

Con. 6162-13.

BT-8032

(2 Hours)

[ Total Marks : 60

**N.B. :** (1) All question are compulsory.  
(2) All questions carry equal marks.

- 1. (a) What is E-commerce? Explain in detail its benefits. ✓ 8
- (b) Explain the E-choupal initiative of ITC. ✓ 7

**OR**

- (a) Explain B2B, B2C, C2C, G2C models.
- (b) Explain demerits of E-commerce.

- 2. (a) What are the benefits of online trading? 8
- (b) HDFC offers various online banking services. 7

**OR**

- (a) What are the benefits of online job market to employers and employees?
- (b) What do you mean by hybrid model? ✓

- 3. (a) Brief out about Brick and Mortar model. ✓ 8
- (b) Explain about online banking services. ✓ 7

**OR**

- (a) What do you mean by click-to-click model?
- (b) How E-commerce benefitted business house in today's world?

- 4. Write short notes on any three :- 15
  - (a) Amazon com. ✓
  - (b) E-education. ✓
  - (c) Advertising model. ✓
  - (d) Differences between click-to-click and Brick and Mortar.

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(2 Hours)

[ Total Marks : 60

- N. B. :** (1) All questions are **compulsory**.  
 (2) All questions are having **Internal** options.

1. (a) Explain firewall with it's types. 15  
 OR  
 (a) Define PINA factor. ✓ 8  
 (b) Define network security. ✓ 7
2. (a) Define card Brand, card Issuer, Acquirer, Merchant and card Holder. 15  
 OR  
 (a) Define Encryption with diagram. ✗ 8  
 (b) Define digital signature and digital certificate. ✓ 7
3. (a) Define New Generation payment system with it's types. ✓ B2C, E-cash 15  
 OR  
 (a) Give reasons for low utilization of credit cards in India. 8  
 (b) Define virus with it's types. 7
4. (a) Explain on line web based payment services of HDFC Bank. 15  
 OR  
 (a) Define SWIFT. ✓ 8  
 (b) Define SSL and SHTTP. ✗ 7

Payment B2B e-com.  
 SWIFT  
 CHIPS  
 ACH  
 CHAPS  
 RBINET  
 BANKNET  
 INFNET

(2 Hours)

[ Total Marks :60

- N.B. :** (1) All questions are **compulsory**.  
 (2) Figures to the right indicate marks.

1. (a) Define service and give a brief classification of service with example. 8  
 (b) Discuss the macro and micro environment for tourism industry. 7  
**OR**  
 (P) What are the service marketing mix ? How each of those mix help to satisfy an organisation's consumer ? ✓ 8  
 ✓ (q) Identify reasons for growth of service sector in India. ✓ 7
2. (a) Taking the example of service organisation like Railways, Airlines, Banks and Hotels identify the strategy they adopt to tangibilise their intangible service. 8  
 (b) How can we use "SERVQUAL" to measure service quality ? 7  
**OR**  
 ✓ (p) Use "gap model for service quality" for an industry of your choice. ✓ 8  
 ✓ (q) Discuss the basic strategies for matching demand and supply and give example of each. ✓ 7
3. ✓ (a) How do you market educational services with the help of 7P's ? ✓ 8  
 ✓ (b) Explain relationship development process with its attribute and determinant. ✓ 7  
**OR**  
 (p) What is the need and importance of CRM in service marketing ? 8  
 ✓ (q) Discuss role of IT for successful CRM. 7
4. Write short notes on (any three) : - 15  
 ✓ (a) Service marketing triangle ✓  
 (b) GATS  
 ✓ (c) E CRM ✓  
 (d) STP.
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Internet & WD

Con. 8855-13.

BT-8025

(2 Hours)

[ Total Marks : 60

- N.B. :** (1) Attempt **all** questions.  
(2) Draw diagram when **necessary**.

1. Explain CSS and its type with example. 10
  
  2. Explain the following tags with example. 10
    - (a) < table > *Table*
    - (b) < tr > *Table Row*
    - (c) < td > *Table cell*

*2.5*
  
  3. Write short note on following:- 10
    - (a) Bookmarks
    - (b) URL
    - (c) FTP
  
  4. Explain security threats in detail. 10
  
  5. Explain steps for process of planning for development of an effective Website. 10
  
  6. What is Web Browser? List down the browsers available in today's market. Explain difference between netscape communicator and internet explorer. 10
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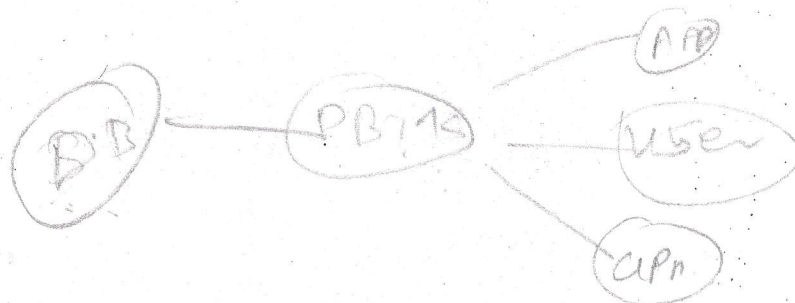
N.B. : All questions are compulsory.

- 1. (a) Explain ANSI-SPARC three level architecture of database system. 8
- (b) Explain DML, DDL and DCL language of database system. 7
- OR**
- (a) Explain the building-blocks of E-R model with E-R diagram. 8
- (b) Explain data mining and states its uses. 7
- 2. (a) Define data model. Explain different types of data model. 8
- (b) Explain the concept and types of data warehouse. 7
- OR**
- (a) Explain different techniques used in database security. 8
- (b) Define transaction. Explain recovery of the transaction failure. 7
- 3. (a) What do you understand by the term Functional dependency. Explain various types of functional dependency. 8
- (b) Explain multimedia database and its use in e-commerce industry. 7
- OR**
- (a) Explain normalization in detail. 8
- (b) Explain data warehouse with respect to its uses in World Wide Web. 7
- 4. What are the different advantages and significance of DBMS. Describe in detail. 15

**OR**

Write short notes on : -

- (a) Spatial database
- (b) Relational operator
- (c) Concurrency control.



- N.B.: (1) Solve all questions.  
 (2) Graph paper will be supplied on demand.

1. (a) Explain the following terms :—

- (i) Unbounded solution to LPP by Graphical method. ✓
- (ii) Degeneracy in transportation problem.

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3  
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(b) Solve the following LPP by Simplex method write optimal product mix and max-profit :

$$\begin{aligned} \text{Max } Z &= 100x_1 + 80x_2 \\ \text{S.T. } 6x_1 + 4x_2 &\leq 7200 \\ 2x_1 + 4x_2 &\leq 4000 \\ x_1, x_2 &\geq 0. \end{aligned}$$

OR

(p) Explain the following concepts :—

- o (i) Shadow prices
- o (ii) Restricted Assignments.

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(q) Solve the following transportation problem by VAM write min. transportation cost.

Source	Markets →			Supply
	A	B	C	
1	13	10	9	60
2	11	12	13	60
3	8	18	17	80
4	7	11	11	50
<b>Demand</b>	70	80	100	250

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2. (a) A firm is engaged in animal breeding. The animals are to be given nutritious supplement everyday. There are two products A and B which contains 3 required nutrients.

Nutrients	Quantity/Unit		Minimum requiredment
	A	B	
1	72	12	216
2	6	24	72
3	40	20	200

$72x_1 + 12x_2 \geq 216$   
 $6x_1 + 24x_2 \geq 72$   
 $40x_1 + 20x_2 \geq 200$   
 $40x_1 + 80x_2$

Product cost per unit are Rs. 40 for A and Rs. 80 for B. Find out quantity of product A and B to be given to provide minimum nutritional requirement. Formulate above as a LPP and solve graphically.

(b) Solve the following game. Write value of the game

Player B —

		B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>
Player A	A <sub>1</sub>	-5	10	20
	A <sub>2</sub>	5	-10	-10
	A <sub>3</sub>	5	-20	20

Cost →  
 Profit ←  
 5/20

OR

2. (p) Find the Assignments of workers and machine to maximise the profit.

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Workers	Machine		
	M <sub>1</sub>	M <sub>2</sub>	M <sub>3</sub>
A	60	67	90
B	80	83	95
C	70	72	82
D	85	95	110



Random  
Ave

- (q) A confectioner sells confectionary item. Past data demand/week (in '00 kgs) with frequency is given below :—

Demand/Week	0	5	10	15	20	25
Frequency	2	11	8	21	5	3

Using the sequence of following random numbers, generate demand for next 15 weeks. Also find average demand/week.

35, 52, 90, 13, 23, 73, 34, 57, 35, 83, 94, 56, 67, 66, 60

3. The following is a table showing details of a project.

Activity	Normal		Crash	
	Time (weeks)	Cost (Rs.)	Time (weeks)	Cost (Rs.)
A 1-2	3	300	2	400
B 2-3	3	30	3	30
C 2-4	7	420	5	580
D 2-5	9	720	7	810
E 3-5	5	250	4	300
F 4-5	0	0	0	0
G 5-6	6	320	3	470
H 6-7	4	400	3	900
I 6-8	13	780	10	1200
J 7-8	10	1000	9	

Indirect Cost is Rs. 50/- week.

- Draw the network diagram for the project and identify the critical path.
- What are the normal project duration and associated cost ?
- Crash the relevant activities systematically and determine the optimal project completion time and cost.

OR

3. (p) For the following project :—

- Draw network diagram.
- Find Critical path and project completion time.
- Find ES EF LS LF times.
- Find total float of each non critical activity.

Activity	A	B	C	D	E	F	G	H
	1-2	2-3	2-4	3-4	3-5	4-6	5-7	6-7
Time (days)	4	6	2	6	3	4	1	2

- (q) A production deptt. of a Company requires 3800 kg of raw material for manufacturing a particular item per year. It has been estimated that the cost of placing an order is Rs. 38 and Cost of Carrying inventory is 20% of the investment in the inventories. The price is 20 Rs./kg. find ordering policy i.e. optimal lot size and optimal order cycle.

4. The following table was obtained while solving a LPP by Simplex method.

Basis	$C_j \rightarrow$ Solution	2	5	8	0	0	0
$x_2$ *	8/3	$x_1$ 1/3	$x_2$ *	$x_3$ *	$s_1$ 1/6	$s_2$ -1/3	$s_3$ *
$x_3$ *	56/3	5/6	*	*	-1/12	2/3	*
$s_3$ *	44/3	7/3	*	*	-1/13	-1/3	*
	$Z_j$	*	*	*	*	*	*

R 3800  
 $C_o = 38$   $C_c = 20$

Fill in the (\*) positions and answer the following questions :—

- (i) Is the above solution optimal ? If not carry out further iterations to get optimal solution.
- (ii) Write optimal product mix and max. profit.
- (iii) A customer is willing to pay some extra price for product  $x_1$ , by how much amount the price be increased for this product to ensure no reduction in profit.
- (iv) Indicate shadow prices of each of resources ? Which of the resources are abundant and which are scarce ?
- (v) Is there any alternate optimal solution ? If yes identify it.

OR

14. (p) Write applications of Operation Research in Management.

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(q) Write dual of the following LPP.

$$\begin{aligned} \text{Max } Z &= 30x_1 + 40x_2 + 35x_3 \\ \text{S.T. } 3x_1 + x_2 + 2x_3 &\leq 90 \\ 2x_1 + x_2 + 2x_3 &\leq 54 \\ x_1 + 3x_2 + 2x_3 &\leq 93 \\ x_1, x_2, x_3 &\geq 0 \end{aligned}$$

(r) Find Initial Basic Feasible Solution of following transportation problem by (i) N - W corner Rule and (ii) Least cost method and compare the min transportation cost.

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	$w_1$	$w_2$	$w_3$	Supply
$F_1$	14	12	9	200
$F_2$	8	10	13	150
$F_3$	11	16	7	250
<b>Demand</b>	<b>250</b>	<b>150</b>	<b>200</b>	



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Business models of E-Commerce  
II Sem

QP Code : 23987

(2 Hours)

[ Total Marks : 60

- N. B. : (1) All questions are compulsory.  
(2) Internal choices have been given.  
(3) Figures to the right indicate full marks.

1. What do you mean by e-commerce? Enumerate its merits & demerits. 15  
OR
  1. Define brick & mortar, click to click. Distinguish between them with appropriate differences. 15
  2. What factors have contributed for growing demand of e-commerce model? 15  
OR
  2. How e-choupal has benefited farmers all over india? 15
  3. What do you mean by on-line banking? What are various e-payment facilities used by banks? 15  
OR
  3. List out various types of e-commerce models. 15
  4. What do you mean by hybrid model? List out its merits & demerits. 15  
OR
  4. Define revenue model. Give an appropriate example. 15
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