

(3 HOURS)

[Total Marks: 80]

- N.B: 1) Question No. 1 is compulsory.
 2) Attempt any three questions out of remaining five questions.
 3) Assume suitable data, if required.
 4) Figures to the right indicates full marks

Q.1) a) Following is the data associated with a small construction Project. Draw Network. Calculate event Times. Identify Critical Path. Also determine Values of all types of floats.

Activity	A	B	C	D	E	F	G
Preceding Activity	-----	A	A	A	B	D	C, E, F
Duration(days)	5	4	7	5	3	4	7

b) Explain, Henry Fayol's 14 Principles of Management.

-10M.

Q2.a) Following is the data associated with a small Project.

Activity	1-2	1-3	1-4	2-5	3-5	4-6	5-6
To (weekss)	1	1	2	1	2	2	3
Tm (weeks)	1	4	2	1	5	5	6
Tp(weeks)	7	7	8	1	14	8	15

Z	-3	-2	-1	0	1	2	3
P (%)	0.13	2.28	15.87	50	84.13	97.72	99.87

Determine standard Deviation & Variance of the Project.

Also determine the Probability of completing the project at:-

- i) Expected duration ii) 3 weeks earlier than expected duration
 iii) 3 weeks later than expected duration

-12M.

b) What is Quality control? Explain the role of inspection in quality control.

-08M.

Q3.a) Determine optimum cost & optimum duration for the following data of a project.

Indirect Cost of project = Rs. 1000/day.

-10M.

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

(Turn Over)

b) What do you understand by "Updating of Project? What information is required while updating? Explain the stepwise procedure of updating.

-10 M.

Q4.a) Table below shows activities, their durations and labour requirements:

-12M

Activity	Duration	Carpenters
A(1-2)	8	3
B(1-3)	11	4
C(2-5)	6	2
D(3-4)	5	5
E(3-5)	8	3
F(4-5)	5	3

Workout daily requirement of carpenters with all activity schedule to start at their EST, LST. Also prepare histogram. Comment which schedule will you prefer & why?

● Explain, Resource Smoothing & Resource Levelling

-08M.

Q.5a) Explain the functions of Human Resource Management.

-10M.

b) What is accounting? Explain generally accepted principles of an accounting.

-10M.

Q.6) Write notes on followings - (Any five)

-20M.

- a) Job Layout
- b) Work Breakdown Structure
- c) Net Present Value
- d) ISO 14000
- e) Time Over-run & Cost Over-run
- f) Contribution of Mr. Taylor

