

- Note: 1) **ALL** questions are **COMPULSORY**.
 2) Figures to the right indicate full marks.

- Q.1 A) **Select the most appropriate answer from the following: (ANY TEN)** [10]
- 1) Accounting Standard in India are issued by _____.
 A) Accounting Standard Board B) Government of India
 C) SEBI D) Institute of Cost and works Accountants of India of ICAI

 - 2) Items of expenses not connected with any departments are _____.
 A) Charged to departments on the basis of total sales B) Charged to the General Profit & Loss A/c
 C) Shown on the Debit side of Trading A/c D) Charged to departments on the basis of Fixed Assets employed

 - 3) Rent and rates are apportioned to different departments on the basis of _____.
 A) Sales of each department B) purchases of each department
 C) area occupied by each department D) Time devoted for supervisions

 - 4) Compute cost of Goods manufactured if, Opening Stock of WIP = Rs.67000, Raw material consumed = Rs.6,35,000, Direct Expenses = 4,69,500, Depreciation on Plant = Rs.1,93,600, Closing Stock of WIP = 1,01,000.
 A) Rs.12,64,100 B) Rs.12,46,000
 C) Rs.10,70,500 D) Rs.8,45,750

 - 5) Depreciation on furniture is shown on _____.
 A) the debit side of Profit & loss account B) the debit side of Manufacturing account
 C) the liabilities side of the Balance Sheet D) the Assets side of the Balance Sheet

 - 6) Drawings are deducted from _____.
 A) Sales B) Purchase
 C) Return outward D) Capital

 - 7) _____ is price payable if full payment is made immediately.
 A) Market Price B) Cash Price
 C) Hire Purchase price D) Down Payment

 - 8) Interest in a Hire Purchase Transaction is charged on _____.
 A) Full amount B) Cash Price
 C) Outstanding amount D) Market Value

 - 9) AS 9 deals with _____.
 A) Stock Valuation B) Cash Flow Analysis
 C) Revenue Recognition D) Disclosure of Accounting Policies

 - 10) The standard which governs inventory valuation is _____.
 A) AS 3 B) AS 2
 C) AS 10 D) AS 6

 - 11) Provision for Stock reserve with respect to stocks when transfers are effected at sale price is to be charged to _____.
 A) Departmental trading account B) Departmental Profit and loss account
 C) Balance sheet D) General profit and loss account

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- 12) Carriage on purchase of furniture is_____.
- A) Capital Receipt B) Capital Expenditure
C) Revenue expenditure D) Deferred revenue expenditure

Q.1 B) **State whether the following statement are TRUE or FALSE: (ANY TEN)** [10]

- 1) Under Hire Purchase System the ownership is transferred on payment of last installment.
- 2) Under Hire Purchase System, Depreciation is provided on Cash Price of the asset.
- 3) When closing stock of current year is undervalued, profit is understated.
- 4) Repairs incurred before using a secondhand car purchased is Capital expenditure.
- 5) Manufacturing Account shows Cost of production.
- 6) Patents and copyright is a an Intangible asset.
- 7) Sale of scrap is shown on Credit side of Profit & Loss Account.
- 8) Hire purchase price is less than cash price.
- 9) Freight outward is allocated on the basis of purchases of each department.
- 10) Interest received is credited to Departmental Profit and Loss Account.
- 11) Live stock is a Current Asset.
- 12) Deferred Revenue Expenditures increase profitability of the organization.

Q.2 A) The stock on hand of a material as on 1-9-2022 was 500 units at Rs. 100 per unit. The following purchases and issues were subsequently made. Prepare the Stores Ledger Account showing how the value of the issues would be recorded under FIFO method [20]

Purchases		Issues	
06-09-2022	100 units at Rs. 110	09-09-2022	500 units
12-09-2022	700 units at Rs. 120	14-09-2022	500 units
18-09-2022	400 units at Rs. 130	20-09-2022	500 units
23-09-2022	1000 units at Rs. 140	25-09-2022	500 units
26-09-2022	500 units at Rs. 150	28-09-2022	500 units
29-09-2022	400 units at Rs. 160	30-09-2022	500 units

OR

Q.2 B) Ganesh purchased a car on hire-purchase system from Kiran on 1st April 2020. He paid Rs. 2,50,000 on signing the contract and thereafter four half yearly installments of Rs. 2,00,000 each along with interest on 30th September and 31st March every year. The cash value of the car was Rs. 10,50,000. The Premier Ltd. charged interest at 10% p.a. Ganesh closes his books of accounts on 31st March every year and charges depreciation on Car @ 15% p a on book value. Prepare Kiran's Account, Vehicles Account, and Interest Account in the books of Ganesh from 1.4.2020 to 31.3.2022. [20]

Q.3 A) State with reasons whether the following receipts/incomes and payments/expenses are CAPITAL or REVENUE: [20]

1. Brokerage charges paid for purchase of asset
2. Painting of the factory building.
3. Amount collected by issue of shares.
4. Recovery of bad debts.
5. Wages incurred for installation of machinery.
6. Discount allowed to debtors.
7. Cost of purchasing copyright from author.
8. Claim amount received from insurance company for loss of stock due fire.
9. Amount received from landlord as compensation for surrender tenancy right to the shop.
10. Heavy advertisement expenditure incurred for new advertising campion.

OR

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Q.3 B) From the following details prepare Departmental Trading A/c, Profit A/c Loss A/c of W.M. Stores for the year ended 31st March 2022. [20]

Particulars	Common	Dept I	Dept II	Dept III
Purchases		4,54,300	3,04,900	3,07,700
Opening stock		34,500	45,000	63,000
Sales Return		23,000	18,800	23,400
Sales		8,23,000	6,18,800	6,23,400
Purchase Return		4,300	4,900	7,700
Wages & Salaries		75,800	87,900	65,300
Carriage outward		45,600	25,400	36,600
Closing Stock		45,000	35,000	56,000
Rent of premises	15,000			
Electricity	25,000			
Printing & Stationery	5,800			
Discount Allowed	15,000			
Discount received	14,000			
Legal Charges	10,000			

Depreciation on furniture worth Rs. 35,000 department I and worth Rs. 40,000 in department II is to be provided at 10%. Area occupied by three departments are 3,000: 2,000 and 1,000 sq.feet. respectively. Electricity and Printing and Stationery are to be apportioned on the basis of Net Sales of three departments.

Q.4 A) The following is the Trial Balance of Mr. ABC. You are required to prepare Final Account for the year ended 31st March, 2022 [20]

Particulars	Amt.	Particulars	Amt.
Cash in hand	10,000	Capital A/c	4,18,600
Machinery	3,00,000	Sales	13,87,800
Drawing	25,000	R.D.D.	5,600
Factory Power & Fuel	4,500	Sundry Creditors	88,000
Office Salary	62,250		
Carriage outward	5,000		
Manufacturing wages	93,000		
Furniture & Fittings	34,000		
Opening stock:			
a) Finished goods	40,000		
b) Work in progress	72,500		
c) Raw Material	28,000		
Carriage inward	10,000		
Rent (Factory 3/4 th)	40,000		
Sundry Debtors	2,16,000		
Advertising	7,750		
Printing & Stationery	12,000		
Factory Insurance	12,800		
Purchase of Raw Material	8,29,500		
Balance at Bank	85,300		
Discount allowed	6,100		
Miscellaneous Exp.	6,300		
	19,00,000		19,00,000

Adjustments:

1) Closing stock:

a) Finished goods 65,000 b) Raw Material Rs. 7,500 c) Work in progress 47,500.

2) A motor car purchased on 1st October 2021 for Rs. 1,00,000 has been included in purchases.

3) Depreciate Machinery @ 15% p.a., Motor Car @ 20% p.a., Furniture & Fixtures @ 15% p.a.

4) Provision for R.D.D. should be maintained at 10% of the Debtors.

5) Provision for unrealised rent in respect of proportion of office sublet at Rs. 5,000 per month from 1st October 2021 has to be made.

OR

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- Q 4 B) From the following particulars, prepare Trading and Profit and Loss Account of the two departments A and B for the year ended 31.3.2022. [20]

	A Rs.	B Rs.	Total Rs.
Opening stock	15,000	10,000	25,000
Purchases	91,000	60,500	1,50,000
Carriage Inwards			2,000
Salaries	8,000	7,000	15,000
Sales	1,20,000	80,000	2,00,000
Purchase Return	1,000	500	1,500
Discount Received			1,500
General Expenses			10,000
Rent and Rates			5,000
Advertising			10,000
Insurance			1,000
Discount Allowed			1,500
Selling and Distribution Expenses			500

The further information is relevant.

- 1) General expenses are to be allocated equally.
- 2) Goods transferred from Department A to B were Rs. 3,000.
- 3) The area occupied is A $\frac{3}{5}$ and B $\frac{2}{5}$.
- 4) Insurance is paid under a comprehensive policy.
- 5) The closing stock of the two departments: A Rs. 20,000, B Rs. 15,000

- Q.5 A) Explain in detail the provisions of AS - 9 [10]
B) Explain need and importance of Departmental Accounts. [10]

OR

- Q.5 C) **Write short notes: (ANY FOUR)** [20]
- 1) AS - 1
 - 2) FIFO Method of Stock Valuation
 - 3) Importance of distinguish between Capital and Revenue
 - 4) Determination of Cost of Manufacture
 - 5) Hire Purchase
 - 6) Various basis of allocation of expenses amongst departments

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FYBCOM-I-REG/ATKT-DEC-2022-B.C.

Time : 03 hrs

Max. Marks. 100

- Note: 1) **ALL** questions are **COMPULSORY**.
2) Figures to the right indicate full marks.

- Q.1 A) **Explain the following terms in two to three sentences: (ANY FIVE)** [10]
1) Decoding
2) E – communication
3) Kinesics
4) Cross – cultural Barriers
5) Hierarchy
6) 'You' Attitude
7) Postscript
- Q.1 B) **State whether the following statements are TRUE or FALSE:** [05]
1) Communication only involves transfer of information.
2) Coloum cannot country messages.
3) www is a user friendly facet of Internet.
4) Social media tools tend to be available at a very high cost relative to other forms of media.
5) Listening enables understanding of a message.
- Q.1 C) **Fill in the blanks choosing the best alternative from the ones given below:** [05]
1) _____communication cannot be trusted fully.
A) Vertical B) Horizontal
C) Diagonal D) Grapevine
- 2) _____is a measure of the success of the message communicated.
A) Encoding B) Feedback
C) Symbols D) Decoding
- 3) Which of the following is not one of the 7 Cs of communication?
A) Coherence B) Correctness
C) Courtesy D) Clarify
- 4) Which of the following should not be covered in a statement of purpose?
A) The course applied for B) Reason for wanting to join the institute
C) Your personal and financial liabilities D) Your true experiences that reveal your personality
- 5) Listening is a _____effort by the receiver to perceive and understand the message.
A) Unconscious B) Conscious
C) Universal D) Passive
- Q.2 **Write short notes on: (ANY FOUR)** [20]
1) Communication Cycle
2) Importance of Communication in the Corporate World
3) Websites
4) Advantages and Disadvantages of WhatsApp
5) Horizontal Communication
6) Advantages of Oral Communication

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FYBCOM-I-REG/ATKT-DEC-2022-B.C.

- Q.3 **Answer ANY TWO of the following:** [20]
- A) What is personal integrity? How can personal integrity make a difference at the workplace?
 - B) Discuss in detail the semantic barriers to communication.
 - C) What do you understand by listening? What are the tips for cultivating good listening skills?
- Q.4 **Draft an application letter in response to the following advertisement:** [10]
- “A well reputed South Mumbai based company is looking for suitable marketing executives. Candidates must be commerce graduates, able to work independently and should be willing to take responsibilities. Apply with detailed resume to P.O. Bos 2421, The Times of India, Fort, Mumbai – 400 071.”
- Q.5 **Draft the following letters: (ANY FOUR)** [20]
- A) You are applying for an MBA program in finance at Texas University, USA, Draft the statement of purpose.
 - B) Rahul Varma has been offered the post of Regional Sales Manager in Delta Enterprises Ltd. Draft a letter of acceptance on his behalf.
 - C) Draft a letter of recommendation for your junior who has given your name as referee in her application for the post of Asst. Marketing Manager with Blue Star Electronics Ltd.
 - D) Mr. Praful Shah of Pioneer Private Ltd., Mumbai working as Finance Manager wishes to resign from his post. Draft the letter of resignation on his behalf.
 - E) Mr. Vikas from your IT department has stepped in to assist with the technological aspects in the ongoing business conference organized by your company. Draft a letter of appreciation to him.
- Q.6 A) **Write a paragraph in about one hundred fifty words on ANY ONE of the following topics:** [05]
- i) Ban on plastic
 - ii) Your dream role
- B) **Read the following situation carefully and answer the questions given below:**
- The Personnel Manager gave his new clerk a letter with the instruction, “Take it to our stockroom and burn it “. In the Personnel Manager’s mind the word ‘burn ‘meant to make a copy on a company machine which operated by a heat process. As the letter was extremely important, he wanted an extra copy. However, the puzzled new clerk, afraid to ask questions, burned the letter with a lighted match and thus destroyed the only existing copy.”
- i) Identify and explain the problem in the given situation. [03]
 - ii) Discuss the means to overcome the problem. [02]

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FYBCOM-I-REG/ATKT-DEC-2022-COMMERCE-I

Time : 03 hrs

Max. Marks. 100

- Note: 1) **ALL** questions are **COMPULSORY**.
2) Figures to the right indicate full marks.

- Q.1 A) **Fill in the blanks with the most appropriate option given: (ANY TEN)** [10]
- 1) Business is a _____ activity.
A) economic B) human
C) anti-human D) socio-economic
 - 2) Modern business is _____ oriented.
A) Sales B) consumer
C) product D) services
 - 3) _____ is a direct aid to trade.
A) warehousing B) agriculture
C) mining D) manufacturing
 - 4) Impact of festivals on business is an example of _____ environment.
A) cultural B) economic
C) political D) national
 - 5) Training institutes like NIIT, are a part of _____ environment.
A) international B) cultural
C) educational D) social
 - 6) Plantation drive by the corporate sector is a _____ objective.
A) social B) cultural
C) political D) human
 - 7) Technical feasibility includes study of _____.
A) capital B) location
C) machines D) products
 - 8) Study of _____ is a part of market feasibility.
A) Competition B) production
C) land D) resources
 - 9) Financial feasibility includes assessing _____.
A) product B) customer
C) capital-needs D) process
 - 10) Educational environment and business are _____.
A) dependent B) interdependent
C) isolated D) proxy
 - 11) _____ is an essential feature of business.
A) risk B) process
C) loss D) export

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FYBCOM-I-REG/ATKT-DEC-2022-COMMERCE-I

- 12) The term intrapreneur was introduced by_____.
- A) Gifford Pinchot B) Peter Drucker
C) Jeff Bezos D) Elon musk
- B) **State TRUE or FALSE for the following statements: (ANY TEN)** [10]
- 1) Business is guided by economic goals.
 - 2) Privatization promotes the public sector.
 - 3) Feasibility study helps set up business enterprises.
 - 4) Medical facilities for workers is an example of human objectives of business.
 - 5) Business can also be a non-profit organization.
 - 6) International environment has only positive impact on business.
 - 7) Risk and uncertainty go together in business.
 - 8) Business is not regulated by the government.
 - 9) R&D is an essential feature of traditional business.
 - 10) Trade blocs encourage business against members.
 - 11) India is a member of ASEAN.
 - 12) MAVIM was established for training women in Gujrat.
- Q.2 **Answer ANY TWO of the following:** [15]
- A) Describe the functions of business.
 - B) Discuss the positive and negative impact of liberalisation.
 - C) Discuss steps in Turnaround strategy.
- Q.3 **Answer ANY TWO of the following:** [15]
- A) Discuss the importance of trade blocs.
 - B) Give the importance of business environment.
 - C) Discuss the features of educational environment.
- Q.4 **Answer ANY TWO of the following:** [15]
- A) Describe the steps in setting up of a business.
 - B) Write a note on project planning.
 - C) What factors influence selection of business location?
- Q.5 **Answer ANY TWO of the following:** [15]
- A) Briefly explain the types of entrepreneurs.
 - B) What problems are faced by women entrepreneurs?
 - C) Give the importance of entrepreneurship.
- Q.6 **Write Short Notes: (ANY FOUR)** [20]
- A) Privatization
 - B) Human objectives
 - C) External environment
 - D) Intrapreneur
 - E) Social objectives
 - F) WTO

- Note: 1) **ALL** questions are **COMPULSORY**.
 2) Figures to the right indicate full marks.
 3) All questions have internal choice.
 4) Use of simple calculator is allowed.
 5) Draw neat diagrams wherever necessary.

- Q.1 A) **Select the best answer from the given options and rewrite the statement:(ANY TEN)** [10]
- i) _____ shows the functional relationship between two or more economic variables.
 A) Demand B) Supply
 C) Consumption D) Graph
- ii) _____ refers to change in one variable due to change in other variable.
 A) Business Economics B) Graph
 C) Slope D) Cubic function
- iii) The ratio of change in total revenue to a change in output sold is _____.
 A) Average revenue B) Marginal revenue
 C) Average cost D) Marginal cost
- iv) The point at which the quantity demanded equals supplied is the _____.
 A) Consumer's equilibrium B) Equilibrium point
 C) Total demand D) Total supply
- v) If cross elasticity of demand is positive, goods are _____.
 A) Complementary B) Zero
 C) Substitutes D) Not related
- vi) A percentage change in quantity demanded divided by a percentage change in price is called _____.
 A) Price elasticity of supply B) Price elasticity of demand
 C) Cross elasticity of demand D) Elasticity of substitution
- vii) Demand forecasting is an estimate of the _____ demand.
 A) Past B) Present
 C) Future D) Cubic
- viii) The _____ method uses time series data.
 A) Sample survey B) Delphi
 C) Laboratory experimentation D) Trend
- ix) The area lying between the two ridge lines is the _____.
 A) Non-economic region B) Economic region
 C) Economics of scope D) Economies of scale
- x) The slope of an ISO-quant refers to the measurement of :-
 A) The marginal rate of technical B) The marginal physical product of labour substitution
 C) The capital efficiency D) Marginal cost

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- xi) Money cost = _____.
- A) Fixed and variable costs B) Social + Private cost
C) Explicit cost + Implicit cost D) AC + MC
- xii) Electricity charges, Sales tax etc. are the examples of _____.
- A) Fixed cost B) Private cost
C) Variable cost D) Social cost

Q.1 B) **Write whether the following statements are TRUE or FALSE. (ANY TEN)** [10]

- i) Functional relationship is denoted by symbol 'f'.
- ii) Opportunity costs arise because resources are unlimited.
- iii) The market demand schedule shows a direct relationship between price and quantity demanded.
- iv) A mathematical expression of the relationship between quantity demanded of the commodity and its determinants is known as supply function.
- v) The monopoly firm faces a downward sloping demand curve.
- vi) Promotional elasticity of demand is always positive.
- vii) Expert opinion is a statistical method of demand forecasting.
- viii) Production function refers to transformation of input into output.
- ix) Marginal product refers to total product per unit of variable factor.
- x) TC is the summation of TFC and TVC.
- xi) Learning curve was developed by Adam Smith.
- xii) At Break-even point TR = TC.

Q.2 **Attempt A and B or C and D:**

- A) Explain the following tools in Economic decision making. [07]
1) Variables 2) Functions 3) Equations
- B) Discuss the use of marginal analysis in decision making. [08]

OR

Q.2 C) Given the following data: [07]

Quantity (In Units)	1	2	3	4	5
Price (In ₹)	10	9	8	7	6

- 1) Calculate TR, AR and MR
 - 2) Explain the relationship between AR, MR and TR
- D) Explain the basics of market demand, market supply and Equilibrium price with the help of suitable diagrams. [08]

Q.3 **Attempt A and B or C and D:**

- A) State and explain the determinants of demand. [07]
- B) Calculate the cross Elasticity of demand, If the price of coffee rises from ₹.200 per kg. Rs.400 per kg. and consequently demand for tea increases from 20 kg. to 60 kg. [08]

OR

Q.3 C) What is demand forecasting? Explain the significance of demand forecasting. [07]

D) Estimate annual sales for the year 2024 (using OLS method) [08]

Year	2016	2017	2018	2019	2020
Sales (₹ in Lakhs)	2	6	8	14	10

Q.4 **Attempt A and B or C and D:**

- A) Write short note on production function. [07]
- B) Discuss the producer's equilibrium. [08]

OR

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- Q.4 C) State and explain the law of variable proportions. [07]
D) Discuss the internal and external economics of scale. [08]

Q.5 **Attempt A and B or C and D:**

- A) Distinguish between: [07]
1) Fixed cost and variable cost.
2) Historical Cost and Replacement Cost
- B) Calculate AFC, AVC, AC and MC. [08]

Output (Q)	1	2	3	4	5	6	7
TC	40	65	85	110	140	175	215
TFC	10	10	10	10	10	10	10

OR

- Q.5 C) Explain the Break-even Analysis with the help of diagrams. [07]
D) For a hypothetical firm, If price of product is ₹.100/-, TFC is ₹.20,000/-, and AVC is ₹.20, [08]
Then:
1) Calculate break-even output for this firm.
2) At the original price and AVC, what will be break even quantity if TFC rises to ₹.30,000?

- Q.6 A) Discuss the nature of demand curves in different markets. [10]
B) Derive the LAC and write its features. [10]

OR

Q.6 **Write short notes: (ANY FOUR)** [20]

- A) Scope of Business Economics
B) Opportunity cost principle
C) ISO Quant
D) Ridge line
E) Economies of scope
F) Learning curve

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Seat No. _____

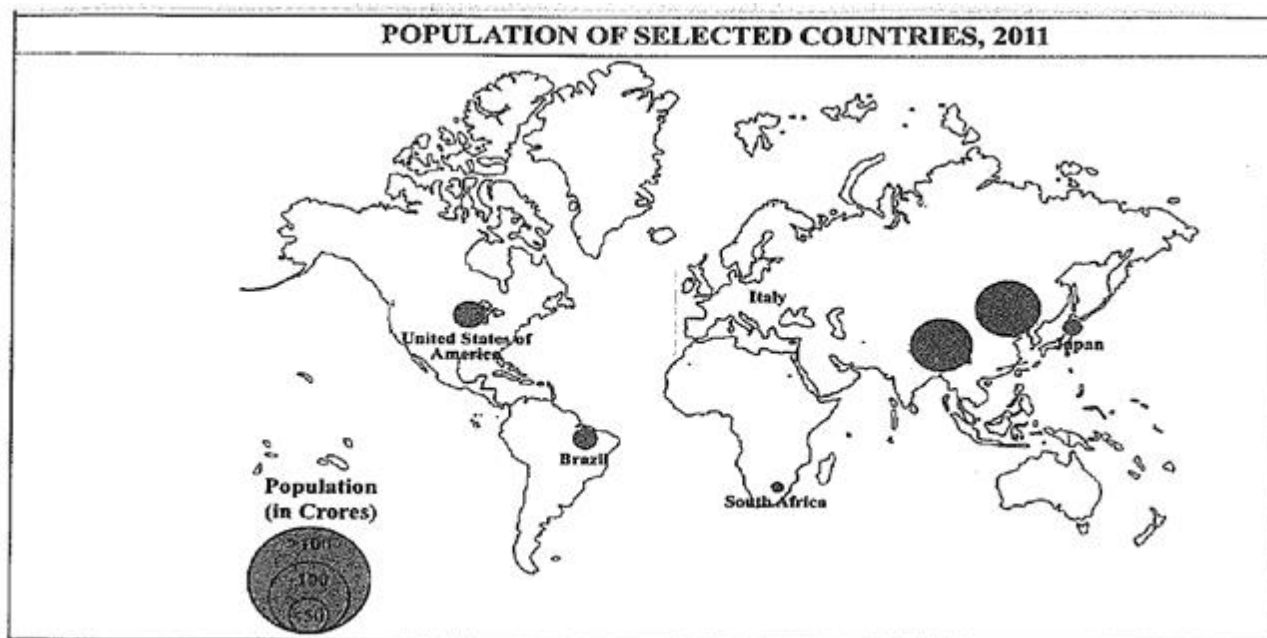
Supervisor's Signature

World Map



- Note: 1) **ALL** questions are **COMPULSORY**.
 2) Figures to the right indicate full marks.
 3) Draw maps wherever necessary.
 4) Map stencils are permitted.
 5) Attach the world map to the main answersheet.

Q.1 A) **Read the world map and answer the questions:**



- 1) What is the theme of the map? [01]
- 2) What is the cartographic technique used to represent the data? [01]
- 3) Name two large size population countries in Asia. [02]
- 4) Name two countries having less than 50 crores population. [02]
- 5) Name two countries having more than 100 crores population. [02]
- 6) State the amount of population in USA and Brazil. [02]

B) On the outline map of the world mark and name the following: [10]

- 1) A mountain range in Africa.
- 2) A river in South America.
- 3) A cyclone prone area.
- 4) A sparsely populated country.
- 5) An isthmunian location.
- 6) An oil producing country.
- 7) A wool producing country.
- 8) A water deficit country.
- 9) A country having high deforestation rate.
- 10) A biodiversity hotspot in India.

Q.2 **Answer ANY TWO from the following:** [20]

- A) Explain the various types of ecosystems.
- B) Explain how portal location influences the development of commercial activities.
- C) Discuss the significance of Food chain and Food web.

Q.3 **Answer ANY TWO from the following:** [20]

- A) Account for the significance of Non-conventional resources.
- B) Describe the problems associated with forest resources.
- C) Discuss methods of water Management.

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- Q.4 **Answer ANY TWO from the following:** [20]
- A) Divide the world into major density zones and explain any one of them in detail.
 - B) Explain in detail patterns of population growth and associated problems.
 - C) Give a detail account of human impact on environment.

- Q.5 **Answer ANY TWO from the following:** [20]
- A) Explain the concept of urbanization and causes of urbanization.
 - B) Write a short note on Smart City.
 - C) Write a short on Urban Heat Islands.

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FYBCOM-I-REG/ATKT-DEC-2022-F.C.

Time : 02 hrs 30 min

Max. Marks. 75

- Note: 1) **ALL** questions are **COMPULSORY**.
2) Figures to the right indicate full marks.

Q.1 A) **Choose the right alternative: (ANY EIGHT)** [08]

- 1) The smaller cities are looked after by _____.
A) Municipal Corporation B) Municipal Council
C) Panchayat Raj D) State Government
- 2) The holy book of Buddhism is _____.
A) Bhagvad Gita B) Bible
C) Guru Granth Sahib D) Tripitaka
- 3) The word _____ means equal respect for all religions.
A) Secular B) Sovereign
C) socialist D) democratic
- 4) _____ was formed as a separate state from Andhra Pradesh.
A) Chattisgarh B) Telangana
C) Ladakh D) Hyderabad
- 5) _____ is the only state in India where females out number males.
A) Kerala B) Haryana
C) Uttar Pradesh D) Tamil Nadu
- 6) Indian society is _____ in nature.
A) pluralistic B) urban
C) rural D) tribal
- 7) The urban areas in India are looked after by the _____.
A) Central Government B) State Government
C) Municipalities D) Panchayat Raj
- 8) The constitution of India confers _____ citizenship.
A) Single B) Dual
C) Multiple D) No
- 9) _____ is the solution to communalism.
A) Capitalism B) Patriotism
C) Regionalism D) Linguism
- 10) The main reason for female foeticide is _____.
A) preference for male child B) pollution
C) globalization D) untouchability

B) **State whether the following statements are TRUE or FALSE: (ANY SEVEN)** [07]

- 1) Kerala has the highest literacy rate in India
- 2) The infant mortality rate is higher in case of boys as compared to girls

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- 3) Municipal council is also known as Nagar Parishad
- 4) Indian constitution is one of the longest constitution in the world.
- 5) Eve teasing is a social violence against women.
- 6) Regionalism can create interstate tension
- 7) Unemployment rate is higher in rural areas as compared to urban areas
- 8) India has adopted presidential democracy
- 9) Caste system promotes social progress and modernization
- 10) The election commission of India has the power to de-recognize political parties when found fraudulent.

Q.2 A) Explain in detail the urban and rural divide in India. [15]

OR

B) What are the positive and negative roles of mass media towards women? [15]

Q.3 A) Explain Linguism and its causes. Enlist various measures to overcome the problem of linguism. [15]

OR

B) Explain inequalities generated due to caste system in India and the measures to combat these inequalities. [15]

Q.4 A) Explain the structure and features of Indian Constitution. [15]

OR

B) Define Fundamental Duties. Explain the fundamental duties of citizens of India. [15]

Q.5 A) Write a detailed note on Rural Local Self Government in India. [15]

OR

B) **Write short notes on ANY THREE of the following:** [15]

- 1) Diversity as difference
- 2) Mental Disabilities
- 3) Communalism
- 4) Peace and Communal Harmony
- 5) Characteristics of a political party

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FYBCOM-I-REG/ATKT-DEC-2022-MATHS & STATS

Time : 03 hrs

Max. Marks. 100

- Note: 1) **ALL** questions are **COMPULSORY**.
2) Figures to the right indicate full marks.
3) Use of simple calculator is allowed.
4) All questions carry equal marks.
5) Graph papers will be provided on request.

SECTION-I

Q.1 **Attempt ANY FOUR of the following:**

[20]

- A) Anil invested ₹ 99,144 in equity shares of 100 each at market price of ₹162 each. Afterwards he sold all his shares at ₹ 180 each. He paid brokerage of 2% on each transaction. Find his total gain.
- B) Sachin invested ₹ 25830 in mutual funds including entry load of 2.5%. If number of units purchased are 180, find NAV at purchase.
- C) Salim received ₹ 107784 after selling shares of a company at market price of ₹ 540, at 0.2% brokerage, find number of shares he sold.
- D) Vinod invested ₹ 50000 when NAV was ₹ 125.6 with entry load 2.5%. Find number of units & current value of investment if current NAV is ₹ 140.4.
- E) Amit is investing ₹ 1000 per month for four months on 10th of each month. NAV on these dates were ₹10.5, ₹12.8, ₹8.6, ₹9.8. If he paid 2% entry load for all these months, find total units he purchased. Find average price, including the entry load, using Rupee Cost Averaging Method And compare it with A.M of prices.

Q.2 **Attempt ANY FOUR of the following:**

[20]

- A) A committee of 3 is to be formed from 4 teachers & 6 students. In how many ways the committee can be formed such that it contains (i) only one professor (ii) all students.
- B) How many words can be formed using four different alphabets of word "COMPUTER". How many of them will start with alphabet 'C'?
- C) Solve following linear programming problem graphically
Maximize $z = 5x + 3y$
Subject to
 $2x + 3y \leq 12$
 $X + Y \leq 5$
 $X \geq 0, Y \geq 0$
- D) Solve following linear programming problem graphically
Minimize $z = 3x + 2y$
Subject to
 $2x + y \geq 4$
 $X + Y \geq 3$
 $X \geq 0, Y \geq 0$

(P.T.O)

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- E) A firm manufactures two products, A & B. The profits are ₹ 40 & ₹ 50 respectively. The firm has two machines and below is the required processing time in hours for each machine on each product.

Machine	Product	
	A	B
M1	4	3
M2	2	5

Machines M1 & M2 are available for 12 & 10 hours respectively. Formulate L.P.P. to maximize profit.

SECTION-II

Q.3 **Attempt ANY FOUR of the following:**

[20]

- A) Calculate Mean & Standard Deviation for the following data:

x	1	2	3	4	5
Frequency	7	9	10	8	6

- B) Calculate Quartile Deviation for the following data:

Class	2-10	10-18	18-26	26-34	34-42
Frequency	4	12	20	16	8

- C) Draw Histogram & locate Mode for the following data:

Class	0-10	10-20	20-30	30-40	40-50
Frequency	5	17	20	15	10

- D) Calculate combined mean & standard deviation for the following:

	Group I	Group II
Number	60	40
Mean	160	170
SD	2	5

- E) Calculate Coefficient of Mean Deviation from mode for the following data:

x	2	4	6	8	10
Frequency	5	7	10	6	4

Q.4 **Attempt ANY FOUR of the following:**

[20]

- A) Calculate mean & variance of random variable, X having p. m. f. as follows:

X	1	3	5	7	9
P(X)	0.2	0.1	0.4	0.2	0.1

- B) Explain following terms with the help of an illustration.

i) Complementary Events ii) Sample space

- C) If two fair dice are rolled simultaneously then find probability that (i) sum of the numbers on uppermost faces will be 10 or 12 (ii) product of the numbers on uppermost faces will be perfect square.

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- D) Three unbiased coins are tossed simultaneously. Hence find probability of getting (i) two heads (ii) at least 2 tails
- E) A box consists of 4 red & 6 green balls. Two balls are randomly selected from this bag, hence find probability of getting (i) both are of different colour (ii) both are red.

Q.5 **Attempt ANY FOUR of the following:**

[20]

- A) If the pay-off table is as given below, find best act using EMV criterion:

Acts	States of nature		
	S1	S2	S3
A1	450	500	750
A2	250	100	-100
A3	400	380	500
Probability	0.4	0.25	0.35

- B) If the pay-off table is as given below, find best act using (i) Laplace criterion (ii) Maximin criterion:

Acts	States of nature			
	S1	S2	S3	S4
A1	70	50	190	60
A2	40	110	160	50
A3	100	150	250	80

- C) If the pay-off table is as given below, find best act using Minimax Regret criterion:

Acts	States of nature		
	S1	S2	S3
A1	80	60	110
A2	40	0	50
A3	100	-20	70

- D) Draw a decision tree for the following pay-off table & find best decision:

Acts	States of nature		
	S1	S2	S3
A1	1800	2000	1100
A2	1650	2200	1500
Probability	0.3	0.5	0.2

- E) The following is demand distribution of a certain product:

Number of units demanded	10	11	12
Probability	0.35	0.4	0.25

The product is sold at ₹ 80 per unit with cost ₹ 60 per unit. Prepare a pay-off table & decide the best decision. The unit not sold is wasted.