Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC - SEMESTER–VI • EXAMINATION – WINTER • 2014

Subject Code: X 60601 **Date: 29-11-2014**

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)** What do you mean by construction management explain in detail. **07**

(b) What is a bar chart? Explain in detail with example of bar chart. **07**

Q.2 **(a)** What is an ISO? Explain different ISO in detail. **07**

(b) Explain with sketches of Job layout for Dam site. **07**

OR

(b) Describe the different type of equipment. **07**

Q.3 **(a)** Define the term a) critical activity b) optimistic time c) float d) Indirect cost **07**

(b) From the following network draw the network, find out critical activity, critical path, project duration, Total cost of project, cost slope. **07**

Activity	Normal cost	Normal duration in week	Crash cost	Crash Duration in week
1-2	4500	4	6500	2
1-3	7000	6	10000	4
1-4	5000	5	7000	4
2-5	7000	8	7800	3
3-5	4000	4	5000	2
4-5	8000	8	9500	2

Indirect cost = 3000/ week

OR

Q.3 **(a)** Write factors affecting owning and operating cost of equipment? **07**

(b) What are the Qualities required for good construction project manager? **07**

Q.4 **(a)** The original cost of a Dumper is 18,00,000/- and its salvage value is 6% of the original cost this dumper is used for 1500 hrs per year and its life is 7 year. Cost of owning and operating is Rs.50 per hr. The hiring charges for the excavator inclusive of repair and maintenance is Rs. 45000/- per month. Suggest whether the equipment is buy or Hire. **07**

(b) Differentiate Standard equipment and special equipment. **07**

OR

Q.4 **(a)** What is a break even analysis? Where we use break even analysis?. **07**

(b) What is updating? Why it is necessary to do updating? What are the other factors considered for the updating? **07**

Q.5 **(a)** What are the different incentive methods used for labour in construction industry. **07**

(b) Determine the break even sales for the following **07**

	Product		
	A	B	C
Sales (Units)	7000	5500	5200
Unit selling price(Rs.)	13	18	20
Unit Variable Price(Rs.)	9	7	15
Fixed cost of the product is Rss. 45,000			

OR

Q.5 **(a)** Why material Management is most important in construction project? Explain with reason. **07**

(b) Differentiate Conventional technique Vs Network technique. **07**

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