2017

MBA 4th Semester End-Term Examination

PROJECT MANAGEMENT

Full Marks–100   Pass Marks–35   Time–Three hours

The figures in the margin indicate full marks
for the questions.

GROUP – A

1. Answer any *six* from the following :   5×6=30

    (i) With respect to network diagrams, explain ES, EF, LS, LF. What is total float and free float ?   3+2=5

    (ii) Explain WBS. How is WBS integrated with the organization ?   2+3=5

    (iii) What are responsibility matrices ? How are they helpful ?   3+2=5

[Turn over

(iv) Explain the differences between time constrained projects and resource-constrained projects. What is resource smoothing ?

$4+1=5$

(v) Explain project direct cost and indirect cost.

5

(vi) What is meant by variance analysis and what are its applications ? $3+2=5$

(vii) What are the different phases in a project life cycle ? 5

(viii) What are the different indexes to monitor project progress ? 5

GROUP – B

2. Answer any *four* from the following : $10 \times 4 = 40$

(i) What are the different methods for estimating project time and cost from a Top Down perspective ? 10

(ii) What is a project network ? List the information and insights a network may provide a manager. $3+7=10$

(iii) You are creating a customer database for a minor league baseball team. Draw a project network with the information given below. Complete the forward and backward pass calculation. Compute the total stack and identify the critical path and project completion time. 10

	Predecessor	Description	Time (days)
A	None	System design	2
B	A	Subsystem A design	1
C	A	Subsystem B design	1
D	A	Subsystem C design	1
E	B	Program A	2
F	C	Program B	2
G	D	Program C	2
H	E	Subsystem A test	1
I	F	Subsystem B test	1
J	G	Subsystem C test	1
K	H, I, J	Integration	2
L	K	Integration test	1

(iv) Describe project control process in detail.

10

(v) What are different types of resource constraints ? Explain the concept of time phased budget of a project. 5+5=10

(vi) What are the characteristics of a project ? Explain the concept of project scope check list. 5+5=10

3. Answer the following questions : 15×2=30

(i) Under what conditions project durations may be reduced ? How can a project be accelerated when resources are constrained ?

9+6=15

(ii) Write short notes on any *three* :

5+5+5=15

(a) WBS

(b) Resource levelling

(c) Problems in multiproject schedules

(d) Assumptions in developing a status report.

(iii) The following table gives activities in a construction project and other relevant information.

Activity	Immediate predecessor	Time (days) Normal	Crash	Direct cost (Rs.) Normal	Crash
A	—	4	3	60	90
B	—	6	4	150	250
C	—	2	1	38	60
D	A	5	3	150	250
E	C	2	2	100	100
F	A	7	5	115	175
G	D, B, E	4	2	100	240

Indirect cost data :

Days	:	15	14	13	12	11
Cost (Rs.)	:	600	500	400	250	175
Days	:	10	9	8	7	6
Cost (Rs.)	:	100	75	50	35	25

(a) Draw an arrow diagram for the project. (Use activity on arrow).

(b) Determine the project duration that will result in minimum total cost. 3+12=15