B.Tech. SEM -VI Electronics 2014 Course (CBCS) : WINTER - 2018

SUBJECT: PROJECT MANAGEMENT AND FINANCE

Day: Friday
Date: 16/11/2018

W-2018-2481

Time: 10.00 AM TO 01.00 PM
Max. Marks: 60

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Assume suitable data if necessary.

Q.1. Define project, project management, characteristics of project management and stages of project management. **(10)**

OR

What is the process of planning a project? How is a project organization established?

Q.2. An assembly is to be made from two parts X and Y. Both parts must be turned on lathe and Y must be polished whereas X need not be polished. The sequence of activities together with their predecessors is given below: **(10)**

Activity	Description	Predecessor	Duration(days)
A	Open work order	---	2
B	Get material for X	A	3
C	Get material for Y	A	2
D	Turn X on lathe	B	1
E	Turn Y on lathe	B,C	4
F	Polish Y	E	6
G	Assemble X and Y	D,F	3
H	Pack	G	2

i) Draw the network diagram for the project.
ii) Calculate project duration and determine critical path.

OR

Given that a project involves activities A,B..... each requiring completion time in days, as per the following table:

Activity	A	B	C	D	E	F	G	H	I
Duration	23	8	20	16	24	18	19	4	10

Given the activity A precedes activity D & E, activities B & D precede activity F, activity C precedes activity G, activities B & C precede H and activities F & G precede activity I, draw the network and calculate:

i) Total float
ii) Free float
iii) Independent float
iv) Critical path
v) Project completion time

P.T.O.

Q.3. Consider the following data of a project: **(10)**

Activity	Immediate predecessors	Duration (weeks) a	m	b
A	----	3	5	8
B	----	6	7	9
C	A	4	5	9
D	B	3	5	8
E	A	4	6	9
F	C,D	5	8	11
G	C,D,E	3	6	9
H	F	1	2	9

a) Construct the project network.
b) Find the expected duration & variance of each activity.
c) Find critical path & expected project completion time.
d) What is the probability of completing the project on or before 30 weeks?

OR

Consider the problem of project scheduling as shown in the following table:

Activity	**Duration (in weeks)**	**Manpower requirement**
1-2	4	9
1-3	8	5
2-3	10	7
2-4	6	6
3-4	9	8
3-5	5	12
4-5	7	7

Obtain a schedule which will minimize the peak manpower requirement & also smooth out period to period variation of manpower requirement.

Q.4. **a)** Give the differences between PERT and CPM. **(05)**

b) Write a note on Contract management. **(05)**

OR

What is the role of software in project management? Justify with suitable examples.

Q.5. Answer the following w.r.t. financial management: **(10)**

i) Meaning & definition.
ii) Scope
iii) Objectives

OR

What are the functions of financial manager? Why is financial planning important?

Q.6. What is capital budgeting? Explain the different techniques of capital budgeting. **(10)**

OR

Define cost-benefit analysis. Explain the need & importance of cost-benefit analysis in projects.

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