* K D - 6 4 6 5 *

KD-6465

B. E. II (Computer) (Sem. IV) Examination

December - 2012

Engineering Management

Time : **3** Hours] [Total Marks : **100**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **B. E. II (Computer) (Sem. IV)**

Name of the Subject :

☛ **Engineering Management**

☛ Subject Code No. : **6 4 6 5** ☛ Section No. (1, 2,.....) : **1,2**

Seat No. :

Student's Signature

(2) Answers to the two section must be written in two seperate answer books.

(3) Abbrevations have got their usual meaning.

(4) Marks are shown at right hand side.

(5) All questions are compulsory.

Section - I

1 Write short note. (any two) **18**

(1) Waiting line models.

(2) Hungarian rule.

(3) Decision making under uncertainity.

(4) Analytical and simulation model.

2 Answer any four. **32**

(1) Solve the following linear programming problem graphically.

Maximize $z = 20x_1 + 10x_2$

Subject to the Constraints :

$$3x_1 + x_2 \geq 30$$
$$x_1 + 2x_2 \leq 40$$
$$4x_1 + 3x_2 \geq 60$$
$$x_1, x_2 \geq 0$$

(2) What is the meaning of degeneracy in a transportation problem ? What initiative should be taken in order to remove the degeneracy.

(3) Solve the following assignment problem,

	1	2	3	4
A	3	6	2	6
B	7	1	4	4
C	3	8	5	8
D	6	4	3	7
E	5	2	4	3
F	5	7	6	2

(4) Find optimum feasible solution for the following transportation problem by Vogel's approximation method.

		Destination				
		D_1	D_2	D_3	D_4	*Supply*
Origin	O_1	1	2	1	4	30
	O_2	3	3	2	1	50
	O_3	4	2	5	9	20
Re*quirement*		20	40	30	10	

(5) Give the diagrammatic representation of Queuing system and decision tree model.

(6) What is linear programming ? State its uses.

Section - II

3 Attempt any two. **16**

(a) Explain the meaning of organisation. List out various forms of organisation and explain any one in detail.

(b) Explain the meaning of industrial relation. Also discuss the process of collective bargaining.

(c) Explain principles of management derived by Henri Fayal.

4 Attempt any two. **16**

(a) Why are the trade unious are formed ? How they are useful to labour and society.

(b) Distinguish public and private limited companies.

(c) Define management and its process. List out various functions of management. Explain any one with the help of examples.

5 Write note on any three. **18**

(a) Causes of industrial disputes.

(b) Co-ordination and it's importance.

(c) Sole propritorship enterprise.

(d) Forms of co-operative undertaking.

(e) Partnership firm.
