Duration: 2hrs   **Total Marks: 80**

Instructions:

   i) *All questions are compulsory; however, internal choiceis available.*
   ii) *Figures to the right indicate maximum marks to the question/sub-question.*
   iii) *Start each question on a fresh page.*

Q.1. Answer **ANY FOUR** of the following: **(4 x 4 = 16 marks)**
   a. What is E-banking?
   b. Explain the debtor-creditor relationship between a banker and customer.
   c. What is a credit card?
   d. Discuss the termination of relationship between a banker and customer.
   e. What is core banking?
   f. Explain a banker's obligation to honour a customer's cheque.

Q.2. Answer **ANY FOUR** of the following: **(4 x 4 = 16 marks)**
   a. Enumerate the significance of financial statements.
   b. Explain the 'Note Issue' function of RBI.
   c. Write a note on CAMELS approach.
   d. What is a negotiable instrument?
   e. List the prime objectives of the SARFAESI Act.
   f. Distinguish between demand loan and term loan.

Q.3.a. Explain the rights and duties of a banker.   **(12 marks)**
                                        OR
Q.3.b. What is paperless banking? Discuss the benefits of paperless banking.   **(12marks)**

Q.4.a.Discuss RTGS, NEFT and SWIFT as modes of EFT.   **(12 marks)**
                                        OR
Q.4.b.Explain the following: **(12 marks)**
     (i) ATMs
     (ii) HWAK
     (iii) PIN

Q.5.a. Discuss the liquidity ratios used by banks.   **(12 marks)**
                                        OR
Q.5.b. Explain the following   **(12 marks)**
     (i) Productivity ratio
     (ii) Current Ratio
     (iii) Quick Ratio

Q.6.a. Discuss the Banking Ombudsman Scheme.   **(12 marks)**
                                        OR
Q.6.b.What are cheques? Discuss the types and significance of crossing of cheques.   **(12 marks)**

****

Shree Damodar College of Commerce & Economics
FYBCOM, Semester II, Supplementary Examination, May/June 2019
Commercial Arithmetic-II
Time: 2 hours   Maximum Marks: 80

INSTRUCTIONS:

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

2. Figures to the right indicate full marks.

3. Non Programmable Calculator are allowed.

1. Q.1 Attempt the following: [5X4]

   (a) If $A(7,5)$ and $B(x,0)$, find the possible values of x so that $l(AB) = 13$.

   (b) Differentiate $y = \frac{x+2}{x^2}$ with respect to x.

   (c) If $f(x) = x^2 - 5x + 6, x \in \mathbf{R}$. Find x if $f(x-1) = f(x+1)$.

   (d) Evaluate $\int 3^{5x+1}\, dx$

   (e) If 5 men or 9 women can finish a piece of work in 19 days, 3 men and 6 women will do the same work in how many days?

OR

2. Q. I Attempt the following: [5X4]

   (v) Show that the lines with equations $2y = x + 1$ and $3x - 6y - 8 = 0$ are parallel.

   (w) Differentiate each of the following with respect to x:
      (i) $y = x^{-6} - \sqrt{x}$ (ii)$y = \frac{logx}{x}$.

   (x) If $f(x) = x^2 + 3x - 5, 0 \le x \le 6$, find $f(0), f(2), f(4), f(7)$, whenever they exist.

   (y) Evaluate $\int (x^3 - e^x + 25)\, dx$.

   (z) If 10 people working 8 hours a day,can complete a task in 24 days, how many people working 10 hours a day would required to complete the same task in 16 days?

3. Q.2 Attempt the following: [5X4]

   (a) Find $lim_{x \to 0} \frac{e^x - 1}{6x}$.

   (b) If the total cost function is given by $C = x^2 + 2x + 3$, find the average cost and marginal cost when $x = 3$.

   (c) Maximize z $=40x+37y$
      subject to : $2x+3y \le 60$, $10x+3y \le 180$, x ≥ 0, y ≥ 0.

(d) For the function $f(x, y) = 2x^2 + 2xy + y^2$. Find f_{xx} and f_{yy} at $(1, 2)$.

(e) A person buys an article for ₹360. For what price should he sell it to gain 15%.

OR

4. Q. II Attempt the following: [5X4]

(v) If f is continuous at $x = 0$, where

$$f(x) = \begin{cases} 3x + a + b, & x > 0 \\ x + 4 - b & x < 0 \\ 1 & x = 0 \end{cases}$$

find a and b.

(w) The demand function for a commodity is given by $p = 20 - 2D^2$. Find (i) the total revenue function, (ii) the marginal revenue function, (iii) marginal revenue when $D = 2$.

(x) A company produces soft drinks that have a contract which requires that a minimum of 80 units of the chemical A and 60 units of the chemical B to be present in each bottle of the drink. The chemicals are available in a prepared mix from to two suppliers S and T. Supplier S has a mix of 4 units of A and 2 units of B that cost Rs. 10. Supplier T has a mix of 1 unit of A and 1 unit of B that costs Rs. 4. Give the mathematical formulation for this LPP to minimize the cost.

(y) For $f(x, y) = x^2 + 3y$, find $f(x, y)$, when (i)$x = 2$ (ii)$y = 1$ (iii) $(x, y) = (2, 1)$.

(z) A shopkeeper marks his goods 20% above cost price, but allows 30% discount for cash. Find his net loss percent.

5. Q.3 Attempt the following: [5X4]

(a) The present age of two brothers are in ratio 3:4. five years ago their ages were in the ratio 5:7. find their present ages.

(b) Find the equation of a line passing through the points A (2,3) and B (-5,0).

(c) If the marginal revenue function for a certain product is $MR = 4x^3 + 6x^2 + 10x + 1$. Find the Revenue function and Average Revenue function when $x = 15$.

(d) If firm produces an output of x tons at a total cost $C = x^3 - 4x^2 + 7x$. Find the output at which the average cost is the least.

(e) AB is the diameter of a circle with center C. If A= (1,-2) and C= (-3,4), find the coordinates of B.

OR

6. Q. III Attempt the following: [5X4]

(v) If 3A=5B, 2B=7C, find A:C.

(w) Find the equation of the line through (3,1) and parallel to the line with equation $2x - y = 4$.

(x) If the marginal cost $MC = 3x^2 + 4x + 5$, find the cost function, if the fixed cost is 150.

(y) Find the values of x, for which the following function $f(x) = x^3 - 75x + 10$ is increasing , decreasing.

(z) Show that points A (2,2), B(3,4) and C(4,1) are the vertices of a right angled triangle.

7. Q.4 Attempt the following: [5X4]

(a) The sum of 15% of a positive number and 10% of the same number is 70. Find the number?

(b) If the distance between two points (5,a) and (8,4) is 5,find the value of a.

(c) Evaluate $\int_0^6 (x + 2)(x - 1)\,dx$.

(d) If the demand function for a certain commodity is $p = 24 - 4x$ find the demand consumers surplus at $x = 5$.

(e) Find $\frac{d^2y}{dx^2}$ for $y = 7x^5 - 4x^2 + 6$

OR

8. Q. IV Attempt the following: [5X4]

(v) In order to pass in an exam a student is required to get 975 marks out of the aggregate marks. Piya got 870 marks and was declared failed by 7%. What are the maximum aggregate marks a student can get in the examination?

(w) Find the equation of the line passing through the point (1, 2) and perpendicular to a line $2x - y - 7 = 0$.

(x) The marginal revenue of selling x items is $MR = x^2 + x - 1$,find the total revenue and average revenue at $x = 6$.

(y) f the supply function for a certain commodity is $p = 16x + 4$ find the producer's surplus at $x = 1$.

(z) Divide 70 into two parts so that the sum of their squares is minimum.

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. Wide Area Network
   b. Digital Wallets
   c. Identity theft
   d. Denial of Service Attack
   e. Characteristics of a good password
   f. CERT-IN and its functions

Q2. Answer the following questions   (any two)   (2x6=12 MKS)
   a. Write a note on Communication software
   b. Explain the functions of the following network devices:
        (i) Repeaters   (ii) Switches   (iii) Routers
   c. Explain the features of Local Area Networks and Metropolitan Area Networks

Q3. Answer the following questions   (any two)   (2x6=12 MKS)
   a. Define E-commerce. Explain the generic trade cycle with a neat diagram
   b. What are the typical signs of a fake website that an Internet user needs to be aware of? Explain
   c. What are the advantages of E-retail? Explain the functions of a 'shopping cart' on an E-retail website.

Q4. Answer the following questions   (any two)   (2x6=12 MKS)
   a. What is Malware? Explain how the following malwares affect our systems
        (i) Computer Viruses (ii) Spyware   (iii) Computer Worms
   b. What is cyber warfare? What is the infrastructure targeted in a cyber war attack
   c. What are Intellectual Property Rights? Explain the different categories and crimes related to IPRs

Q5. Answer the following questions   (any two)   (2x6=12 MKS)
   a. Explain the significance of Secure Socket Layer security for a website and Digital Signatures.
   b. Write a note on (i) Electronic evidence (ii) Data recovery
   c. What is meant by Media Sanitization? Explain the various sanitization techniques used.

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

Instructions:
- a. <u>***Question no.1 is compulsory***</u>
- b. *Answer any 3 questions from question no.2 to question no.6*
- c. *Working notes must form a part of your answer.*
- d. *All questions carry **20 Marks** each*

Q.1 From the following Trial balance of Glory Co. Ltd., as on 31st March 2018 Prepare a Statement of Profit & Loss as per schedule III of the companies Act. 2013.   **(20 Marks)**

Trial Balance as on 31st March, 2018

Particulars	Amount	Particulars	Amount
Interest on Debentures	32,400	Share Transfer Fees	15,000
Travelling Expenses	10,200	12% Debentures	2,70,000
Delivery van expenses	5,100	Commission received	7,400
Bad Debts	6,500	Sales	6,45,500
Discount	7,000	Share Capital	5,00,000
Purchases	3,15,800		
Opening Stock	72000		
Freight outward	8,400		
Free samples	5,000		
Depreciation	36,000		
Office expenses	11,400		
Bank balance	1,58,600		
Wages	93,000		
Land & Building	4,00,000		
Goodwill	1,47,900		
Insurance	6,000		
Furniture	1,22,600		
Total	**14,37,900**	**Total**	**14,37,900**

Additional information:
1. Closing stock was valued at Rs.85,500.
2. Write off Goodwill by 2%.

Q.2 Following is the summary of assets and liabilities of M/s Chanakya Ltd. as on 31st March 2018. Prepare Common Size Balance Sheet: **(20 Marks)**

Liabilities	2018 (Rs)	Assets	2018 (Rs)
Share capital	5,00,000	Premises	4,90,000
General Reserve	40,000	Office equipments	2,00,000
Profit & loss a/c	60,000	Long term Investments	120,000
12% Debentures	2,50,000	Stock	87,000
Creditors	80,000	Debtors	75,000
Provision for tax	80,000	Bank	35,000
Bank Overdraft	15,000	Prepaid Expenses	28,000
Outstanding rent	10,000		
	10,35,000		**10,35,000**

Q.3 From the following information as on 31st March 2018, calculate the following ratios: **(20 Marks)**

1) Current Ratio   2) Liquid Ratio   3) Stock to Working Capital Ratio
4) Debt Equity Ratio 5) Proprietary Ratio 6) Capital Gearing Ratio

Liability	Amount (Rs.)	Assets	Amount (Rs.)
Equity Share Capital	2,50,000	Computers	45,000
8% Pref. Share Capital	1,50,000	Office building	2,50,000
General Reserve	20,000	Machinery	1,50,000
16% Debenture	1,00,000	Stock	90,000
Profit and Loss A/c	15,000	Debtors	21,000
Creditors	28,000	Bills Receivable	10,000
Bank Overdraft	12,000	Cash in hand	5,000
		Prepaid expenses	4,000
	5,75,000		**5,75,000**

Q.4 Following are the details of Viventa ltd for the year ended 31st March 2017 & 2018: **(20 Marks)**

Particulars	2017 (Rs.)	2018 (Rs.)	Particulars	2017 (Rs.)	2018 (Rs.)
To Opening Stock	3,50,000	2,00,000	By Sales	11,00,000	12,00,000
To Purchases	7,00,000	9,00,000	By Closing Stock	2,00,000	3,00,000
To Wages	50,000	1,00,000			
To Gross Profit c/d	2,00,000	3,00,000			
	13,00,000	**15,00,000**		**13,00,000**	**15,00,000**
To Office Exp.	1,50,000	2,25,000	By Gross Profit b/d	2,00,000	3,00,000
To Finance Cost	20,000	30,000			
To Net Profit c/f	30,000	45,000			
	2,00,000	**3,00,000**		**2,00,000**	**3,00,000**

Prepare a Comparative Income statement.

Q.5 Crystal ltd. gives you the following balances of assets and liabilities for the year ended 31st March 2017 and 31st March 2018. Prepare cash flow statement for the year ended 31st March 2018. **(20 Marks)**

Liabilities	2017 (Rs)	2018 (Rs)	Assets	2017 (Rs)	2018 (Rs)
Share capital	5,00,000	6,00,000	Goodwill	1,00,000	80,000
General Reserve	3,38,000	3,03,000	Land and building	5,00,000	5,50,000
12% Debentures	5,00,000	6,00,000	Investments	80,000	1,00,000
Bank Loan	1,60,000	2,00,000	Plant & Machinery	6,00,000	7,40,000
Creditors	81,800	1,01,400	Stock	60,000	80,000
Proposed dividend	70,000	80,000	Debtors	1,24,000	1,25,000
Provision for tax	80,000	1,11,000	Cash at Bank	2,65,800	3,20,400
	17,29,800	**19,95,400**		**17,29,800**	**19,95,400**

Additional Information:
1. Investment amounting to Rs 20,000 was sold for Rs.24,000 during the year.
2. Tax paid during the year amounted to Rs. 90,000.
3. Depreciation charged on Land & Building Rs. 20,000 and on Plant and machinery Rs. 30,000.

Q.6. a) From the following information compute: **(10 Marks)**
1) Gross Profit Ratio and 2) Debtors Turnover Ratio:

Particulars	Amt (in Rs.)
1. Total sales	70,000
2. Cash sales	20,000
3. Cost of Goods sold	56,000
4. Opening Balance of Debtors	13,750
5. Closing Balance of Debtors	11,000

Q.6. b) What are the advantages and disadvantages of EVA. **(10 Marks)**

Sub: Introduction to Marketing

Duration: 2 Hours   Marks: 80

Instructions: i) All Questions are compulsory.
ii) Answers to sub questions in 1 and 2 to be answered in not more than100 words each.
iii) Answers to question 3 to 6 to be answered in not more than400 words each.
iv) Figures to the right indicate marks.

1) Write short notes on (any 4)   (16)
   a) Shopping goods
   b) Marketing management
   c) Selling v/s marketing
   d) Need for consumer behaviour
   e) Technological Environment
   f) Demographic environment

2) Write short notes on (any 4)   (16)
   a) Marketing Mix
   b) Warehousing
   c) Compensation to salesforce
   d) Consumer protection
   e) Marketing of services
   f) Catalog marketing

3A). Explain place concept, area concept, and demand concept of market.   (12)
                              OR
3X) Define marketing. Highlight the scope of marketing.

4A) Define marketing research. Explain the importance of marketing research.   (12)
                              OR
4X) State and explain the various bases of market segmentation.

5A) Describe the selection procedure of salesforce.   (12)
                              OR
5X) Explain the Global Marketing Strategies

6A) Describe the various ethical issues in marketing.   (12)
                              OR
6X) Describe the social responsibility of marketing.

Duration: 2 hrs   **Total Marks: 80**

Instructions:
> *i) All questions are compulsory; however, internal choice is available.*
> *ii) Figures to the right indicate maximum marks to the question/sub-question.*
> *iii) Start each question on a fresh page.*

Q.1. Answer **ANY FOUR** of the following: **(4 x 4 = 16 marks)**
    a. What is administered pricing?
    b. What is safety margin?
    c. Explain any two general considerations of pricing policy.
    d. What the assumptions of Break-Even analysis.
    e. What is cost-plus pricing?
    f. Calculate break-even in terms of physical units if fixed costs of a factor are Rs. 20000/- per year, variable cost Rs. 5.00/- per unit and selling price Rs. 7.00/- per unit.

Q.2. Answer **ANY FOUR** of the following: **(4 x 4 = 16 marks)**
    a. What is social-cost benefit analysis?·
    b. What are the assumptions of game theory?
    c. Explain any two sources of long term financing.
    d. What is cost of debt capital?
    e. Explain any four sources of business risks.
    f. What is Nash equilibrium?

Q.3.a. What are the different pricing strategies adopted in Product Life Cycle pricing.   **(12 marks)**
<div align="center">OR</div>
Q.3.b. What is price forecasting? Explain the objectives of a pricing policy.   **(12 marks)**

Q.4.a. What is profit forecasting? Discuss the profit limiting factors faced by a firm.   **(12 marks)**
<div align="center">OR</div>
Q.4.b. Calculate the following: **(3 x 4 = 12 marks)**
   (i) If sales are 6000 units and break-even point is at 4000 units. Interpret **safety margin.**

   (ii) If fixed costs are 15000 per year, variable costs are Rs.3.00 per unit, selling price is Rs. 6.00 per unit and desired profit is Rs.9000/-. Compute the **target sales volume.**

   (iii) A manufacturer of a scooter buys a certain component of Rs.10.00 each. In case he makes it himself, his fixed and variable costs would be Rs.12000 and Rs.4.00 per component respectively. Find out if he should **make or buy** the component.

Q.5.a. What is capital budgeting? Explain the process of capital budgeting.   **(12 marks)**
<div align="center">OR</div>

Q.5.b. Calculate the following: (2 x 6 = 12 marks)
(i) A firm is considering the purchase of a machine. Three machines are available for the purpose in the market. Each of these machines cost Rs.1,00,000. Earnings after taxation are expected to be as under. Find out which machine will be selected based on the payback method of ranking investment.

Year	Cash flow		
	Machine 1 (Rs.)	Machine 2 (Rs.)	Machine 3 (Rs.)
1st	20000	30000	40000
2nd	40000	50000	80000
3rd	30000	30000	70000
4th	20000	20000	60000
5th	50000	40000	80000

(ii) Calculate the NPV of the following proposals. Project A has an initial investment of Rs. 1,80,000/-, Project B has an initial investment of Rs. 1,60,000/- while Project C has an initial investment of Rs.1,40,000/-. All projects have a life of six years. With the discount rate of 8 percent, find out which project is more attractive.

Year	Cash flow		
	Project A	Project B	Project C
1	50000	46000	39000
2	50000	46000	38000
3	54000	46000	40000
4	58000	48000	42000
5	54000	48000	46000
6	56000	50000	48000

Year	Discount factor (d.f.) at 8%
1	0.926
2	0.857
3	0.794
4	0.735
5	0.681
6	0.630

Q.6.a. Explain the concept of game theory. What are its significance and limitations? (12 marks)

OR

Q.6.b. Discuss the concept of decision-making under risk, certainty and uncertainty. State and explain the steps for analysis of risky decisions. (12 marks)

****

Duration: 2 Hours   **Maximum Marks: 80**

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

Q1. Write short note on **any 4** of the following.   (4x4=16)
   a. Repudiation of claim in life Insurance
   b. Surrender value and paid up value
   c. Claim settlement ratio
   d. Qualification and Disqualification of Insurance agent
   e. Surveyors and their duties
   f. TPAs and their functions

Q2. Write short note on **any 4** of the following.   (4x4=16)
   a. Insurance Marketing and its objectives
   b. Traditional distribution channels for insurance products
   c. Advantages Bancassurance
   d. Floriculture Insurance
   e. Unemployment Insurance
   f. Social Insurance

Q3. a. State and explain any six OECD guidelines on best practices in insurance claim
   management.   (12)
                                       Or
   b. Explain the documents required, exclusions and settlement of claims in Fire Insurance.
                                                                            (12)
Q4. a. Explain the Insurance ethics relevant to conduct of insurance business.   (12)
                                       Or
   b. What are the functions of Insurance agents? Discuss about agency as a profession. (12)

Q5. a. Elaborate on the different distribution channels of insurance business.   (12)
                                       Or
   b. Explain the marketing strategies used by insurance companies along with relevant
   examples.   (12)

Q6. a. Explain the below schemes: (12)
   i.   Horticulture Insurance
   ii.   Farmers Package
                                       Or
   b. What is Rural Insurance? Elaborate on Cattle Insurance.   (12)

...............................*THANK YOU*...

Duration: 2 hours   **Marks: 80**

Instructions:
1. **All questions are compulsory**
2. **Figure to the right indicate full marks**
3. **Start each new question on fresh page**

Q.No. 1. Write short notes on the following (Any 4)   **(4 x 4=16)**
   a) Production Planning & Control
   b) Product Layout
   c) Importance of Production function
   d) Purchasing policy
   e) Make or buy decision
   f) Material handling cost

Q.No.2. Write short notes on the following (any 4)   **(4 x 4=16)**
   a) ABC Analysis
   b) Just in Time
   c) SDE Analysis
   d) Value Analysis
   e) Design Analysis
   f) Kinds of Value

Q.No.3. (A) Explain the importance of good plant layout   **(12)**

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

Q.No.3. (B) Explain the types of plant layout

Q.No.4. (A) Explain the purchasing cycle   **(12)**

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

Q.No.4. (B) Explain the objectives of material management

Q.No.5. (A) Explain the importance of Inventory Control   **(12)**

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

Q.No.5. (B) Explain the functions of Inventory management

Q.No.6. (A) Discuss the Value Analysis process   **(12)**

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

Q.No.6. (B) Explain the advantages of Value Analysis

Duration: 2 hrs   **Marks: 80**

Instruction: 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) Franchising distribution Channel.
    b) Special issues of Pricing in Service sectors.
    c) Agents and Brokers distribution Channels.
    d) Goods v/s Services.
    e) Basic elements of Promotional Mix.
    f) Concept of Service Marketing

02. Write short notes: **(Any 4)**   (16 Marks)
    a) Level of Customer Satisfaction.
    b) Types of Service Encounters.
    c) Zone of Tolerance.
    d) Customer Retention.
    e) Zone of Tolerance vary for Service Dimension
    f) Service Guarantees.

03. A) Describe the component of Services with examples.   (12 Marks)
                                OR
    B) Explain the Role of Services in an Economy and its overview.

04. A) Describe the Types of Service Personnel.   (12 Marks)
                                OR
    B) Define Service Product. Explain the Five Levels of Products with Examples

05. A) Explain the possible Level of Customer Expectation.   (12 Marks)
                                OR
    B) Describe the Factors Influencing Customer Satisfaction.

06. A) Define Service Culture. Illustrate the Service Triangle.   (12 Marks)
                                OR
    B) Explain the Service Quality Gap Model.