#### M.B.A. DEGREE EXAMINATION, APRIL 2023

### Second Semester

# Logistics and Supply Chain Management

# PRODUCTION AND MATERIALS HANDLING IN LOGISTICS

#### (2019 onwards)

**Duration : 3 Hours** 

Maximum : 75 Marks

Part A  $(10 \times 2 = 20)$ 

- 1. What is meant by production planning and control?
- 2. What is Plant Layout?
- 3. Define the term production.
- 4. State the objective of Plant layout.
- 5. Which factors influence the choice of production processes?
- 6. What is Plant location?
- 7. What is Work study?
- 8. Mention different types of cranes.
- 9. What is meant by Traction less type conveyors?
- 10. What are Narrow gauge equipments?

Part B  $(5 \times 5 = 25)$ 

Answer **all** questions.

11. (a) Explain the role and responsibility of production function in a organization where there is continuous production system.

Or

- (b) Discuss in detail the importance and procedure of Production planning.
- 12. (a) Explain different types of Plant Layout.

Or

- (b) Discuss in detail the need for selecting a suitable location.
- 13. (a) Explain the objectives and steps involved in Method study.

Or

- (b) Elucidate the techniques of work measurement.
- 14. (a) Explain how elevating equipments are used in Material Handling.

Or

- (b) Explain the cost considerations in Material handling.
- 15. (a) Describe the different types of Conveying equipments used in Material handling.

Or

(b) Explain how cross holding equipments are used in material handling.

 $\mathbf{2}$ 

**Part C** (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the different elements of Production planning and control.

 $\mathbf{Or}$ 

- (b) Discuss the Factors influencing Plant location.
- 17. (a) Draw the network for the following activities and the time duration shown, calculate the total time taken for completion of the activities and identify the critical path.

Activity Duration					
1-2 10					
2-3	2				
2-5	6				
3-4	12				
3-7	9				
4-5	8				
4-6	5				
4-8	10				
5-8	4				
6-7	0				
7-9	7				
8-10	<b>5</b>				
9-11	8				
10-11	10				
Or					

(b) What are different types of material handling? What is the basis in selection of material handling facility?

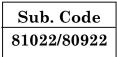
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- 18. (a) How can work study be used for arriving at:
  - (i) Manufacturing budget
  - (ii) Production Plan
  - (iii) Materials Planning
  - (iv) Personnel Policies

 $\mathbf{Or}$ 

(b) Explain the different types of costs associated with aggregate planning. For each of the cost, enumerate the areas where the cost plays an important role.

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### M.B.A. DEGREE EXAMINATION, APRIL 2023

#### Second Semester

# HUMAN RESOURCE MANAGEMENT

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

### (2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A $(10 \times 2 = 20)$ 

- 1. What is personnel management?
- 2. State the importance of Human Factor.
- 3. Define Training.
- 4. What is Potential Appraisal?
- 5. Define Disciplinary Action.
- 6. What is Collective Bargaining?
- 7. Define Mentoring.
- 8. Give the Importance of Personal Records.
- 9. What is IHRM?
- 10. What is International Compensation?

Part B  $(5 \times 5 = 25)$ 

Answer **all** questions

11. (a) Write a note on Job Description and Job Specification.

Or

- (b) State the essential characteristics of an Effective Appraisal system.
- 12. (a) Describe the benefits of Training.

Or

- (b) Explain the procedures of Employee Grievances.
- 13. (a) Write a note on Workers Participation and Empowerment.

Or

- (b) Explain Human Resource Accounting.
- 14. (a) Discuss the Elements of Counselling.

Or

- (b) Explain the Pressures of Globalisation in HRM.
- 15. (a) Explain the Economic Factors of IHRM.

Or

(b) Write a Short note on Workforce Diversity.

 $\mathbf{2}$ 

**Part C**  $(3 \times 10 = 30)$ 

Answer **all** questions.

16. (a) Discuss the evolution of the concept of HRM.

Or

- (b) Write an essay on computer applications in Human Resource Management
- 17. (a) Elaborate the Performance Appraisal Methods.

Or

- (b) Critically analyse Industrial Relations in emerging scenario.
- 18. (a) State the Theories of Counselling.

 $\mathbf{Or}$ 

(b) Discuss the impact of International Compensation among our Employees.

3

### M.B.A. DEGREE EXAMINATION, APRIL 2023

# Second Semester

# Logistics and Supply Chain Management

# FINANCIAL MANAGEMENT

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

### (2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

# Part A

 $(10 \times 2 = 20)$ 

- 1. Define the term financial forecasting.
- 2. What is Finance Decision?
- 3. What is Public Deposit?
- 4. What is Term Loan?
- 5. Define Capitalisation.
- 6. What is optimal Capital Structure?
- 7. What is Working Capital?
- 8. What is Trade Credit?
- 9. What is Payback method?
- 10. What is Capital Investment Decision?

**Part B**  $(5 \times 5 = 25)$ 

Answer **all** questions.

11. (a) Explain the scope of Financial Management.

Or

- (b) State in Brief, the Principal functions of a Manager.
- 12. (a) Distinguish between Shares and Debentures.

#### $\mathbf{Or}$

- (b) Explain the kinds of Preference share.
- 13. (a) Explain the purpose of Accounts Receivables.

### Or

- (b) A company issues 10,000, 10% Preference shares of Rs.100 each. Cost of issue is Rs.2 Per share. Calculate cost of Preference capital if these shares are issued (i) at Par, (ii) at a Premium of 10% and (iii) at a discount of 5%.
- 14. (a) Explain the various factors influencing working capital.

Or

- (b) Explain the procedure for calculating working capital forecasting.
- 15. (a) What are the significance of capital budgeting decision?

 $\mathbf{Or}$ 

 $\mathbf{2}$ 

(b) Calculate the average rate of return for project X and Y from the following :

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

# Part C

 $(3 \times 10 = 30)$ 

# Answer **all** questions.

16. (a) Explain the main functions of financial management.

#### $\mathbf{Or}$

(b) From the following information suggest which of the two projects should be accepted on the basis of net present value method.

		Project A	Project B
Initial	outlay	10,000	20,000
Cash ir depreci	nflows after taxes and before ation		
Year	1	8,000	8,000
	2	7,000	9,000
	3	Nil	7,000
	4	Nil	6,000
Service	life	2 years	4 years
Require	ed rate of return	10%	10%

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17. (a) What is meant by cost of capital for a firm? How is it calculated with Different types of sources of capital funds?

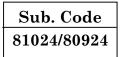
Or

- (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.
- 18. (a) Critically examine the various methods of evaluating capital budgeting proposals. Discuss their advantages and disadvantages.

 $\mathbf{Or}$ 

(b) Critically examine the net income and net operating income approach to Capital structure.

4



#### M.B.A. DEGREE EXAMINATION, APRIL 2023

### Second Semester

# **RESEARCH METHODS FOR BUSINESS / RESEARCH METHODS FOR MANAGEMENT**

# Common for MBA (L & SCM) / MBA (IS & L)

# (2019 onwards)

Duration: 3 Hours

Maximum : 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

- 1. What is Research Method?
- 2. What do you mean by exploratory Research?
- 3. What is a research design?
- 4. Define research design?
- 5. What is secondary data?
- 6. What is focus group interview?
- 7. Define editing?
- 8. What is pre-test and pilot study?
- 9. What are the principles of good report writing?
- 10. What is analytical report?

**Part B** (5 × 5 = 25)

Answer all questions

11. (a) What do you mean by research? Explain its significance in modern times.

 $\mathbf{Or}$ 

- (b) Explain in detail various types of research.
- 12. (a) Describe the basic ingredients of research design-Explain them briefly.

Or

- (b) What criteria should a research problems satisfy?
- 13. (a) Enumerate the steps in sampling process? Explain.

Or

- (b) How can observational methods be classified? What are the key distinctions among the various types?
- 14. (a) What are the essentials of good sampling? Discuss the methods of probability sampling.

Or

- (b) Describe briefly the techniques of analysis of variance for one-way and two-way classification.
- 15. (a) What are the guidelines for effective report writing?

 $\mathbf{Or}$ 

(b) Elucidate the norms for using index and bibliography.

 $\mathbf{2}$ 

Part C

 $(3 \times 10 = 30)$ 

Answer **all** questions.

16. (a) What are the steps in selection and formulation of research problem? Explain with an example.

Or

- (b) Explain different types of research along with their practical applications and limitations if any.
- 17. (a) Enumerate the different steps involved in a research process.

Or

- (b) What are the factors affecting the sample size? Explain the non-probability methods of sampling?
- 18. (a) Elucidate the important parametric tests used in the context of testing hypothesis. How such tests differ from non-parametric tests? Explain.

Or

(b) Explain the various steps in writing researches.

3

### M.B.A. DEGREE EXAMINATION, APRIL 2023

#### Second Semester

# Logistics and Supply Chain Management

# LOGISTICS AND SUPPLY CHAIN MANAGEMENT

### (2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

- 1. What are the drivers of supply chain performance?
- 2. What is supply chain Network?
- 3. What is decision tree analysis?
- 4. What is risk pooling?
- 5. What is strategic fit?
- 6. What is Unitization?
- 7. What is reverse logistics?
- 8. What is Bill of Lading?
- 9. What is target pricing?
- 10. What is distribution Network design?

**Part B**  $(5 \times 5 = 25)$ 

Answer **all** questions.

11. (a) Explain the conceptual model of Supply Chain Management.

Or

- (b) Discuss the essential features of Supply Chain Management.
- 12. (a) Define 'Bullwhip effect'. Give the functions and examples.

Or

- (b) Discuss the role and factor influencing the choice of network design.
- 13. (a) Discuss and illustrate the economic justification for establishing a warehouse.

Or

- (b) How will you design vehicle routing in logistics management?
- 14. (a) Write short notes for the following:
  - (i) Modal characteristics
  - (ii) Containerization.

 $\mathbf{Or}$ 

- (b) Discuss packaging principles and functions.
- 15. (a) Describe the role of logistics in competitive strategy in detail.

Or

(b) Discuss the barriers to global logistics.

 $\mathbf{2}$ 

**Part C**  $(3 \times 10 = 30)$ 

Answer **all** questions.

16. (a) Discuss the importance and benefits of 3PL and 4PL.

Or

- (b) Discuss the various functions of customer value chain and also the service phases and attributes.
- 17. (a) Describe the five modes of transportation; identify the most significant characteristics of each.

Or

- (b) Explain the role of logistics and support in distribution channels with an example.
- 18. (a) Explain how a company achieves strategic fit between its supply chain strategy and its competitive strategy.

Or

(b) Explain Multi-echelon inventory management in detail with the help of a suitable example.

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# M.B.A. DEGREE EXAMINATION, APRIL 2023

# Second Semester

### Logistics and Supply Chain Management

### APPLIED OPERATIONS RESEARCH

#### (2019 onwards)

**Duration : 3 Hours** 

Maximum : 75 Marks

# Part A

 $(10 \times 2 = 20)$ 

- 1. Define Operations Research.
- 2. State the applications of OR.
- 3. List the major assumptions of linear programming.
- 4. What is meant by a feasible solution of an LP problem?
- 5. Define Basic feasible solution in transportation problem.
- 6. Give the mathematical formulation of an assignment problem.
- 7. Define 'saddle point'. Is it necessary that a game should always possess a saddle point?
- 8. State the purpose of dominance rule in game theory.
- 9. State the main characteristics of the 'queuing system'.
- 10. Distinguish between solutions derived from simulation models and solutions derived from analytical models.

Part B  $(5 \times 5 = 25)$ 

Answer all questions.

11. (a) 'Operations research is the application of scientific methods, techniques and tools to problems involving the operations of a system so as to provide those in control of the system with optimum solutions to the problem.' Discuss.

#### Or

- (b) Discuss the points to justify the fact that the primary purpose of operations research is to resolve the conflicts resulting from the various subdivisions of the functional areas like production, marketing, finance and personnel in an optimal, near optimal or satisfying way.
- 12.A company sells two different products A and B, (a) making a profit of Rs. 40 and Rs. 30 per unit, respectively. They are both produced with the help of a common production process and are sold in two different markets. The production process has a total capacity of 30,000 man-hours. It takes three hours to produce a unit of A and one hour to produce a unit of B. The market has been surveyed and company officials feel that the maximum number of units of A that can be sold is 8,000 units and that of B is 12,000 units. Subject to these limitations. products can be sold in any combination. Formulate this problem as an LP model to maximize profit.

Or

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(b) Use graphical method to solve the following LP problem :

 $Z_{\rm max} = 3x_1 + 2x_2$ 

Subject to the constraints

$$x_1 - x_2 \ge 1$$
  
 $x_1 + x_2 \ge 3$   
 $x_1, x_2 \ge 0$ 

13. (a) Determine an initial basic feasible solution to the following transportation problem by using North West Corner Rule

		De	estination			
		D1	D2	D3	D4	Supply
	$\mathbf{S1}$	21	16	15	3	11
Source	$\mathbf{S2}$	17	18	14	23	13
ino	$\mathbf{S3}$	32	27	18	41	19
Ŵ	Demand	6	6	8	23	

Or

- (b) What is an unbalanced assignment problem? Explain how the Hungarian method applied for obtaining a solution if the matrix is rectangular.
- 14. (a) State and explain dynamic programming algorithm.

 $\mathbf{Or}$ 

(b) Use dominance rules to reduce the size of the following payoff matrix to  $(2 \times 2)$  size and hence, find the optimal strategies and value of the game. Player A Player B

layer A		Player D		
	B1	B2	B3	
A1	3	-2	4	
A2	-1	4	2	
A3	2	2	6	
	3	}		C-8795

15. (a) Customers arrive at a box office window, being manned by a single individual, according to a Poisson input process with a mean rate of 30 per hour. The time required to serve a customer has an exponential distribution with a mean of 90 seconds. Find the average waiting time of a customer. Also determine the average number of customers in the system and the average queue length.

Or

(b) 'Monte Carlo technique has been used to tackle a variety of problems involving stochastic situations and mathematical problems which cannot be solved with mathematical techniques and where physical experimentation with the actual system is impracticable.' Discuss.

$$Part C \qquad (3 \times 10 = 30)$$

Answer all questions.

16. (a) Use the simplex method to solve the following LP problem.

 $Z_{\text{max}} = x_1 + 4x_2 + 5x_3$ 

Subject to the constraints

 $\begin{array}{l} 3x_1 + 2x_2 \leq 22 \\ x_1 + 2x_2 + 3x_3 \leq 14 \\ 3x_1 + 2x_2 \leq 14 \\ x_1, x_2, x_3 \geq 0 \end{array}$ 

Or

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(b) Use the simplex method to solve the following LP problem.

$$\begin{split} & Z_{\max} = 30x_1 + 40x_2 + 20x_3 \\ & \text{Subject to the constraints} \\ & 10x_1 + 12x_2 + 7x_3 \leq 10000 \\ & 7x_1 + 10x_2 + 8x_3 \leq 8000 \\ & x_1 + x_2 + x_3 \leq 1000 \end{split}$$

 $x_1, x_2, x_3 \ge 0$ 

17. (a) A company has three production facilities  $S_1$ ,  $S_2$  and  $S_3$ . The units are to be shipped to four warehouses  $D_1$ ,  $D_2$ ,  $D_3$  and  $D_4$  The transportation costs (in rupees) per unit between factories to warehouses are given in the table below:

	$D_1$	$D_2$	$D_3$	$D_4$	Supply
$\mathbf{S}_1$	19	30	50	10	7
					1
$S_2$	70	30	40	60	9
$S_3$	40	8	70	20	18
Demand	5	8	7	14	

You are required to compute the initial allocation by VAM and find the optimal solution using MODI method.

Or

(b) A departmental head has four subordinates and four tasks to be performed. The subordinates differ in efficiency and the tasks differ in their intrinsic difficulty. His estimates of the times that each man would take to perform each task is given in the matrix below:

<b>D</b>			Tasks		
ate		Ι	II	III	IV
lin	А	8	26	17	11
OLC	В	13	28	4	26
Subordinates	С	38	19	18	15
	D	19	26	24	10

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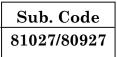
18. (a) Use the graphical method for solving the following game and find the value of the game.

	Player B			
Player A	Β1	B2	B3	B4
A1	2	2	3	-2
A2	4	3	2	6

Or

- (b) A maintenance service facility has Poisson arrival rates, negative exponential service times, and operates on a first-come, first-served queue discipline. Breakdowns occur on an average of three per day, with a range of zero to eight. The maintenance crew can service, on an average, six machines per day, with a range from zero to seven. Find the:
  - (i) Utilization factor of the service facility
  - (ii) Mean waiting time in the system
  - (iii) Mean number machines in the system
  - (iv) Mean waiting time of machines in the queue
  - (v) Probability of finding 2 machines in the system.

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#### M.B.A. DEGREE EXAMINATION, APRIL 2023

Second Semester

# SHIPPING AND PORT MANAGEMENT

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

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

 $(10 \times 2 = 20)$ 

Part A Answer all questions.

- 1. What is International Trade?
- 2. Write short note on Intermediaries?
- 3. Define international seaborne trade
- 4. What is Regional economy?
- 5. Write short note on Cargo.
- 6. Write short notes on performance Indicators.
- 7. Define stakeholder.
- 8. Define Cabotage Law.
- 9. What is coastal shipping?
- 10. Write short notes on port security issues.

### **Part B** (5 × 5 = 25)

Answer all questions

11. (a) Discuss about the General Introduction and the International trade in detail.

Or

- (b) Explain the International Trade.
- 12. (a) Describe the economic impact of ports.

Or

- (b) Describe the Terminal management.
- 13. (a) Discuss about the factors affecting Terminal Productivity.

Or

- (b) Explain the services rendered by ports.
- 14. (a) Briefly explain the marketing of port services.

Or

- (b) Briefly explain the concept of hinterland in detail.
- 15. (a) Explain the infrastructure in ports and terminals in detail.

Or

(b) Describe the terminals health and safety issues in detail.

 $\mathbf{2}$ 

**Part C**  $(3 \times 10 = 30)$ 

Answer **all** questions.

16. (a) Discuss about the cargo and Trade routes in detail.

Or

- (b) Explain the economic impacts of ports and location characteristics in detail.
- 17. (a) Discuss about the comparative analysis of costal shipping Vs Inland movement in Detail.

Or

- (b) Describe the international ships security issues in detail.
- 18. (a) Explain the environmental issues connected with ports in detail.

Or

(b) Describe the Services rendered by ports in detail.

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### M.B.A. DEGREE EXAMINATION, APRIL 2023

#### Third Semester

# Logistics and Supply Chain Management

# **RETAIL SUPPLY CHAIN MANAGEMENT**

#### (2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

- 1. Why is supply chain management important in retailing?
- 2. List various retail supply chain elements.
- 3. Define Competitive Advantage.
- 4. Define supply chain risk.
- 5. What do you mean by product life cycle?
- 6. Define retail strategy.
- 7. State the importance of RFID.
- 8. What is the importance of PDCA in retail business?
- 9. How can costs be optimized?
- 10. What do you mean by retail returns?

 $(5 \times 5 = 25)$ 

Answer **all** questions.

Part B

11. (a) How retail supply chain is different from manufacturing supply chain?

Or

- (b) Explain the concept of retail supply chain maturity.
- 12. (a) QFD improves the organization to meet the customer requirements. Comment.

Or

- (b) State and explain key drivers of retail supply chain change.
- 13. (a) Achieving excellence is a challenging task. How this achievement improves the performance of the company?

Or

- (b) Differentiate between innovative and functional products.
- 14. (a) Explain demand driven supply chain with suitable examples.

Or

- (b) Product tracking is vital in retail business. Explain.
- 15. (a) Explain the importance of supply chain costs in managing retail business.

Or

(b) Retail returns are inevitable. How the organization can minimizes retail returns.

 $\mathbf{2}$ 

**Part C**  $(3 \times 10 = 30)$ 

Answer all questions.

16. (a) State the application of value chain in retail supply chain management.

Or

- (b) COVID- 19 have shattered the operations of SCM worldwide. Being a retailing specialist, state the major effects in this business.
- 17. (a) CSR is not just a novel practice but brand building. Explain with relevant examples.

Or

- (b) Process improvement will never reach to the apex. How retail SCM help organizations to improving their processes?
- 18. (a) What are the different retail collaboration tools? How they differ in terms of technology and process maturity requirement?

Or

(b) Assume the supply chain of a retailer. What is the transport and warehousing cost as percentage of total supply chain cost? Can you suggest him some better methods of transport planning so that the cost can be reduced keeping the service level same?

3

### M.B.A. DEGREE EXAMINATION, APRIL 2023

#### Third Semester

# Logistics and Supply Chain Management

# EXIM PROCEDURE AND DOCUMENTATION

#### (2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A $(10 \times 2 = 20)$ 

- 1. What do you mean by export licensing?
- 2. List various methods of exporting.
- 3. What is the purpose of 'Certificate of Origin"
- 4. What does ISO 9000 talks about?
- 5. What do you mean by excise clearance?
- 6. Define clearing agent.
- 7. List the dimensions while considering imports.
- 8. What do you mean by realization of exports proceeds?
- 9. What is the primary role of EPC for trading companies?
- 10. State the importance of SEZs.

 $(5 \times 5 = 25)$ 

Answer **all** questions.

11. (a) Trade policy is one of the many instruments of economic policy needed for promoting economic growth. Explain

Or

- (b) Write a short notes on Export Houses.
- 12. (a) A commercial invoice is the first basic and the only complete commercial document among all the commercial documents for realising export proceeds. Explain.

Or

- (b) Describe the principal features and legal implications of Bill of lading.
- 13. (a) Electronic Data Interchange (EDI) is now firmly established as a vital tool for IT managers. Comment.

Or

- (b) Explain the terms of payment in obtaining export order.
- 14. (a) Explain various exchange control provisions for imports.

Or

- (b) Explain the pre-import procedure for receiving the cargo.
- 15. (a) Highlight various duty drawbacks being followed in EXIM trade.

Or

(b) Explain the importance of EPCG Scheme.

 $\mathbf{2}$ 

**Part C**  $(3 \times 10 = 30)$ 

#### Answer **all** questions.

16. (a) Discuss the broad features of the regulatory framework while naming the various institutions set up for this purpose.

Or

- (b) Make a flowchart of processing an export order from the receipt of the order to realisation of export proceeds.
- 17. (a) A Letter of Credit reconciles the conflicting interest of buyer and seller in an export contract. Discuss.

Or

- (b) Discuss the procedure of clearing an import cargo. What are the formalities and the related documentation?
- 18. (a) Discuss the procedure in obtaining BIS 14000 Certification.

Or

(b) Explain various legal documents required for exports from India and the procedural formalities involved therein.

3