

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII (Old) EXAMINATION – WINTER 2019

Subject Code: 170601

Date: 30/11/2019

Subject Name: Construction Management And Equipments

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

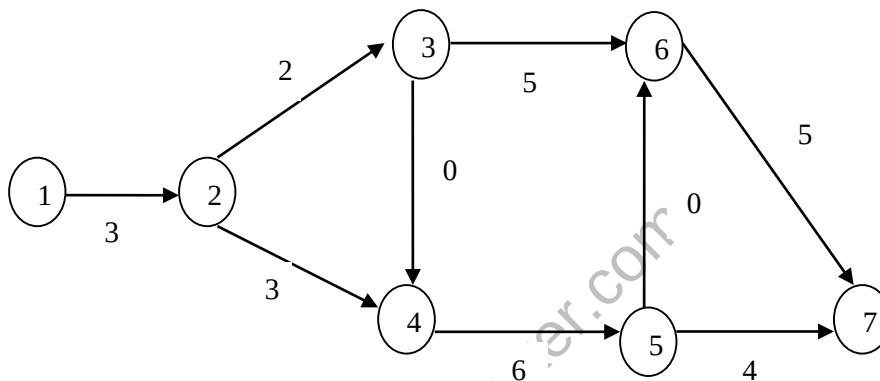
- Q.1** (a) Define management and explain six major function of construction management. **07**
(b) Draw work breakdown structure for residential building. **07**

- Q.2** (a) Which are the Rules for drawing network? Explain Fulkerson rule. **07**
(b) What is resource allocation? Explain procedure for resource leveling. **07**

OR

- (b) Explain Gantt bar chart and mile stone chart with example. State limitations of bar chart. **07**

- Q.3** (a) For the given network find out critical path, Total float and free float. **07**



- (b) What is job layout? Draw job layout plan for a construction of dam. **07**

OR

- Q.3** (a) For a project three time estimates to, tm, and tp for different activities are given below. Prepare network diagram. Calculate TE and TL for each events and Variance and standard deviation for entire project. **07**

Activity	to	tm	tp
1-2	2	5	14
1-3	3	12	21
2-4	5	14	17
3-4	2	5	8
4-5	1	4	7
3-5	6	15	30

- (b) What is S curve? How S curve is used to analyze the cash requirements of a project. **07**

Q.4 (a) The table below gives information about various activities of a network 07

Activity	Normal duration	Normal cost	Crash duration	Crash cost
1-2	9	8000	6	9500
1-3	6	7000	3	8200
2-3	5	5000	3	5500

Overhead cost is Rs. 300/day. Determine optimum time cost plan.

(b) Differentiate Between CPM and PERT 07

OR

Q.4 (a) Discuss importance of safety in construction site. 07

(b) Explain in brief: network updating 07

Q.5 (a) Define term: Depreciation, Obsolescence, Rolling resistance, Coefficient of traction 07

(b) Which are the factors affecting output of Scraper. 07

OR

Q.5 (a) Write short notes on Power Shovel or Bull Dozer 07

(b) State and describe various causes of accidents at construction site. 07

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