Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY PDDC - SEMESTER-VI • EXAMINATION – WINTER 2013

Subject Code: X60601

Date: 04-12-2013

Subject Name: Construction Management and Economics Time: 02.30 pm - 05.00 pm Total Marks: 70

Instructions:

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.
- Q.1 (a) Discuss in brief, with neat sketch of job layout of multistoried building in busy 07 area.
 - (b) What is Gantt bar chart? Explain in detail with example and limitation. 07
- Q.2 (a) Define the term a) Critical path b) Dummy activity c) Optimistic time d) 07 Standard equipment.
 - (b) What is an ISO? Explain in detail Quality Management system as per ISO: 07 9000

OR

- (b) Write a short note on a) Mile stone chart b) Line of Balance
- Q.3 (a) Write down importance of Material Management in Construction Industry. 07
 - (b) Draw the network from following three time estimate, find out total project 07

Activity	Optimistic time	Pessimistic time	Most likely time
1-2	3	5	4
1-3	2	10	6
1-4	4	8	6
2-3	5	9	7
3-5	2	12	10
4-5	2	14	8

duration.

Q.4

(a)

OR

- **Q.3** (a) Write down procedure of updating. When can we go for updating?
 - (b) Write down the difference between a) Network technique Vs Conventional 07 technique. b) Standard Equipment Vs Special equipment.

07

07

07

Data for the project are as follows determine the total project cost on 22 days						
Activity	Normal Days	Normal Cost	Crash	Crash Cost		
		Rs.	Duration Rs.	Rs.		
1-2	2	100000	2	100000		
1-3	7	50000	3	90000		
2-3	6	30000	3	42000		
2-4	5	20000	4	25000		
3-4	0	0	0	0		
3-5	9	60000	4	90000		
4-6	11	60000	6	100000		
5-6	6	70000	3	91000		

Consider indirect cost Rs. 8000 / day.

(b) What are the different equipment used in construction industry? Explain 07 "Power shovel" with sketch.

OR

Q.4 (a) Write a short note on "Break even Analysis".

	(b)	What are the factors affecting for selection of construction equipment?	07
Q.5	(a) (b)		
		OR	
Q.5	(a)	What is an incentive for labour? Why incentive is required for labour?	07
	(b)	What are the good qualities required for project manager	07
