

S.D.E.

M.B.A. Sem-I (2010 Course)(3 Year Course) : SUMMER - 2019

SUBJECT: MANAGEMENT SCIENCE AND DECISION TECHNOLOGY

Day: Thursday
Date: 02/05/2019

S-2019-5081

Time: 10.00 AM TO 1.00 PM
Max. Marks: 70

N.B.:

- 1) Answer any **FOUR** question from Section-I. Each question carries **10** marks.
- 2) Answer any **TWO** from Section -II. Each question carries **15** marks.
- 3) Answers to both the sections should be written in **SAME** answer book.
- 4) Use of non programmable **CALCULATOR** is allowed.

SECTION-I

- Q.1** Discuss evolution of management thought. (10)
- Q.2** What is Operations Research? Explain its methodology. (10)
- Q.3** From the following data find the missing frequencies. It is given that mean is 15.3818 and total frequency is 55. (10)

Class	9-11	11-13	13-15	15-17	17-19	19-21
Frequency	3	7	-	20	-	5

- Q.4** What is meant by 'Linear Programming'? Explain its uses and limitations. (10)
- Q.5** Write short notes on (Any **TWO**) (10)
- a) Simulation
 - b) Probability theory
 - c) Management science approach
 - d) Assignment problem

SECTION-II

- Q.6** Find the optimum solution for the following transportation problem so as to minimize the cost. (15)

	D ₁	D ₂	D ₃	D ₄	Available
O ₁	23	27	16	18	30
O ₂	12	17	20	51	40
O ₃	22	28	12	32	53
Required	22	35	25	41	123

- Q.7** Describe the main features of decision theory. Also state its limitations. (15)
- Q.8** In a factory cafeteria the customers have to pass through three counters. The customers buy coupons at the first counter, select and collect the snacks at the second counter and collect tea at the third. The server at each counter takes on an average 1.5 minutes although the distribution of service time is approximately Poisson at an average rate of 6 per hour. (15)
- Calculate :
- a) The average time a customer spends waiting in the cafeteria.
 - b) The average time of getting the service.
 - c) The most probable time in getting the service.

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