



RPN – 13

M.Com. (Semester – IV) Examination, November 2017
COO4 A2 : COST MANAGEMENT (OA-18)

Duration : 3 Hours

Max. Marks : 60

- Instructions :**
- 1) This paper consists of **nine** questions carrying **equal** marks.
 - 2) Question No. **1** consists of **5 compulsory** questions of **2 marks each**.
 - 3) Answer **any five** questions from Question of **2, 3, 4, 5, 6, 7, 8 and 9**.
 - 4) **Each** question carries **10** marks. Figures to the **right** indicate marks.

1. Answer the following questions : (5x2=10)
 - a) What do you understand by the term 'Cost Management' ?
 - b) Mention any four Costs associated with Training and Development.
 - c) What is 'Value Engineering' ?
 - d) Illustrate and explain the symbols used in a PERT-CPM diagram.
 - e) Differentiate between a Balanced and an Unbalanced Assignment Problem.
2. Explain the various techniques involved in Strategic Cost Management. 10
3. What is Activity Based Costing ? Enumerate the benefits of Activity Based Costing that has drawn more and more organizations in manufacturing and non manufacturing industries to adopt it ? 10
4. A) Meena is a reporter for an Economic Magazine. She has been asked to develop an article on 'Product Life Cycle Costing' for the magazine. Meena has asked you to recommend industries and firm that would be good candidates for the article. What would you advise ? Justify your recommendations with valid reasons and examples. 4
- B) Write short note on : 6
 - i) Tear down analysis
 - ii) Experience Curve.

P.T.O.



5. A) Answer the following questions :
- What are Decision Variables, Objective Function, Constraints and Infeasible problem with reference to Linear Programming Problem ? **4**
 - State the conventions followed in drawing a Network. **2**
- B) State the main types of Information which will be required by a manager to implement the balance scorecard approach to performance measurement. **4**
6. Write the help of the activities given below : **10**
- Construct a network diagram and determine its critical path.
 - Calculate Early Start Time, Late Start Time, Early Finish Time, Late Finish time and Total Float.

Activity	1-2	1-3	1-4	2-4	2-5	3-6	4-6	5-7	6-7	6-8	7-8	8-9
Duration (days)	4	12	10	8	6	8	10	10	0	8	10	6

7. Well-done Company has taken the third floor of a multistoried building for rent with a view to locate one of their zonal offices. There are five main rooms to be assigned to five managers. Each room has its own merits and demerits. Some have windows; some are closer to the washroom or canteen. The rooms are all of different shapes and sizes. Each manager was asked to rank their preference amongst the rooms 301, 302, 303, 304 and 305. Their Preference is recorded in a table indicated below :

Managers				
M1	M2	M3	M4	M5
302	302	303	302	301
303	304	304	305	302
304	305	304	304	304
-	301	305	303	-
-	-	302	-	-

Most of the Managers did not list all five rooms since they were not satisfied and left them out of their list. Assuming their preference can be quantified by numbers, find out as to which manager should be assigned to which rooms so that their total preference ranking is a minimum.

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8. A leading firm has three auditors. Each auditor can work up to 160 hours for projects that are assigned and to be completed. Project one will take 130 hours, project two will take 140 hours and project three will take 160 hours. Find the optimal solution and the maximum total billings. The amount that can be billed for assigning each auditor to each project is given below :

Auditor	Project		
	1 Rs.	2 Rs.	3 Rs.
1	1,200	1,500	1,900
2	1,400	1,300	1,200
3	1,600	1,400	1,500

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9. A) A firm buys casting of P and Q type of parts and sells them as finished products after machining, boring and polishing. The purchase cost is Rs. 3 and Rs. 4 and selling price is Rs. 8 and Rs. 10 for Parts P and Q. The per hour capacity of the machines used are as under :

Capacity (per hour)	Machining	Boring	Polishing
P	30	30	45
Q	50	45	30

The running cost for Machining, Boring and Polishing per hour is Rs. 30, Rs. 22.5 and Rs. 22.5. Formulate a Linear Programming Problem to maximize the profit.

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B) Sky Ltd., has two products Cloud and Wind. To Produce one unit of Cloud 2 units of material X and 4 units of Material Y are required. To produce one unit of wind 3 units of material X and 2 units of Material Y are required. As the supply of Material X is limited not more than 16 units can be used and in order to meet the committed sales of cloud and wind atleast 16 units of material Y is to be used for production. The cost per unit Material X and Material Y is Rs. 2.50 an 0.25 respectively. The selling price per unit is Rs. 12 for Cloud and Rs. 16 for Wind. You are required to :

- i) Formulate Mathematical Model.
- ii) Solve graphically for maximum contribution.

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