

**C-6614**

**Sub. Code**

**81021**

**M.B.A. DEGREE EXAMINATION, APRIL 2022**

**Second Semester**

**Integrated Shipping, Logistics**

**QUANTITATIVE METHODS FOR MANAGEMENT**

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Write the mathematical formulation of linear programming problem.
2. Explain the terms basic feasible solution and optimum solution of linear programming problem.
3. How can you classify integer programming problem?
4. Write the steps involving branch and bound algorithm.
5. Using North — West corner rule find an initial feasible solution:

	W1	W2	W3
F1	8	10	12
F2	12	13	12
F3	14	10	11

6. What is meant by assignment problem?
7. What are the four parameters for dynamic programming problem?
8. What is the value of a game?
9. Describe briefly a queuing system.
10. Write the major steps of simulation.

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) An egg contains 6 units of vitamin A per gram and 7 unit of vitamin B per gram. Milk contains 8 units of vitamin A and 12 units of vitamin B per gram and cost 20 paisa per gram. The daily minimum requirements of vitamin A and vitamin B are 100 units and 120 units respectively. Find the optimal product mix formulate LP model for the above problem.

Or

- (b) Solve graphically the LPP:

$$\text{Minimize } Z = x_1 + x_2$$

Subject to

$$5x_1 + 3x_2 \leq 15$$

$$x_1 + x_2 \geq 6$$

$$x_1, x_2 \geq 0.$$

12. (a) Solve the problem using branch bound algorithm.

Maximize  $3x_1 + 4x_2$

Subject to constraints

$$x_1 + x_2 \leq 9$$

$$x_1 + 3x_2 \leq 20$$

$$x_1, x_2 \geq 0.$$

Or

- (b) Solve the following LP problem using Gomory's cutting plane method.

Maximize  $3x_1 + 5x_2$

Subject to constraints

$$x_1 + 4x_2 \leq 9$$

$$2x_1 + 3x_2 \leq 11$$

$$x_1, x_2 \geq 0 \text{ and integer.}$$

13. (a) Using Vogel's approximation method, find a basic feasible solution to the following transportation problem.

	1	2	3	4	
1	21	16	25	13	11
2	17	18	14	23	13
3	32	27	18	41	19
4	6	10	12	15	43

Or

- (b) Explain Travelling salesman problem.

14. (a) Solve the following  $3 \times 5$  game using dominant property.

		Player B				
		1	2	3	4	5
Player A	2	5	10	7	2	
	3	3	6	6	4	
	4	4	8	12	1	

Or

- (b) Explain the algorithm to determine mixed strategies.
15. (a) The arrival rate of customers at a banking counter follows poisson distribution with a mean of 45 per hour. The service rate of the counter clerk also follows poisson distribution with a mean of 60 per hour.
- (i) What is the probability of having 0 customer in the system?
  - (ii) What is the probability of having 5 customers in the system?
  - (iii) What is the probability of having 10 customers in the system?
  - (iv) Find  $L_s$ ,  $L_q$ .

Or

- (b) What is meant by simulation? Explain the types of simulation.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Solve by graphical method, of the following L.P.P.

$$\text{Maximize } z = 25x_1 + 20x_2$$

Subject to the constraints

$$16x_1 + 12x_2 \leq 100$$

$$8x_1 + 16x_2 \leq 80$$

$$x_1, x_2, \geq 0.$$

Or

- (b) Explain the algorithm for transportation problem.

17. (a) Solve the game given below in table after reducing it to  $2 \times 2$  game.

		Player B		
		1	2	3
Player A	1	1	7	2
	2	6	2	7
	3	5	1	6

Or

- (b) Explain the terminologies of Queuing system.

18. (a) Resolve this example by preparing a pay-off table.

	1	2	3
1	1	2	1
2	3	3	2
3	4	2	5

Or

(b) Draw the decision tree and determine the best strategy.

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**C-6598**

**Sub. Code**

**81022/80922**

**M.B.A. DEGREE EXAMINATION, APRIL 2022.**

**Second Semester**

**HUMAN RESOURCE MANAGEMENT**

**Common for M.B.A. (L & SCM)/M.B.A. (IS & L)**

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define Human resource management.
2. What do you mean by job analysis?
3. What is recruitment?
4. Define training.
5. What is job evaluation?
6. Define empowerment.
7. What is mentoring?
8. What is fringe benefits?
9. What is Globalization?
10. What is cross repatriation?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Outline the principles of HRM.

Or

(b) What are the benefits and demerits of e-learning?

12. (a) Define HR planning. Bring out the factors influencing such a plan.

Or

(b) Define job analysis. What are its uses?

13. (a) Define the term “Training and development”, Bring out the importance of training and development.

Or

(b) What is performance appraisal? What are its objectives?

14. (a) Bring out the various employee benefits and services.

Or

(b) Describe the components of employee remuneration.

15. (a) What is IHRM? How does it differ from domestic HRM?

Or

(b) Explain about the roles of IHRM?



**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the functions of HRM.

Or

(b) Explain the barriers to Human resource planning.

17. (a) Bring out the factors which influence recruitment.

Or

(b) What are the merits of On the job and off the job training?

18. (a) Mention the merits and demerits of personal interview.

Or

(b) Is money the prime trigger of employee performance.

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**C-6599**

**Sub. Code**

**81023/80923**

**M.B.A. DEGREE EXAMINATION, APRIL 2022.**

**Second Semester**

**FINANCIAL MANAGEMENT**

**(Common for M.B.A. (L & SCM)/M.B.A. (IS & L))**

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is financial management?
2. What is cost of capital?
3. What is operating leverage?
4. What is EPS?
5. What is NPV?
6. What is capital budgeting?
7. What is working capital management?
8. What is operating cycle?
9. What is dividend?
10. What is capital structure?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) What are the goals of financial management? Discuss them in brief.

Or

- (b) A company expects a dividend of Re.1.00 per share next year and is expected to grow at 6% per year perpetually. Determine the cost of equity capital, assuming the market price per share is Rs.25.

12. (a) The operating and cost data of ABC Ltd. are:

Sales                      Rs.20,00,000

Variable cost            Rs.14,00,000

Fixed cost                Rs.4,00,000    (including    15%  
interest on Rs.10,000)

Calculate its operating, financial and combined leverages.

Or

- (b) Define capital financing and what are its uses?

13. (a) What is the need and significance of Financing decision?

Or

- (b) Determine the discounted payback period NPV, PI for a project which requires a cash outlay of Rs.10,000 and generates cash inflows of Rs.2000, Rs.4,000, Rs.3000 and Rs.2000 in the first, second, third and fourth year respectively.

14. (a) What do you mean by bank finance? Explain its merits and demerits.

Or

- (b) From the following information, you are required to forecast their working capital requirement.

Projected Annual sales	Rs.65,00,000
Percentage of net profit on cost of sales	25%
Average credit period allowed to debtors	10 weeks
Average credit period allowed by creditors	4 weeks
Average stock carrying (in terms of sales requirement)	8weeks

Add 10% to computed figures to allow for contingencies.

15. (a) What are the factors which influence the dividend policy of a firm?

Or

- (b) Explain the importance of the capital structure.

**Part C** (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the main role of finance manager in India.

Or

- (b) A company issues 10% irredeemable debentures of Rs.1,00,000. The company is in the 55% tax bracket. Calculate the cost of debt (before as well as after tax) if the debentures are issued at (i) par (ii) 10% discount (iii) 10% premium.

17. (a) Calculate the average rate of return for project and Y from the following:

	Project X	Project Y
Investment	Rs.30,000	Rs.40,000
Net profit for year 1	6,000	12,000
2	6,000	10,000
3	4,000	8,000
4	4,000	6,000
5	–	4,000

Or

- (b) Explain the various factors influencing working capital.
18. (a) Describe the factors affecting investment decision?

Or

- (b) Critically examine one various methods of evaluating capital budgeting proposals. Discuss their advantages and disadvantages.

**C-6600**

**Sub. Code**

**80924/81024**

**(Common for M.B.A. (L & SCM)/M.B.A.(IS & L))**

**M.B.A. DEGREE EXAMINATION, APRIL 2022.**

**Second Semester**

**RESEARCH METHOD FOR BUSINESS/RESEARCH  
METHODS FOR MANAGEMENT**

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define Research.
2. What are the Ethics in Research?
3. What are the Measurement Scales?
4. What is Research Design?
5. What are the sources of Secondary Data?
6. What is Tabulation?
7. What are the uses of Chi-Square?
8. Explain the importance of Regression.
9. List out the contents of Report.
10. What is a Research Report?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the criteria of a good research in detail.  
Or  
(b) Why is it so important to define a research problem appropriately?
12. (a) What are the types of Research Design? Explain with suitable example.  
Or  
(b) Explain the various factors to be considered in making the decision of census or sampling method.
13. (a) What are the major steps involved in the process of construction of schedule or questionnaire?  
Or  
(b) What are the various methods of data collection? Discuss in detail along with their advantages and disadvantages?
14. (a) There are three main brands of certain powder. A set of 120 samples values is examined and found to be allocated among four groups. (A, B, C, and D) and three brands (I, II, III) as shown here under:

Brands	Groups			
	A	B	C	D
I	0	3	8	15
II	5	8	13	6
III	8	19	11	13

Is there any significant difference in brands preference?  
Answer at 5%, level using one-way ANOVA.

Or

- (b) Explain the measures of Dispersion.

15. (a) Explain the various steps of writing a research report in detail.

Or

- (b) What are different types of research reports?

**Part C** (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the Classification of Research.

Or

- (b) Explain about the characteristics of Good Hypothesis in detail.

17. (a) Describe the types of Sampling Design.

Or

- (b) “Research is much concerned with proper fact finding analysis and evaluation”. Do you agree with this statement? Give reason in support of your answers.

18. (a) Write an essay Measures of Central Tendencies.

Or

- (b) (i) Find out the co-efficient of correlation form the following data:

X: 65 66 67 67 68 69 71 73

Y: 67 68 64 68 72 70 79 70



(ii) A dice is tossed 120 times with the following results.

No. turned up:	1	2	3	4	5	6	Total
Frequency:	30	25	18	10	22	15	120

Test the hypothesis that the dice is unbiased.

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**C-6615**

**Sub. Code**

**81025**

**M.B.A. DEGREE EXAMINATION, APRIL 2022**

**Second Semester**

**Integrated Shipping and Logistics**

**MANAGEMENT INFORMATION SYSTEM**

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define Information.
2. What you mean by System?
3. Write the process of data entry.
4. What are the elements of business information systems?
5. Write about Neural networks.
6. What is 'What if analysis'?
7. What is Information security?
8. State the components of infrastructure?
9. Write the resources of IT.
10. What is Spooling?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Discuss the need for information systems.

Or

- (b) Explain the role of Information system in business.

12. (a) Explain about manufacturing information systems.

Or

- (b) Discuss about information reporting system.

13. (a) What are the steps involved in decision making process?

Or

- (b) Elaborate : Construction of DSS.

14. (a) What are the importances of ISA to an Organization?

Or

- (b) Explain the resources of Information technology.

15. (a) Why do we need control in IS-Explain?

Or

- (b) Write is the importance of information security.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Define information systems. Discuss about Financial Information systems of an organization.

Or

- (b) What is DSS? Explain the role of Information system architecture in System development.

17. (a) Elaborate various types of information system.

Or

- (b) What is manpower planning? Discuss about human resources information systems.

18. (a) Discuss the social Challenges of Information systems.

Or

- (b) What is Artificial Intelligence? Discuss How it useful to the business organization?

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**C-6616**

**Sub. Code**

**81026**

**M.B.A. DEGREE EXAMINATION, APRIL 2022**

**Second Semester**

**Integrated Shipping and Logistics**

**FUNDAMENTALS OF SHIPPING**

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Write short notes on shipping Logistics.
2. What is world shipping market?
3. Write short note on Transport Geography.
4. What is Container ship?
5. What do you mean by UNCTD?
6. Write short notes on STEAM SHIP MUTUAL.
7. What is CONCOR?
8. What is origin of Documents?
9. Write short notes on Income Tax.
10. Write short note on Reserve Bank.

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the role of Shipping for economic growth.  
Or  
(b) Describe the ships documents and its relevance.
12. (a) Enumerate the usage of maps and Atlas in detail.  
Or  
(b) Explain the Global maritime network.
13. (a) Explain the HMS Victory in detail.  
Or  
(b) Briefly explain the Authentication in detail.
14. (a) Enumerate the history of Air craft's.  
Or  
(b) Describe the history of Roads and Roads in India.
15. (a) Explain the various roles in Shipping.  
Or  
(b) Describe the Mercantile Marine department in detail.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss about the various facets of shipping industry and scope and opportunities in the field of shipping and logistics in detail.  
Or  
(b) Explain the advantages of Canals and Rivers in detail.

17. (a) Explain the functions of various Authorities in shipping in detail.

Or

(b) Discuss about the maritime events during World War I and World War 2 in detail.

18. (a) Explain the International confederation of free trade union in detail.

Or

(b) Discuss about the world's largest ship owner ports in India.

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**C-6603**

**Sub. Code**

**80927/81027**

**M.B.A. DEGREE EXAMINATION, APRIL 2022**

**Second Semester**

**Logistics and Supply Chain Management**

**SHIPPING AND PORT MANAGEMENT**

**(Common for M.B.A. (L & SCM)/M.B.A. (IS & L))**

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define hinter land.
2. Define EXIM Policy.
3. What are Hazardous cargoes?
4. Explain shipper's paper.
5. What is containerization?
6. What is Cabotage law?
7. How many major ports in India?
8. What is shipper association?
9. What is port logistics?
10. What is concession contract?



**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write a short note on tariff structures.  
Or  
(b) Explain the objectives of port policy.
12. (a) Explain the management of cargo operations on board and ashore.  
Or  
(b) Explain the economic impact of ports.
13. (a) Explain the factors affecting Terminal productivity.  
Or  
(b) Elucidate the services rendered by port.
14. (a) Explain the ways and means to identify the customer needs.  
Or  
(b) Explain the various ways to improve the seaports infrastructure and services in India.
15. (a) Compare coastal shipping versus inland movement.  
Or  
(b) Discuss the need for security in a port.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the roles and functions of intermediaries in international trade.  
Or  
(b) Discuss in detail the organization structure in ports.

17. (a) Explain how the potential of coastal shipping cabotage law and practices affect coastal movement of cargo.

Or

(b) Explain the significance of cargo and container handling equipment.

18. (a) Discuss the significance of safety management in a port.

Or

(b) Explain the principles and practice of shipping.

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