Total Number of Pages: 2   **B.Tech**
                                                                            FEME6302

5ᵗʰ Semester Regular / Back Examination 2016-17
PROJECT MANAGEMENT
BRANCH(S): AERO, MANUFAC, MANUTECH, MECH, PE
Time: 3 Hours
Max Marks: 70
Q.CODE: Y374
Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1   **Answer the following questions:**   **(2 x 10)**
   a)   Distinguish between activity and event.
   b)   Write the main advantage of matrix organization.
   c)   What is the main objective of break-even analysis?
   d)   What is meant by Project Life Cycle?
   e)   Distinguish between fixed capital and working capital.
   f)   Distinguish between 'Finish to Start', 'Finish to Finish', 'Start to
            Start' and 'Start to Finish' relationships between activities.
   g)   Illustrate the use of Dummy activity in AOA diagram
   h)   What is critical path of project?
   i)   Explain the importance of project crashing
   j)   What is the use of Gantt Chart?

Q2 **a)** Give the characteristics of a project. How a project is classified?   **(5)**
        b) Elaborate on the various project selection methods.   **(5)**

Q3   What is meant by project feasibility? Explain various aspects that   **(10)**
            need to be considered for determining the feasibility of project.

Q4 **a)** Details of a project are shown in table.   **(10)**

Activity	Normal		Crash	
	Duration in weeks	Cost	Duration in weeks	Cost
1 - 2	5	80,000	3	120,000
1 - 3	8	70,000	5	115,000
2 - 5	4	60,000	2	80,000
2 - 4	5	60,000	3	100,000
3 - 4	5	50,000	3	70,000

The indirect cost is Rs.25,000 per unit time. What is the normal
duration and optimum crash duration of project?

Q5 A project consists of 8 activities. For each activity, the preceding **(10)** activity and probabilistic estimates of duration are given below.

Activity	Preceding activity	Optimistic time	Most likely time	Pessimistic time
A	-	2	4	6
B	A	3	6	9
C	A	2	5	11
D	-	2	10	12
E	C	4	8	15
F	B, E	2	4	12
G	D	3	4	11
H	F, G	1	1	1

Draw network diagram. Determine critical path and expected duration of project. What is the duration within which the project can be completed with 75% confidence level? Value of 'z' for 75% confidence level (probability) is 0.68.

Q6 **(a)** Discuss the important features of PMIS. **(6)**

(b) A phase of project was planned to be completed in 9 months for value Rs.650,000. But on review it was found that actual expenditure incurred is Rs.460,000 and value of work completed is only Rs.480,000. Find the cost and schedule variances and corresponding performance indexes. **(4)**

Q7 **(a)** Explain what is meant by the term project "closeout". Why is it important to conduct effective project closeout? **(5)**

(b) What is the necessity of carrying out "Project Audit"? List the key areas that are covered in "Project Audit". **(5)**

Q8 **Write short answer on any TWO:** **(5 x 2)**
a) Work Breakdown Structure

b) Line of Balance (LOB) Technique in Project Management

c) GERT

d) Resource levelling