SD^2] D) SD^2

9. If the R.L. of Formation is greater than R.L of ground then earthwork will be in ____ [A]
   A) Banking B) Cutting C) Either in cutting or banking D) None of the above

10. The depth of section at changing point will be [B]
    A) Unity B) Zero C) Either Unity or Zero D) ∞

Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous College Affiliated to JNTUH) (12 Pages)

Bachupally, Kukatpally, Hyderabad - 500090

Dharsh.

I	II	MID TERM EXAMINATION

No. 375512

H.T. No.	1	8	2	4	1	A	0	1	8	3

Name of the Examination IV^th B-tech I-SEMESTER MID I Examinations

Course B Tech Branch Civil Engineering Date 18/10/2021

ESTIMATION AND COSTING Signature of the Invigilator

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

START WRITING FROM HERE

1). a) Quantity Surveying

It is the brief Estimation of the goods and Materials that are Required for the construction of the given project.

The Advantage of Quantity Surveying is.

It Gives us the Estimation of the Goods and Materials that are Required for the construction of the project so that we may have cost analysis (or) Estimation of cost.

so that we can have the proper cost of the given budget

and also it helps us to Arrangement of project because when we know the quantity of goods required then we can have the required quantity of goods in Advance so that we can have time and time management and we can finish the project quickly.

b). Standard Measurements of the following works.

(i) Cement Concrete in foundations
this is generally measured in m^3.
The least probable measurement is $0.01 m^3$.

(ii). Damp proof course.
this is generally measured in m^2
the least probable measurement is $0.01 m^2$

(iii). wooden ventilators.
this is generally measured in m^2
the least probable measurement is $0.01 m^2$

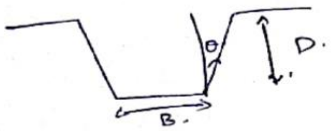
(iv) Drainage pipe.

This is generally measured in m.

The least probable measurement is 0.1m.

4). Different types of Method in earthwork calculation.

Drawing :- It gives us some estimation and planning regarding the earthworks.



Earth work.

B = Breadth.

D = Depth.

θ is called the slope.

It is also denoted by S.

The formulae for calculating the embankment is given by

$$BD+SD^2$$

where S is slope.

It does not gives us the accurate value But it attempt to get a estimated value.

By general method it gives us the estimated values just by predicting the quantity required by just seeing the earthwork.

for example when we know the breadth and depth then we just predict that for 1 m² we require 100 kg of cement etc.

18241A0183
K. Adarsh.

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

Department of Civil Engineering

IV B.Tech. I Semester | MID I EXAMINATION | Time: 11.15 AM to 11.45 AM

Subject Code: GR18A4001 | ESTIMATING AND COSTING | Date: 18/10/2021

PART-B

Choose the correct answers **Marks:10 * 0.5 = 5M**

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   C) $\frac{L}{3}$ [First area + Last area + 4 Σ Even areas + 2 Σ odd areas]
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   A) [$BD + \frac{L}{2} SD^2$] B) BD C) [$BD + SD^2$] D) SD^2

9. If the R.L. of Formation is greater than R.L of ground then earthwork will be in ____ [A]
   A) Banking B) Cutting C) Either in cutting or banking D) None of the above

10. The depth of section at changing point will be [B]
    A) Unity B) Zero C) Either Unity or Zero D) ∝

Rama

Gokaraju Rangaraju Institute of Engineering & Technology
(Autonomous College Affiliated to JNTUH) (12 Pages)
Bachupally, Kukatpally, Hyderabad - 500090

I	II	MID TERM EXAMINATION

No. 375510

H.T. No.	1	8	2	4	1	A	0	1	8	1

Name of the Examination I - Mid Exam Estimation & Costing

Course IV B. Tech 1st Sem Branch Civil Date 18/10/2021

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	1				1		2						4

START WRITING FROM HERE

4 Different types of method in Earthwork Calculation with their limitations :-

Earthwork :- It can be divided into different item of work such as Earthwork, foundation, brickworks etc. It can be done by (length x breadth). Earthwork plays a major role in every starting stage of Construction field. We should be very clear about this while doing.

It can be further divided into sub types

They are :- i) Earth work
ii) Degree in foundation.
iii) Soling
iv) Degree of accuracy in Estimation

ii) Degree in foundation :- It can be done by basic of the construction. In construction part foundation plays a central role comparing with al

→ It can be calculated by using (length x breadth x thickness).

→ The thickness of the concrete is 20cm x 45cm x 30cm).

→ The ratio of the concrete should be 1:4:8 (or) 1:5:10.

iii) Soling :- It is done by the help of (length x breadth). It is very Easy process Comparing with All other process.

→ It can be Easily done by the help of (l x b).

→ Calculations are very important and Easy in this stage.

→ Most of the item works are Easily available in this stage.

iv) Degree of accuracy in estimation :-

→ It can be done with the help of (l x b) as normal as it is.

→ The accuracy should be correct percent

→ The accuracy of the concrete should be less than its plasticity otherwise it may leads to break.

* Limitations :-

→ This method is very Easy to Calculate.

→ This method is suitable to all types of works.

→ This method is little bit time taking Process.

(a) Quantity Surveying :- It is a surveying which can be done by using quantities of the item then it is called Quanti-ty Surveying.

Advantages :-

→ Quantity surveying is a very process to understand as well as to calculate the readings.

→ Very Easy to understand the concept to the people.

→ By doing Quantity Surveying it is very easy to understand the Surveying Concepts.

→ It will helps to easily recognise the Concepts and terminology.

→ Once we understand the concept we can easily do any type of problems.

———— * ————

3 Cost of Estimation can be divided into 2 types.

They are :- 1) long & short wall Estimation
a) Out to out &
in to in wall Estimate
(or) individual wall.
2) Centre line

Centre line :-

→ Centre line is very Easy and accuracy Calculation.

→ Should be careful about junctions.

→ The accuracy of Centre line of rooms are accurate.

The line of item (N) = $L' - N(0.5 * B)$

N = Total no. of items

B = width or breadth of works items.

TOtal quantity of centre line :-

$1 \times l \times b \times h$.

* Its limitations :-

→ It is suitable for all types of walls dissimilar also.

→ But Carefull about the long & short wall Estimation.

→ This method is very easy to understand.

Sl. No	No. of junctions	No. of junctions say (S)
1		0
2		2
3		6

18241A0181
K. Ramu

1

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

Department of Civil Engineering

IV B.Tech. I Semester | **MID I EXAMINATION** | Time: 11.15 AM to 11.45 AM

Subject Code: GR18A4001 | **ESTIMATING AND COSTING** | Date: 18/10/2021

PART-B

Choose the correct answers

Marks:10 * 0.5 = 5M

1. In Long and Short wall method of estimation, the length of long wall is the centre to centre distance between the walls and ______ [d]
   A) $\frac{1}{4}$ breadth of wallon each side   B) $\frac{1}{2}$ breadth of wall on each side
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2. The concrete work for the following part of the building if thickness is predefined then units of measurement are in sq.m [d]
   A) D.P.C   B) Roof Slab   C) Flooring   D) All of the above

3. The accuracy of measurement in case of linear items of work will be ___ [d]
   A) 0.001 m   B) 0.01m   C) 0.1 m   D) All of the above

4. The approximate estimate of a hospital building based on service unit ______ [d]
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   B) $\frac{L}{3}$ [First area + Last area + Σ Even areas + 2 Σ odd areas]
   C) $\frac{L}{3}$ [First area + Last area + 4 Σ Even areas + 2 Σ odd areas]
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6. The extension of mean area method is known as ________ [b]
   A) Mid area method   B) Prismoidal method   C) Simpson's rule   D) Trapezoidal method

7. The area of a sloping surface (Turfing) for two sides of a protective embankment if mean height d, side slopes (S : 1) and length L is [d]
   A) d x d x s   B) 2 L D $\sqrt{(1+D^2}$ C) L D $\sqrt{(1+D^2}$ D) None of the above

8. If B is the width of formation, d is the height of the embankment, side lopes S : 1 for a highway with no transverse slope, then the area of cross section is [a]
   A) [BD + $\frac{1}{2}$ SD²]   B) BD   C) [BD + SD²]   D) SD²

9. If the R.L. of Formation is greater than R.L of ground then earthwork will be in ____ [d]
   A) Banking   B) Cutting   C) Either in cutting or banking   D) None of the above

10. The depth of section at changing point will be [C]
    A) Unity   B) Zero   C) Either Unity or Zero   D) ∞

SAMPLE ANSWER SCRIPTS (MID - II)

Gokaraju Rangaraju Institute of Engineering & Technology
(Autonomous College Affiliated to JNTUH) (12 Pages)
Bachupally, Kukatpally, Hyderabad - 500090

I	II	MID TERM EXAMINATION

No. 394841 H.T. No. 1 8 2 9 1 A 0 1 9 8

Name of the Examination IV B.Tech I Semester Mid II Examination - Estimation and Costing

Course B.Tech Branch Civil Engineering Date 19/12/2021

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			½	½	5		½	½					15

START WRITING FROM HERE

2. (a) Rate analysis

The total Volume of the brick floor be $1m^3$

The standard size of the brick is taken as

$= 0.19m \times 0.09m \times 0.09\ m$

The size of the brick when covered with 10cm of mortar on all sides $\Rightarrow 0.2 \times 0.1 \times 0.1$

$\Rightarrow 0.002$

The no. of bricks available is $= \frac{1m^3}{0.002m^3}$

$\Rightarrow 500$

The Volume of the concrete

$\Rightarrow$ Volume of bricks with dam cement concrete − Vol. of bricks without concrete

$\Rightarrow 1m^3 - 0.19 \times 0.09 \times 0.09 \times 500$

$= 1 - 0.7695 = 0.23$

Let CC ratio be 1:4

S.No.	Description	Quantity	rate	Per	amount	remarks
1.	Sand	0.23	200	$1 m^3$	46	$\frac{4}{4} \times 0.23$
2.	Cement	$0.0575 = 0.0575 \times 10^{-3} \times 1440 = 0.0828$	2000	1MT	165.6	$\frac{1}{4} \times \frac{0.23}{1000} \times 1440$
3.	Mason	0.8	200	1 No.	160	
4.	Mazdoor	1.6	200	1 No	320	
			Total amount		691.6	

Brick masonry (1:4)

for 2.83 m^3 — 2.5 (Mason)
— 4.5 (Mazdoor)

for 1 m^3 — 0.88 (Mason)
— 1.6 Mazdoor)

Let rates be assumed.

Sand - 200
Cement - 2000
Mason - 200
Mazdoor - 200

b) For CC (1:4:8)

Let us assume 40mm HGB metal ~~aggreg~~

The value should be multiplied to 1.52

The total ratio = 1+4+8 = 13

The assumed mason be 1.5 Nos.

and Mazdoor be 3. Nos

S.No.	Description	Quantity	rate	per	amount	Remarks
1	Cement	0.168MT	2000	1MT	336	$\frac{1}{13} \times 1.52 \times \frac{1440}{1000}$
2.	Sand	0.46	200	$1m^3$	92	$\frac{4}{13} \times 1.52$
3.	Aggregate	0.93	200	$1m^3$	184	$\frac{8}{13} \times 1.52$
4.	Mason	1.5	200	1No.	300	
5.	Mazdoor	3	200	1No	600	
				Total amount	1512	

Types of Contracts :-

⟹ Piece Work agreement or K2 agreement.

→ The piece work agreement is the agreement in which minor works such as maintanance, repairs are done. In this agreement time of work is not specified and amount is also paid after evaluation These works can take long time depending on the contractor or worker.

→ There are type types :- K2 agreement & Written agreement.

→ The difference between these two is, In written agreement all the specifications are properly written.

⇒ Lump sum method:- In lump sum method, The amount which is required to do the project is given by detailed report. The sum which is allocated should be used for construction Major irrigation projects are made using this method. Here the time is specified and if the time period exceeds penality is imposed on the contractor.

Item price method :- In item price method the items price is decided and taken from the authority. After the project is executed the measurement are checked with respect to design plan and fine can be imposed for any changes.

Cost plus percentage :- In this type, the owners of the project will not be supplying any materials, labour and amenities. The contractor will arrange all the requirements and the owner has to give 10% more on the project construction cost for all the materials. In this type high supervision is required and quality of the project cannot be acheived if not observed.

⇒ Labour Contract :-

→ The Labour contract is the contract in which some of the requirements are suggested and provided by the owner and the other materials are given by the contractor. Disputes may occur in case of labour contract.

Contract Documentation :-

→ The contract documentation involves date, time place.
→ The location of the site
→ Location of the site from nearest railway track
→ Present value of the land
→ Measurement details
→ Proposed items to be used
→ The amount which is getting transfered
→ Owner and contractor details.

The contract Documentation also involves several other details about the agreement which is made like duration of the project and other specifications.

Advantages of Valuation :-

→ The Valuation of the project can give the present value of the project
→ The valuation will enable the owner to make the required changes to increase its price

→ It will ensure that the whether the owner is going to be profited or not
→ The values like Depreciation can be obtained
→ The fixation of rent can be known
→ It will give the required information to decide whether to buy or sell the land.

b) The methods of Depreciation are
→ Straight line method
→ Constant percentage Method
→ Sinking fund method
→ Quality Analysis method

① In Singe line method the Depreciation is constant for all the years and the cummulative sum for each year is deducted to know the Book value

$$D \Rightarrow \frac{C-S}{n}$$

C - Capital cost
S - Salvage value
n - Life (yrs)

② In Constant percentage method rate of depreciation is known and the each year's rate of depreciation is calculated

$$P = 1 - \left(\frac{S}{C}\right)^{\frac{1}{n}}$$

S - Salvage value

$$D = C\left[(1-P)^{n-1} - (1-P)^{n}\right]$$

C - Capital cost

③ In sinking fund method annual installment depreciation is known - and each year's depreciation is cummulatively added and subtracted to get Book value.

S ⇒ C - Salvage value

$$I = \frac{Si}{(1+i)^n - 1}$$

I - annual installment depreciation

$$D = I\left[1+i\right]^{n-1}$$

④. Quality analysis method

In this method, based on environment around the project analysis is done. Rate can be estimated.

18241A0195

K. Nikhitha

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

Department of Civil Engineering

IV B.Tech. I Semester | **MID II EXAMINATION** | Time: 11.05 AM to 10.15 AM

Subject Code: GR18A4001 | **ESTIMATING AND COSTING** | Date: 19/12/2021

PART-B

Choose the correct answers **Marks:10 * 0.5 = 5M**

1. Rate analysis is a process of deriving rate of unit item from the cost of its--- [d]
   A) Material Cost B) Equipment Cost C) Labour Cost D) All of the above

2. Usually contractor's profit is taken _____ % for rate analysis of an item [b]
   A) 5 B) 10 C) 15 D) 20

3. Purpose of rate analysis is to _____ [a]
   A) To market value of an item B) To determine current rate of an item
   C) To know the quantities of materials required D) To know the types of labour required

4. Hook allowance for HYSD bars for 90° anchorage [b]
   A) 8 ϕ B) 9 ϕ C) 16 ϕ D) 16 ϕ

5. When contractor is only supplying materials then such contracts are called as _ [c]
   A) Item Rate Contract B) Turn Key Contract
   C) Material supply Contract D) Labour Contract

6. Which of this is not an advantage of Lump-Sum Contract? [b]
   A) Speed in construction B) Detailed measurement not required
   C) Project cost is already known D) Owner does not require funds to start project

7. A lump-sum contract is also a type of _____ Contract [b]
   A) Item Rate Contract B) Turn Key Contract C) Cost + contract D) % rate contract

8. The value at the end of the utility period without being dismantled is known as _ [c]
   A) Book Value B) Market value C) Salvage value D) Scrap value

9. Which among the following methods of calculating depreciation involves the study of property in detail and extent of physical deterioration worked out? [c]
   A) Sinking Fund method C) Straight line method
   B) Constant percentage method D) Quantity survey method

10. The loss of property due to outdated fashion is known as [b]
    A) Depreciation B) Obsolescence C) Capitalized value D) All of the above

Gokaraju Rangaraju Institute of Engineering & Technology
(Autonomous College Affiliated to JNTUH) (12 Pages)
Bachupally, Kukatpally, Hyderabad - 500090

I | II | MID TERM EXAMINATION

No. 334847 | H.T. No. 1 8 2 4 1 A 0 1 9 6

Name of the Examination IV B-Tech II mid, I Semester

Course Estimation & costing Branch Civil Date 09/12/2024

Signature of the Invigilator

Q.NO.	1		2		3		4		5		6		TOTAL
	a	b	a	b	a	b	a	b	a	b	a	b	
MARKS					4		2	2					8

START WRITING FROM HERE

3 Ans:

Contracts:-

It is an aggrement between two parties or between two people's to do a work.

Contracts are the following types:-

1. Piece work aggreement or K- Aggrement
2. Lump-Sump [L-S] Contract.
3. Item rate Contract
4. Cost plus percentage Contract
5. Labour Contract.

① Piece work aggrement (or) K₂ aggrement.

Actually this piece work aggrement are two types

① Piece work with K₂ aggrement.

② piece work with written aggrement.

* The low cost work done in written aggrement
* Here the aggrement between both owner and contraiter.
- Everything is take by Contraitor once aggrement done.
* Repairs at old building, small works etc - -

② Lump - Sump contractor [L-S]

* It is an Contract works like Government works like Irrigation and Construction purpose etc -
* Heavy cost Contract work come's under Lump - Sump Contract.
* All those major work tender's taken by the Contractor, And they will be the responsible to Complete the work.
* Everyone like Site Engineer's, planner's, Senior Engineer's will come to check whether is going in a Proper formant or not, and they get there Salary separetly.

③ Item rate Contract:

* In this Contract, Contractors manage materials which are used for Construction purpose, Repair's of old buildings etc-
* They have some percentange on materials as a profit.
* Every individual Items they are going to arrange to do the work.

④ Cost Plus Percentage-

* In this both the Contracter and owner are same
* Here the owner is the Contractor, the materials which required for the work is his own,
* And the work is going to Complete in a short time,
* The quality and durability etc is good.

⑤ LABOUR CONTRACT:

* The Contractors who managed the labours is known as labour Contract.
* Contracter will get aggrement from labour to finish the work in this much time and for this much cost.

Contract Documents in detail:

* Everything in between owner and contractor have aggrement to reach do the work with a document in detail.
* Documents for the purpose of proof -

(4) Valuations:-

It is a process of asserting the price of a building for property etc -

Valuation is depends on -

* foundation of building, structure, durability,
* location
* size of wall
* hight of plinth
* thickness of wall
* Availability of water facility, electricity & drainage facility.
* View by schools, colleges, markets etc -

Advantages of valuation -

- By using valuation will buy good property
- By valuation will manage the money.
- By valuation will get clear idea about the property.
- Valuation plays key role to buy something.
- Overally valuation is good to buy some properyls like building etc -

(b)

Depreciation:-

The process of reducing the value of building years of two year and reduced to scrap value is known as Depreciation.

Methods of Depreciation:

1. Straight line method
2. Constant percentage method
3. Sinking fund method
4. Quantity Survey method.

① STRAIGHT LINE METHOD–

In this method depreciation is going to calculate by using cost of the building at the time of Construction and Scrap value of the building after how many years.

$$\text{depreciation} = \frac{\text{Cost price} - \text{Scrap value}}{\text{No of years}}$$

$$D = \frac{CP - S}{n}$$

② CONSTANT PERCENTAGE METHOD–

depreciation is calculated every year

for the first year $D = CP - CP = C(1-P)$

for the second year $D = C(1-P)P - C(1-P)P$

After 'n' year $D = \left[C(1-P) - C(1-P)P\right]^n$

(3) SINKING FUND METHOD:-

In this method rate of interest will be calculated

Let us assume 'R' be depreciation of 1st year.

'p' be ... 2nd year

'q' " .. 3rd year

'r' " .. 4th year

No of year	Depreciation	Total Depreciation	Book value.
1st	R	R	CP−R
2nd	R+P	2R+P	CP−(2R+P)
3rd	R+P+q	3R+P+q	CP−(3R+P+q)
4th	R+P+q+r	4R+P+q+r	CP−(4R+P+q+r)

(4) Quantity Survey method:-

In this method every thing is studied in detail.

Nunavath Suman
Roll No- 18241A0196

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

Department of Civil Engineering

IV B.Tech. I Semester | MID II EXAMINATION | Time: 11.05 AM to 10.15 AM

Subject Code: GR18A4001 | ESTIMATING AND COSTING | Date: 19/12/2021

3½

PART-B

Choose the correct answers **Marks:10 * 0.5 = 5M**

1. Rate analysis is a process of deriving rate of unit item from the cost of its--- [D]
   A) Material Cost B) Equipment Cost C) Labour Cost D) All of the above

2. Usually contractor's profit is taken _____ % for rate analysis of an item [B]
   A) 5 B) 10 C) 15 D) 20

3. Purpose of rate analysis is to _____ [A]
   A) To market value of an item B) To determine current rate of an item
   C) To know the quantities of materials required D) To know the types of labour required

4. Hook allowance for HYSD bars for 90° anchorage [B]
   A) 8 ϕ B) 9 ϕ C) 16 ϕ D) 16 ϕ

5. When contractor is only supplying materials then such contracts are called as _ [B]
   A) Item Rate Contract B) Turn Key Contract
   C) Material supply Contract D) Labour Contract

6. Which of this is not an advantage of Lump-Sum Contract? [D]
   A) Speed in construction B) Detailed measurement not required
   C) Project cost is already known D) Owner does not require funds to start project

7. A lump-sum contract is also a type of ____ ____ Contract [D]
   A) Item Rate Contract B) Turn Key Contract C) Cost + contract D) % rate contract

8. The value at the end of the utility period without being dismantled is known as _ [D]
   A) Book Value B) Market value C) Salvage value D) Scrap value

9. Which among the following methods of calculating depreciation involves the study of property in detail and extent of physical deterioration worked out? [D]
   A) Sinking Fund method C) Straight line method
   B) Constant percentage method D) Quantity survey method

10. The loss of property due to outdated fashion is known as [B]
    A) Depreciation B) Obsolescence C) Capitalized value D) All of the above

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I	II	MID TERM EXAMINATION

No. 395848 H.T. No. 1 8 2 4 1 A 0 1 9 2

Name of the Examination V. B.Tech I semester

Course Estimating and Costing Branch Civil - B. Date 23/12/2021

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	05				3		05						3+1

START WRITING FROM HERE

(1)

3 Aim:- To Various types of contracts and contract Documents in detail.

Types of contract:-

→ Item Rate contract.
→ Turn Key contract.
→ cost of contract.
→ rate contract.
→

(1) Lumsum Contract
(2) Labour contract
(3) Material Supply Contract
(4) Piecies. Basic Contract.

① Lumsum Contracts :- In contracts is total estimating and costing of contracts of building and contracts and with supply contracts taken called lumsum contracts.

② Labour Contracts :- The contracts are supply the material and labour contracts is to make done the work is called labour contacts.

③ Material supply contracts. The contracts is supply the material to labour contractis is. make the work. is called material supply contracts.

④ Prices work contracts :- The contracts is the work as under 50000 - 100000 Rs. is work ~~called~~ are called prices work contracts. like bathrooms, flooring... etc.

Contract Documents..:-

(1) The contract want work done letter.

→ contract want budget planning. to contract.

→ to know any thing. about contract work

4 (a) The out advantages & valution.

→ Contracts have supply contrants.

→ work making a motive..

→ projects planing much to know planing &

① clear span = 4.5m

width of beam = 250MM

concrete cover = 25MM

overall depth of beam = 300MM

Fy 415 bars.

M20 grade concrete.

main reinf = 5Nos - 18MM

Anchor/hanger bars

Schedule of a rectangular simply supported RCC beam.

Scanned with CamScanner

P. Kishore
184141A0197

P. Kish

Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

Department of Civil Engineering

1/2 d

IV B.Tech. I Semester | **MID II EXAMINATION** | Time: 11.05 AM to 11.15 AM

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