M.Tech. (Emb Sys)/(VLSI Design) (2018 Batch)   (Sem.–3)
M.Tech. (Electronics Product Design & Technology)

COST MANAGEMENT OF ENGINEERING PROJECTS

Subject Code : MTOE-301A-18
M.Code : 76856

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :
1.Attempt any FIVE questions out of EIGHT questions.
2.Each question carries TWELVE marks.

1.   Name and Explain different types of costs involved in decision making.

2.   Explain in detail various stages of project execution.

3.   a) Explain in detail mechanical and process project commissioning.

      b) Write a note on project team.

4.   a) Distinguish between marginal and absorption costing.

      b) Explain in detail Break-Even Analysis.

5.   Explain **any Three** :

      a) MRP

      b) JIT

      c) ERP

      d) TQM

6.   a) Explain different types of Budgets.

      b) A company has four market segments open and four salesmen are to be assigned one
          to each segment to maximize the expected total sales. The salesmen differ in their
          ability and the segments also differ in their sales potential. The details regarding the
          expected sales in each segment by a typical salesman under most favorable condition
          are given below. Segment A = Rs. 60,000, Segment B = Rs. 50,000, Segment C =
          Rs. 40,000 and Segment D = Rs. 30,000.

      It is estimated that working under same condition, the ability of salesmen in terms of
      proportional yearly sales would be as below :

      Salesman W = 7, Salesman X = 5, Salesman Y = 5 and Salesman Z = 4. Assign segments
      to salesmen for maximizing the total expected sales.

7. a) Solve the following L.P.P.

   Maximize $Z = 1a + 2b + 3c - 1d$

   $1a + 2b + 3c = 15$; $2a + 1b + 5c = 20$; $1a + 2b + 1c + 1f = 10$ and $a, b, c,$ if all are ≥ 0

   b) Write a detailed note on Budgetary control.

8. A small project is composed of 7 activities whose time estimates are listed below. Activities are being identified by their beginning (i) and ending (j) node numbers.

Activities		Time in weeks		
i	j	t_o	t_i	t_p
1	2	1	1	7
1	3	1	4	7
1	4	2	2	8
2	5	1	1	1
3	5	2	5	14
4	6	2	5	8
5	6	3	6	15

   a) Draw the network

   b) Calculate the expected variances for each

   c) Find the expected project completed time

   d) Calculate the probability that the project will be completed at least 3 weeks than expected.

   e) If the project due date is 18 weeks, what is the probability of not meeting the due date?