T.E. (Electronics and Telecommunication) (Part - III) (Semester - VI)
Examination, April - 2016
INDUSTRIAL MANAGEMENT (Revised) (New)
Sub. Code : 66920

Day and Date : Monday, 25 - 04 - 2016
Time : 03.00 p.m. to 06.00 p.m.

Total Marks : 100

Instructions :
1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Assume suitable data if necessary.

SECTION - I

21) Solve any two of the following.   [16]

a) Explain the process of management and functions of management.

b) What are characteristics of planning? Explain advantages of planning.

c) What do you understand by term policy? Discuss various steps of policy formation.

22) Solve any two of the following.   [16]

a) State principles of organisation. Distinguish formal organisation and informal organisation.

b) What are the benefits of industrial training? Explain different training methods .

c) Explain partnership with its advantages and limitations.

Q3) Write notes on any three of the following. [18]

    a)   Manpower planning.

    b)   Performance appraisal.

    c)   Objectives of market segmentation.

    d)   Methods of allocation of overheads.

    e)   Problems of small scale Industries.

SECTION - II

Q4) Answer the following. [12]

    a)   A project has the following characteristics.

Activity	Preceding Activity	Expected Completion time (weeks)
A	–	5
B	A	2
C	A	6
D	B	12
E	D	10
F	D	9
G	D	5
H	B	9
I	C,E	1
J	G	2
K	F,I, J	3
L	K	9
M	H,G	7
N	M	8

    i)   Draw a PERT network.

    ii)   Find critical path and project completion time.

    iii)   Will the path change if activity G takes 10 weeks instead of 5 weeks If so what will be critical path.

  b)   Explain PERT Vs CPM.   [4]

Q5) Answer any two of the following.   [16]

  a)   Solve the following LPP using Simplex Method

        Maximize $Z = 3x + 4y + z$

        Subject to constraints: $x + 2y + 3z \leq 90$

$$2x + y + 2z \leq 60$$
$$3x + y + 2z \leq 80$$
$$x, y, z \geq 0$$

  b)   Solve the following LPP using Graphical Method
        Minimize $Z = -x + 2y$
        Subject to $-x + 3y \leq 10$

$$x + y \leq 6$$
$$x - y \leq 2$$
$$x, y \geq 0$$

  c)   A company has four territories open for sale and four salesmen available for assignment. The effectiveness matrix of expected sales (in thousand rupees) depending upon the potential of territory and ability of salesman is given in below table.

Salesman	Territory			
	I	II	III	IV
A	42	35	28	21
B	30	25	20	15
C	30	25	20	15
D	24	20	16	12

Find out appropriate allocation of territories so as to maximize the total sales.

Q6) Answer any two of the following. [18]

a) Find the IBFS of the following transportation problem using.

i) North-west corner Method

ii) Least Cost Method

		Destination			Available
		D1	D2	D3	
Source	S1	2	7	4	5
	S2	3	3	1	8
	S3	5	4	7	7
	S4	1	6	2	14
Requirement		7	9	18	

b) Define operations research. Discuss scope and limitations of operations research.

c) Obtain the Critical Path & Project duration for the following PERT Network.

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