MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MBA II Year I Semester (R18) Supplementary End Semester Examinations – OCTOBER 2021
OPERATIONS RESEARCH

Time: 3Hrs Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.no 1 to 5 answer either Part A or Part B only. Q.no 6 which is a case study is compulsory.

Q.1(A) What is OR? List out the various applications of OR. 10M

OR

Q.1(B) Solve the L.P.P. by graphical method. 10M
Maximize $Z = 3a + 2b$
Subjected to $1a + 1b \leq 4$, $1a - 1b \leq 2$, $a \geq 0$, $b \geq 0$

Q.2(A) Five jobs are to be assigned to 5 machines to minimize the total time required to process the jobs on machines. The times in hours for processing each job on each machine are given in the matrix below. By using assignment algorithm make the assignment for minimizing the time of processing. 10M

Jobs	V	W	X	Y	Z
A	2	4	3	5	4
B	7	4	6	8	4
C	2	9	8	10	4
D	8	6	12	7	4
E	2	8	5	8	8

OR

Q.2(B) Explain briefly the procedure adopted in Vogel's Approximation method. 10M

Q.3(A) Elucidate the process and types of decision making environments with some illustrations. 10M

OR

Q.3(B) Solve the game whose pay off matrix is: 10M

		Player A			
		I	II	III	IV
Player B	I	3	4	10	12
	II	6	4	7	5

Q.4(A) The maintenance cost and resale value per year of a machine whose purchase price is Rs. 7000/ - is given below: 10M

Year	1	2	3	4	5	6	7	8
Annual Maintenance Cost in Rs	900	1200	1600	2100	2800	3700	4700	5900
Resale Value	4000	2000	1200	600	500	400	400	400

When should the machine be replaced?

OR

Q.4(B) What is Simulation? Explain the types of simulation and its use. 10M

Q.5(A)   The following table gives the activities of construction project and duration: 10M

Activity	1-2	1-3	2-3	2-4	3-4	4-5
Duration (days)	20	25	10	12	5	10

Draw the network for the project. Determine the critical path and project duration.

OR

Q.5(B)   Assume that at a bank teller window the customer arrives at a average rate of   10M
20 per hour according to Poisson distribution .Assume also that the bank teller
spends an distributed customers who arrive from an infinite population are served
on a first come first services basis and there is no limit to possible queue length.
1. What is the value of utilization factor?
2. What is the expected waiting time in the system per customer?
3. What is the probability of zero customer in the system?

Q.6   **CASE STUDY**   10M
A company manufactures 200 motorcycles per day. Depending upon the
availability of raw materials and other conditions, the daily production has been
varying from 196 to 204 motorcycles, whose probability distribution is as given
below:

Production per day	196	197	198	199	200	201	202	203	204
Probability	0.05	0.09	0.12	0.14	0.20	0.15	0.11	0.08	0.06

The motorcycles are transported in a specially designed three storeyed lorry that
can accommodate only 200 motorcycles. Using the following random numbers: 82,
89, 78, 24, 52, 53, 61, 18, 45, 04, 23, 50, 77, 27, 54, 10
Simulate the process to find out:
a) The average number of motorcycles waiting in the factory.
b) The average number of empty spaces on the lorry?
END

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CORPORATE TAX PLANNING

Time: 3Hrs

Max Marks:60

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.no 1 to 5 answer either Part A or Part B only. Q.no 6, which is a case study,is compulsory.

Q.1(A)	Enlist and explain ten items of Income which are totally exempt from Income Tax.	10M
	OR	
Q.1(B)	Write Short notes on (i) Person (ii) Assessee (iii) Previous Year	10M

Q.2(A)	Explain various incomes of corporate assesses.	10M
	OR	
Q.2(B)	During the Year ended 31 March 2018 Mr. John sold the following assets:	10M

S.No	Particulars	Sale Proceeds (in Rs)
i	Shop purchased in 2005-06 (C.I.I :117) for Rs 48000	1,80,000
Ii	Machinery Purchased in 2005-06 (C.I.I : 117) for Rs 50,000 (W.D.V. on 01/04/2017 Rs 35,000)	60,000
Iii	Furniture purchased on 01/05/2017 for Rs 1000	1,300
iv	Machinery purchases on 01/05/2017 for Rs 10,000	12,000
v	Agricultural land in Agra purchased in 1998-99 for Rs. 40,000 (F.M.V. on 01/04/2001 (C.I.I :100) being Rs 75000	2,80,000
vi	One residential house purchased in 2007-08 (C.I.I:129)costing Rs 80,000)	2,90,000

During the Year he bought a new house for his residence for Rs. 6,00,000
Calculate the amount of Capital Gains. Cost Inflation Index (C.I.I) is 272

Q.3(A)	Illustrate in detail the provision of set-off and carry forward of losses.	10M
	OR	
Q.3(B)	Explain Nature and scope of corporate tax.	10M

Q.4(A)	What is Tax Planning? Elaborate on the significance of Tax Planning.	10M
	OR	
Q.4(B)	Define Capital Structure? Write a note on Corporate Tax Planning Strategies in respect of employee's remuneration.	10M

Q.5(A)	Elaborate the provisions of Deduction u/s 80IA and 80IAB	10M
	OR	
Q.5(B)	Describe the special provision in respect of newly established undertaking in 100% EOUs.	10M

Mr. Sidhartha has a residential house property taxable u/s 22.such property is acquired on 12/08/2005 for Rs 2,00,000. The property is said on 1/3/2019 for Rs 25,00,000. He Acquired another residential house on 31/3/2019 for Rs 17,00,000 for self-occupation. On 1/3/2020, he sold such new residential house for Rs 30,00,000. Compute his capital Gain for the A.Y.2019 and 2020-21.

END

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CONSUMER BEHAVIOUR and CRM

Time: 3Hrs   Max Marks: 60

> Attempt all the questions. All parts of the question must be answered in one place only.
> In Q.no 1 to 5 answer either Part A or Part B only. Q.no 6 which is a case study is compulsory.

Q.1(A)	Define Consumer Behaviour and discuss the characteristic features of consumer behavior.	10 M
	OR	
Q.1(B)	'A detailed study of consumer behaviour is essential for the success of any business organization in the present environment'. Examine the statement in the Indian context.	10 M
Q.2(A)	Explain Family Life Cycle and its characteristics influencing consumer behavior.	10 M
	OR	
Q.2(B)	Explain Engel Kollat Blackwell Miniard model with suitable example.	10 M
Q.3(A)	Discuss the evolution of CRM till present day. How is it strategically important for success of a firm?	10 M
	OR	
Q.3(B)	What is e-CRM? Enumerate its features and advantages.	10 M
Q.4(A)	Define the importance of service failure and service recovery in CRM.	10 M
	OR	
Q.4(B)	Write Short notes on the following a) Employee – Customer Linkage b) Customer Revenge	10 M
Q.5(A)	Define customer satisfaction. Explain the procedure of measuring customer satisfaction.	10 M
	OR	
Q.5(B)	Define customer Loyalty. Explain different customer satisfaction practices under CRM.	10 M

Q.6   **Case Study**   10 M

XYZ Co. Ltd., was a company carrying on business in cosmetics and perfumes They were not following the marketing concept and were catering to a target market which was using their products. In other words, they only concentrated on what they would make and did not bother about changes in preferences of their target market. They were later joined by Mr. Raj Neeraj, a marketing graduate who advised the company regarding the changing consumer preferences, and the changes that were necessary to be incorporated in the product. He emphasized upon the income factors, and social factors only. He modernized the products to a great extent, and invested about ₹ 30 lakhs on new packing, etc. Even after six months of these changes brought about by Raj, the company did not seem to have

a proportionate increase in sales. The assistant manager and the product manager were not very happy with the changes, and thought that although an effort has been made in the right direction, some important factors concerning consumer behaviour had been neglected.

Questions:
  i.   Do you agree with the assistant and product managers, if agree why?
  ii. What other factors, if any, could have been considered in the product? Elaborate in detail

END