

B. TECH.

SIXTH SEMESTER EXAMINATION, 2003-2004

PROJECT MANAGEMENT

Time : 2 Hours

Total Marks : 50

Note : Attempt ALL the questions.

1. Answer any *THREE* of the following :— (5×3=15)

- (a) What is the meaning of 'establishing the goal' of the project? What conditions are required to be fulfilled for 'establishing the project' and what are the pre-requisites for its successful implementation?
- (b) What is meant by the Process of 'work break-down structure'? Describe a Matrix organisation and discuss its suitability for a project.
- (c) Write brief notes on any *FIVE* of the following :—
- (i) Tender
 - (ii) Earnest Money Deposit
 - (iii) Letter of Intent
 - (iv) Sub-systems of Project
 - (v) Relation between Procedure and Organisation
 - (vi) Communication in Project
 - (vii) Project Performance Indicator
- (d) What is understood by 'Project Direction', 'Coordination' and 'Control'? With the help of a figure, show the level and the type of managerial efforts pertaining to these three during the project implementation phases.

- (a) How do 'data' differ from 'information' ? Briefly describe, the Project Management Information system.
- (b) Discuss the advantages of using a Computerised Project Management system. Name any two popular software packages for CPMS, giving main features of one of them.
- (c) Name any major infrastructural project being currently executed in your neighbourhood or about which you have learnt from media coverage. What are the objectives of this project and, in your opinion, who are the stake-holders in such a project ?

3. Answer any ONE of the following :—

(15)

- (a) Consider the following network for a small development project (all times are in weeks, network proceeds from node 1 to node 7 in Table 3-a) :—

Table 3-a

Activity	Node		Time		Most likely
	Initial	Final	Optimistic	Pessimistic	
A	1	2	1	3	2
B	1	4	4	6	5
C	1	3	4	6	5
D	2	6	2	4	3
E	2	4	1	3	2
F	3	4	2	4	3
G	3	5	7	15	9
H	4	6	4	6	5
I	4	7	6	14	10
J	4	5	1	3	2
K	5	7	2	4	3
L	6	7	6	14	10

Draw an arrow diagram representing the project.

What is the total slack-time, the critical path and the number of weeks required to complete the project with a probability of about 84% ?

- (b) On what points does CPM differ from PERT? The following figure shows a CPM network with corresponding crash and normal times for all the activities along with direct costs given in (Table 3-b).

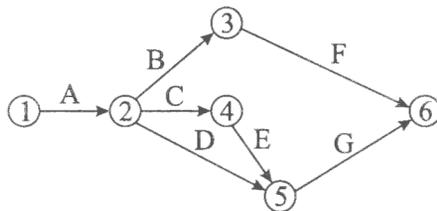


Table 3-b

Activity	Time req. (weeks)		Cost (Rs.)		Cost slope Rs.
	Normal	Crash	Normal	Crash	
A	4	2	10,000	14,000	2,000
B	6	5	30,000	42,500	12,500
C	2	1	8,000	9,500	1,500
D	2	1	12,000	18,000	6,000
E	7	5	40,000	52,000	6,000
F	6	3	20,000	29,000	3,000
G	5	3	5,000	7,000	1,000

If the indirect cost is Rs. 2,000 per week, what will be the optimum duration of the project ?

4. Answer any TWO of the following :— (5×2=10)
- (a) What is Process Capability Study? Give any three 'chances' and three assignable, 'causes'

for variation in output of any process. Also, briefly discuss about 'Quality Circles'.

- (b) What are MRP and ERP ? What are the main components and limitations of MRP ?
- (c) What are the advantages of "E-Commerce" ? Briefly describe, B to B and B to C, E-Commerce activities.

