

JK LAKSHMIPAT UNIVERSITY, JAIPUR

INSTITUTE OF ENGINEERING AND TECHNOLOGY

End Term Examination (Regular/Backlog), Nov 2017

B. Tech Engineering, Semester VII

Roll No.....

COURSE CODE: CE 701 Construction Project
Management

Time: 3 hours

Max. Marks: 100

Instructions to students:

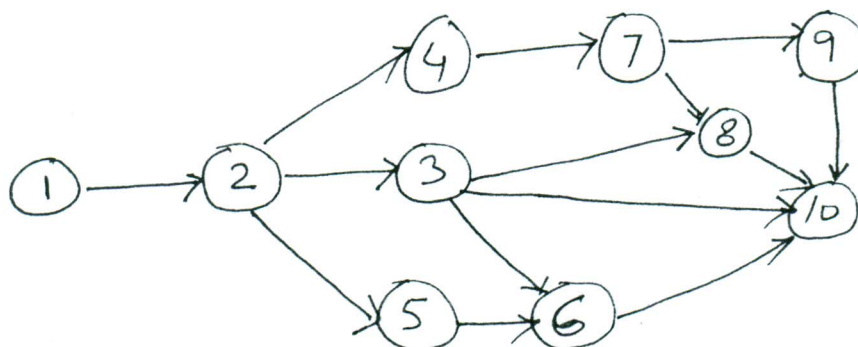
1. Do not write anything other than your roll number on question paper.
 2. Assume suitable data wherever required and mention it clearly.
 3. Writing appropriate units, nomenclature, and drawing neat sketches/schematics/ flow chart wherever, required are an integral part of the answer.
-

Q.1A Objective type multiple choice questions (10 questions @ 1 mark)

10

- i. Give a right match for following
 - (a) Bar chart (i) For construction Projects
 - (b) CPM (ii) Not suitable for computer Program
 - (c) PERT (iii) For space craft launching project
 - (d) Gant Charts (iv) Improvement of Bar chart
- ii. Net present value is the difference between the present value of cash inflows and the present value of cash outflows.
(a) True (b) False
- iii. If one invest in a project and get 10000 rs after 3 year. What is the present value if the rate of interest is 8 %?
(a) 7900 (b) 7950 (c) 11000 (d) 11050
- iv. Latest time is the latest time that an activity needs to be completed in order that there is no delay in the project completion.
(a) Start (b) finish (c) None
- v. The probability model is used in project scheduling.
(a) CPM (b) PERT (c) None (d) Both (a) (b) (c) (d)
- vi. The amount of time by which an activity can be delayed from its early start without delaying the early start of the succeeding activity is called total float.
(a) True (b) False
- vii. Following is not a type of direct cost (a) man power (b) overhead cost (c) equipment cost (d) material cost
- viii. As the project duration increases cost is also increases.
(a) Direct (b) Indirect (c) Total (d) None of the above
- ix. In contract, the contractor quotes rates for all the items of work only for the labour work.
(a) Fee Contract (b) Target Contract (c) Rate Contract (d) None of the above
- x. Find the wrong statement.
(a) Working platform is not required while laying the hot bitumen.
(b) In buildings the separate stair case is required for fire safety
(c) No leaves or grass etc be stored within 8 m of an explosive magazine
(d) Explosive cannot be stored in electrical stores

- Q.2 Short answer type questions (4 questions @ 2.5 marks) 10
 Define earliest start time and earliest finish time.
 What are the various data required for resources updating?
 What is the difference between tender and contract?
 Write any 3 safety measures for explosive work.
- Q.3A Define following (i) Net Present value (ii) Benefit cost ratio (iii) Internal Rate of Return 05
- Q.3B Mention any 6 network rules. 05
- Q.4A For the following diagram prepare a Table for Immediate Predecessor. 05



- Q.4B A project consists of 16 activities having their predecessor relationship as follows. 05
- A is the first activity of the project
 - B, C and D follow A and can be done concurrently
 - E and G cannot begin until C is completed, and can be performed simultaneously
 - F is the immediate successor to activity B and E
 - H and K run in parallel, and both succeed G
 - L succeeds F and H.
 - I and J are immediate successor activities to activity D
 - M and N are immediate successor to I and K. However, both M and N can be performed concurrently.
 - Activities O and P are the last activities. Activity O is the immediate successor to M and J.
- Draw the network and number the events.
- Q.5A Explain the necessity of work breakdown structure. 05
- Q.5B What are the various methods of resources updating? 05
- Q.6A What are the various ways of termination of contracts? (Any 4) 05
- Q.6B What is the information to be given in the tender notice? 05
- OR
- Q.6B What are the various environment impacts/aspects on construction project? (Any 12) 05

- Q.7A Write a short notes on computerized Information system. 05
 Q.7B What are the various social aspects of construction project? (Any 5) 05

OR

- Q.7B What are the various causes of accident and what are the different safety measures? 05

- Q.8A What are the different types of Engineering contracts? 15

- Q.9 Table below shown jobs, their normal time cost and crash time, cost for a project. 15

Job	Normal time (days)	Normal Cost (Rs.)	Crash Time (Days)	Crash cost (Rs.)
1-2	6	1400	4	1900
1-3	8	2000	5	2800
2-3	4	1100	2	1500
2-4	3	800	2	1400
3-4	0	0	0	0
3-5	6	900	3	1600
4-6	10	2500	6	2500
5-6	3	500	2	800

Indirect cost of the project is Rs. 300 per day.

- Draw network of the project.
- What is normal duration and normal cost of the project?

OR

- Q.9 What are the different safety measures for Hot Bituminous work Building (Any 5) 15