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Total number of printed pages – 3

B. Tech  
FEME 6302

Fifth Semester Regular Examination – 2014

PROJECT MANAGEMENT

BRANCH : MECH

QUESTION CODE : H 206

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 : 2 × 10
- (a) What are the goals of Project Management ?
  - (b) What are the phases of Project Life-Cycle ?
  - (c) Explain various types of Project Organization.
  - (d) What are the various types of Plans used in Project Management ?
  - (e) What is the purpose of determining critical path and float of an activity ?
  - (f) Write how expected duration and standard deviation in duration of an activity is determined in PERT.
  - (g) Distinguish between direct cost and indirect cost of project.
  - (h) What is project expediting or project crashing ?
  - (i) What is meant by Project Uncertainty ?
  - (j) What is resource leveling ?
2. (a) Explain the role and responsibilities of a Project Manager. 5
- (b) Explain the various steps involved in project formulation. 5

P.T.O.

3. An entrepreneur wants to setup an industry to produce 1000 units of a product per month. The expected sale price of product is Rs. 3,600 per unit. The various costs associated with the project are as under :

Cost of land	Rs. 80,00,000
Cost of building	Rs. 40,00,000
Furniture and Office equipments	Rs. 10,00,000
Cost of machines	Rs. 1,60,00,000
Electrification, piping, installation	Rs. 10,00,000
Salary to employees	Rs. 5,00,000 per month
Fixed Electricity charges	Rs. 50,000 per month
Water charges	Rs. 10,000 per month
Miscellaneous expenditure	Rs. 60,000 per month
Raw material cost	Rs. 1,000 per unit
Machining cost	Rs. 800 per unit

It is estimated that Rs. 50,00,000 is required as working capital to keep the factory running. The rate of depreciation on building is assumed to be 5% and for other items it is 10%. The cost of capital (interest) is 15%. Evaluate economic feasibility of this project. 10

4. Time estimates of a project comprising of eight activities are given below :

Activity	Predecessor Activity	Time duration (weeks)		
		Optimistic	Most Likely	Pessimistic
A	None	10	12	26
B	None	2	4	12
C	B	8	9	10
D	B	10	15	20
E	B	7	7.5	11
F	A, C	9	9	9
G	D	3	3.5	7
H	E, F, G	5	5	5

Draw the network diagram. Determine the critical path and expected duration of project. What is the duration for the project to be completed with 75% probability? Value of 'z' for 75% probability is 0.68. 10

5. (a) Explain the LOB technique for planning of repetitive projects ? 5  
(b) Discuss the purpose of project audit. Describe the method for undertaking Project Audit. 5
6. (a) What are the critical factors for a Project Success ? 5  
(b) Discuss the purpose of project control. Describe the Indicators used for schedule control and cost control. 5
7. (a) What is Gantt chart ? Explain the application of Gantt Charts. 5  
(b) Discuss the desirable features of a computerized Information System for Project Management. 5
8. Write short notes on any **two** : 5×2  
(a) Work Breakdown Structure  
(b) Break Even Analysis  
(c) GERT.

