

Seat  
No.

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मापक- 011

## Construction & Project Management (1020)

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Solve **any five** questions.
5. Assume suitable data if required.
6. Figures to right indicate full marks.
7. Use of pocket calculator is allowed.
8. Use of probability table is allowed.

1. a) State whether following statement is true with examples - CPM is probabilistic and PERT is deterministic. 6  
b) Discuss Taylor's scientific management in detail. Also explain Mcgregor's Theory X and Theory Y. 10+4
2. Determine the project duration, total float and free floats based on the following data. 20

Activity (Dur)	Depends upon	Activity (Dur)	Depends upon
A (7)	-	L (8)	F AND K
B (10)	-	M (7)	A, G, H
C (18)	-	N (7)	A, G, H
E (11)	B	P (10)	C
F (12)	A	R (12)	F and K
G (5)	B	S (8)	R, L, M
H (7)	E	T (6)	N and P
K(10)	A and G	W (14)	F and K

Duration is in days for each activity.

3. a) Explain 5 basic management functions viz :- 10  
 i) Organising ii) Staffing  
 iii) Directing iv) Planning  
 v) Controlling with proper examples.
- b) Detail out role and responsibility of the managing Director of a construction company contracting for infrastructure projects. 10
4. a) Explain IRR as an investment appraisal criteria and discuss its advantages, limitations. 10
- b) Explain any 5 types of construction defects with examples. 10
5. Explain the 8 principles of ISO (9001 : 2000) Quality. 12
- a) Management standards with proper examples.
- b) Explain how the cost of poor quality can be determined, based on hidden costs. 8
6. Explain the following.
- i) Techniques of job evaluation. 8
- ii) HR appraisal systems. 8
- iii) PDCA cycle. 4
7. Determine the project mean duration, probability of completing the project in 45 days or less and determine all the floats for the following data. 20

Activity	Depends upon	Duration (Days)		
		Optimistic	Most Likely	Pessimistic
A	-	5	7	10
B	A	7	8	12
C	A	4	6	7
E	B,C	3	7	9
F	C	8	12	14
G	B	6	8	10
H	E,F	5	8	12
K	F,G	9	11	13
L	H,K	6	7	10

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