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B.Tech.

SIXTH SEMESTER EXAMINATION, 2005-2006

PROJECT MANAGEMENT

Time : 2 Hours   *Total Marks : 50*

Note : (i)   *Attempt ALL questions.*

(ii)   *In case of numerical problems assume data wherever not provided.*

(iii) *Be precise in your answer.*

1. Attempt *any two* parts of the following :   (6x2=12)
    (a)   What is a project ? What are the benefits of Project Management ?
    (b)   Indicate the levels of managerial efforts involved in Project direction, planning and control during implementation. What is the purpose of work breakdown structure ?
    (c)   What are the different stages of resource planning for a project ? What is contracting ?

2. Attempt *any two* parts of the following :   (6x2=12)
    (a)   What is Project Management Information System ? What is the role of a cost accounting system or a transaction processing system ?

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(b) What is the role of computers in project management system ? What are the things to be considered before using a software package for project management ?

(c) A new flyover is being constructed. What are the different aspects of managing this project ?

3. Attempt *any one* part of the following :   (12x1=12)

(a) Following is the activity list for a construction project :

Activity	Description	Immediate Predecessor	Estimated Duration (weeks)
A	Exacavate	None	2
B	Foundation	A	4
C	Rough Wall	B	10
D	Roof	C	6
E	Ext. Plumbing	C	4
F	Int. Plumbing	E	5
G	Ext. Siding	D	7
H	Ext. Painting	E,G	9
I	Electrical	C	7
J	Wallboard	F,I	8
K	Flooring	J	4
L	Int. Painting	J	5
M	Ext. Fixtures	H	2
N	Int. Fixtures	K,L	6

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(I)   Construct the Project Network

(II) Find the Critical Path

(III) Compute the slack for each activity

(IV) Indicate the Earliest start time, Latest start time, Earliest Finish Time and Latest finish time in the diagram.

(b)   Define Crashing of an activity and crashing of a project. Define most likely estimate, optimistic and pessimistic estimate with respect to PERT. What is the probability distribution that PERT assumes activity durations to follow ? How do we calculate the mean and variance of each activity ? How is the mean, variance of the distribution for the entire project calculated ? How do we calculate the probability of meeting a given deadline 'T' in PERT ?

4.   Attempt *any two* parts of the following :   (7x2=14)

(a)   What is Total Quality Management ? What is Preventive maintenance ?

(b)   In a production system where shortage cost is very much higher than the inventory carrying cost, which of TQM and MRP should be used and why ?

(c)   What are B2B and B2C activities ? How is ERP different from MRP-II ?

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