C–0249	Sub. Code 84713/80613

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

Shipping and Logistics Management / Logistics and Shipping

MANAGEMENT PROCESS

(Common for : B.B.A.(S&LM) / B.B.A. (L&S))

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   What do you mean by cooperative organization?

2.   What is sole trader?

3.   Is Management a Science or an Art?

4.   State Scientific management?

5.   What is Planning?

6.   What is Policies?

7.   What is Delegation?

8.   What is Recruitment?

9.   Define Budget?

10.   What is Directing?

Answer **all** questions.

11. (a) Give a brief on Cooperative organizations.

Or

(b) Explain about Joint stock companies.

12. (a) Discuss about Scientific management.

Or

(b) Elaborate on the evolution of Management theory.

13. (a) Describe about the steps involved in planning.

Or

(b) Elaborate on the different types of Decision.

14. (a) Explain about Delegation and Centralization.

Or

(b) Enumerate about the use of staff units and committees.

15. (a) State the importance of control.

Or

(b) Describe in detail the Non – Budgetary controls.

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

Answer **all** questions.

16. (a) Write notes on :

(i) Joint Hindu family firm

(ii) Partnership

Or

(b) Discuss the managerial functions and roles.

C–0249

17. (a) Discuss about the process of Decision making.

Or

(b) Explain about the types of organization.

18. (a) Define Directing and explain the nature and purpose of Directing.

Or

(b) State and explain Budgetary controls.

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3   **C–0249**

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

Shipping and Logistics Management/ Logistics and Shipping

MATHEMATICS FOR MANAGEMENT–I

(Common for B.B.A./(S&LM)/B.B.A. (L&S))

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   If A = {1, 2, 3} find the power set of A.

2.   Find 3A – 4B if A = $\begin{pmatrix} 4 & -2 \\ 1 & -7 \end{pmatrix}$ and $B = \begin{pmatrix} -1 & 2 \\ 6 & -5 \end{pmatrix}$.

3.   In how many years will a sum of Rs. 4,000 yield a simple interest of Rs. 1,440 at 12% per annum?

4.   Find 9th term of the following series: 5, 10, 20, 40 .....

5.   What is a Pie diagram?

6. Prepare a Bar diagram for the following data.

Source of borrowing	Amounts of loan (In crores of Rupees)
USA	1800
USSR	1200
UK	800
Japan	600
Germany	500

7. Find the median of 23, 16, 48, 60, 53, 12, 21, 29.

8. Write the formula to find rank correlation coefficient for repeated ranks.

9. Enumerate the methods of determining trend in Time Series.

10. What are different methods of construction of Index numbers?

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

Answer **all** questions.

11. (a) Prove

(i) $A - B = A \cap B'$

(ii) $(A \cup B) \cap C = (A \cap C) \cup (B \cap C)$ by Venn diagram.

Or

(b) If $A = \begin{pmatrix} 2 & 1 \\ -4 & 3 \end{pmatrix}$ Find (i) A^{-1} (ii) A^2.

2

C–0251

12. (a) Find the sum of the first 11 terms if sum of third and ninth term of an A.P is 8.

Or

(b) Find the numbers if the geometric mean of two is 6 and their arithmetic mean is 6.5.

13. (a) Represent the following data by a sub-divided bar diagram.

Type of Commodity	Expenditure in Rupees	
	Family A	Family B
Food	300	500
Rent	200	350
Clothes	125	250
Education	110	225
Miscellaneous	75	125
Savings	90	150

Or

(b) Construct a histogram and frequency curve for the following frequency distribution:

Marks	20-29	30-39	40-49	50-59
Number of Students	7	11	24	32

Marks	60-69	70-79	80-89	90-99
Number of Students	9	14	2	1

C–0251

14. (a) Find the median of the following data

Class interval	0-10	10-20	20-30	30-40	40-50
Frequency	10	20	40	20	10

Or

(b) Obtain the rank correlation coefficient for the following data:

X	68	64	75	50	64	80	75	40	55	64
Y	62	58	68	45	81	60	68	48	50	70

15. (a) Using three year moving averages determine the short term fluctuation.

Year	1996	1997	1998	1999	2000	2001
Production	21	22	23	25	24	22

Or

(b) Calculate price index number for 1945 by

   (i) Bowley's method and

   (ii) Fisher's methods.

Commodity	1935		1945	
	Price	Quantity	Price	Quantity
A	4	50	10	40
B	3	10	9	2
C	2	5	4	2

4   **C–0251**

Answer **all** questions.

16. (a) Using Matrices solve $x + 2y + 3z = 14$;

$3x + 2y + z = 10$; $3x + y + 2z = 11$.

Or

(b) Find the sum of the series 6+66+666+ .... upto n terms.

17. (a) The table below shows the exports of woven-piece goods in million square yards during some months in a year:

	April	May	June	July	August
Cotton	96	78	72	65	77
Wool	15	10	9	10	10

Make a graphical comparison with

(i) Component bar chart

(ii) Percentage bar diagram.

Or

(b) Calculate the coefficient of correlation between X and Y for the following data:

X	1	2	3	4	5	6	7	8	9
Y	9	8	10	12	11	13	14	16	15

C–0251

18. (a) Find two regression lines for the following data.

    X   10   12   15   14   19

    Y   40   41   48   60   50

    Or

    (b) By the method of least square find the trend and short term fluctuations for the following data:

    Year   1   2   3   4   5   6   7   8

    Value   5   7   10   15   14   16   12   18

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6   C–0251

C–0252	Sub. Code
	84724/80624

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Second Semester

Logistics and Shipping / Logistics and Shipping

ECONOMICS FOR EXECUTIVES

(Common for : BBA (S&LM)/BBA(L&S))

(2019 onwards)

Duration : 3 Hours　　　　　　　　Maximum : 75 Marks

Part A　　　　　　　　$(10 \times 2 = 20)$

Answer **all** questions.

1. Can you give some examples of social responsibility in business?

2. List out the techniques of maximization of profit.

3. What do you mean by economies of scale?

4. Define Monopoly.

5. What are some examples of a-monopolistic competition?

6. What is an oligopoly?

7. What are the factors of production?

8. What do you mean by break- even point?

9. What is marginal productivity theory?

10. What is MRTP Act?

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

Answer **all** questions.

11. (a) Discuss about the types of elasticity of demand.

Or

(b) Describe the degrees of elasticity of demand.

12. (a) Why does the cost curve is 'U' shaped?

Or

(b) Is price discrimination good or bad? Discuss.

13. (a) Price and output determination under Monopolistic Competition.

Or

(b) Describe the features of Monopoly.

14. (a) Explain theories of Profit.

Or

(b) Why does the demand curve become a kinked-demand curve under oligopoly?

15. (a) Why are public sector companies under a huge loss in India?

Or

(b) What should be done for revival of public sector companies?

C–0252

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the factors determining price elasticity of Demand.

Or

(b) Why does demand curve sloping downwards in imperfect competition?

17. (a) Explain Law of variable proportion with the help of diagram.

Or

(b) How do businesses achieve economies of scale? Explain.

18. (a) What are the exceptions to the law of demand? Explain.

Or

(b) Discuss about the Marginal productivity theory.

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B.B.A. DEGREE EXAMINATION, NOVEMBER 2023

Second Semester

Shipping and Logistics Management / Logistics Management

MATHEMATICS FOR MANAGEMENT - II

(Common for B.B.A.(S & LM)/B.B.A.(L & S))

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   List any two application of Operations Research in functional areas of management.

2.   List the various types of models in OR.

3.   Define basic feasible solution.

4.   List the methods to find the basic solution in transportation problem.

5.   Define two person zero sum game.

6.   Define Saddle point.

7.   What is Critical path in CPM?

8.   Write the formula to compute earliest start and finish of an activity of a project.

9.   What are the three time estimates used in PERT?

10.   How to compute expected variance of each activity in PERT?

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

Answer **all** questions.

11.   (a)   Solve the given linear programming problems graphically: Maximize: $Z = 50A + 15B$ and the constraints are: $5A + B \le 100$, $A + B \le 50$, A, B ≥ 0.

Or

(b)   A person requires 10, 12 and 12 units of chemicals A, B and C respectively for his garden. A liquid product contains 5, 2 and 1 units of A, B and C respectively per jar. A dry product contains 1,2 and 4 units of A, B, C per carton. If the liquid product sells for 3 per jar and the dry product sells for 2 per carton, formulate this in order to bring down the cost.

2   C–0253

12. (a) Using North West Corner Rule determine the basic
solution to the following transportation problem.

	Distribution Centres					Supply
	A	B	C	D	E	
Origin P	2	11	10	3	7	4
Q	1	4	7	2	1	8
R	3	9	4	8	12	9
Demand	3	3	4	5	6	

Or

(b) Determine how the jobs should be assigned the
various machines to minimize the total.

Machines

	M1	M2	M3	M4
J1	5	7	11	6
Jobs J2	8	5	9	6
J3	4	7	10	7
J4	10	4	8	3

13. (a) Solve the following 2×2 game $\begin{pmatrix} 2 & 5 \\ 7 & 3 \end{pmatrix}$.

Or

(b) The cost of a machine is Rs. 6100 and its scrap
value is only Rs. 100. The maintenance costs are
found to be, when should the Machine be replaced?

Year :	1	2	3	4	5	6	7	8
Maintenance Cost (in Rs.) :	100	250	400	600	900	1250	1600	2000

3 **C–0253**

14. (a) Determine the critical path and project duration of the project.

Activity	1-2	1-3	2-4	3-4	3-5	4-5	4-6	5-6
Duration (in weeks)	6	5	10	3	4	6	2	9

Or

(b) Determine the critical path, project duration, Earliest start and latest finish of the project

Activity	1-2	1-3	2-4	2-5	3-4	4-5
Duration (in days)	8	4	10	2	5	3

15. (a) Explain PERT procedure to determine the expected critical path and expected variance of the project length.

Or

(b) Determine the critical path and estimate the project duration for the following project.

Activity	1-2	2-3	2-4	3-4	4-5	5-6
t_0	0.8	3.7	6.2	2.1	0.8	0.9
t_m	1	5.6	6.6	2.7	3.4	1
t_p	1.2	9.9	15.4	6.1	3.6	1.1

4

C–0253

Answer **all** questions.

16. (a) Solve the transportation problem.

    Destination

		A	B	C	D	Supply
Source	I	11	20	7	8	50
	II	21	16	20	12	40
	III	8	12	18	9	70
Demand		30	25	35	40	

    Or

    (b) Solve the following LPP Maximize Z= 225x + 200y subject to constraints $y \geq 25$; $x \geq 40$; $x + y \leq 150$ and $x, y \geq 0$ Using Graphical Method.

17. (a) Determine the job assignments which will minimize the cost.

    Machines

		I	II	III	IV
Jobs	A	18	24	28	32
	B	8	13	17	19
	C	10	15	19	22

    Or

C–0253

(b)   Solve the following 2×4 game graphically.

Player B

Player A   1   0   4   -1

-1   1   -2   5

18.   (a)   Determine the critical path, project duration, total
float, float for the projects whose activities are given
below:

Activity	0-1	1-2	1-3	2-4	2-5	3-4	3-6	4-7	5-7	6-7
Duration (in weeks)	3	8	12	6	3	3	8	5	3	8

Or

(b)   Find the critical path and compute expected
duration, expected variance of each activity.

Activity	1-2	2-3	1-4	2-5	2-6	3-6	4-7	5-7	6-7
t_0	3	2	6	2	5	3	3	1	2
t_m	15	14	30	8	17	15	27	7	8
t_p	6	5	12	5	11	6	9	4	5

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C–0253

C–0254	Sub. Code
	84732

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Third Semester

Logistics and Shipping Management

BUSINESS COMMUNICATIONS

(2019 onwards)

Duration : 3 Hours　　　　　　Maximum : 75 Marks

Part A　　　　　　$(10 \times 2 = 20)$

Answer **all** questions.

1.　What is called external communication?

2.　What do you mean by non-verbal communications?

3.　What is called Tender?

4.　Why date and signature on a letter necessary?

5.　Who is Company Secretary?

6.　What is agenda?

7.　Why annual report is published?

8.　When appointment order is given?

9.　What is called notice?

10.　When explanation note is given to supervisor?

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

Answer **all** questions.

11. (a) State the guidelines of effective communications.

Or

(b) Mention the importance of communication in a company.

12. (a) Write a compliant letter to Indian Bank about you have lost the Debit card of SB account.

Or

(b) Draft a letter to "The Editor", The Hindu about converge of your college convocation function.

13. (a) Write the duties of Company Secretary.

Or

(b) Mention five occasions when company secretary make correspondence with share holders.

14. (a) List the important contents in an Annual Report.

Or

(b) Explain the steps involved in the preparation of formal report of a company.

15. (a) Write a note on Telephone.

Or

(b) Write a note on Fax.

2

Answer **all** questions.

16. (a) How communication is made effective?

Or

(b) Draft a letter to call quotation to supply office equipment like photo copier and computer for your company.

17. (a) What is Extra-Ordinary General Meeting? Draft a notice and agenda for conveying such a meeting.

Or

(b) Write an appointment order for the post of Assistant mentioning the conditions during training period.

18. (a) A Enumerate how email is used for business communication with its advantages and disadvantages.

Or

(b) Write an appointment order for the post of technical assistant mentioning conditions during the probationary period.

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B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Third Semester

Shipping and Logistics Management

FUNDAMENTALS OF LOGISTICS

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

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

Answer **all** questions.

1.   Define customer service

2.   How do you define the term logistics?

3.   What is meant by procurement?

4.   Mention the types of inventory

5.   Define materials management

6.   What is meant by warehouse?

7.   Define packaging.

8.   What is meant by logistics strategy?

9.   Define outsourcing.

10.   What is meant by 4PL?

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

Answer **all** questions.

11. (a) Enumerate the functions of logistics.

Or

(b) Discuss the concept of customer retention.

12. (a) Describe the critical issues involved in logistics outsourcing.

Or

(b) Explain the role of supply chain in logistics.

13. (a) Elaborate the participants in transportation decisions.

Or

(b) Enumerate the factors involved in selection of warehouse.

14. (a) Explain the usage of container in logistics.

Or

(b) Explain the cost associated with packaging.

15. (a) Discuss the strategic issues involved in global logistics.

Or

(b) Elucidate the financial issues in logistics performance.

2   C–0255

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Describe the various phases in customer service.

Or

(b) Explain the role of logistics in customer retention.

17. (a) Discuss the different classification of inventory.

Or

(b) Elaborate the factors determining the transportation decisions.

18. (a) Enumerate the functions and benefits of warehouse.

Or

(b) Narrate the modes of transportation in global logistics.

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C–0255

C–0256	Sub. Code
	84734/80634

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Third Semester

SHIPPING AND LOGISTICS MANAGEMENT AND LOGISTICS AND SHIPPING

MARKETING MANAGEMENT

(Common for BBA (S&LM) & BBA (L&S))

(2019 onwards)

Duration : 3 Hours　　　　　　　　Maximum : 75 Marks

Part A　　　　　　　　$(10 \times 2 = 20)$

Answer **all** questions.

1. Define Marketing.

2. What is meant by Marketing Management?

3. How can you define Buyer Behaviour?

4. Define Market Structure.

5. What is known to be "Production Policy"?

6. In what way the term "Product Mix" can be defined?

7. Define Buyer.

8. What do you understand about Pricing Decisions?

9. Define Brand Image.

10. What is Brand Equity?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) What is Marketing concept? Explain its importance.

Or

(b) Enumerate the factors influencing Marketing Functions.

12. (a) What is Channel Selection? Discuss the problems associated with Channel Selection.

Or

(b) Explain in brief about Buyer behavior. What factors influencing Buyer behavior?

13. (a) What is Product? Explain the features of Product.

Or

(b) Differentiate Product Elimination and Product Modification.

14. (a) Write about the factors influencing pricing decisions.

Or

(b) Define Market Risk. Explain the types of Market Risk.

15. (a) What is Brand Identity? Derive the elements of Brand Identity.

Or

(b) Define Brand Positioning. Explain the importance of Brand Positioning.

C–0256

Part C   (3 × 10 = 30)

Answer **all** questions.

16. (a) What is meant by Marketing? Explain the four principles of Marketing.

Or

(b) Write in detail about Segmentation of Marketing.

17. (a) Define Marketing Channel. What are the types of Marketing Channels? Explain.

Or

(b) Discuss in detail about New Product Development.

18. (a) Write detail notes on Pricing Policies.

Or

(b) What is Branding Decision? Explain in detail about the Branding Decision Strategies.

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3   **C–0256**

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Third Semester

Shipping and Logistics Management

MANAGEMENT INFORMATION SYSTEM

(2019 onwards)

Duration : 3 Hours　　　　　　Maximum : 75 Marks

Part A　　　　　(10 × 2 = 20)

Answer **all** questions.

1. List any two uses of MIS.

2. What is decision making?

3. Expand DBMS.

4. Define the term inventory.

5. Expand CPU.

6. Define the term data.

7. Expand MICR.

8. What is m-Commerce?

9. What is extranet?

10. State the difference between credit card and debit card.

Answer **all** questions.

11. (a) Discuss in detail about MIS structures.

Or

(b) List and explain some of the advantages of MIS.

12. (a) Discuss in detail about the system model hierarchical and network.

Or

(b) Discuss in detail about MIS for marketing and inventory operations.

13. (a) Explain Client/Server Architecture.

Or

(b) List and explain the types of software.

14. (a) What is a Primary Storage Device? State the difference between ROM and RAM in detail.

Or

(b) What is a sensor? List and explain some of the sensors available related to digital transaction.

15. (a) What is B2B and B2C? Discuss in briefly.

Or

(b) What is EDI? How EDI plays a vital role in the online business system?

C–0257

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) List and explain the steps involved in the development of an MIS system.

Or

(b) Explain how MIS assists in the process of adopting and managing strategic information of an organization.

17. (a) Discuss in detail about different types of computers based on their performance and computational capacity.

Or

(b) What is a secondary storage device? Discuss in detail about any four of such devices.

18. (a) Expand WWW. Discuss in detail about WWW architecture.

Or

(b) Discuss in detail how telecommunication system contributes to the online business models.

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3 **C–0257**

C–0258		Sub. Code
		84736

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Third Semester

Shipping and Logistics Management

GENERAL TAXATION

(2019 onwards)

Duration : 3 Hours　　　　　　　　Maximum : 75 Marks

Part A　　　　　　　(10 × 2 = 20)

Answer **all** the questions.

1.　Write short notes on :

　　(a)　Person

　　(b)　Income

2.　Define :

　　(a)　Previous Year

　　(b)　Assessment Year

3.　Define

　　(a)　Direct Taxes

　　(b)　Indirect Taxes

4.　Who is Non Resident?

5.　Define Total Income

6.　Who is called Representative Assesse?

7.　Write short note on Karta.

8. What are the Causes of Tax evasions?

9. What is Exempted Income and give example?

10. What is Advalorum?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Which of the following incomes are taxable when the residential status of Mr. Umesh is :

(i) Resident

(ii) Not Ordinary Resident

(iii) Non – Resident

Income accrued in Canada but received in India Rs. 2,000.

Rs. 5,000 were earned in Africa and received in India Rs. 2,000.

Rs. 5,000 earned in India but received in Canada.

Rs. 10,000 earned and received in Srilanka from a business controlled from India.

House property income (computed) from Srilanka Rs. 2,000.

Rs.4,000 was past untaxed foreign income which was brought to India during the previous year.

Profit earned from a business in Kanpur Rs. 10,000

Or

(b) Explain any ten items exempted from Income tax.

C–0258

12. (a) Mr. X, the owner of two houses, occupies one for his own residence and the other he Jets to a tenant at a monthly rent of Rs. 500. The municipal valuation of the house occupied is Rs. 2,600 and of the other is Rs. 5,200. The municipal taxes of the two amounted to Rs. 600. The other expenses in respect of the two houses are as follows.

	Rs.
Insurance premium (for both houses)	1200
Annual charge in respect of the house occupied	300
Ground rent for the house let	100
Repairs of the house let	700
Interest on loan taken to repair the two houses	400

Mr. X also had income from other sources amounting to Rs. 20,000 during the year, Calculate Mr. X's income from house property and total income.

Or

(b) Explain the provisions relating to exempted capital gains.

13. (a) AB Industries imported goods from Bangladesh in a vehicle. Determine the rate of import duty from the following information :

Date	Particulars	Rate of Custom Duty
10.01 .2020	Date of filing of Bill of entry	09%
16.01.2020	Date of arrival of vehicle	10%
22.01.2020	Date on which goods were allowed to be cleared from the custom station	12%
23.01.2020	Date of payment of the value of the goods imported	13%

Or

(b) What are the objectives of Excise Duty?

3   C–0258

14. (a) Give example for income partially exempt from Income Tax.

Or

(b) Write Distinction between advalorum and specific Duties.

15. (a) State whether the following expenses are admissible or inadmissible as loss in P/L Account
(i) Penalty paid to custom authority
(ii) Capital Expenditure on Scientific research
(iii) Brokerage paid for raising loan
(iv) Provident Fund deducted but not paid
(v) Rent paid without deducting TDS

Or

(b) Enumerate objectives of Excise Duty in the total revenue.

Part C   (3 × 10 = 30)

Answer **all** questions.

16. (a) The assessment of M Co. Ltd., Indian Company, for the years 2018-19 and 2019-2020 show the following results :

	Ass. year 2018-19	Ass. year 2019-20
(i) Interest on securities	(–) 2,000	(+) 2,000
(ii) Income from house Property	(+) 8,000	(+) 8,000
(iii) Profit and Gains of Business or Profession		
(1) dealing in fruits	(–) 30,000	(–) 12,000
(2) manufacturing glass:		
Profit before depreciation	(+) 50,000	(+) 1,40,000
Depreciation	80,000	75,000
(3) Speculative transactions	(+) 6,000	(–) 9,000
(iv) Income from other Sources:		
Bank Interest	(+) 2,000	(+) 5,000
(v) Short - term Capital Gains	Nil	(–) 25,000

Compute the net assessable results for each of the two years giving full reasons for your workings.

Or

(b) Give examples for income partially exempt from Income Tax.

4

C–0258

17. (a) From the following Profit and Loss Account, calculate income from business :

Particulars	Rs.	Particulars	Rs.
To Rent	40,000	By Gross profit	2,50,000
To salary	25,000	By House property income	1,50,000
To Depreciation	10,000	By Income from other sources	2,00,000
To Donation	8,000		
To net profit	5,17,000		
Total	6,00,000		6,00,000

Depreciation to be allowed as per Income Tax Act Rs. 8,000.

Or

(b) What is Perquisite? What are the rules regarding the valuation of "Rent Free Accommodation" (RFA)?

18. (a) Describe roles and objectives of Excise Duty in Total Revenue.

Or

(b) A manufacturer of machinery sold his machine on which excise duty is payable under Section 4 of Central Excise Act, 1944 –

(i) Total Invoice price – Rs 7,50,000

(ii) Erection Charges (erection to be done at customer's factory) – Rs. 50,000

(iii) Packing Charges – Rs.12,000

(iv) Design Charges – Rs 20,000

(v) Insurance Charges (for dispatch to customer's factory) – Rs 8,000

C–0258

(vi) Outward freight (from-place of removal to customer's factory – Rs.17,000

(vii) State VAT – 12.5%

(viii) Cash discount 2% was allowed as the customer had made full advance payment.

(ix) Excise duty rate is 12.5%. Calculate Assessable Value of the machine and excise duty payable.

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C–0259	Sub. Code 84737

B.B.A DEGREE EXAMINATION, NOVEMBER 2023.

Third Semester

Shipping and Logistics Management

ORGANISATIONAL BEHAVIOUR

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1. Define Organizational Psychology.

2. What is meant by Intelligence test?

3. How do you define the term "Motivation"?

4. What is the concept of Perception?

5. What do you mean by Employee Productivity?

6. Define Employee Behavior.

7. How Cohesiveness can be defined?

8. Why Supervision Training is important?

9. Define Organizational Climate.

10. What is meant by Counselling?

Part B   (5 × 5 = 25)

Answer **all** questions.

11. (a) How intelligence can be measured? Explain.

    Or

    (b) Explain the concepts of Organizational Psychology.

12. (a) Discuss the differences between Financial and Non-financial Motivation.

    Or

    (b) Define the term "Brainstorming". Explain why it is important in an organization.

13. (a) What do you mean by Job Satisfaction? Explain the factors influencing Job Satisfaction.

    Or

    (b) Explain in detail about management of Job Satisfaction.

14. (a) What is Sociometric technique? Explain the features of Sociometry.

    Or

    (b) Explain in detail about the roles of Supervisor.

15. (a) What is meant by Leadership? Discuss the types of Leadership.

    Or

    (b) What is Organizational Effectiveness? How it can be measured?

C–0259

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

Answer **all** questions.

16. (a) What do you mean by Individual Difference? Explain in detail about the types of Individual Difference.

Or

(b) Discuss in detail about Theories of Motivation.

17. (a) Explain in detail about Theories of Job Satisfaction.

Or

(b) What is the concept of Conflict? Explain how conflicts can be resolved?

18. (a) What do you mean by Leadership? Elaborate the theories of Leadership.

Or

(b) (i) What is meant by Group Norms? Why it is important?

(ii) Discuss in detail about the importance of Group Dynamics.

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3

C–0259

Common for B.B.A(S&LM) / BBA(L&S)/B.B.A. DEGREE EXAMINATION, NOVEMBER – 2023

Fourth Semester

Shipping and Logistics Management / Logistics and Shipping

HUMAN RESOURCES MANAGEMENT

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   Write any two functions of Personal Management.

2.   What is meant by personal policies?

3.   What do you mean by Job description?

4.   What is man power planning in an organization?

5.   What is called punishment in a working environment?

6.   What I performance appraisal?

7.   What is meant by social security?

8.   Name one trade union in India.

9. Mention any two statutory benefits of employee welfare under Indian labour Acts.

10. What is called collective bargaining?

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

Answer **all** questions.

11. (a) Explain any two policies of personal department in an IT company.

    Or

   (b) Explain the role of personal manager in an organization.

12. (a) Discuss the various steps in recruitment of an employee in a company.

    Or

   (b) Write a short note on job description.

13. (a) Write a short note on critical incidents and ranking methods under personal appraisal.

    Or

   (b) Write a short note on paired comparison and checklist methods under personal appraisal.

14. (a) Write a note on legal provisions regarding health of employees.

    Or

   (b) Explain the retirement benefits of an employees at the time of retirement.

C–0260

15. (a) Write a short note on industrial union, specify name of two unions.

Or

(b) Explain the objectives of collective bargaining.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the various functions of personal department w.r.t an employee I a company.

Or

(b) Explain the training process.

17. (a) Explain the short comings in performance appraisal in an organization.

Or

(b) Discuss the mandatory welfare measures to employees under factories act 1948.

18. (a) Enumerate the process of collective bargaining.

Or

(b) "The trade unions were started to safe guard the interest of its members, some trade unions going against the fundamental purpose of its formation", Discuss.

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3 **C–0260**

C–0261		Sub. Code
		84751

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Fifth Semester

Shipping and Logistics Management

TRANSPORTATION AND DISTRIBUTION MANAGEMENT

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

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

Answer **all** questions.

1.   Define supply chain.

2.   What do you mean by distribution channel?

3.   What is distribution network?

4.   Define network design.

5.   Define Transportation.

6.   What is marine transportation?

7.   What do you meant by transportation route?

8.   Mention any two examples of transportation cost.

9.   What is transit software?

10.   What is fleet management system?

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

Answer **all** questions.

11. (a) Explain about distribution management.

Or

(b) State the role of distribution in supply chain.

12. (a) How does the distribution network works?

Or

(b) Explain the various types of distribution networks.

13. (a) State the factors influencing transportation decisions.

Or

(b) Explain the various modes of transportation.

14. (a) What are the measures of transportation performance?

Or

(b) Explain about transportation route.

15. (a) Explain the benefits of transit operation software

Or

(b) State the importance of freight technology.

Part C   (3 ×10 = 30)

Answer **all** questions.

16. (a) How to design distribution channels?

Or

(b) Discuss the factors influencing distribution network decision.

17. (a) Explain about network design techniques.

Or

(b) Discuss the process of selection of transportation mode.

18. (a) Explain factors driving transportation cost.

Or

(b) Explain the role of technology in transportation security initiatives.

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C–0261

C–0262	Sub. Code
	84752

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Fifth Semester

Shipping and Logistics Management

PORT MANAGEMENT

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

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

Answer **all** questions.

1.   What is bale capacity?

2.   What is mate's receipt?

3.   What do you mean by angle of repose?

4.   What is dew point?

5.   What is the pre slung cargo?

6.   What are Ro-Ro ships?

7.   What are the benefits using a dunnage?

8.   What is spar ceiling?

9.   Mention the benefits of LCL.

10.   What are stack dates?

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

Answer **all** questions.

11. (a) What do you mean by

    (i) Stowage factor

    (ii) Broken stowage

    Or

    (b) What are the methods of ballasting and deballasting?

12. (a) What are the three group of solid bulk cargoes?

    Or

    (b) What are concentrates? Point out the hazards of concentrates.

13. (a) Proper labeling is a measure of protecting the goods during transit – Elucidate.

    Or

    (b) Explain the dilution and displacement method for gas freeing.

14. (a) What is the hold preparation meant for loading cement?

    Or

    (b) What are the powers of inspectors as per Dock Labourers Act, 1934.

15. (a) Trace the genesis of freight forwarding.

    Or

    (b) 'Container stuffing is a process that requires careful planning' – Elucidate.

2 **C–0262**

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

Answer **all** questions.

16. (a) What are the precautions to be taken by a shipper while handling heavy lifts?

Or

(b) Explain the important provisions of the IMSBC code.

17. (a) Explain the various types of containers.

Or

(b) What is COW Explain its aim and working.

18. (a) As a shipper how would you ensure safety of cargoes?

Or

(b) Write a note on

(i) Flow moisture point

(ii) Palletisation

(iii) Inert gas system

(iv) Reverse process

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C–0262

C–0263		Sub. Code
		84753

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Fifth Semester

Shipping and Logistics Management

LINER TRADE

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   Define containerization.

2.   What is liner trade route?

3.   What is the main role of ship officer?

4.   Define budgeting.

5.   Define inter modalism.

6.   What is FCLS?

7.   Mention any two objectives of UK Carriage of goods by sea Act 1992.

8.   What is documentary credit?

9.   Write any two methods of transfer of funds from one country to another country.

10. What do you mean by inco terms?

Part B (5 × 5 = 25)

Answer **all** questions

11. (a) Explain about port organization.

    Or

    (b) Write a note on the refrigerated cargo ship.

12. (a) Explain the methods of lifting cargo.

    Or

    (b) What the types of port terminals?

13. (a) Explain the types of containers.

    Or

    (b) Bring out advantages of container leasing.

14. (a) Explain about UK bill of lading Act, 1855.

    Or

    (b) Write a note on international conventions relating to bill of lading.

15. (a) What is SWIFT? What are its uses?

    Or

    (b) Explain the carrier's liability for the cargo.

C–0263

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

Answer **all** questions.

16. (a) What do you mean by

    (i)   Tramp Trade

    (ii) Tonnage

    (iii) Containerization

    (iv) Break bulk vessels

        Or

    (b) Give account of the major parts in India.

17. (a) Discuss the role of ships officers.

        Or

    (b) Discuss the activities involved in liner shipping operations.

18. (a) Explain the various bill of lading clauses.

        Or

    (b) Discuss the legal aspects of liner trade.

    _____

C–0263

C–0264	Sub. Code
	84754

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Fifth Semester

Shipping and Logistics Management

CUSTOM PROCEDURE

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   Enumerate the meaning of Countervailing Duty in customs.

2.   Rewrite the concept of automated warehouses.

3.   Extract the meaning of illegal commodities.

4.   Mention the concept of Global Trade.

5.   Express the term drawback claim.

6.   Recall the concept duty waiver.

7.   Expand the term Export report number.

8.   Enlighten the important goods exported by India to other countries.

9.   Distil the meaning of goods Transit.

10. Explore the meaning of shipment by Air.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Draw the functions of Board to decide best custom officers.

Or

(b) Explain the precaution taken by person acquiring the notified goods.

12. (a) Asses the significance of detecting illegal transaction of goods.

Or

(b) Discuss the role of government to locate the proper place of storage for goods in ports.

13. (a) Compose the effects of duties payment in customs to enhance the quality operation.

Or

(b) Examine the conveyance to leave without written order.

14. (a) Enumerate the uses of postal articles and baggage in International Business.

Or

(b) Comprise the essentials on clearance of exported goods in material shipping.

15. (a) Explain the causes of cancellation and return of warehousing bond.

Or

(b) Evaluate the Interest on drawback to maximize the flow of business.

2 **C–0264**

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Examine the role of custom ports to ensure the ethical operations in the business.

    Or

    (b) Analyze the scope of Section 11 E & 11 F for not to apply the goods for personal use

17. (a) Evaluate the various pattern of reducing illegal imports of goods.

    Or

    (b) Contrast the provisions relating to conveyance carrying imported goods.

18. (a) Assess the various types of warehousing with its merits.

    Or

    (b) Discuss the safety guidelines to be adopted for effective Transit of goods.

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C–0264

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Fifth Semester

Shipping and Logistics Management

DRY CARGO CHARTERING

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** the questions.

1.   Define dry cargo.

2.   Expand LASH

3.   What is meant by dead weight?

4.   List any two functions of ship brokers.

5.   Define chartering contracts

6.   How do you define incomes and expenses?

7.   What is meant by cargo damage?

8.   Define lay time

9.   Mention the various types of cargoes.

10.   What do you mean by indemnity?

Answer **all** questions.

11. (a) Narrate the consequences of displacement tonnage.

Or

(b) Write short note on Grain capacity and bale capacity.

12. (a) Enumerate the role of ship broker.

Or

(b) Explain the characteristics of chartering contracts.

13. (a) Elaborate the process for calculation of lay time

Or

(b) Elucidate the exemptions in charter party for calculating lay time.

14. (a) Discuss the cargo claims.

Or

(b) Describe the significance of itinerary.

15. (a) Explain the trading restrictions in dry cargo.

Or

(b) Narrate the English maritime arbitration application.

C–0265

Answer **all** questions.

16. (a) Writs short notes on:

(i)   Self Trimming

(ii) Cargo Stowage

(iii) Tweendeckers

(iv) DWAT.

Or

(b) Narrate the various dimensions and cargoes.

17. (a) Describe the different types of brokers involved in cargoes.

Or

(b) Enumerate the elements of voyage charter.

18. (a) Explain the functions of bill of lading.

Or

(b) Elaborate the various disputes settlement mechanism in cargoes.

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3   **C–0265**

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

Logistics and Shipping Management

MANAGEMENT PROCESS

(2023 onwards)

Duration : 3 Hours　　　　　　　　Maximum : 75 Marks

Part A　　　　　　　$(10 \times 1 = 10)$

Answer **all** the questions.

1. Who has given fourteen principles of management?

   (a) Peter F.Drucker

   (b) F.W.Taylor

   (d) Flemming

   (d) None of the above

2. Job classification such as CEO, president ,vice-president, executive director are associated with which of the following?

   (a) Top managers

   (b) Middle level managers

   (c) Low level managers

   (d) Supervisors

3. Which one of the following principles of management states that for a group of activity having the same objective there should be one head and one plan?

(a) Unity of command

(b) Division of work

(c) Unity of direction

(d) Centralization

4. The responsibility of the operations manager includes _____

(a) Planning, organizing, staffing, leading, and controlling

(b) Designing and operating

(c) Planning, organizing, staffing, procuring and reviewing

(d) Forecasting, designing, planning, organizing, and controlling

5. Which of the following states the principles of scientific management theory?

(a) Science, not rule of thumb, harmony, co-operation and personal efficiency level

(b) Leisure time, work environment, harmony among employees and relation with employer

(c) Working hour, profit from work, work specification and leisure time benefit

(d) Routine work, hierarchical structure, motivation and punishment

2

C–1246

6. Which of these is defined as a social system of people who are structured and managed to meet some goals?

   (a) Social system

   (b) Organization

   (c) Open system

   (d) Process

7. Which of the options would be the ability of an organization to conceive of and implement its strategies?

   (a) Strength

   (b) Weakness

   (c) Opportunity

   (d) Threat

8. ——————— Plans have clearly defined objectives.

   (a) Standing   (b) Flexible

   (c) Specific   (d) Directional

9. A budget is an example of which of the following plan?

   (a) Strategic plan

   (b) Informal plan

   (c) Single use plan

   (d) Standing plan

10. Which of the following is NOT an element of the management process?

   (a) Leading   (b) Planning

   (c) Pricing   (d) Staffing

3

C–1246

Part B (5 × 5 = 25)

Answer **all** the questions

11. (a) Briefly describe key requirements for a successful business in today's competitive market.

    Or

    (b) Discuss the concept of Joint Stock Company.

12. (a) Explain the nature of Management Process.

    Or

    (b) Define Management. Discuss about management is Science or Art.

13. (a) What is planning? Explain its importance.

    Or

    (b) Explain the term Decision-making.

14. (a) Define Organization. Discuss the types of Organization.

    Or

    (b) Explain the concept of delegation in management. Outline its importance in organizational effectiveness.

15. (a) Discuss the role and significance of directing in the management process.

    Or

    (b) Explain the concept of coordination in the management and emphasizing its importance in achieving organizational goals.

4 **C–1246**

Part C (5 × 8 = 40)

Answer **all** the questions.

16. (a) Examine the concept of delegation within the context of different forms of business organizations.

Or

(b) Explain the primary functions and objectives of public utilities and public enterprises

17. (a) Examine the principles and concepts of scientific management.

Or

(b) Evaluate the strengths and weakness of each theories of management and how they have influenced management practices over time.

18. (a) Discuss the fundamental steps involved in planning process within an organization.

Or

(b) Explain the types of decision in detail with examples.

19. (a) Discuss the factors influencing the changes of organizational structure.

Or

(b) Describe the steps involved in staffing process.

C–1246

20. (a) Describe the characteristics and principles of Budgetary and Non-Budgetary control.

Or

(b) Discuss how the modern trends are influencing the traditional management process. -

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C–1246

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023

First Semester

Logistics and Shipping Management

FINANCIAL ACCOUNTING

(2023 onwards)

Duration : 3 Hours　　　　　　Maximum : 75 Marks

Part A　　　　　(10 × 1 = 10)

Answer **all** questions.

1.　———— is a specialized branch of accounting that keeps track of a company's financial transactions.

　(a)　Cost accounting

　(b)　Management accounting

　(c)　Financial Accounting

　(d)　Corporate accounting

2.　A book of ledgers is also known as a ledger.

　(a)　Final entry　　(b)　Primary entry

　(c)　Original entry　(d)　None of the Above

3.　Which of the following is a ledger account?

　(a)　Events　　　　(b)　Journal

　(c)　Transactions　(d)　None of the Above

4. What is the primary purpose of a cashbook?

   (a) It records receipts and payments of cash

   (b) It records payments of cash

   (c) It records receipts of cash

   (d) It helps to compute the profit and loss of a business

5. The total cost that arises when the quantity produced is increased by one unit is called

   (a) Average Cost   (b) Marginal Cost

   (c) Fixed cost   (d) Unit Cost

6. What is the need for companies to make a trial balance?

   (a) To calculate the status of the financial orders

   (b) To tally the balance of cash and the bank

   (c) For calculating profit and loss

   (d) For checking the accuracy of ledgers arithmetically

7. Profit and loss account shows the _____

   (a) Profit earned or loss suffered by the business

   (b) Total capital employed

   (c) Profit and loss through the sale of assets

   (d) None of the above

8. The balance from the profit and loss account is transferred to the

   (a) Balance sheet

   (b) Trial balance

   (c) Cash flow statement

   (d) None of the above

C–1247

9. Income and Expenditure Account, generally indicates _____

   (a) Cash Balance   (b) Capital Fund

   (c) Net Profit / Loss   (d) Surplus / Deficit

10. Total amount of depreciation of an asset cannot exceed its

    (a) Depreciable value

    (b) Scrap value

    (c) Market value

    (d) None of these

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

Answer **all** questions.

11. (a) Write a short note on basic accounting concepts.

    Or

    (b) Explain the types of cash book.

12. (a) Discuss the various types of errors.

    Or

    (b) Explain the trial balance with example.

13. (a) Write a short note on manufacturing and trading.

    Or

    (b) Discuss the various types of import.

14. (a) Explain the methods of depredation.

    Or

    (b) Differentiate between non- trading and trading.

C–1247

15. (a) From the following particulars, you are required to prepare bank reconciliation statement as on 30th September 2007.

   (i) Balance as per pass book (over drawn) Rs. 46,020 as on 30.09.2007.

   (ii) Cheques drawn on 28.09.2007 but not cleared till 31st October 2007 Rs 24,480.

   (iii) Cheques received on 25th September entered in the cash book but not sent to bank for collection till 5th October 2007 Rs 65,260.

   (iv) A cheque of Rs 1,750 received from a credit customer entered twice in the cash book.

   (v) Interest charged by the bank on over draft amounting to Rs 6,475.

   (vi) Bill receivable due on 30.9.2007 were sent to bank for collection on 25.9.2007 after recording entry in the cash book but the proceeds was not credited in the bank pass book till 5th October 2007 Rs 14,900.

   (vii) A quarterly life insurance premium paid by bank under the standing instructions not entered in the cash book Rs 450.

   (viii) Cheque deposited on 30th September 2007 dishonoured but no entry was made in the cash book Rs 9,450.

Or

(b) From the following balances relating to Software India Ltd. prepare the Balance sheet as at 31st December 2005.

   (i) Equity capital 36,42,58,510

   (ii) Reserves and surplus 23,58,26,862

   (iii) Debentures 1,03,36,000

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(iv) Secured loans 21,27,57,441

(v) Fixed assets 37,07,93,048

(vi) Investments 5,94,80,459

(vii) Inventories 20,78,28,095

(viii) Sundry debtors 10,21,66,468

(ix) Cash and Bank balances 1,49,87,264

(x) Other current assets 57,75,568

(xi) Loans and Advances 12,49.59,370

(xii) Current Liabilities 4,71,71,358

(xiii) Provisions 4,64,19,410

(xiv) Miscellaneous expenditure 3,07,79,308

The balance sheet may be prepared in account form and report form.

Part C   (5 × 8 = 40)

Answer **all** questions.

16. (a) Explain the sales return and purchase return books.

Or

(b) On 1-1-2002. machinery was purchased for Rs. 30,000. Depreciation at the rate of 10% on original cost was written off during the first two years. For the next two years 15% was written off the diminishing balance of the amount. The machinery was sold for Rs. 15,000. Write up the machinery account for four years and close the same.

5   **C–1247**

17. (a) Bank reconciliation statement producers.

Or

(b) A company whose accounting year is the calendar year purchased on 1-1-2003 a machinery for Rs. 40,000. It purchased further machinery on 1-10-2003 for Rs. 20,000 and on 1st July 2005 for Rs.10,000. On 1-7-2006, one-fourth of the machinery installed on 1-1-2003 became obsolete and was sold for Rs. 6,800. Show the machinery account for all the 3 years under fixed installment system. Depreciation is to be provided at 10% p.a.

18. (a) From the following information of a textile company complete Performa balance sheet if its sales are Rs.23,00,000
Sales to Net worth 2.3 times
Current debt to Net worth 42%
Total Debt to Net worth 75%
Current Ratio 2.9 times
Net sales to inventory 4.6 times
Average collection period 90 days
Fixed assets to net worth 53.2%

Or

(b) From the following information prepare a balance sheet with as many details as possible
Current Ratio 1.75
Liquid Ratio- 1.25
Inventory turnover ratio (Cost of sales closing stock)-9
Gross profit ratio-25%
Debt collection period- 1½ months
Reserves and surplus to capital -1.2
Turnover to fixed assets (based on cost of sales) -1.2
Capital gearing ratio-.6
Fixed assets to net worth 1.25
Sales for the year – Rs.24,00,000

C–1247

19. (a) From the following information relate to a manufacturing company

Plant capacity 4,00,000 units per annum

Present utilization 40%

Actual for the year 1988 were

Selling price Rs 50 per unit

Materials cost Rs. 20 per unit

Variable Manufacturing costs Rs.15 per unit

Fixed costs Rs.27 lakh

In order to improve the capacity the following proposals are considered

Reduce selling price by 10%

Spend additionally Rs.3 lakh on sales promotion

How many units should be made and sold in order to earn a profit of Rs.5 Lakh per year.

Or

(b) A company proposes to take on lease a line of food vending machines, in a large office Complex. Although the unit selling prices and making costs differ among the individual food items, the sales manager is of the view that an average unit selling price of Rs.2 and an average unit purchase price (Variable cost) of Rs. 1.60 will be adequate for the purpose of analysis to be made before taking decision. The sales manager also estimates monthly fixed expenses of Rs.24,000. You are required to calculate, (i) the monthly break even point in number of units and Rupee sales (ii) the monthly breakeven point in number of units and in Rupee sales if the selling price fall to Rs. 1.92 per unit without any change in the fixed and variable expenses.

C–1247

20. (a) XYZ ltd decided to purchase a component from the market which is expected to be at the purchase price of Rs.22. per unit There is a proposal that the spare component be produced in the factory itself, For this purpose , the firm desires to invest in a machinery of Rs. 2,00,000; which has annual capacity of 40,000 units and the expected life period of 10 years The factory is required to recruit one foreman for operation which warrants am monthly salary of Rs.1,000. Materials required will be Rs.8 per unit and Labour per unit Rs.4. Variable overheads are 150% of direct labour The firm can raise funds at the cost of 12% Advice the firm to either accept the proposal or to reject.

Or

(b) On 1-1-2003, machinery was purchased for Rs. 3,00,000. Depreciation at the rate of 10% has to be written off. Write up the machinery account for three years under:

   (i) Straight Line Method (SLM) and

   (ii) Write Down Value Method (WDV)

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C–1247

B.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

Logistics and Shipping Management

MATHEMATICS FOR MANAGEMENT – I

(2023 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A $(10 \times 1 = 10)$

Answer **all** questions.

1. Empty set is a ——————.

   (a) Infinite set   (b) Finite set

   (c) Unknown set   (d) Universal set

2. Order of the power set $P(A)$ of a set A of order n is equal to

   (a) n (b) $2n$

   (c) 2^n (d) n^2

3. In an Arithmetic Progression, if $a = 28$, $d = -4$, $n = 7$, then a_n is

   (a) 4   (b) 5

   (c) 3   (d) 7

4. If $a = 10$ and $d = 10$, then first four terms will be

   (a) 10, 30, 50, 60   (b) 10, 20, 30, 40

   (c) 10, 15, 20, 25   (d) 10, 18, 20, 30

5. Which of the following is a branch of statistics?

(a) Descriptive statistics

(b) Inferential statistics

(c) Industry statistics

(d) Both (a) and (b)

6. To which of the following options do individual respondents, focus groups, and panels of respondents belong?

(a) Primary data sources

(b) Secondary data sources

(c) Itemised data sources

(d) Pointed data sources

7. Which measure of central tendency includes the magnitude of scores?

(a) Mean   (b) Mode

(c) Median   (d) Range

8. The two methods of finding mode in a discrete series are

(a) Grouping method and ascending method

(b) Table method and midpoint method

(c) Grouping method and inspecting method

(d) None of the above

9. What are the primary characteristics of a time series data set?

(a) Random data

(b) Data Points are not related

(c) Data is collected at irregular intervals

(d) Data is collected over time

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10. In time series analysis, what is the term for the repeating patterns that occur at regular intervals?
   (a) Outliers
   (b) Trends
   (c) Seasonality
   (d) Noise

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

Answer **all** the questions.

11. (a) Find $A \cup B$ and $A \cap B$ and $A - B$. If $A = \{a, b, c, d\}$ and $B = \{c, d\}$.

   Or

   (b) Find the value of n, if $a = 10$, $d = 5$, $a_n = 95$.

12. (a) Write the short terms of cartesian product of sets and intersection sets.

   Or

   (b) Find the sum of the first 30 multiples of 4.

13. (a) Define correlation. Write its types.

   Or

   (b) Write the short terms of continuous and discrete frequency distribution.

14. (a) In a class there are 20 students and they have secured a percentage of 88, 82, 88, 85, 84, 80, 81, 82, 83, 85, 84, 74, 75, 76, 89, 90, 89, 80, 82 and 83.

   Find the mean percentage obtained by the class. Hence, the mean percentage of each student in the class is 83%

   Or

   (b) Calculate the Correlation Coefficient from the following items x and y.

   x : 1 3 8 10 15 20

   y : 4 10 25 31 46 61

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15. (a) Explain time series and Seasonal variations.

Or

(b) Explain the Unweighted indices.

Part C (5 × 8 = 40)

Answer **all** the questions.

16. (a) If $A = \{1, 2, 3, 4\}$, $B = \{3, 4, 5, 6\}$, and $C = \{5, 6, 7, 8\}$. Proof the Associative law: $(A \cup B) \cap C = A \cap (B \cap C)$.

Or

(b) The 5th term and 3rd term of a G.P is 256 and 16 respectively. Find its 8th term.

17. (a) If $A = \{3, 5, 7, 9, 11\}$, $B = \{7, 9, 11, 13\}$, and $C = \{11, 13, 15\}$, then find $B \cap C$ and $A \cap B \cap C$.

Or

(b) Find the sum of the first 6 terms of the G.P 4, 12, 36,...

18. (a) Explain the collection of data and Sources of Data in brief.

Or

(b) In a survey of 40 families in a village, the number of children per family was recorded and the following data obtained.

1 0 3 2 1 5 6 2

2 1 0 3 4 2 1 6

3 2 1 5 3 3 2 4

2 2 3 0 2 1 4 5

3 3 4 4 1 2 4 5

Represent the data in the form of a discrete frequency distribution.

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19. (a) Calculate the Correlation Coefficient from the following items x and y.

X : 50 51 52 53 54

Y : 3.1 3.2 3.3 3.4 3.5

Or

(b) The given table shows the scorns obtained by different players in a match. What is mean, median and mode of the given data?

Name	Runs Scored
Sachin	80
Yuvaraj	52
Virat	40
Sehwag	52
Rohit	70
Harbhajan	1
Dhoni	6

20. (a) Suppose a manufacturing company's factors uses a manufacturing process that operates on a three-week cycle for technological reasons. At the end of each three-week period the production vessels are cleaned and the process starts again. Meanwhile, as the factory workers become more adept at controlling the process, the output gradually increases. The production figures for the last few weeks are as follows :

Week number	Production Output(Tons)
1	20
2	46
3	27

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Week number	Production Output(Tons)
4	23
5	49
6	30
7	26
8	52
9	33

Find the seasonal variation of time series.

Or

(b) Explain the time series models is detail.

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