M.com / B.com - Sem - III
OR Oct-15

QP Code : 23973

(2 Hours) **[Total Marks : 60**

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

1. (a) A Company produces two products A and B. 1 unit of product A requires 10 labour hours. 1unit of product B requires 5 labour hours. Availability of labour hours is 400. Maximam market demand for B is 60 units. Minimum demand for A is 20 units. Cost per unit of A and B is Rs.3 and Rs 5 respectively. Obtain optimal solution. Solve by graphical method. **8**

(b) A company has choice of launching any one of three variants of detergent - A,B and C. Demand can be 20,000 units 15,0000 units 10,000 units or 5000 units. Pay off table is given below:- **7**

Demand	Product Variant		
	A	B	C
20,000	60	50	35
15,000	35	40	30
10,000	15	25	20
5,000	-10	5	10

Find the appropriate decision for each of the following decision criterion. Maximin, Maximax, Laplace, Hurwicz (α=0.6) and Minimax regret.

OR

(p) A Construction project work consists of four major jobs for which four contractors have submitted tenders. The tender amounts quoted in thousands of rupees are given in the matrix as **7**

Contractors	Job			
	J_1	J_2	J_3	J_4
C_1	30	58	70	40
C_2	42	54	66	34
C_3	34	50	74	30
C_4	28	62	78	42

Find the assignment which minimizes total cost of the project. Each contractor has to be assigned one job.

[TURN OVER

(q) Solve the following problem by simple method. 8

Max $Z = 10x_1 + 20x_2$

Subject to constraints

$3x_1 + 5x_2 \leq 600$

$2x_1 + 3x_2 \leq 300$

$x_1, x_2 \geq 0$

2. (a) A small assembly plant assemblas PC's through 9 inter linked activities. The time duration for which is given below. 8

Activity	1-2	1-3	1-4	2-5	3-6	3-7	4-6	3-8	6-9	7-8	8-9
Duration	2	2	1	4	8	5	3	1	5	4	3

(i) Draw a network diagram for it.

(ii) Calculate and tabulate for each activity ES, EF, LS and LF

(iii) Calculate total float, free float, interfering float.

(b) For the following pay off table find 7

(i) EMV of each decision

(ii) Expected opportunity of loss

(iii) EPPI & EVPI

Action / Event	A_1	A_2	A_3	A_4	A_5
E_1 (0.15)	250	50	-150	-350	-550
E_2 (0.35)	250	500	300	100	-100
E_3 (0.25)	250	500	750	550	-350
E_4 (0.15)	250	500	750	1000	800
E_5 (0.1)	250	500	750	1000	1250

OR

A company has 3 plants, P_1, P_2 and P_3. It supplies to 3 ware houses D_1, D_2 and D_3 cost per unit and demand - supply data is given below. Find optimal solution by modified distribution method.

	D_1	D_2	D_3	Capacity
P_1	32	28	22	50
P_2	26	36	34	40
P_3	28	28	24	60
Demand	20	95	35	

3. (a) For the following project, draw PERT network and find expected project completion time. **15**

Activity	Preceding Activity	Optimistic time (a) in weeks	Most likely time (m) in weeks	Pessimistic time (b) in weeks
A	-	2	4	12
B	-	10	12	26
C	A	8	9	10
D	A	10	15	20
E	A	7	7.5	11
F	B,C	9	9	9
G	D	3	3.5	7
H	E,F,G	5	5	5

Answer the following:

(i) Find the probability of project completion in 32 weeks.

(ii) Find project completion time for 95% probability.

(iii) Find probability of not completing project in 30 weeks.

(b) Solve the following LPP by dual simplex method. **8**

Min $Z = 200x_1 + 150x_2$

Subject to constraints

$2x_1 + x_2 \geq 10$

$3x_1 + 2x_2 \geq 15$

$x_1, x_2 \geq 0$

OR

(b) A small project consists of the following activities 8

Activity	Normal Time	Normal Cost	Crash Time	Crash Cost
1-2	3	90	2	10
1-3	4	250	2	370
2-5	4	150	3	300
3-4	6	100	4	140
3-6	8	1400	8	400
4–5	3	120	2	170
5–7	5	200	3	400
6–7	3	200	1	280

Overhead cost is Rs. 70 per day.

Find (a) Normal project completion time and normal cost.

(b) Optimal project cost and optimal project completion time.

(c) Minimum project completion time and its corresponding cost.

(q) For the following game, find optimal strategies of A and B and valve of game using principle of dominance. 7

		Player B		
		B1	B2	B3
Player A	A1	7	6	8
	A2	-4	-3	9
	A3	3	0	4
	A4	10	15	-2

4 (a) A company wants to appoint 4 salesman in 4 districts. Sale projection in Rs for each salesman is given in each district. How should be company appoint the salesmen to achieve maximum total sales. 8

Salesman	Districts			
	A	B	C	D
1	420	168	240	70
2	360	336	1120	210
3	420	240	336	84
4	126	168	224	56

(b) A confectioner sells confectionery items. Past data of demand per week with frequency is given below. 7

Demand per week	0	5	10	15	20	25	30	35	40
Frequency	2	5	6	14	9	3	8	6	4

Using the following sequence of random numbers generate the demand for next 8 weeks. Also find the average demand per week.
31, 26, 88, 73, 14, 6, 91, 66

OR

(p) For the following transpostation problem find IFS using 7
(i) NWCR (ii) LCM & (iii) VAM methods.

	D_1	D_2	D_3	D_4	Capacity
P_1	10	12	9	6	70
P_2	7	3	7	7	60
P_3	6	6	9	11	90
Demand	60	40	60	20	

(q) Define the following terms: 8
(i) Rim condition in transportation problem.
(ii) Simulation
(iii) Total float & free float
(iv) Optimistic & pessimistic time

(E.Com-II) DBMS (M.Com/E-Com-Sem III)

QP Code : **23977**

(2 Hours) [**Total Marks : 60**

N.B. : (1) **All** questions are compulsory

1. (a) What is database System? Explain its features. 10
   (b) Write a note on Functional dependency. 5

   OR

   (p) Explain the three level architecture of database system with the help of a diagram. 15

2. (a) Explain E-R model with the help of a diagram. 10
   (b) Write a note on multimedia database. 5

   OR

   (p) Explain the following data models in detail- network, hierarchical and Relational model. 15

3. (a) Explain the concept of data mining. Explain the techniques of datamining. 10
   (b) Write a note on DDL. 5

   OR

   (p) Explain the stages of normalization with the help of an example. 15

4. Write short notes on (any **three**) 15
   (a) MySQL
   (b) Data warehouse
   (c) Database security
   (d) PHP.

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Internet web Designing

QP Code : 23979

(2 Hours) [Total Marks : 60

N.B. : 1.Answer all questions.

1. (a) Explain different types of list in html. Show with example. 15

OR

(b) Explain structure of html. 8

(c) Explain <image> with example. 7

2. (a) Explain the process of development of webcycle with diagram. 15

OR

(b) Explain features of web browser 8

(c) Explain guidelines to be followed selecting domain name. 7

3. (a) Design a student registration form. 15

OR

(b) Explain physical and logical style of text 8

(c) Explain FTP commands. 7

4. Short notes on following (any two) 15

(a) Security threats

(b) Extemal CSS with eg.

(c) AAA

(d) <frame set> attributes with eg.

M.Com/B.Com-II / Sem-III / [illegible]

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QP Code : 23981

(2 Hours) **[Total Marks : 60**

N.B. : 1. All questions are compulsory.
2. Number to the right devote marks.

1. (a) Discuss the contribution of the service sector in Indian Economy. **10**
(b) Discuss the extended Ps in service marketing. **5**

OR

(p) What are the basic characteristics of service compared with goods. Write the implication of these characteristics on e-commerce business. **10**
(q) Explain service marketing triangle. **5**

2. (a) What do you mean by service gap ? Discuss the different provider gap responsible for the same. **10**
(b) Discuss the factors influencing customer expectations in service. **5**

OR

(p) Explain the dimensions of service quality used by customers to evaluate service. **10**
(q) What is the importance of research in service **5**

3. (a) How do you market educational service with the help of 7Ps. **10**
(b) What is CRM ? Discuss the common reason for CRM failure within the organisation. **5**

OR

(p) Discuss the step by step process involved in CRM implementation **10**
(q) What are the importance of data mining. **5**

4. Write short note on any **three** : **15**
(i) Service Encounter
(ii) Affiliate Marketing
(iii) Portfolio Management and service marketing
(iv) International marketing of service.

M-Com (E-commerce) III Sem

Network Infrastructure & Payment System

QP Code : 23985

(2 Hours) [Total Marks : 60

1. What is Network Security? Different threats to network security & also how to protect a network from various attacks 15

OR

(a) Explain the process of Encryption and Decryption with the help of Diagram 8

(b) In spite of India being one of the fastest growing countries around the world, still the utilization of credit card is very less in India. Agree or Disagree? Explain 7

2. Define Card brand, Card Issuer, Acquirer, Merchant & Card Holder. How are they related to each other in a process? Diagram Preferred 15

OR

(a) Explain Unauthorized Intrusion. What is Physical and Logical Intrusion 8

(b) PINA factor 7

3. Define New Generation Payment System. Explain any 5 types of payment done in B2C portals (Excluding COD) 15

OR

(a) Write short note on SWIFT. Also explain what is SWIFT CODE? 8

(b) Explain the process of secure data communication between Web Server and Web Browser 7

4. Write Short Notes on (any three) 15

(a) Hacking

(b) SSL

(c) CHAPS

(d) SWIFT

(e) Digital Signature

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
