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Total No. of Pages : 03

Total No. of Questions : 08

B. Architecture (2012 & Onwards) (Sem.–10)

CONSTRUCTION MANAGEMENT – I

Subject Code : BACH-1002

M.Code : 74341

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **Note: Question No 1 is compulsory. Attempt 5 questions including compulsory question with minimum one question from each unit. All questions carry equal marks.**

1. Write short note on the following : **(5×2=10)**

a) Differentiate between PERT and CPM

b) Optimum Cost

c) Critical Path

d) Quality Control On Construction Site

e) Direct Cost and Indirect Cost

UNIT-I

2. Explain the significance of construction management for any nation. What are the objectives and purpose of construction management? 12.5

3. a) Discuss the various resources required for the successful completion of construction project. 6

b) Explain with sketches different types of compaction equipment used in construction projects. 6.5

UNIT-II

4. Determine optimum time duration and optimum cost for the project with following data and plot the cost-time graph. 12.5

Activity	Normal time (days)	Crash time (days)	Crash cost Rs.	Normal cost Rs.
10-20	6	5	400	600
20-30	7	4	300	700
20-40	9	7	360	540
30-40	6	4	500	1000

Indirect cost = Rs. 200/- per day.

5. a) Develop the network having following activities (duration in weeks given in brackets) in logical sequence and also find the EST, EFT, LST, LFT, total float for all the activities and determine the critical path : 8.5,4

   i. A (10) and B (11) start the project

   ii. C (9) and D(12) follow A

   iii. E (6) and F(6) follow B

   iv. G (7) follows E

   v. H(8) and I(10) cannot start until C and G are over

   vi. J (6) succeeds F and H

   vii. K (14) is the last activity and succeeds D,I,J.

   b) Discuss the properties of a critical path.

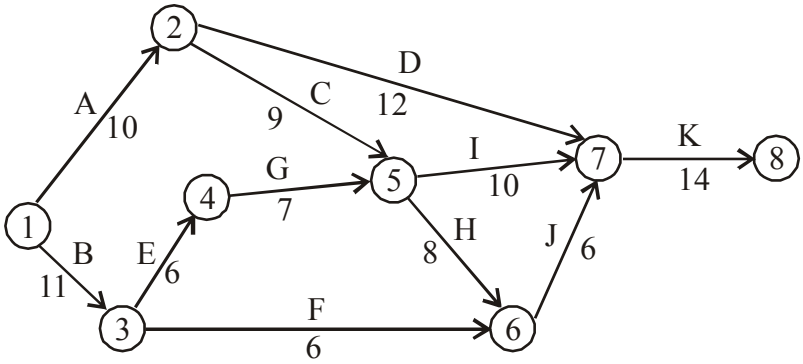
6. Explain the following in detail :

   a) Principles of inspection in construction projects. 6

   b) Important points to be checked during inspection of brick Masonry. 6.5

UNIT-III

7. Find the EST, EFT, LST, LFT and all the floats for all the activities of the network 12.5 shown in Figure below. Also indicate the CRITICAL PATH in the Network.



Duration in weeks

8. a) Explain quality control and its need in Building industry with suitable examples. 6.5

   b) Explain briefly "Safety on Construction sites". 6

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.