

CHOICE BASED CREDIT SYSTEM

M.Com. THIRD SEMESTER DEGREE EXAMINATION NOVEMBER 2024

Management Science

Duration: 3 Hours

Max Marks: 70

I. Answer any THREE of the following :

(3×5= 15 Marks)

- 1) Describe the role of decision making in Operations Research.
- 2) What are the situations where Operations Research techniques are applicable?
- 3) A media specialist plan to allocate advertising expenditure in 3 media whose unit cost is Rs.1500, Rs.1250 and Rs.1000 per message respectively. The total advertising budget available for the year is Rs. 50,000. The first medium is monthly magazine and it is desired to advertise not more than once in one issue. At least 5 advertisements should appear in the second medium and the no. of advertisement in the third should strictly lie between 6 and 10. The effective audience for unit advertisement in 3 medium is given below

Medium 1 - 50,000

Medium 2 - 40,000

Medium 3 - 25,000

Formulate LPP to find the optimum allocation of advertisement in 3 Media that would maximise the total effective audience.

- 4) The following details are available in respect of a firm
 - i) Inventory requirement per year 6000 units
 - ii) Carrying costs per item for one year, Rs.1
 - iii) Costs of placing each order, Rs.80
 - iv) Alternative order sizes: (units) 6000, 3000, 2000, 1200, 1000, 600 and 200

Determine the Economic Order Quantity using:

- a) Analytical Approach
- b) Simple Mathematical Approach

II. Answer the following question :

(1×10= 10 Marks)

- 5) Solve the given linear programming problems graphically:

$$\text{Maximize } Z = 5x_1 + 8x_2$$

and the constraints are :

$$3x_1 + 5x_2 = 18$$

$$5x_1 + 3x_2 = 14$$

$$x_1, x_2 \geq 0$$

III. Answer any THREE of the following :

(3×15= 45 Marks)

6) "Operation Research is the application of scientific methods, techniques and tools to problem involving the operations of a system so as to provide those in control of the system with optimum solution to the problems". Discuss.

7) Solve the following transportation problem using North-West Corner Rule, Least Cost Method and VAM and Comment, Transportation cost is given in the respective cells.

		Warehouses					Supply
		W1	W2	W3	W4	W5	Units
Plants	P1	20	28	32	55	70	50
	P2	48	36	40	44	25	100
	P3	35	55	22	45	48	150
Demand		100	70	50	40	40	300

8) Solve the following LPP using Simplex method

$$\text{Maximize } Z = 70X_1 + 50X_2$$

$$\text{Subject to, } 4X_1 + 3X_2 \leq 12$$

$$2X_1 + X_2 \leq 9$$

$$\text{And } X_1, X_2 \geq 0$$

9) The following table given a list of jobs along with their time estimates

Jobs	t_0 (days)	t_m (days)	t_p (days)
1-2	4	6	8
1-6	5	7	15
2-3	4	8	12
2-4	15	20	25
3-5	10	18	28
4-5	8	9	16
6-7	4	8	12
5-8	1	2	3
7-8	6	7	8

i) Draw the project network.

ii) Find the expected duration Determine the expected project length.

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Research Methodology

Duration: 3 Hours

Max Marks: 70

I. Answer any THREE of the following :

(3×5= 15 Marks)

- 1) Describe the importance of 'Bibliography' in a research report.
- 2) Explain 'Group Interview'.
- 3) Differentiate between controllable and uncontrollable problems encountered while doing a research.
- 4) On the basis of information given below about the treatment of 200 patients suffering from a disease, state whether the new treatment is comparatively superior to the convention treatment.

Treatment	No of patients	
	Favourable response	Not favourable response
New	60	20
Conventional	70	50

For drawing your inference, use the value of Chi square for one degree of freedom at 5% I.o.s, where the table value is 3.841

II. Answer the following question :

(1×10= 10 Marks)

- 5) Read the following case with reflection and answer the questions given at the end.

The Ministry of Labour, Government of India has the proposal of enhancing the working condition of women workers of organised sector. In this regard, the Ministry of Labour approaches you and solicits your expertise as a renowned social scientist to conduct the study. As a researcher, you are required to give your views and responses to the following:

Questions:

- i) What should be the objectives of the study? (2.5)
- ii) What is the research methodology you would adopt in this study? (2.5)
- iii) How do you determine the method of sampling and the size of sample? (2.5)
- iv) What are your views as to the relevance of the study? (2.5)

III. Answer any THREE of the following :

(3×15= 45 Marks)

- 6) What is 'Sampling'? Explain the different types of sampling techniques in detail.
- 7) Critically examine the statement, "Interview introduces more bias than does the use of a questionnaire".
- 8) Define 'Hypothesis'. Explain the process of hypothesis formulation and hypothesis testing.
- 9) Enumerate different methods of data collection. How does the case study methods differ from survey method?

CHOICE BASED CREDIT SYSTEM**M.Com. THIRD SEMESTER DEGREE EXAMINATION NOVEMBER 2024****Futures and Options****Duration: 3 Hours****Max Marks: 70****I. Answer any THREE of the following :****(3×5= 15 Marks)**

- 1) Elaborate the meaning and objectives of Option Greeks.
- 2) Calculate the FRA valuation rate when:
Notional Principal - Rs.50,00,000
Market Rate - 4.5%
Forward Rate - 5%
Time - 30 Days
- 3) Define Derivatives. Explain the need for dealing in derivatives.
- 4) Illustrate the Model building approach.

II. Answer the following question :**{1×10= 10 Marks}**

- 5) Calculate Swap value, when:
- Notional Principal: \$20,000,000
 - Fixed Rate: 3.5% per annum (paid annually)
 - Floating Rate: LIBOR + 1%, with LIBOR rates varying over time
 - o Year 1 LIBOR: 2%
 - o Year 2 LIBOR: 3%
 - o Year 3 LIBOR: 4%
 - Time to Maturity: 3 years
 - Payment Frequency: Annual
 - Discount Factors:
o Year 1: 0.97
o Year 2: 0.94
o Year 3: 0.91

III. Answer any THREE of the following :**(3×15= 45 Marks)**

- 6) Illustrate the EIC approach.
- 7) "The Black-Scholes model is a mathematical equation that's used for pricing options contracts and other derivatives." Explain.
- 8) Elaborate the mechanism of Swaps.
- 9) Elaborate the concept of Credit Derivatives.

CHOICE BASED CREDIT SYSTEM**M.Com. THIRD SEMESTER DEGREE EXAMINATION NOVEMBER 2024****International Economics****Duration: 3 Hours****Max Marks: 70**

I. Answer any THREE of the following :**(3×5= 15 Marks)**

- 1) Discuss the differences between 'Internal and International Trade'.
- 2) How trading blocs works in 'International Trade'? Explain.
- 3) Explain the arguments against the 'Protection Policy'.
- 4) Explain the various assumptions of Modern Theory of International Trade.

II. Answer the following question :**(1×10= 10 Marks)****5) The Indian Cement Industry Cartelization: A Bumpy Ride Ahead?**

The case "The Indian Cement Industry Cartelization: A Bumpy Ride Ahead?" discusses the possibility of the existence of a cartel in the Indian cement industry and its impact on not only the real estate sector, but the entire Indian economy as well. The case starts out by mentioning the latest allegations of cartelization by the Builders Association of India (BAI), who then filed a case with the Competition Commission of India (CCI), against the Cement Manufacturers' Association (CMA) and 11 Indian cement manufacturing companies.

The case provides a glimpse into the structure of the Indian cement industry and gives an overview of its importance in the Indian economy. The case also presents the point of view of the cement companies. The Indian Government's take on the entire cartelization issue is also described. So, is there a cartel at work in the Indian cement industry that could de-rail the country's ambitious economic dreams?

Questions:

- i) Analyze oligopoly and the conditions that form cartels. (2.5 Marks)
- ii) Recognize the characteristics of cartel formation in an industry. (2.5 Marks)
- iii) Examine market-sharing cartels and their adverse impact. (2.5 Marks)
- iv) Identify the role played by the Government in restricting the cartelization practices in an industry. (2.5 Marks)

III. Answer any THREE of the following :

(3×15= 45 Marks)

6) Why International Trade is essential for a country? What are the various factors associated with International Trade?

7) Write a note on:-

- a) Gross Barter Terms of Trade
- b) Net Barter Terms of Trade
- c) Income Terms of Trade

8) What is Free Trade Policy? Explain the arguments for and against the Free Trade Policy.

9) Explain the United Nations various Financial Programs established for the International Economic Development and Cooperation.

CHOICE BASED CREDIT SYSTEM**M.Com. THIRD SEMESTER DEGREE EXAMINATION NOVEMBER 2024****International Marketing Management****Duration:3 Hours****Max Marks:70****I. Answer any THREE of the following :****(3×5= 15 Marks)**

- 1) Brief 'Selling Concept'. Explain Strategic Marketing Plan.
- 2) Explain various types of Tariffs.
- 3) Illustrate the importance of 'Standardisation'.
- 4) Critically examine the welfare effects of Dumping.

II. Answer the following question :**(1×10= 10 Marks)**

- 5) Ranbaxy laboratories Limited was registered in India in the year 1961. Dr. Parvinder Singh joined Ranbaxy in 1967 and made immense contribution with bold new ideas. He rose to the position of Vice Chairman & Managing Director in 1987 and took over as Chairman and Managing Director in 1993. The company went public in 1973. Multipurpose chemical plant was set up to produce Pharma products at Mohali. In 1975 the company formulated export strategy. In 1977 the company had its first International joint venture in Lagos (Nigeria). In 1985 Ranbaxy Research Foundation was established. In 1988 Ranbaxy Toansa plant got US Food and drug authority approval. In 1990 Ranbaxy was granted US patent for Doxycycline. Its global footprints extends to 49 countries. Illustrate the obstacles the brand might have faced. Also, draw an imaginary PLC graph for the brand.

III. Answer any THREE of the following :**(3×15= 45 Marks)**

- 6) Discuss fair business practices. Do you think it is being practiced by business enterprises?
- 7) What are the marketing advantages of branding? How does branding facilitates the buying behavior?
- 8) Discuss the alternative market entry strategies in foreign markets.
- 9) "Choice of channels of distribution depends on various factors". Explain the factors which affect the choice of channels of distribution in International Business.