QP Code : 8002

(Revised Course)

(3 Hours)   100 Marks.

N.B 1) Question **No.1** is **compulsory**   2) Answer any **four** out of remaining six questions.

3) Assume suitable data, if required but state them clearly.

Q 1.a) What is construction Management? Explain functions of construction management.   ---10M.

b) Details of activities of a construction project are given below. Draw network.

Identify critical path. Determine values of total float, free float & independent

Float of all the activities.   ----10M.

Activity	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Preceding Activity	-----	A	A	B	D	D	D	B	C,E	G	F,I,J	K	G,H	M
Duration (days)	5	2	6	12	10	9	5	9	1	2	3	9	7	9

F,I,J

Q 2. a) Explain, 'Time Estimates in PERT"   ----08M.

b) The interdependence of a job consisting of seven activities & time estimates are

given in following table.

Draw Network & Determine- 1) Project duration corresponding to 50% probability.

2) Probability of completing the project in 35 days.   ---12 M.

Activity	A	B	C	D	E	F	G
Preceding Activity	-----	------	A	B	A	B	C & D
Succeeding Activity	C & E	D & F	G	G	-------	-------	-------
to	6	5	4	4	4	2	4
tm	9	8	7	7	7	5	10
tp	12	17	22	16	10	8	22

Z	-3	-2	-1	0	1	2	3
P (%)	0.13	2.28	15.87	50.0	84.13	97.72	99.87

Q 3 a) what do you understand by updating of network? Why it is essential?

Also explain the procedure of updating.   ----- 08M.

RJ-Con. 8978-15.   **[TURN OVER**

b) Explain: - 1) Mobilisation of Project. 2) Statistical Quality Control

       3) Occupational health hazards in Construction.   ------ 12M.

Q 4.a) Explain "Time-Cost Optimisation" in detail.   ---08 M.

b) The utility data for activities of a project is indicated below.

Determine optimum cost &optimum duration for the project.

Indirect cost is estimated as Rs.5000/day.   -----12M.

Activity	Normal Duration (days)	Normal Cost (Rs)	Crash Duration (days)	Crash Cost (Rs)
1-2	6	7000	3	14500
1-3	8	4000	5	8500
2-3	4	6000	1	9000
2-4	5	8000	3	15000
3-4	5	5000	3	11000
4-5	7	8000	4	15000

Q 5. a)What are the causes of time & cost overrun in a construction project?

       Which methods would you suggest to control such overturns?   ----10M.

       b) Discuss different forms of organisations with their suitability.   ----10M.

Q 6a) What are unique features of Construction in India? Explain in detail.   ---10 M.

b) The following table gives the activities of a project with the details.

Draw resource histogram based on EST.

If only 10 labours are available, Then how will you schedule the activities?   ---10M.

Activity	1-2	1-3	2-3	2-4	3-5	4-5
Duration(days)	8	8	8	4	9	6
Labour/day	4	6	5	3	6	5

Q 7) Write notes on followings. (Any five)   ----20M.

     (a) Work breakdown structure.

     (b) Job Layout

     (c) L.O.b. Technique.

     (d) Network Rules.

     (e) Principles of management by Henry Fayol

     (f) A-B-C Analysis

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Correction:

Q.2) b) Take tp = 12 (for activity A)

Q.4) b) Take Indirect cost= Rs. 5000/ day

Query Update time: 14/05/2015 12:35PM