FYBMS (Semester I)/Paper/Subject Code:

N.B.

Business Communication I Q. P. Code:

1. All the questions are compulsory

Time: 2.Hrs. 30 Mins.

2. Figures to right indicate full marks

) -:	1 A.	Fill in the blanks. (Any 8) 8 Marks
		Semantic barriers are also called as barriers.
		(language, physical, psychological)
	2)	The Latin word means 'to make common'.
		(communicare, communication)
	3)	Kinesics means (space and distance, body language, visual display)
		Communication that flows from superior to subordinate is called
		communication. (Vertical Upward, Vertical Downward, Horizontal)
	5)	Curriculum Vitae is a Latin word, which means
		(summary, course of life, biographical data)
	6)	CSR stands for Corporate Social (Rights, Responsibility, Rumors)
		Proximics is the study of
		(space and distance, body language, visual display)
	8)	Communication through facial expression is a form of communication.
		(oral, verbal, non verbal)
	9)	is a traditional mode of communication. (Telegram, Fax, Email)
	10)	BCC: Stands for Carbon Copy. (Blank, Blind, Blue)
) -:	1 B.	State whether the following statements are True or False. (Any 7) 7 Marks
	1)	An Oral communication is not a method of Verbal communication.
	2)	Horizontal communication consists of downward communication.
	3)	Messages can be convey in both verbal as well as non-verbal ways.
	Δ_r)	Jargon means technical language.
	5)	Colors can convey messages.
	6)	A communication in absence of words is a non-verbal communication.
	7)	Interpersonal communication, is with one own self.
	8)	LoR: Letter of Resignation.
	9)	Consideration is one of the 7 C's of communication.
	10)	An application written with reference to an advertisement is an unsolicited letter.

Q-2 A.F.xplain the Process of Communication, with a labeled diagram.

Q-2 B. Discuss the advantages of Written Communication.

OR

10 Marks
5 Marks

Q-2 C.State the Advantages and disadvantages of Grapevine. 8 Marks

Q-2 'D. Explain video conferencing and state its advantages. 7 Marks

Ce-3 A.Discuss the importance of Listening Skill. 8 Marks

Q-3 B.Explain the importance of Business Ethics in Business.

7 Marks

OF

Q-3 C. State the meaning of Barriers to Communication? Discuss Physical and **15 Marks** Environmental Barriers to Communication and measures to overcome them?

Q-4 A. Draft a Letter of Application for the post of Software Engineer with Global.8 Marks Techno World., Malad-West, Mumbai. Use Full Block Layout.

Q-4 B. Mr. Sanjay Valia, has been offered a post of Human Resource Manager 7 Marks with Resource Pvt. Ltd., Mumbai. Draft a Letter of Job Acceptance on his behalf. Use Semi-Block Format.

OR

Q-4 C. Write an Application Letter with Curriculum Vitae on behalf of the 10 Marks advertisement published in "Indian Express, dated 4th October, 2019, "Wanted a Sales Representative, with minimum 2 years of sales experience, candidate should be fluent in speaking English, Hindi and Marathi language". Apply to Box No. I-409, Indian Express, Mumbai.

Q-4 D. Mr. Anand Jaiswal has been working with Raj Textiles, as Production 5 Marks Manager since, past seven years and would now like to resign from his post, to seek a better career opportunity. Draft a Letter of Resignation on his behalf. Use Modified Block Format.

Q 5. Short Note (Any 3)

- 1) You Attitude
- 2) Order as an Objective of Communication
- 3) Personal Integrity at workplace
- 4) Tips for Paragraph writing
- 5) Application Letter

Business Law Q. P. Code: 75 Marks

N.B. 1. All the questions are compulsory 2. Figures t right indicate full marks

Q-1 A	Fill	in	the	blanks.	(any	8)
-------	------	----	-----	---------	------	----

8 Marks

- An agreement with or by a minor is
 Void
 voidable at the option of the other party
 An agreement made without consideration is
 Void
 Voidable
 Valid
 illegal
- 3. The District forum shall have jurisdiction to entertain the complaint where the value of the goods does not exceed a) 20 lakhs b) 30 lakhs c) 50 lakhs d) 60 lakhs
- a) 20 lakhs
 b) 30 lakhs
 c) 50 lakhs
 4. .The Memorandum of Association is a fundamental documents -
- a) Article of Association b) MOA c) Prospects d) M'inutes
- 5. Sales of Goods Act applies to
 - a) Contract of work and labour
 b) Contract of exchange of goods
 c) Contract of sales of goods for money consideration
 d) Contract of services
- 6. Every annual general meeting shall be called between -
- a) 12am to 5pm b) 9am to 6pm c) 1am to 4pm d) 7am to 11am
- 7. In case of a private company minimum member personally present, shall be the quorum for a meeting of the company
 - a) 4 members b) 2 members c) 5 member d) 3 member
- 8. ____ is a exclusive right granted to a person who has invented a new and useful article or an improvement of an existing article or a new process of making an article
 - a) Patent b) Trademark c) Copyright d) Design
- 9. The Law of copyright in India is contained in
 - a) CopyrightAct,1957 b) CopyrightAct,1955
 - c) CopyrightAct,1956 d) CopyrightAct,1958
- 10. Sales creates a
 - a) right in rem b) right in personam c) general rights d) human rights

Q-1 B. State whether the following statements are True or False. (any 7):

- 1. Jus-in-rem means right avaible against a specific or particular person.
- 2. A stranger to a contract cannot sue.
- 3. Sales of Goods Act only deal with immovable property.
- 4. In case of breach of condition, the aggrieved party gets the rights to repudiate the contract.
- 5. Every order passed by the district forum, state commission or the national commission is final if no appeal has been preferred against such order.
- 6. One who purchases goods for commercial purpose is also a consumer.
- 7. Corporate veil may be lifted for the protection of revenue.
- 8. In a private company there is restriction on transfer of shares.
- 9.'Shelf Prospectus' means a prospectus issued by any financial institution or a bank for one or more securities.
- 10. Copy rights relates to original literacy, dramatic, musical and artistic works, cinematography films and sounds recordings.

Q-2. (A) Define a proposal and what is the essential requirement of a valid proposal.	8 Marks
Q-2. (B) Explain the "DOCTRINE of Caveat Emptor "and state its exceptions.	7 Marks
OR	
Q-2. (C) Define a bill of exchange and state the essential requirements of a bill of exchange.	8 Marks
Q-2. (D) What are the objects of the consumer Protection Act, 1986?	7 Marks
Q-3. (A) Define a "Company" and state its characteristics.	8 Marks
Q-3. (B) Explain fully the Annual General Meeting of the company.	7 Marks
'OR	
Q-3. (C) Explain fully the three-tier system of consumer dispute redressal under the Consumer Protection Act?	8 Marks
Q-3. (D) How a contract of sales is made?	7 Marks
Q-4. (A) What is a Patent? State and explain the principal underlying patent law in India.	8 Marks
Q-4. (B) Explain the provisions regarding acts which constitute Infringement of copyrights.	7 Marks
OR	
Q-4. (C) What is consumer dispute?	8 Marks
Q-4. (D) Who is an upaid seller? What are the various rights to which an unpaid seller is	7 Marks
entitled to under the Sales of Goods Act?	

- Q-5. Short Notes (any three)
 a. Intellectual Property Rights.
 - b. Promoter

 - c. Payment in due course.d. Unpaid seller's right of re-salee. Standing offer

06/12/2022

FYBMS/ Paper/ Subject Code:

Foundation of Human Skills

Q. P. Code:

75 Marks

- N.B. 1. All the questions are compulsory
 - 2. Figures t right indicate full marks
 - 1. A. State whether the following statements are True or False (Any 7)

(7 Marks)

- A. Task groups are permanent groups.
- B. The focus of performance appraisal is not on Organisational Development.
- C. Salary is given to employees who do manual work.
- D. A Virtual Organisation is a geographically dispersed team.
- E. Theory X and Theory Y was developed by Abrahim Maslow.
- F. Establishment of Performance standards falls under norming stage.
- G. There is no clear outcome in Avoiding Strategy.
- H. IQ is related to thinking and reasoning.
- I. Every person is different, yet much the same.
- J. Intraperson al Conflict means Conflict between two People.

1. B. Match the Following. (Any 8)

(8 Marks)

11) Smoothing Strategy	k) Win – Lose
12) Forcing Strategy	l) Lose – Win
13) Resourcing	m) Termination by employee
14) Resignation	n) Attracting and retaining high quality people
15) 2 Factor theory	o) Two way process
16) Communication	p) Clayton Alderfer
17) Interest group	q) Formal group
18) Command	r) Informal group
19) Blake and Mouton	s) Managerial Leadership
20) MBTI	t) Mother daughter team

2. A. Diagrammatically explain the 4 quadrants of Johari Window.

(7Marks)

B. Discuss how self esteem and Locus of control influence organisational behaviour

(8 Marks)

OR

C. What are the different factor influencing pre-natal and post-natal Environment?

(15Marks)

3. A. Differentiate between Team and Groups.

(7 Marks)

B. What are the political tactics used to gain power in an organisation.

(8 Marks)

Ol

C. Explain the following types of power-

(8 Marks)

- 1. Legitimate power
- 2. Revord Power
- 3. Coercive power
- 4. Personal Power

(7 Marks) 4. A. Explain Organisation Culture. How does an organization try to preserve its culture? B. Explain the following (8 Marks) 1. Academy 2. Club 3. Fortress 4. Baseball OR C. Explain with the help of diagram the relationship between (15 Marks) Maslow Need Hierarchy Theory, ERG Theory and 2 Factor Theory. (7 Marks) 5. A. Elucidate the characteristics of organisation development. B. What are the various causes of organisational stress? (8 Marks) C. Write Short Notes on (Any 3) (15 Marks) a. MBTI. b. Classical Conditioning. c. High Performance Team. d. Spiritual Intelligence. e. Johan Window.

N.B.

Business Economics I Q. P. Code:

75 Marks

All the questions are compulsory
 Figures t right indicate full marks

Q-1 A. Fill in the blanks. (an	(y 8)	8 Marks
1) Opportunity cost takes place	because	
		c. resources are less expensive
2) Slope of a straight line is		
a. constant at every point	b. different at different points	c. zero
3) In case of perfectly elastic d	emand, demand curve is:	
a. parallel to X axis b. par	allel to Y axis c. re	ctangular hyperbola
		here are two groups of variant opinion are
formed which try to converge a		
		d use method
5) short run curv	elphi method c. Enve falls steadily and is not U sha	ped
a. AC b. ATO	C . AI	
6) isoquant shows	s perfect substitution of labour a	nd capital
a Linear h smo	oth convey c Kir	
7) curve is also	called as envelope curve	
a. learning b. Lo	original cost c. Inc	difference curve
A		
a. zero profit b sun	keser normal profit c. at tics are examples of	pnormal profit
9. Soaps, detergent and cosmet	tics are examples of	market structure
a. Oligopoly 'o. Mo	nopoly c. Me	onopolistic market structure
10 Public enterprises follow	pricing method	
	arginal cost c. Ti	ransfer
O-1 B. State whether the following	lowing statements are True or	False, (any 7) 7 Marks
	s the art of rational decision mak	
	an be shown on the same deman	
•	feature of monopolistic competition	
4) When AC curve is falling, the		
5) Demand Lorecasting is only		
6) Pollution of rivers and lakes		
7) A firm earns super normal p		
	purchase of raw material are the	examples of fixed cost
	thod opinion of different expert a	
10) T wo isoquant never interse		ne corrected
10) I wo isoqualit never interse	ce cach other.	
O2 a Explain the nature of dem	and curve under different marke	t structure 7 Marks
C.2h The demand equation for	r opions is given as Od=300.5	p and the price of onions is given in the
0.11		p and the price of official is given in the
Price of onions	Quantitud	demand
	Quantity	Jenianu
15		
20		
25		
30		

Answer the following question-3 Marks 1. Calculate quantity demand of onions at given prices. 2 Marks 2 With the help of above demand schedule draw a demand curve. 3 Marks 3 Calculate price elasticity of demand when price rises from 15rs to 20rs 8 Marks Q2c.Explain law of variable proportion with the help of suitable diagram and schedule 7 Marks Q2d. Explain the different types of demand forecasting with examples. 7 Marks Q3a. Explain the behavior of short cost curves with the help of diagram. 8 Marks Q3b. State the properties of isoquant. OR 7 Marks Q3c.Explain the different types of internal economies of scale. Q3 d. Given TFC as 160 calculate ATC, AC, AFC, MC 8 Marks 6 4 **UNITS** 2 3 220 80 105 155 TVC 40 60 8 Marks Q4.a Explain the different types of monopoly with suitable example 7 Marks Q4.b Distinguish between monopolistic competition and perfect competition. Q4.c Sundarya beauty soap manufactures soap and sells it at Rs 80. Fixed cost incurred to produce soap is Rs 50000 and Variable cost incurred per product is 30. a). Calculate Break even point in units. b) If Fixed cost changes to rs 60000 What will be the effect on break even c)If price changes to 100, What will be the effect on break even d)) If Average variable cost changes to rs 40 What will be the effect 7 Marks Q4 d What is price discrimination? Explain the concept of dumping with the help of diagram 8 Marks 15 Marks Q5. Write short Notes on any three of the following. 1. Determinants of demand 2. Significance of elasticity

- 3. Uses of Breakeven point
- 4. Survey method
- 5. Transfer pricing

Foundation Course I Q. P. Code:

All the questions are compulsory
 Figures to right indicate full marks

Q.4 D Explain the Urban local self-government

Time: 2.Hrs. 30 Mins. 75 Marks

7 Marks

8 Marks Q-1 A. Fill in the blanks. (Any 8) in nature. (Pluralistic, Tribal, Rural) 1. Indian society is 2. The constitution of India has recognized major languages. (22, 24, 26) violence against women. (Domestic, social, Crime) 3. Dowry harassment is a type of 4. The constitution of India came into effect on 1950. (26th November, 26th December, 26th January) 5. India has a party system. (Multi, Bi, Single) 6. Prime Minister is the ____ head in India. (Executive, Judicial, Legislative) is the main cause of Blindness (Cataract, Diseases, Visually) means that indiviual has freedom of thought, belief, expression, faith and worship. (Liberty, Equality, Democratic) functions at Taluka level. (PanchayatSamiti, ZillaParishad, Gram Panchayat) 9. of the Indian Constitution states that untouchability is abolished and its practice in any form is forbidden. (Article 17, Article 21, Article 24) 7 Marks Q-1 B. State whether the following statements are True or False. (Any 7) 1. India has no official religion. 2. Marathi is the official language of India. 3. Dr. RD Ambedkar preferred the term 'scheduled Tribes' to Adivasi. 4. Mental disorder and mental sickness is not one and the same. 5. Polio is caused by virus called poliovirus. 6. Caste system brings about unity in India society. 7. The constitution of India confers single citizenship. 8. India society has 45 parties. 9. Depression is caused due to mental stress. 10. The local self-government does not solve the problems of local people. 8 Marks Q.2A Explain the concept of India as a multi-cultural society? 7 Marks Q.2 B Explain the main Rural characteristics? OR 8 Marks Q.2 C Explain the main cultural characteristics? Q.2 D Explain the religion wise composition of population 7 Marks 8 Marks Q.3 A Explain the basic feature of caste 7 Marks Q.3 B Socio-economic problems of women OR. 8 Marks Q.3 C What is the main causes of violence? 7 Marks Q.4 D Explain the visually handicapped 8 Marks Q.4 A Explain the basic feature of India Constitution. 7 Marks Q.4 B: Characteristic of political parties in India OR 8 Marks Q.4 C Significance of women in politics.

15 Marks

Q 5. Short Note (Any 3)

- 1. Tribal characteristics.
- Causes of B'rindness.
 Fundamer tal duties of Indian Citizens.
 Causes of smoking.
 Causes, of child labour in India.

N.B.

Introduction to Financial Accounting Q. P. Code: 75 Marks

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

09/12/2022

Q.1. A. Fill	in the blanks (Any 8)	8 Marks			
1. Accounting	ng helps to the results of operation.(Analyse/ Ascertain/ Und	lerstand)			
2. An Asset	is generally recorded at (Cost/ Market price/ Average price)				
3	elaborates on Revenue Recognition. (ASI/ AS6/ AS9)				
	vithdrawii from business for personal purpose is termed as				
	awings/ Liability)				
5. All incom	es generally have balances.(Debit/ Credit/ Zero)				
6. Revenue I	Receipt is disclosed in the				
	c/ Profit and Loss A/c/ Balance Shect)				
	nce ensures of Books of account. (Qualitative/ Arithmetical/ Other)				
8. In errors of	of commission entry is recorded on side. (One/ Both/ None)				
Errors can	be removed by (Rectification/ Assessment/ Audit) neans (Totalling/ Cross checking/ Selecting)				
10. Casting 1	means (Totalling/ Cross checking/ Selecting)				
Q.1. B. Stat	e whether the following statements are True or False (Any 7)	7 Marks			
	business transaction in the journal is known as casting.				
2. The cash I	book is used for recording the credit transaction of the business.				
3. Prepaid ex	epenses is a liability.				
4. The Balan	ce Sheet is the most important account in the ledger.				
5. Nominal A	A/c is an account of expenses and income, losses and gains.				
6. Ledger is	book where individual accounts are recorded.				
	A/c is credited when the person gives something to business.				
8. The exper	diture incurred on installation of machinery is capital expenditure.				
	ed installation method, depreciation amount remains constant.				
10. Wrong b	alancing of an account will affect the Trial Balance.				
O 2 A lour	nalise the following transactions in the books of Kestrel Ltd. for July 2022.				
Qiai risouri	in the rollowing statistic loss in the books of statistic plan is a carry and	8 Marks			
	0				
July 1	Started business with cash 1,00,000.				
July 2	Cash Deposited into Bank 50,000.				
10th July	Goods purchased from Tortoise Ltd. 24,000 @ 10% Trade Discount a	and 5% cash			
	Discount and paid cash immediately.	4			
13th July					
14 th July	Placed an order for goods with Parrot Ltd. for 1,00,000.				
15th July					
16 th July	Good purchased from Falcon Ltd. 50,000.				

Q.2. B.Journalise the following transactions in the books of wis. Rekha:

Date	Particulars	Rs.
March 2022. 2 nd	Ms. Rekha started his business with cash	60,000
3	Deposited into bank	40,000
5	Bought goods on credit from Mr. Yartin	5,000
6	Returned goods to Mr. Yartin	1,000
10	Sold goods for cash to Ms. A	5,000
17	Drew from bank for personal use	4,000
25	Paid to Mr. Yartin in full settlement by cheque	3,800
30	Paid salaries to staff	4,000
30	Withdrew goods for personal use	500

7 Marks

OR

Q.2. C. Enter the following transactions in a cash book with cash, bank and discount columns and balance the cash book. 15 Marks

- 1. Opening cash balance 73,500
- i. Bank overdraft 2,000
- 2 Introduced further cash 7,000 in the business
- 4. Deposited 3,000 into the bank
- 6 Received from Maya for 1170 in full settlement of 1,200
- 7. Issued a bearer cheque for children school fees 2,000.
- 10. Issued cheque of 980 of Meena in full settlement of her of 1,000.
- 11. Received a cheque of 500 from Mona on account.
- 12. Endorsed Mona's cheque in favour of Leena to settle her a/c.
- 14. Cash purchases 800
- 18 Cash Sale 700
- 20. Purchased furniture worth 2,000 for office use & paid by cash.
- 24 Paid salaries 700, Rent 150, Commission 200 in cash
- 27. Bank collected dividend 100 and credited in our A/C
- 31. Deposited all the cash in excess of 1,000.

Q.3. A. Prepare Personal Account of PRIYA from the following transactions: 8 Marks

Date	Particulars	Amount
Jan 2022		
1	Debit balance on Priya's a/c	2000
2	Sold goods on credit to Priya	8400
6	Received from Priya	6300
7	Allowed her discount	500
9	Priya bought goods on credit	1500
12	Received cash from Priya	1450
13	Allowed her discount	250
15	Purchased goods on credit from Priya	2080
18	Paid cash to Priya	800
21	Returned goods to Priya	140
31	Paid cash to Priya in full settlement of her account	590

Q.3. B. State with reasons whether the following are capital, revenue or deterred revenue expenses:

- 1. Payment for purchase of goods.
- 2. Payment for purchase of stationery.
- 3. Payment for purchase of a car.
- 4. Payment for heavy inaugural expenses.
- 5. Partial refund of capital to a partner.
- 6. Payment of a loan taken earlier.
- 7. Payment of salaries.
- 8. Wages for erection of machinery.

OR

Q.3. Journalise the following transactions in a journal and post them to the ledger accounts:

June 2022

l	Shri Mathur invested in the business 6,000 cash goods worth 3,000 and a building worth 12,000.	
2	Borrowed from Bank	8000
3	Purchased goods for cash	5000
4	Sold goods on credit to Rana Pratap	3000
5	Cash received from Rana Pratap	1000
6	Purchased goods on credit basis from Jeevan	6000
9	Sold goods on credit to Jeevan	3000
10	Paid Salaries	1500
16	Paid Office Rent	350
17	Received Commission	175
19	Paid salary of salesman	110
20	Paid Commission	50
25	Paid on account to Jeevan	2200
26	Received from Rana Pratap	690
27	Repaid loan to Bank	3400
28	Sold Building for cash	3900
29	Received on account from Rana Pratap	1400
30	Paid carriages for Jeevan	220

Q.4. A. Rectify the following errorsin the books of 'Shyam Stores'.

- 8 Marks
- 1. 500/-paid for the purchase of the office furniture charged to Office Expenses Account.
- 2. 200/- received from Madanlal has been wrongly entered in Mohanlal's Account.
- 3. Goods worth 187/- purchased from Chandan Stores but whose Account was actually debited by 178.
- 4. Repairs paid were debited to Building Account for 150/-.
- The total of the discount column on the credit side of the Cash Book was undercast by Rs.15.
- An amount of 300/- withdrawn by the proprietor for his personal usewas debited to the Trade expense Account.
- 7. The total of the Sales Book is short by Rs. 500/-
- 8. An amount of 130/- received on account of interest was credited to Commission Account.

Q.4. B. Prepare Trial Balance	from the following	g balances extracted below:	7 Mark
Q.4. Di 110 p.20	Rs.]	Rs.
Capital	150000	Goodwill	100000
Sundry Customers	35000	Office Expenses	10000
Sundry Suppliers	42000	Outstanding expenses	15000
Machinery	21000	Interest Received	3200
Furniture	19000	Cash Balances	1800
Sales	200000		
Purchase	116000		
Opening Stock (1.4.2021)	107400		

OR

Q.4. From the given Trial Balance of Hiralal, prepare manufacturing, Trading and Profit and loss account for the year ended 31.3.2022 and Balance sheet as at that date.

Particulars	Rs.	Particulars	Rs.
Stock as on 1-4-2021		Capital of Hiralal	90000
Raw material	13000	Sales	112000
Work in Progress	8000	Interest received	450
Finished Goods	19000	Discount received	250
Machinery (at cost)	40000	Creditors	16000
Furniture (at cost)	18000		
Drawing	3000		
Debtors	18500	Prov. for Depreciations:	
Salaries	3820	On Machinery	20000
Factory insurance	1070	On Furniture	10000
Balance with bank	13500		
Cash on hand	810		
Purchase of Raw Material	79000		
Return inwards	390		
Wages	8500		
manufacturing Expenses	2300		
Factory Rent	2500		
Office Rent	2200		
Power expenses	1200		
Investment	10100		
Factory Lighting	760		
Office Lighting	1200		
Carriage outwards	550		
Printing & stationary	1000		
Bad debts	300		
Total	248700	Total	248700

Adjustments:

- 1. Additional bad debts of 500 are to be written off an RDD to be provided at 5% on Debtors.
- 2. Outstanding office rent 200.
- 3. Depreciation Machinery at 10% p.a., Furniture at 15% p.a.

4. Closing Stock are:

Raw material	72,000
W.I. P	16,330
Finished goods	28000

Q. 5. A. Explain the types of errors?

8 Marks 7 Marks

B. Distinguish between Book-keeping and accounting

OR

Q. 5. Short Notes (out of 5 Any 3)

- A) Matching Concept
- B) Accrual Concept
- C) Going Concern
- D) AS-9
- E) Objectives of Book-keeping

FYBMS/ Paper/ Subject:

Business Statistics

Q. P. Code:

75 Marks

1. All the questions are compulsory N.B.

2. Figures to right indicate full marks

Q.1. A. Fill in the blanks (Any 8)	8 Marks
a) The data collected for the first time is known as	
(Information, Secondary data, Primary data)	
b) The Middle most observation that divides the entire distribution into two eq	ual parts is
known as(Mean, median, mode)	
c) The correlation is positive if	
(x increases as y increases, x increases as y decrease, none of these)	
d) For any probability mass function sum of all probabilities is equal to	_ (-1,0,1)
e) With respect to time seriesvariations occurs due to weather or co	istoms.
(cyclical, irregular, Seasonal)	
f) Least square method is used to compute	
(Non-linear trend, Linear trend, Seasonal trend)	
g) Thevariation occur due to seasonal changes in a time series.	
(Seasonal, Cyclic, Irregular)	
h) The method used to derive regression constants of a regression equation is be	cnown as
(Product Moment, least squares, Moving averages)	
i) measures give actual extent of scatter of the data.	
(relative, absolute, coefficient)	
j) The optimistic decision maker will use the principle of	
(Maximin, Minimax, Maximax)	
Q.1. B. State whether the following statements are True or False (Any 7)	7 Marks
i) Variance is always non-negative	
ii) If two variables are independent then they are correlated	
iii) There are always two lines of regression for a paired set of data	
iv) The sum of the deviations of all observations from their arithmetic mean is	
v) In index number the year selected as a reference period for comparison is ca	lled
current year	
vi) Irregular variations are unpredictable.	
vii) A random variable which can take all possible values over an interva	al is called a
discrete random variable	
viii) In decision theory probabilities are associated with states of nature	
ix) Pie diagram is a two dimensional diagram	
x) The class mark of a class interval is over lower limit+ upper limit	

Calculate median for the following data

						10.50
Marks		0-10	10-20	20-30	30-40	40-50
No.	of	18	22	30	28	15
students						

Q.2. B. Record of no. of days of medical leave enjoyed by 30 employees within a year is given below. Find mean number of days of medical leave enjoyed by an employee in a year

8 Marks

No .of days	00-10	10-20	20-30	30-40	40-50
No.of	5	7	11	4	3
employees					

OR

Q.2. C.The weight of coffee in gms.in 70 packets is given below. Determine the modal weight of coffee in a packet

7 Marks

Weight in	200-201	201-202	202-203	203-204	204-205	205-206
.gms						
No.of	12	26	20	9	2	1
packets						}]

Q.2. D. Find the Median and Mode from the following distribution table

8 Marks

Class	10-30	30-50	50-70	70-90	90-110	110-130
Frequency	4	10	14	12	8	6

Q.3. A. Find Karl Pearson's correlation of coefficient between sales and expenses of the following 10 firms

Marks

Sales	50	50	55	60	65	65	65	60	60	50
expenses	11	13	14	16	16	15	15	14	13	13

Q.3. B. What is correlation? What are the methods of Correlation?

7 Marks

OR

Q.3. C. Explain linear regression.

8 Marks

Q.3. D. Find the regression equation on x on y for the following data. Estimate x when y=15

		_					. 1.2441 11
X	10	12	14	19	8	11	17
Y	20	24	25	21	16	22	20

Q.4. A .Calculate Laspeyre's, Paasche's and Fischer's index number for the following 8 Marks

Commodity	Base	year	Current	year
	price	Quantity	Price	quantity
Rice	4	15	5	20
Pulses	8	20	12	30
sugar	6	25	8	20
Oil	14	0	21	15

Q.4.B. Determine the trend values for the following data using 3 yearly moving averages 7 Marks

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sales	14	18	14	17	22	25	30	35	29	34
in										
itres										

OR

Q.4.C.Calculate the cost of living index for the following data

7 Marks

Group	Food	Clothing	Fuel and	Home rent	Miscellaneous
			lighting		
I	70	90	100	60	90
W	5	3	2	4	6

Q.4.D.Determine the trend value for the following data using 5 yearly moving average.

8 Marks

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Exports	51	53	50	57	60	55	59	62	68	70	72

Q.5(A). For the following distribution obtain

7 Marks

i) P(X>2) (ii) $P(X\leq1)$ (iii) P(X=2 or 3) (iv) E(x) (v) V(X)

X	-2	-1	0	1	2	3
P(X)	0.1	0.2	0.2	0.3	0.15	0.05

Q.5.(B)Draw decision tree for the following problem and suggest a best course of action. use EMV criteria 8 Marks

	Nature	of	demand
	Fair	Good	Best
Α	300	290	500
В	400	440	600
Probability	0.2	0.5	0.3
(demand)			

OR

Q. 5. C Short Notes (out of 5 Any 3)

- (i) Use of index number
- (ii)Limitation of Statistics
- (iii)Merits and Demerits of Median
- (iv)Absolute and Relative Measures of dispersion
- (v) Essentials of a good table