Total number of printed pages – 3

B. Tech

FEME 6302

Fifth Semester Back Examination – 2014

PROJECT MANAGEMENT

BRANCH : MECH

QUESTION CODE : L 285

Full Marks – 70

Time : 3 Hours

Answer Question No. **1** which is compulsory and any **five** from the rest.
The figures in the right-hand margin indicate marks.

1. Answer the following questions in brief :   2×10
   (a) What is meant by Project Life Cycle ?
   (b) What are various types of feasibility analysis ?
   (c) Distinguish between fixed capital and working capital.
   (d) What is Work Breakdown Structure ?
   (e) Illustrate the use of Dummy activity in project network showing activity on arrow.
   (f) Write the expression to determine expected duration and standard deviation in duration of an activity in PERT.
   (g) What is Project control ?
   (h) Write the main advantage of matrix organization ?
   (i) What is the main purpose of Gantt Chart ?
   (j) What is meant by Risk Management ?

2. (a) Discuss various aspects of technical feasibility of a project.   5
   (b) Discuss various common reasons of project failure.   5

3. (a) Explain various phases/ steps followed in execution of a project.   5
   (b) Distinguish between activity and event. What are different types of precedence relationships that exist between activities ?   5

P.T.O.

4. (a) A project is different from routine and regular activities. Draw a list of characteristics and distinguish the projects from other activities. 5

(b) Distinguish between resource levelling and scheduling under resource constraint. Discuss some other common constraints that pose complexities in scheduling. 5

5. An entrepreneur wants to setup an industry to produce certain product. The expected sale price of product is Rs. 5,000 per unit. The various costs associated with the project are as under.

Cost of land	Rs. 100,00,000
Cost of building	Rs. 50,00,000
Cost of furniture, machines, etc.	Rs. 200,00,000
Working capital	Rs 50,00,000
Salary to employees	Rs. 6,00,000 per month
Electricity and water charges	Rs. 60,000 per month
Miscellaneous expenditure	Rs. 60,000 per month
Raw material cost	Rs. 1,500 per unit
Processing cost	Rs. 1,000 per unit

The rate of depreciation on building is assumed to be 5% and for other items it is 10%. The cost of capital (interest) is 14%. Determine minimum quantity that should be produced and sold (Break Even Quantity) so that there is no loss to industry. 10

6. Time estimates of a project activities and their relationship are given below.

Activity	Predecessor Activity	Time duration (weeks)
A	None	8
B	None	2
C	B	8
D	B	10
E	B	14
F	A, C	9
G	D, F	6
H	D	8
I	D, E	7
J	G, H, I	5

Draw the network diagram. Determine the critical path and duration of project. Determine total float, free float and independent float of non-critical activities. 10

7. (a) Discuss the importance of project audit. Describe Project Audit Life Cycle.

   5

   (b) Discuss the purpose of project control. Describe the Indicators used for schedule control and cost control.

   5

8. Write short notes on any **two** :

   5×2

   (a) LOB technique in project management

   (b) Project Management Information System

   (c) GERT.

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