INSTRUCTIONS:

1. All questions are compulsory (internal choice is provided).

2. Figures to the right indicate full marks.

3. Non Programmable Calculator are allowed.

Q.1 Attempt the following: [5X4]

(a) Check whether the statement is contradiction : $\sim p \vee (p \wedge q)$.

(b) Find the sum borrowed by Rohit from a bank on compound interest of 5% pa, to be calculated annually, if he had to pay back ₹26,460 after 2 years.

(c) In how many ways can be letters of the word MATHEMATICS be arranged?

(d) For an arithmetic progression with $a_{10} = 16$, find S_{19}.

(e) If $A = \begin{bmatrix} 5 & 2 \\ 3 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 6 \\ 0 & 4 \end{bmatrix}$, find $A + 3B + 5I$, where I is identity matrix.

OR

Q. I Attempt the following: [5X4]

(v) Construct the truth table for $[p \wedge (p \implies q)] \implies q$.

(w) If ₹2000 amounts to ₹2700 at simple interest in 5 years, find the rate of interest. Also find, if a sum of ₹6000 is kept at the same rate of interest, what will be the amount received after 8 years?

(x) In how many ways a committee of 5 members can be selected from 6 men and 5 women, such that at least 4 women is to be included?

(y) Find an A.P. whose 10th term is 5 and 18th term is 77.

(z) Find x if $\begin{vmatrix} 2x + 3 & -1 \\ -3x + 3 & 4 \end{vmatrix} = 0$

Q.2 Attempt the following: [5X4]

(a) Arjit deposited ₹10,000 at the end of each year for 10 years in a bank. The bank pays interest at 7% pa compounded semi-annually, what would be the sum to his credit at the end of that period.

(b) If $A \cup B = \{a, b, c, d\}$, $A \cap B = \{b, c\}$, $A \cup C = \{a, b, c, f\}$ and $A \cap C = \{a, b\}$, Then find A, B and C.

(c) Find the three numbers in G.P such that sum of first and second number is 16 and their product is 1728.

(d) Solve using determinants
   $4x - 3y = 17; \; 5x + y = 7.$

(e) If $^nP_r = 504 \; ^nC_r = 84.$ find n and $r.$

<div align="center">OR</div>

Q. II Attempt the following: [5\

(v) A person has taken a loan of ₹60,000 to be returned in 4 monthly installments at the rate of 10% pa compounded monthly. Find the EMI using the reducing. balance method.

(w) If U={a,e,i,o,u} be the universal set, $A = \{a, e, i\}$, $B = \{e, o, u\}$ $C = \{a, i, u\}$, then verify $A \cap (B - C) = (A \cap B) - (A \cap C).$

(x) A sum of ₹72,800 is to be repaid in 6 monthly installments, such that each installment is three times the previous installment. Find the first and the last installments.

(y) If $A = \begin{bmatrix} 1 & -1 \\ a & b \end{bmatrix}$ and $A^2 = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$, find the value of a and $b.$

(z) If $^nC_7 =^n C_3$, find $^{21}C_n.$

Q.3 Attempt the following: [5\

(a) A housing society having 12 members wants to collect a sinking fund of ₹1,66,680 for repairs within a period of 3 years. If the rate of interest is 15% pa to be compounded yearly, how much yearly payment each member has to make towards the fund , so as.to meet the requirements.

(b) In a class of 60 students. 25 students play cricket and 20 students plays tennis and 10 students play both the games. Find the number of students who play neither.

(c) Test the validity of the following argument:
   Mohan will watch movie if and only if it is played in Inox. The movie is played in Inox therefore Mohan will watch the movie.

(d) In how many ways can the letters of the word ' CONSTANT ' be arranged, so that the two vowels are always together?

(e) Find the sum of the first 200 numbers of the series: $3, 6, 9, \ldots.$

<div align="center">OR</div>

Q. III Attempt the following: [5

(v) Find the present value of an investment of ₹2000 due in 6 years if money is worth 5% pa compounded semi-annually.

(w) If A= letter of the word " SUCCESS"; B= letter of the word "STORIES". verify (i) $A \cup B = (A - B) \cup B.$

(x) State the converse, inverse and contrapositive of the following conditional statements: If Virat is the captain then we will win the match.

(y) In how many ways can a committee of 5 be chosen from 10 candidates so as to include both the youngest and oldest.

(z)

Q.4 Attempt the following: [5X4]

(a) The difference between simple and compound interest on a sum of money put out for 3 years at 20% pa is ₹1600. Find the sum.

(b) Find $|A|$, if $A = \begin{bmatrix} 2 & 5 & 1 \\ -3 & 0 & 2 \\ 0 & 2 & -1 \end{bmatrix}$.

(c) Find the number of terms in the geometric progression $6, 12, 24, \ldots, 1536$.

(d) Find the present value of an annuity of ₹2000, paid at the end of each year for 4 years, at 11% pa compounded half yearly.

(e) How many 4-digit numbers can be formed with the digits 1,2,5,6,7. How many of them are divisible by 5.

OR

Q. IV Attempt the following: [5X4]

(v) In what time would a sum of money triple itself at simple interest of 8% pa?

(w) Find the inverse of the matrix $A = \begin{bmatrix} 3 & -5 \\ 4 & 3 \end{bmatrix}$.

(x) Find three numbers in A.P. whose sum is 15 and the product is 45.

(y) Find the effective rate of interest when the interest is compounded at 10% pa payable quarterly.

(z) In an examination paper on Mathematics 6 questions are set. In how many different ways can you choose 4 questions to answer? If however, question number 1 is made compulsory, in how many ways can you select to answer 4 questions in all.

Duration : 2 Hours   **Max. Marks : 60**

Instructions :
1. Figures to the right indicate maximum marks
2. Start each new question on a fresh page

Q1. Write a short note on (any 3)   **(3x4 =12 MKS)**
  a.   Classification of Number Systems
  b.   Information technology and its components
  c.   Paragraph formatting options in MS Word
  d.   Use of Templates in PowerPoint
  e.   Types of operators used in an Excel formula
  f.   Web browsers and Hyperlinks

Q2. Answer the following questions (any two)   **(2x6=12 MKS)**
  a. What is the need for binary codes? Explain the features of ASCII and Unicode.
  b. Explain the functions of the different hardware components of a computer with a block diagram.
  c. Perform the following number conversions
       (i) $(46)_{10} = ($ _____ $)_2$ (ii) $(110101)_2 = ($ _____ $)_{10}$

Q3. Answer the following questions (any two)   **(2x6=12 MKS)**
  a. What is the use of Mail Merge feature in MS Word? Explain the different components of Mail Merge.
  b. Explain the following features in MS Word:
      (i) Formatting Styles   (ii) Adding Drawing objects
  c. Describe the format of the commonly used Mathematical, Statistical and Text functions in MS Excel with examples

Q4. Answer the following questions (any two)   **(2x6=12 MKS)**
  a. What is the advantage of using the 'Charts' feature in MS Excel? Explain the different types of charts that you can choose from.
  b. Explain the important features of PowerPoint. What are the various printing options available in PowerPoint? Explain
  c. What is the role played by 'Masters' in PowerPoint? Explain the different types of Masters.

Q5. Answer the following questions (any two)   **(2x6=12 MKS)**
  a. Which are the different components of World Wide Web? Explain their importance and functions.
  b. What is the need for an IP address? Who is responsible for assigning IP addresses on the Internet? Explain the format of IPv4 and IPv6 addresses.
  c. Define the term 'Internet of Things'. Explain any 2 applications of Internet of Things.

Duration: 2 hrs   Max Marks: 80

Instructions: - **All questions are compulsory with internal choice.**
              Marks to the right hand side indicates maximum marks.
              Each main question has to start on a fresh page.

Q1) You are required to prepare Trading & Profit & Loss Account, Profit & Loss Appropriation Account for the year ended 31st March 2019 and Balance Sheet as on that date from the trial balance for the year ended 31st March 2019& Adjustments given in respect of Ponda Consumers Co-operative Society.

PARTICULARS	Debit (Rs.)	Credit (Rs.)
Share Capital		10,00,000
Calls in Arrears	1,00,000	
Reserve Fund		7,50,000
Development Fund		50,000
Opening Stock of Goods	11,00,000	
Furniture	4,80,000	
Education Fund		80,000
Sundry Creditors		2,00,000
Sundry Debtors	3,00,000	
Commission Outstanding		40,000
Salaries	7,10,000	
Commission	1,74,000	
Rent & Taxes	2,00,000	
Postage	27,000	
Travelling & Conveyance	24,000	
Printing & Stationary	30,000	
Dividend paid during the year	90,000	
Audit Fees	40,000	
Interest on Investments		1,00,000
Equipment's	2,00,000	
Admission Fees		5,000
Purchases	1,60,00,000	
Carriage & Coolie Charges	4,00,000	
Investments	10,00,000	
Sales		2,06,00,000
Cash in Hand	2,50,000	
Cash at Bank	17,00,000	
TOTAL	2,28,25,000	2,28,25,000

ADJUSTMENTS:-

1) Outstanding rent payable on 31st March 2019 was Rs 10,000.
2) Outstanding salary payable on 31st March 2019 was Rs. 20,000.
3) Of the Salaries paid Rs. 30,000 was paid in advance to employees on 31st March 2019.
4) Interest Accrued on Investments Rs. 20,000
5) Charge 5% Depreciation on Furniture
6) Closing Stock of consumer goods is valued at Cost Rs. 2,80,000.
7) Directors Recommend 10% Dividend to Shareholders.
8) Directors propose the following:-
   a) Patronage Fund – 50%
   b) Reserve Fund – 25%
   c) Deficit Fund – 5%
   d) Education Fund – 2%
   e) Common Welfare Fund – 5%
   f) Development Fund – 5%.

(20 marks)

(3 x 4 marks = 12 marks)

Q2) Write a Short Note on *Any 3* of the Following:-
   a) Meaning of Co-operation
   b)Co-operative Values
   c) Dairy Co-operative Society
   d)Functions of Sate Co-operative Banks
   e) Weaknesses of Primary Agricultural Credit Society

(3 x 4 marks = 12 marks)

Q3) Write a Short Note on *Any 3* of the Following:-
   a) Audit of Co-operatives
   b) Co-operative Society in Japan
   c) Need For Professional Management of Societies
   d) Disposal of Net Surplus of Co-operatives
   e) International Co-operative Alliance (ICA)

(12 marks)

Q4) (a) Explain in Detail the Principles of Co-operative Societies.

OR

Q4) (b) Explain how Co-Operatives can play a significant role in Socio Economic Development in the Country.

(12 marks)

Q5) (a) Explain the functions of the following Institutions:-
- District Co-operative Housing Federation.
- State Housing Co-operative Societies   **(12 marks)**

OR

Q5) (b) Define Co-Operative Banks. Explain the Objectives and Importance of Co-Operative
    Banks in India   **(12 marks)**

Q6) (a) Explain the Role of National Co-operative Union of India (NCUI) in the Development of
    Co-operatives in India.   **(12 marks)**

OR

Q6) (b) Explain the Management Process with regards to Co-operatives.   **(12 marks)**

Duration: 1.30 Hr.   Max Marks: 40

INSTRUCTIONS: 1. *All questions are compulsory*
2. *Figures to the right indicate full marks*
3. *Draw the figures wherever necessary*

Q.I) Answer any five of the following: (2X5=10)

a) Wind energy
b) Land degradation
c) Economic value of natural resources
d) Biodiversity
e) Food web
f) Conservation of biodiversity
g) Ecological pyramid

Q.II) A) State and explain need for public awareness in environmental studies.   (10)

OR

X) Write in detail classification of natural resources with suitable examples.   (5)
Y) What are the adverse effects of modern agriculture on environment?   (5)

Q.III) A) Explain the biotic and abiotic components of ecosystem.   (10)

OR

X) Write a note on any two renewable energy resources and its Advantages.   (5)
Y) Briefly explain the characteristics of estuarine ecosystem.   (5)

Q.IV) A) State and explain any four threats to biodiversity.   (10)

OR

X) Write a note on any three bio-geographical classification of India   (5)

Y) Define flood and state its economic consequences.   (5)

Duration: 02 Hrs   **Max. Marks: 80**

Instructions:

1. *Figures to the right indicate maximum marks*
2. *Start each question on a fresh page*
3. *Question No 1 is **compulsory***
4. *Answer **any 3** questions from Q no. 2 to Q no. 6*

1. Mrs. Chelsea is a sole trader who keeps her books under Single Entry System. The following is the information available: **[20 Marks]**

Particulars	31st March 2017	31st March 2018
Stock	2,62,000	3,00,000
S. Debtors	5,16,000	6,75,000
S. Creditors	1,68,750	1,27,500
Machinery	2,34,000	2,34,000

The Cash Book reveals the following information for the year ended 31-3-2018

Receipts	Amt (Rs.)	Payments	Amt (Rs.)
To Bal b/d	2,81,250	By Creditors	2,25,000
To Debtors	9,00,000	By Wages	45,000
To Sales	2,02,500	By General expenses	30,000
To Commission	13,500	By Salaries	4,20,000
		By Drawings	2,40,000
		By Bal c/d	4,37,250
	13,97,250		13,97,250

Mrs. Chelsea also informs about the following information:

a. Provide reserve for doubtful debts @ 5% on debtors.

b. Depreciate Machinery @ 10% p.a.

c. Interest on capital is @ 5% p.a.

Prepare Trading and Profit & Loss Account and Balance Sheet for the year ended 31-3-2018.

2. True Gold Ltd. purchased machinery on 1-1-2014 for Rs. 3,00,000 and spent Rs. 60,000 for installation. The life of the machinery is four years and the estimated scrap value is 30,000. It is decided to provide for the replacement the machinery by taking up an insurance policy. The annual premium is Rs. 78,000 and the scrap value realized at the end of four years is Rs. 31,200.

Prepare Machinery Account, Sinking Fund Account and Insurance Policy Account for the four years ending 31st December 2014 to 2017.   **(20 marks)**

3. Shalom Ltd. made an issue of 10,000 equity share of Rs. 15 each payable as follow:

On Application = Rs. 4

On Allotment = Rs. 7

On First & Final Call =Rs. 6

Mr. Damu holding 50 shares failed to pay the allotment and call money. Mr. Paro holding 80 share failed to pay the call money.

All these share were forfeited and subsequently re-issued to Mr. Vishal as full paid up at a discount of Rs. 3 per share.

Journalize the transactions. **(20 marks)**

4. Bola Ltd. has 50,000 redeemable 12% Preference shares of Rs. 10 each fully paid. In order to redeem these shares, Bola Ltd. issued for cash 30,000 equity shares of Rs. 10 each at a premium of Rs. 2 per share. The company on that date had a general reserve of Rs. 2,50,000. The company then declared bonus issue of 20.000 equity shares of Rs. 10 each to the existing equity shareholders out of the reserve created for redemption. Journalize the transactions. **(20 marks)**

5. Tesla Ltd furnishes the following Balance Sheet as at 31st March 2018.   **(20 marks)**

Liabilities	Amt (in Crores)	Assets	Amt (in Crores)
Equity shares of Rs. 10 each	100	Fixed Assets	300
10% Preference shares of Rs. 100 each	150	Investments	240
Capital Reserve	100	Current Assets	590
Revenue Reserve	500		
Current Liabilities	280		
	1120		1120

The company purchased its own 200 lakh equity shares of Rs. 10 at Rs. 25 per share on 1st April 2018 out of free reserves. The company also redeemed preference shares on the same date. The payments for the above were made out of bank account which forms part of current assets. Journalize the transactions.

6. Write short notes (Answer any four)   **(4X 5Marks)**

a. Sinking fund method of depreciation

b. Allotment of shares

c. Capital Redemption Reserve

d. Sources of buy back

e. Advantages of Single entry system

f. Scrap value in depreciation accounting

Duration: 2 hours   **Marks: 80**

Instructions: 1) All questions are compulsory
　　　　　　2) Answers to sub questions in 1 and 2 to be answered in not more tha
　　　　　　　　than 100 words
　　　　　　3) Answers to question 3 to 6 to be answered in not more than 400
　　　　　　　　words each.
　　　　　　4) Figures to the right indicate Marks
　　　　　　5) Start each question on fresh page

Q1 Write short notes on (Any 4)   (4x4=16)
　　a) European Style of management
　　b) Difficulty in effective decision making
　　c) Materials Management
　　d) Creativity in decision making
　　e) Types of Managerial Decisions
　　f) Levels of management

Q 2 Write short notes on (Any 4)   (4x4=16)
　　a) Change process
　　b) Green Management
　　c) Features of conflict Management
　　d) Causes of stress
　　e) Causes of Conflict
　　f) Measures Overcoming Resistance to change

Q3A) Explain the American management style. How does it differ from the Japanese style?
                                                                            (12 Marks)
                                OR
　　B) State and explain the various steps involved in the decision making process.
                                                                            (12 Marks)

Q4 A) Explain the concept "Rationality and Decision Making" Discuss its benefits and
　　　limitations.   (12 Marks)
                                OR

　　B) Explain the concept "Resistance to change" Discuss the various factors affecting
　　　resistance to change.   (12 Marks)

Q5 A) Discuss the various measures taken to control organisational stress.   (12 Marks)
                    OR
　　B) What do you mean by conflict? Explain the ᴛʏᴘᴇs of organisational conflicts (any 4)
                                                                            (12 Marks)

PTo

Q6 A) What is Stress Management? Describe the various types of stress.   (12 Marks)

OR

B) Explain the following
   a) Logistic management
   b) Supply Chain Management   (12 Marks)

Duration:2hrs   **Max. Marks: 80**

Instructions: 1.*All questions are compulsory*
                    2. *Start each question on a fresh page*
                    3. *Figures to the right indicate maximum marks*

01. Write short notes: **(any 4)**   (16 Marks)

    a. Core concepts of marketing.
    b. External Factors Influencing Pricing.
    c. Importance of marketing.
    d. Merits of Personal Selling.
    e. Distribution channel policies.
    f. Characteristics of Advertising.

02. Write short notes: **(any 4)**   (16 Marks)

    a. Objectives of Product planning.
    b. Importance of Advertising.
    c. Conventional Channels of Distribution.
    d. Functions of Packaging.
    e. Public Relations.
    f. Importance of Pricing.

03. A) Explain the stages in a Product Life Cycle.   (12 Marks)
                                OR
    X) Explain the importance of branding in marketing.   (12 Marks)

04. A) What is cost based pricing? Explain its merits and demerits.   (12 Marks)
                                  OR
    X) Describe the various pricing policies.   (12 Marks)

05. A) Elaborate on the various tools of Sales Promotion for Consumers. (12Marks)
                                OR
    X) Explain the role of Advertising with respect to the various Stakeholders. (12Marks)

06. A) Describe the Elements of Physical Distribution.   (12 Marks)
                                OR
    X) Elaborate on the Essentials of Packaging.   (12 Marks)

Duration: 2 Hours   **Max. Marks: 80 Marks**

Instructions: *Figures to the right indicate maximum marks*
Start each question on a fresh page
All questions are compulsory
Answer Q1&Q2 in not more than 100 words each.
Answer Q3 to Q6 in not more than 400 words each.

Q.1) Write short notes on (Any 4)   (16)
   (a) Characteristics of MSME's
   (b) De-registration of SSI units
   (c) Issue related to closure of MSME's
   (d) Production management
   (e) Factors influencing choice of technology
   (f) Significance of inventory control

Q.2) Write short notes on (Any 4)   (16)
   (a) KVIC
   (b) Symptoms of industrial sickness
   (c) PMRY scheme
   (d) Social responsibility towards society
   (e) Arguments against corporate social responsibility
   (f) Corporate social responsibility

Q.3) (A) Explain Provisional and Permanent registration procedure in detail along with its
        importance.   (12)
                                        OR
Q.3) (X) Discuss the problems and challenges faced by MSME's in India.   (12)

Q.4) (A) State and explain the factors determining fixed capital requirements.   (12)
                                        OR
Q.4) (X) Discuss the various sources of internal and external recruitment available to the
        entrepreneur.   (12)

Q.5) (A) Elaborate the consequences of industrial sickness ondifferent stakeholders.   (12)
                                        OR
Q.5) (X) State and explain (any 6) incentives and subsidies offered by Government of Goa to
        support entrepreneurial activity in the state.   (12)

Q.6) (A) Discuss the arguments in favour of corporate social responsibilities to be undertaken
        by the entrepreneur.   (12)
                                        OR
Q.6) (X) State and explain the social responsibilities of businessmen towards:
        (i) employees and (ii) customers.   (12)

Vidya Vikas Mandal's

Shree Damodar College of Commerce & Economics, Margao-Goa

F.Y.B.Com, Semester I, Supplementary Examination, May/June 2019

Microeconomics CC3

Duration: 2 hours   **Max. Marks: 80**

Instructions:
1. All questions are compulsory.
2. Answer sub-questions in question no.1 and Question no.2 in not more than 100 words each.
3. Answer Question no. 3 to Question no. 6 in not more than 400 words each.
4. Figures to the right indicate maximum marks to the questions.
5. Draw neat diagrams wherever necessary.

Q. 1. Answer **any four** of the following: (4x4=16 marks)
   a) Explain the law of demand.
   b) Explain any four properties of an indifference curve.
   c) What is an engel curve?
   d) Write a note on the concept of economic region of production.
   e) What are diseconomies of scale?
   f) Write a note on the concept of isoclines.

Q. 2. Answer **any four** of the following: (4x4=16 marks)
   a) What is producer surplus?
   a) Write a note on the concept of horizontal and vertical integration of firms.
   b) What is price discrimination?
   c) What is collusive oligopoly?
   d) Explain the concept of prisoner's dilemma.
   e) What is the kinked demand curve?

Q.3.a. What are the conditions for consumer's equilibrium? Explain the concept of consumer's equilibrium.   (12 marks)

OR

b. Explain the income and substitution effect.   (12 marks)

Q.4.a. Calculate the Total Fixed Cost (TFC), Total Variable Costs (TVC), Average Costs (AC), Average Fixed Cost (AFC), Average Variable Costs (AVC) and Marginal Costs (MC) from the following table:

Units of output	0	1	2	3	4	5	6	7	8	9	10
Total Cost	500	550	580	605	629	650	680	725	780	860	950

                                             (12 marks)

OR

b. Explain the concept of returns to scale using isoquants.   (12 marks)

Q.5.a. Explain the short run and long run equilibrium of an industry under perfect competition. (12 marks)

OR

b. What are the features of monopoly. Explain the short run equilibrium under monopoly. (12 marks)

Q.6.a. Explain the short run and long run equilibrium under monopolistic competition. (12 marks)

OR

b. Explain Cournot's duopoly model. (12 marks)

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Principles of Insurance (G.E.-I)

Duration: 2 Hours   **Max. Marks: 80**

Instructions: *1. All questions are compulsory.*
2. Figures to the right indicate maximum marks to the questions.
3. Answer sub-questions in Question no.1 & Question no. 2 in not more than 100 words each.
4. Answer Question no.3 to Question no. 6 in not more than 400 words each.

Q. 1 Answer **any four** of the following: **(4x4=16 Marks)**
   a) Shifting of risk.
   b) Spreading of risk.
   c) Reinsurance.
   d) Features of Life Insurance.
   e) Declaration Policy.
   f) Principle of contribution.

Q. 2. Answer **any four** of the following: **(4x4=16 Marks)**
   a) Risk Management.
   b) Double Insurance.
   c) Money Back Policy.
   d) Assignment Clause.
   e) Travel Insurance.
   f) Warranties.

Q. 3. a) Distinguish between Dynamic and Static risk?   **(12 Marks)**
                              OR
   b) What are the principles of risk insurance management?   **(12 Marks)**

Q. 4. a) Explain various kinds of Life Insurance policies   **(12 Marks)**
                              OR
   b) What are the various concepts of reinsurance?   **(12 Marks)**

Q. 5 a) Explain the procedure for issuing Life Insurance policy.   **(12 Marks)**
                              OR
   b) Differentiate between Life and General Insurance?   **(12 Marks)**

Q. 6. a) What are the advantages of fire insurance policies?   **(12 Marks)**
                              OR
   b) Explain various kinds of fire Insurance policies.   **(12 Marks)**

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