

DATE: 10/11/2022

MARKS: 100

- Note:**
- 1) All questions are compulsory.
 - 2) Figure to the right indicate full marks.

Q.1 Fill in the blanks with appropriate given options and rewrite complete sentence (Any 10) (10)

1. Accounting Standard 2 (AS 2) deals with _____.
(Disclosure of accounting policies/ Revenue recognition / Valuation of inventory)
2. Total amount payable by the purchaser in a Hire Purchase transaction is called _____.
(Hire Purchase Price / Down Payment/ Cash Price)
3. The person who receives goods under Hire purchase system is called _____.
(Hire Vendor / Hire Purchaser / Agent)
4. Interest received under Hire Purchase System by the hire vendor is his _____.
(Expenditure / Income / Capital Receipt)
5. Trade mark is a _____. (Current Asset/ Fixed Asset/ Investment)
6. Payment of loan is a _____ Expenditure. (Capital / Revenue / Deferred revenue)
7. In Departmental account, _____ is debited to General Profit and Loss Account.
(Advertising / Rent / Audit Fees)
8. Stock reserve is _____ closing stock in the Balance Sheet under Departmental Accounts.
(added to /deducted from / not adjusted in)
9. For furniture Manufacturing company, wood is a _____.
(Raw material / Work – in- Progress / Finished goods)
10. In Manufacturing Organization, depreciation on Machinery will appear on the debit side of _____ Account.
(Trading / Profit & Loss / Manufacturing)
11. In Manufacturing Organization, the Trading Account is prepared to find out _____.
(Gross Profit / Cost of Production / Net Profit)
12. In Departmental Accounts, advertising is allocated on the basis of _____ of each department.
(Sales turnover / Area occupied / Purchases)

Q.1 B) State whether the following statements are TRUE or FALSE and rewrite the same. (Any 10) (10)

1. Rent is allocated on the basis of area occupied by each department.
2. Under FIFO method of inventory valuation, closing stock is valued at current cost.
3. Departmental accounting helps to determine profit or loss of each department.
4. Hire Purchase System is governed by Hire Purchase Act, 1972.
5. Accounting Standard 2 (AS 2) applies to agricultural goods.
6. Trading expenses are debited to Profit and Loss A/c.

7. Balance sheet shows the profitability of the organization.
8. The Hire Purchaser becomes the owner of goods as soon as he pays the down payment. f
9. Fixed assets are stated under the balance sheet at their present value. T
10. Dividend received on shares is a capital receipt. f
11. Hire purchase price is equal to cash price.
12. Capital expenditure is shown as a liability in the balance sheet.

Q. 2 From the following Trial Balance as on 31st March 2022 of Mr. Nihal Prepare Manufacturing Account, Trading Account and Profit and Loss Account for the year ended 31st March, 2022 and Balance Sheet as on that date.

Trial Balance as on 31st March, 2022

(20)

Particulars	Dr. (₹)	Cr. (₹)
Capital		80000
Drawings	10000	
Opening Stock - Raw Material	10000	
Opening Stock - Work in Progress	9000	
Opening Stock - Finished Goods	17000	
Purchase of Raw Material	108000	
Freight on Raw Materials	6000	
Direct Wages	44000	
Factory Rent	18000	
Factory Power and Fuel	9000	
Factory Supervisors Salary	10000	
Machinery	70000	
Sales		345000
Office Expenses	24000	
Cash at Bank	5000	
Selling and Distribution Expenses	20000	
Interest	7000	
Insurance Premium	10000	
Creditors		18000
Bad Debts	1000	
Provisions for Bad Debts		2000
Sundry Debtors	70000	
Bills Payable		3000
Total	448000	448000

Following further information is provided to you:

1. Closing stock as on 31st March, 2022 was Raw material ₹ 10000, Work-in-progress ₹ 6000, Finished goods ₹ 15000.
2. Depreciate Machinery @10% p.a.
3. During the year finished goods destroyed by fire were 5000. Insurance company admitted the claim for ₹ 3000.
4. Provide Reserve for doubtful debts @ 5% on debtors.
5. Factory rent outstanding is ₹ 2000.

OR

Q. 2 Ramesh Ltd. has purchased and issued the materials in the following order:

(20)

Date	Particulars	Units	Cost Per Unit ₹
March, 2022			
1	Purchases	1000	60
5	Purchases	1000	70
8	Issue	1000	
11	Purchases	1500	80
16	Issue	1600	
21	Purchases	900	90
23	Issue	1200	
24	Purchases	1200	94
25	Issue	600	
26	Issue	600	

Ascertain the value of closing stock as on 31st March, 2022 under the following methods.

- (i) First in first out method, (ii) Weighted Average method.

Q. 3 From the following particulars of Karma Electronics prepare Trading & Profit & Loss account of two departments' i.e. Radio & TV for the year ended 31st March 2022.

(20)

Particulars	Radio ₹	TV ₹	Total ₹
Opening Stock	65,000	50,000	1,15,000
Purchases	2,40,000	1,60,000	4,00,000
Sales	3,20,000	2,80,000	6,00,000
Salaries	12,000	10,000	22,000
General expenses			15,000
Rent & Rates			30,000
Carriage Inward			6,000
Carriage Outward			12,000
Discount allowed			9,000
Discount received			4,500
Travelling Expenses			15,000
Insurance charges			5,000

Additional Information :

- 1) General expenses & Insurance are to be allocated equally.
- 2) Area occupied by Radio & TV department are in the ratio of 4:1.
- 3) Closing stock of Radio department is ₹1,20,000 & that of TV department is ₹ 60,000.

Other expenses & Income to be allocated between two departments on suitable basis.

OR

Q. 3 State whether the following expenditures and receipts are Capital or Revenue and give reason for your answers.

(20)

1. Carriage paid for bringing new machinery ₹ 50,000.
2. Loan repaid ₹ 2,25,000, which was taken from Yes Bank.
3. Paid ₹ 2,00,000 for obtaining business licence.
4. Paid ₹ 1,40,000 as custom duty on Machinery purchased from Japan.
5. Insurance premium paid ₹ 50,000 to General Insurance Company for insurance of Plant.
6. Paid tax consultancy fees ₹ 800,000 to CA Parag for the year ended 31st March, 2022.
7. Paid ₹ 30,000 towards factory Rent.
8. Paid subscription charges of ₹ 1,000 for trade journal.
9. Loss of ₹ 20,000 was incurred on goods destroyed by fire.
10. Sold old business car for ₹ 5,00,000.

Q.4 M/s Sujata purchased a car on hire-purchase basis from Munjal Auto on 1st January, 2018. They paid ₹ 20,000 on signing the contract and agreed to pay five yearly instalments excluding interest as follows. (20)

On 31.12 2018 ₹ 50,000

On 31.12 2019 ₹ 50,000

On 31.12 2020 ₹ 50,000

On 31.12 2021 ₹ 50,000

On 31.12 2022 ₹ 50,000

The cash price of the car was ₹ 2,70,000. Munjal Auto charged interest at 10% p.a. Depreciation @ 10 % p.a. on W.D.V. method is charged on Car. Prepare Car A/c and Munjal Auto A/c in the books of M/s Sujata.

OR

Q. 4 Prakash Ltd. has purchased and issued the materials in the following order: (20)

Date	Particulars	Units	Cost Per Unit ₹
March, 2022			
1	Purchases	5000	30
2	Purchases	2000	20
3	Issue	3000	
10	Issue	2000	
11	Issue	1000	
12	Purchases	3000	40
13	Purchases	2000	30
21	Issue	1000	
22	Issue	2000	
23	Issue	1000	

Ascertain the value of closing stock as on 31 March, 2022 under the **First in first out method (FIFO)**.

Q. 5 Answer the following:

a) Explain in brief the provisions of Disclosure of Accounting Policies and Fundamental Accounting Assumptions as per AS-1. (10)

b) Explain the provision of AS 9: Revenue Recognition. (10)

OR

Q. 5 Write short notes on any four of the following: (20)

a) Main Features of AS-2.

b) Accounting for Hire Purchase Transactions.

c) Inter-Departmental Transfer.

d) Manufacturing Account.

e) Capital Expenditure.

f) Importance of Accounting Standards.

- N. B: 1. All questions are compulsory.
2. Figures to the right indicate full marks.

Q. 1 A) Select the most appropriate answer from the options given below. (Any Ten) 10

1. Rice, cotton and fish are examples of _____ industry.
a) Genetic b) Primary c) Extractive d) Construction
2. Profit is one _____ objective of business.
a) Economic b) Human c) Social d) Organic
3. _____ of business is the process of linking a country's economy with the world's economy.
a) Liberalisation b) Socialisation c) Privatisation d) Globalisation
4. Environment is _____ part of business.
a) Separable b) Ignorable c) Integral d) Isolated
5. Vision, mission and objectives are factors of _____ environment.
a) External b) Internal c) Macro d) International
6. India is the founder member of _____.
a) ASEAN b) WTO c) EU d) NAFTA
7. _____ act as reference guide during the execution of the project.
a) Feasibility report b) Project report c) Legal report d) Financial report
8. Tax holiday is an attraction in _____.
a) Maharashtra b) North East States c) Gujarat d) Karnataka
9. _____ is mandatory for opening a bank account, filing income tax returns.
a) Prospectus b) PAN c) Voter ID card d) Credit Card
10. An entrepreneur exploits changes into an _____.
a) Threat b) Weakness c) Strength d) Opportunity
11. _____ requires multidimensional competencies.
a) An entrepreneur b) Supplier c) Worker d) Seller
12. _____ provides Mahila Vikas Nidhi for women entrepreneurs.
a) Bank of India b) State Bank of India c) SIDBI d) ICICI

B) State whether the following statements are true or false (Any Ten) 10

1. Modern concept of business is concerned with customer satisfaction.
2. Objectives of business should be confusing.
3. Liberalisation refers to reduction of Government control over business sector.
4. Environmental factors are Dynamic.
5. Economic environment is a part of the internal environment.
6. The EU is a trading bloc consisting of South Asian Countries.
7. Project report is used as a project planning tool by an entrepreneur.
8. Decision on location is an important element of setting up a business unit.

9. Incorporation certificate is issued by registrar of companies.
10. Suppliers implement the plans and ideas of an entrepreneur.
11. Entrepreneurship is a social activity.
12. The TREAD scheme is especially for women entrepreneurs.

Q.2 Answer **any Two** of the following questions 15

- a) What is business? Explain its features.
- b) Explain the steps in setting business objectives
- c) What is liberalization? Explain its impacts on business and economy.

Q.3 Answer **any Two** of the following questions 15

- a) Define a Business Environment and explain its importance.
- b) Explain the components of the internal environment of business.
- c) Explain the functions and objectives of WTO.

Q.4 Answer **any Two** of the following questions. 15

- a) Explain the steps involved in the business planning process.
- b) Explain the stages involved in business unit promotion.
- c) Discuss the filing of returns and other documents of a business unit.

Q.5 Answer **any Two** of the following questions. 15

- a) Define Entrepreneurship and explain its features.
- b) What are the types of entrepreneurs?
- c) What are the problems faced by women entrepreneurs?

Q.6 Write short notes on **any Four** of the following. 20

- a) Functions of Business
- b) Turnaround Strategy.
- c) External Environment.
- d) Project Report.
- e) Importance of Entrepreneurship.
- f) Competencies of Entrepreneurs.

SBVC/ Regular Examination
DATE:- 12/11/2022
TIME: 7:15 am. To 10:15 am.

SEMISTER-I
SUBJECT:-BUSINESS ECONOMICS-I
CLASS:- F.Y.B.COM.
MARKS:-100

- N.B.** 1. All questions are compulsory
2. All question have internal choice.
3. Draw neat diagram whenever necessary
4. Use of simple calculator is allowed
5. Figures to the right indicate full marks.

Q.1 A) Select the best answer from the given option and rewrite the statement (any Ten) 10

i) ----- is the economics of business or managerial decisions.

- a) Micro economics b) Macro economics
c) Indian economy d) Business economics

ii) **The supply curve shifts due to -----.**

- a) Changes in technology b) Changes in input prices
c) Change in the price of related goods d) All of the above

iii) **In case of normal goods, demand curve is -----.**

- a) Upward sloping b) Downward sloping
c) Vertical straight line d) Horizontal strait line

iv) **If the price of sandwiches increases by 20%, then the quantity of sandwiches demanded falls by 24%. This indicates that demand for sandwiches is-----.**

- a) Relatively elastic b) Relatively inelastic
c) Unit elastic d) None of the above

v) **Kinked demand curve is observed in ----- market.**

- a) Perfect competition b) Monopoly
c) Monopolistic Competition d) Oligopoly

vi) **Trend refers to -----.**

- a) Short term variations b) Long term movement of data
c) Perfection d) None of the above

vii) **Short run production function includes-----**

- a) Only fixed factors b) Only variable factors
c) Both fixed and variable factors d) None of the above

viii) **The law of variable proportions -----**

- a) Pertains to the short run b) Assumes one factor as fixed
c) Is also known as law of diminishing returns d) all of the above

ix) Iso-quant curve is always -----

- | | |
|---------------------|-------------------|
| a) Downward sloping | b) Upward sloping |
| c) Concave | d) Horizontal |

x) Implicit costs are-----

- | | |
|---------------------------------|----------------------------------|
| a) Equal to total fixed costs | b) Equal to total variable costs |
| c) Cost of owned resources used | d) None of the above |

xi) Total cost equal -----

- | | |
|------------|--------------|
| a) $MC+AC$ | b) $MC+VC$ |
| c) $FC+MC$ | d) $TFC+TVC$ |

xii) Breakeven points means -----

- | | |
|------------------------------|---------------------------------|
| a) No profit no Loss | b) Revenue is greater than cost |
| c) Revenue is less than cost | d) All of the above. |

B) Write whether the following statements are true or false (Any Ten)

10

- i. Demand is desire backed by willingness and ability to pay.
- ii. At equilibrium price market demand is equal to market supply.
- iii. Equation expresses two expressions or variables.
- iv. Horizontal demand curve is observed under perfect competition.
- v. When the demand is perfectly inelastic, the demand curve will be a vertical straight line.
- vi. In the short run production function at least one factor is fixed.
- vii. In long run all factors tend to be variable.
- viii. Two iso-quants never intersect each other.
- ix. Law of variable proportion is related to the short run.
- x. Internal economies cause LAC to rise.
- xi. Learning curve indicates increase in cost of production to the decrease in output.
- xii. At breakeven point, total cost is greater than total revenue.

Q. 2. Attempt A and B OR C and D:

15

- A) Explain the meaning and scope of Business Economics.
- B) Derive market demand curve with the help of market demand schedule.

OR

- C) If demand equation is $Q_{dx} = 120 - 2P_x$ and supply equation is $Q_{sx} = -80 + 3P_x$
Calculate the equilibrium price and quantity of 'X' commodity.
- D) Discuss the concept of Opportunity cost.

Q.3. Attempt A and B OR C and D:

15

- A) Explain the Nature of demand curve under perfect competition.

B) Case Study-

Suppose price of Samsung J- 8 Cell phone increased from 20,000/- TO 22000/ and demand is declined from 10000 unit to 9000 unit per week in the Mumbai City.

- Calculate the price elasticity of Demand.
- What is the degree of price elasticity of Demand

OR

- C) Explain the different degrees of price elasticity of demand.
- D) Explain the Meaning and significance of demand forecasting.

Q. 4. Attempt A and B OR C and D:

15

- A) Explain the types of production Function.
- B) Explain the Properties of ISO – Quant.

OR

- C) Explain the Law of variable proportions.
- D) Discuss the concept of Producer Equilibrium.

Q. 5. Attempt A and B OR C and D:

15

- A) Explain the derivation of short run average cost curve.
- B) Complete the following Table:

Quantity	TFC	TVC	TC	AFC	AVC	AC	MC
0	10	00					
1	10	10					
2	10	18					
3	10	23					
4	10	34					
5	10	55					
6	10	80					

OR

- C) Explain the relationship between AC and MC in the short run period.
- D) Explain the concept of learning curve.

Q.6. Attempt A and B OR Write short notes any four:

20

- A) Explain the survey method of demand forecasting.
- B) Explain the concept of Break- even point with the help of suitable diagram.

OR

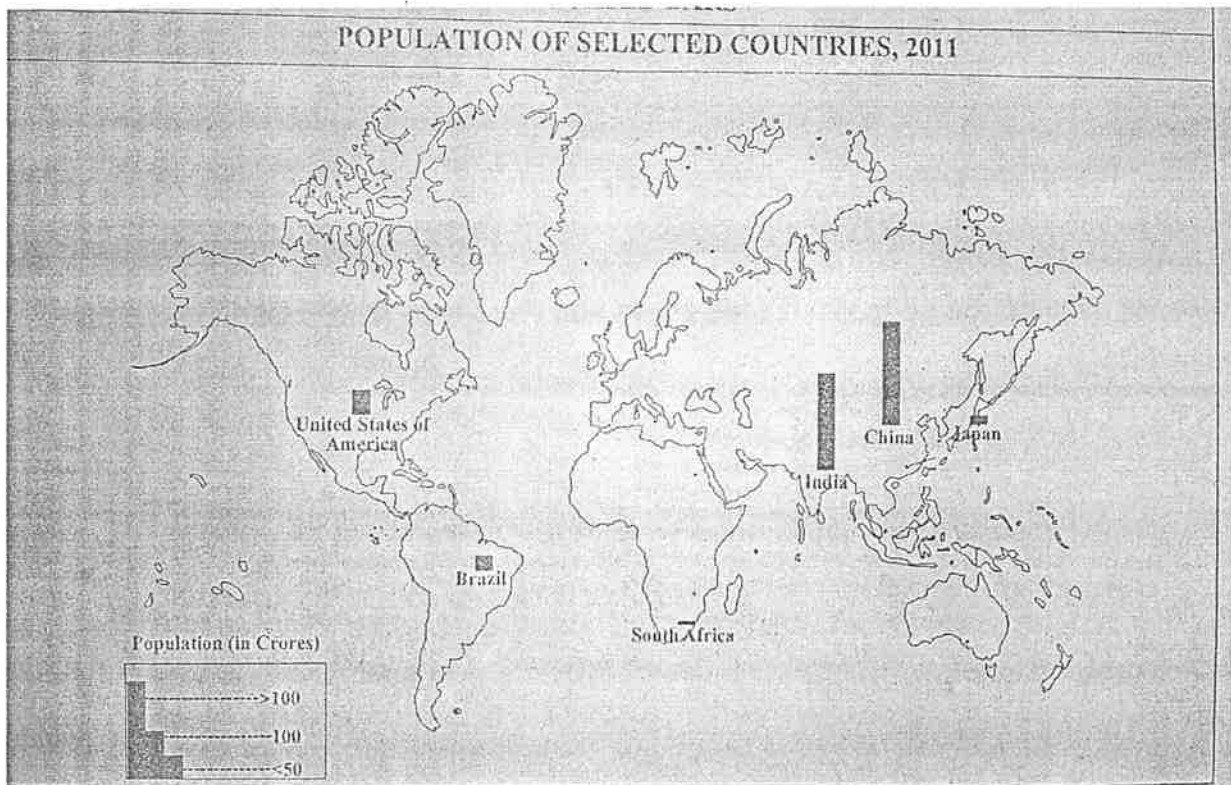
Write short notes (any four):

- i) Functions and equations
- ii) Income elasticity of demand
- iii) Iso-cost line
- iv) Law of Return to Scale
- v) Fixed and variable cost
- vi) Implicit cost and explicit

-----MBK-1-----

- Note: 1. All questions are COMPULSORY.
2. Each question carries equal marks.
3. World map (Appendix-1) should be tied up along with your answer paper.

Q.1 A] Study the world map and answer the following questions.



Questions:

- What is the theme of map? (02)
- Which cartographic technique is used to represent the theme? (02)
- With the help of the scale given find out the population of Brazil. (02)
- Which country shows the lowest population? (02)
- Which country shows the highest population? (02)

**B] Mark and name the following features on the given map of world.
(Appendix: 1)**

- i. A metropolitan city in the world. (02)
- ii. A mountain range in Asia (02)
- iii. Smallest Continent in the world (02)
- iv. A largest island in the world. (02)
- v. Ocean to the South of India (02)

Q.2 Attempt any two (20)

- A] Define environment. Describe the various components of environment.
- B] Explain the concept of food chain and food web with suitable example
- C] Explain the importance of environmental studies.

Q.3 Attempt any two (20)

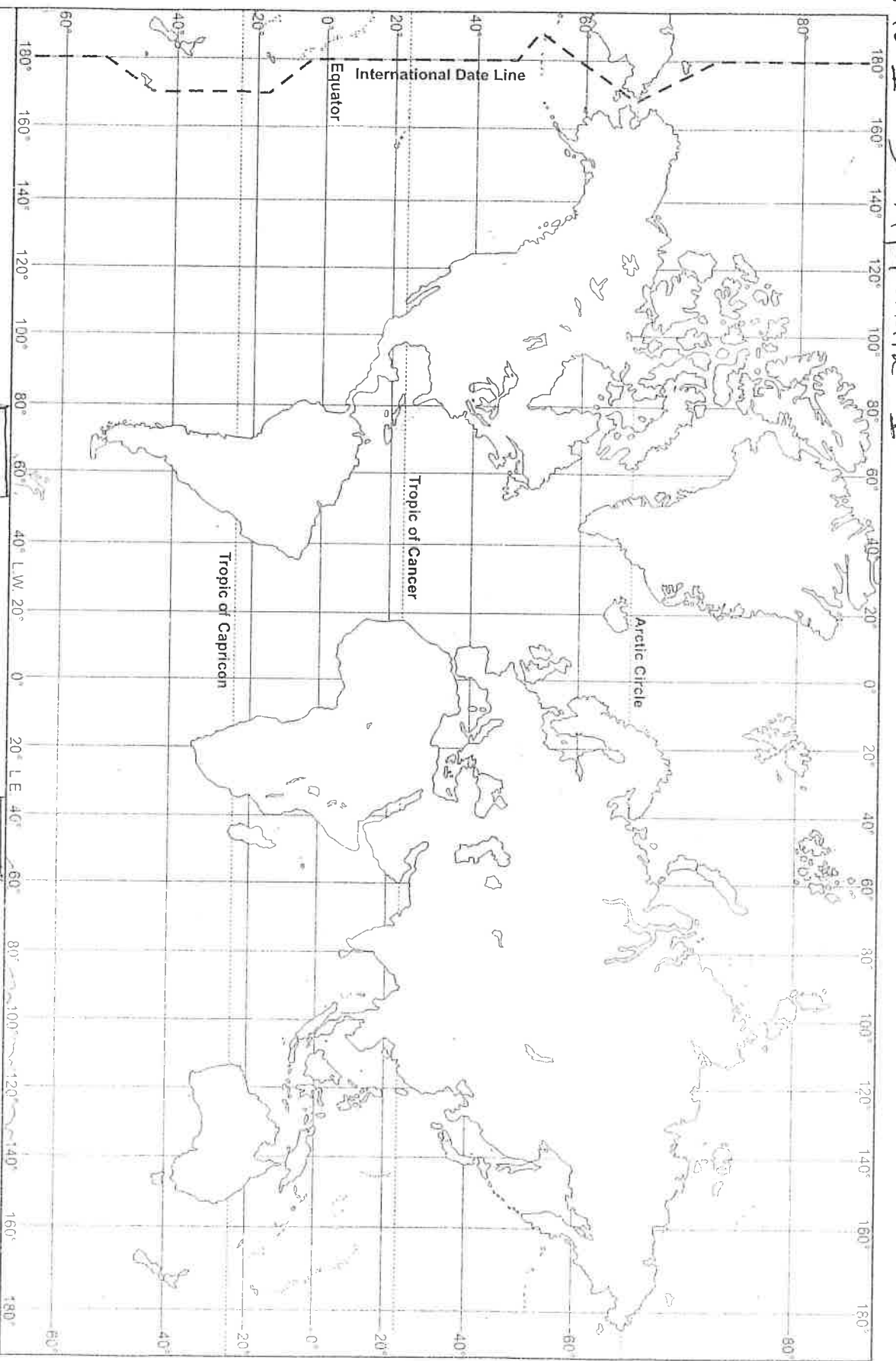
- A] What is resource? Classify natural resources.
- B] Explain the various methods of conservation.
- C] Discuss the traditional energy resource.

Q.4 Attempt any two (20)

- A] Discuss on population explosion in India.
- B] Explain Demographic Transition Theory of population.
- C] What is HDI? Explain Human Development Index in detail.

Q.5 Attempt any two (20)

- A] What is Urbanization? Explain the process of urbanization in India
- B] Explain the factors of migration.
- C] Discuss the impact of urbanization on Biodiversity.



WORLD



Seat Number -

i)	ii)	iii)	iv)	v)
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Note:

1. All questions are compulsory.
2. Figures to the right indicate marks.

Q.1. A. Explain the following terms in 2 or 3 sentences only. (any 5)

10

1. Feedback
2. Downward communication
3. Kinesics
4. Business Ethics
5. Closed punctuation
6. Listening
7. Filtering as psychological barrier
8. Blogs

Q.1.B. Match the following:

05

- | | |
|-------------------------|---|
| 1. Positive feedback | a. language as a medium |
| 2. Social media | b. not giving credit to the original writer |
| 3. Upward communication | c. Twitter |
| 4. Verbal communication | d. From subordinate to superior |
| 5. Plagiarism | e. message understood |

Q.1.C. Fill in the blanks choosing the best alternative from the ones given below:

05

1. The process of communication begins with _____
a. Sender b. Receiver c. Medium d. Feedback
2. Written communication is a type of _____ communication.
a. Verbal b. non-verbal c. oral d. visual
3. _____ communication cannot be trusted fully.
a. Vertical b. horizontal c. diagonal d. grapevine
4. MOODLE is an acronym for _____
a. Modulated Object-Oriented Dynamic Learning Environment
b. Modular Object-Oriented Dynamic Learning Environment
c. Modular Object-Oriented Dynamic Listening Environment
d. Modular Object-Oriented Dynamic Listening Enterprise
5. Use of jargon is part of _____ barrier.

- a. physical b. semantic c. psychological d. cross-cultural

Q.2. Write short notes on: (any 4) 20

1. Parts of the communication process
2. What's app
3. Types of grapevine network
4. Salutation and complimentary close
5. Advantages of downward communication
6. Space and proximity

Q.3. Answer the following. (Any 2) 20

1. What is business ethics? What are the benefits of being ethical to an organisation?
2. Explain in detail the physical barriers to communication and how to overcome them.
3. What are the barriers to listening and how can they be overcome?

Q.4. Draft a reply to the following advertisement : 10

“Wanted Secretary for a large industrial concern in Mumbai. Candidate must be good at typing and have computer knowledge. Preference will be given to candidates with a fluent command over English and some relevant work experience. Write with Resume to Box. No. 8765. The Times of India, Mumbai 400 001.”

Q.5. Draft the following letters: (any 4) 20

1. You are applying for the Masters' Programme in Business Management at a Colorado University, U.S.A. Write a Statement of Purpose for the same. (Full Block form)
2. You have been offered a position as a Junior Accountant at Vishwas Consultancies. Write a letter accepting the offer. (Semi Block form)
3. Due to some personal reasons, you want to resign from your post as a stenographer from Laxmi Industrial Estate. Write a letter of resignation for the same. (Full Block form)
4. Write a recommendation letter for a employee who is seeking a higher post at Mittal Industries Ltd. (Semi Block form)
5. Mr. Hiralal has been working as an Accounts Manager with Roopkala Films Ltd since the past five years. He wishes to resign from his post. Draft his letter of resignation. (Modified Block form)

Q.6.A. Write a paragraph in about 150 words on any one of the following: 05

- i. Importance of friends
- ii. Advantage of online shopping

Q.6.B. Read the following situation carefully and answer the questions given below: 05

Mr. Samir was the Manager at Tarang Ltd. He felt that his employees were hiding work problems and trying to solve them by themselves. They were afraid to admit mistakes and bring issues to his attention.

- a. Identify the barrier in the above given situation.
- b. What steps could Samir take to resolve the issue?

GES/SBVC/EXAM/NOV.22

SUBJECT: FOUNDATION COURSE-I

DATE:16/11/2022

TIME: 7:15 am to 9:45 am

SEMESTER-I

CLASS: FYBCOM

MARKS: 75

NOTE:

1. All questions are compulsory.
2. All questions have internal choice.
3. Figures to the right indicate full marks.

Q. 1. A. Choose the correct alternative: (Any Eight)

(08)

1. The eightfold path was given by _____.
(Buddha, Shiva, Krishna, Mohammad)
2. _____ has the highest literacy rate in India.
(Kerala, Maharashtra, Gujarat, UP)
3. Provision of positive discrimination is making in _____.
(Article 15, Article 17, Article 19, Article 21)
4. The term secular was added to the preamble by the _____.
(42nd amendment, 45th amendment, 48th amendment, 52nd amendment)
5. Anti-Hindu agitations took place in _____ India.
(Southern, Northern, Eastern, Western)
6. Mongoloids, Negritos and Austroloids are examples of _____ groups.
(Rural, Tribal, Urban, Semi-Urban)
7. _____ is chief architect of the Indian constitution.
(Sardar Patel, Dr. B. R. Ambedkar, Subhashchandra Bose, M. K. Gandhi)
8. Indian constitution provides _____ citizenship to the citizen.
(Two, Single, Three, Four)
9. India has a _____ party system.
(Single, Multi, Two, Three)
10. _____ is the head of the Gram Panchayat.
(Talathi, Sarpanch, Collector, Mayor)

Q.1.B. State whether the following statements are 'True' or 'False':

(07)

1. India has no official language.
2. More than half of the ST population is concentrated in central India.
3. Indian subcontinent is the birth place of world's four major religions.
4. Completion of 18 years of age have right to vote.
5. Preamble reflects the philosophy of Indian constitution.
6. The mayor is elected for a term of five years.
7. Indian constitution is an original work of assembly.
8. Participation of women in politics in India is very heartening.
9. Caste system promotes social progress and modernization.
10. Kerala has the worst gender ratio in India.

Q.2.A. Write a note on socio-economic problems of women in India. (15)

OR

Q.2.B. What are the causes of physical disability? (15)

Q.3.A. What is communalism? Explain causes of communal violence. (15)

OR

Q.3.B. What are the measures to resolve communal violence? (15)

Q.4.A. Discuss the Importance of Fundamental Duties of Indian Citizen. (15)

OR

Q.4.B. What are the Basic Features of Indian constitution? (15)

Q.5.A. Explain the Panchayati Raj. (15)

OR

Q.5.B. Write a short note on the following: (Any Three) (15)

1. Urban characteristics.
2. The role of media in representation of women.
3. Linguism
4. Tolerance.
5. The participation of Women in the Politics.

Note:

1. All questions are compulsory.
2. Each question carries 20 marks.
3. Draw diagrams whenever necessary.
4. Use of simple calculator is allowed.

Q.1 Attempt any four from the following questions.**(20 Marks)**

- a) Mr. Nene received Rs. 430272 after selling shares of a company at market price of Rs. 720, through Sharekhan Ltd, with brokerage @ 0.4% The face value of the share is Rs. 10. Find the number of shares he sold.
- b) Satya owned 250 shares of a company of face value of Rs. 100 each. The dividend declared by the company was 7.5% find the amount Satya will get as dividend.
- c) Aditi invested Rs. 19890 to purchase shares of a company with face value of Rs. 10 each, at market price of Rs. 130. She received dividend of 20% as well. Afterward, she sold these shares at market price of Rs. 180. She had to pay brokerage of 2% for both purchase and sales of shares. Find her net profit.
- d) Kiran invested Rs. 25000/- in a Mutual Fund on 1st May 2008 when the NAV was Rs. 1073.2568 He redeemed the units on 8th July 2008 with NAV of Rs. 1349.6395. There was no entry load or exit load. Find the number of units purchased, the gain.
- e) Uday invested Rs. 40,000 in a Mutual Fund on 21st May 2007 when NAV was Rs. 15.1273 with an entry load of Rs. 2.25%. Calculate value of his investment on 21st May.

Q.2 Attempt any four from the following questions.**(20 Marks)**

- a) In how many ways can letters of the word "FATHER" be arranged? How many of these words begin with letter A and end with letter R?
- b) There are 5 professors and 5 students. A committee of 6 person is to be formed by taking at least 2 persons from each group. Find the number of such possible committees.
- c) A manufacturer has to decide a quantities of product A and B. He must produce at least 30 units of A per week. The market cannot absorb more than 20 units of product B per week. The machine time required 2 hours per unit of A and 3 hours per unit of B. In all, 100 hours are available per week. The profit per unit of A is Rs. 8 and of B is Rs. 15. Formulate the L.P problem for optimum profit.
- d) Maximize $Z = 4x - 2y$
Subject to, $x + 3y \leq 6$; $x - y \leq 2$, $x \geq 0$, $y \geq 0$ Solve the L.P Problem graphically.
- e) Minimize $Z = 10x + 5y$
Subject to, $2x - y \geq 1$; $x + y \geq 5$, $x \geq 0$, $y \geq 0$ Solve the L.P Problem graphically.

Q.3 Attempt any four from the following questions.**(20 Marks)**

- a) The following table gives the distribution of daily wages of 100 employees of a company. Find the average wages.

Daily wages in Rs.	50-55	55-60	60-65	65-70	70-80	80-100
No. of Employees	10	22	30	20	12	6

- b) Find the quartile Q_3 and decile D_7 .

Daily Wages	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55
No. of Worker	12	28	36	50	25	18	16	10	5

- c) Find the standard deviation for the following distribution

Size of Shoe	7	8	9	10	11
No. of persons	5	10	20	10	5

- d) The mean marks of two groups of students in a certain test are 76.5 and 76.25 respectively with the standard deviation 16.97 and 5.82 for the two groups. Find which group is more consistent or uniform.
- e) Describe merits and demerits of mode.

Q.4 Attempt any four from the following questions.

(20 Marks)

- a) From a well shuffled pack of cards, a card is drawn at random, find the probability that the card drawn is
- i. An ace card ii. A heart card
- b) If $P(A) = \frac{1}{4}$, $P(\overline{B}) = \frac{4}{5}$ and events A, B are independent find $P(B)$, $P(A \cap B)$, $P(A \cup B)$.
- c) For following probability distribution obtain $E(X)$, $V(X)$
- | | | | | | | |
|------|-----|-----|-----|-----|------|------|
| X | -2 | -1 | 0 | 1 | 2 | 3 |
| P(x) | 0.1 | 0.2 | 0.2 | 0.3 | 0.15 | 0.05 |
- d) Two fair dice are rolled. If X denotes the sum of the numbers appearing on the uppermost faces of the dice, find
- i. $P(X < 4)$ ii) $P(X \geq 10)$
- e) Define the following terms with example.
- i) Sample Space ii) Complimentary event

Q.5 Attempt any four from the following questions.

(20 Marks)

- a) Given the following payoff table, decide the best decision using the criteria
- i) Maximin ii) Maximax

	S1	S2	S3
A1	30	60	20
A2	40	0	-20
A3	65	75	50

- b) A bakeryman has observed the following demand pattern for cakes produced in his bakery:

No. of cakes in demand	20	21	22	23
Probability	0.05	0.25	0.3	0.4

- c) If the payoff table is given below, select the best decision using EOL criteria.

	S1	S2	S3
A1	400	500	800
A2	200	0	-100
A3	350	450	600
Probability	0.5	0.2	0.3

- d) For the given decision-making problem suggest the best decision using decision tree method.

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	S1	S2	S3
A1	25000	35000	40000
A2	50000	20000	10000
Probability	0.3	0.5	0.2

- e) Describe the components of decision making in details.