



मातृ - 011

Construction & Project Management (1020)

P. Pages : 2

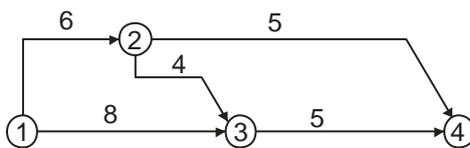
Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answer sheet 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.

1. a) Describe functions of management. **10**
b) What is 'project constraint triangle' ? How to best achieve coordination amongst them ? **10**
2. a) Describe the contribution by Gilberth & F.W. Taylor. **10**
b) Write a note on total quality management describing tools & techniques of it. **10**
3. a) Write notes on 'Just in time' & Kaizen. **10**
b) Describe Rankine system of job evaluation compare it with grading point system. **10**
4. a) Define all four types of floats & uses. **6**
b) Calculate all floats from given data **14**



5. From given time estimates determine – 20
- i) critical path & variance along critical path,
 - ii) probability of completion of project in 39 & 30 days,
 - iii) Time duration of project completion for 95% probability.
 - iv) Define variance & standard deviation.

Activity	1-2	2-3	2-4	2-5	3-4	3-7	4-6	5-6	6-7	7-8
t_o	2	8	4	4	0	3	7	3	2	2
t_m	5	11	7	9	0	5	10	7	3	4
t_p	8	20	16	18	0	13	12	17	10	6

6. Details of the project data is given below. Compress the normal duration network to get all crash solution. Draw cost graph. 20

Activity	Successor	Normal Duration	Crash Duration	Normal Cost	Crash Cost
A	B	3	1	2500/-	3900/-
B	C	5	3	9000/-	11000/-
C	D,E,	12	10	38000/-	47000/-
D	F,G	1	1	3700/-	3700/-
E	G	4	2	6500/-	8000/-
F	J	3	2	4800/-	5700/-
G	H	2	1	11000/-	14000/-
H	J	2	2	4200/-	4200/-
J	--	2	1	3500/-	4200/-

7. a) Explain NVP as an investment appraisal criteria. Discuss cost-benefit ratio & its importance. How are these ratios useful in right decision making to accept a proposal or reject it. 10
- b) Explain performance appraisal list methods of positive & negative motivation. Highlight needs of training. 10
