Semester: I	11000EV	(€)	Duration: 2 Hours
Class: F.Y.B. C	Com	I Duration of Management	Max. Marks: 80
Paper Code a	nd Tit	le: COM 111- Principles and Practice of Management	114447
No. of Pages:	01	20	
Date: 29/10/2	024		
Instructions:	1) A	ll Questions are Compulsory; However Internal choice	is available.
	2) A	newer sub- Questions in Question No.1 and 2 in not mo	ore than 100 words.
	3) A	nswer Questions No.3 to Question No.6 in not more that	in 400 words.
	4) F	igure to the right indicate full marks for respective ques	tions/ Sub-
		estion.	
7.		₩ ² .	****
Q. 1.	Ans	wer following questions. (2 marks each)	16 Marks
2	a)	Write four stages of scientific method.	
	b)	Define management.	
	c)	What is motivation?	
G.	d)	What is TOWS matrix?	
	e)	Define formal communication.	
	f)	Write four examples of motivation.	
	g)	Write traditional techniques of control.	
	h)	Write full form of PERT and CPM.	
	120	Discuss Fayol's principles of management in detail.	12 marks
Q.2.	A)		
		OR	e of 12 Marks
Q.2.	B)	Explain reasons for treating co-ordination as the essent	,601
	- 00	management.	
			04 Marks
Q.2.	C)	Write a short note on quantitative approach.	
	709	Discuss meaning of strategic planning and features.	12 Marks
Q.3.	A)	Discuss meaning of strategic planta	
16	200	Write meaning of decentralization along with its impor-	rtance. 04 Marks
Q.3.	B)	OR	
~ *	275	Write a short note bounded rationality.	04 Marks
Q.3.	C)	Write a short note bounded to	

Q.4		A)	Explain Maslow's need hierarchy theory along with diagram.	12 Marks
Q.4		B)	Write a short note on overcome communication barriers.	04 Marks
			OR	
Q.4	(%)	C)	Discuss various hygiene factors in the Herzberg theory of motivation.	04 Marks
Q.5		A)	Discuss process of control along with diagram.	12 Marks
Q.5.		B)	Write a short note employee empowerment.	04 Marks
0.5		0	OR	marananan antar
Q.5		C)	Write a short note on importance of co-ordination.	04 Marks

Semester: I Class: F.Y.B. Com Duration: 2 Hours Paper Code and Title: CC 1 - General Management (LBCS) Max. Marks: 80 No. of Pages: 02 Date: 29/10/2024 Instructions: 1) All Questions are Compulsory, However Internal choice is available. 2) Answer sub-Questions in Question No.1 and 2 in not more than 100 words. 3) Answer Questions No.3 to Question No.6 in not more than 400 words. 4) Figure to the right indicate full marks for respective questions/ Sub-Question. 16 Marks Answer any four of the following Q1 Materials management as a functional area of management European style of management ii) Meaning of Levels of Management iii) Guidelines for effective decision making (any four) iv) Programmed and non-programmed decisions v) Define rationality in decision making vi) 16 Marks Answer any four of the following Q2. External factors responsible for reason of change (any two) i) Types of organizational level change (any two) ii) iii) Conflict management style (any two) Write short note on Logistic management iv) Practice of Green Management v) Individual / Personal stressors (any four) ví) Differentiate between Japanese style of management and 12 Marks A) Q3. American style of management. OR Elaborate features of management in detail. A) Discuss steps involved in decision making process. Discuss in 12 Marks Q4. detail. OR What is rationality in decision making? Explain its benefits in

detail.

Q5.	A)	Discuss process of conflict management in detail	12 Marks
		OR	
	B)	Discuss reasons for resistance to change in detail.	
Q6	A)	Explain process of Supply chain management along with diagram.	12 Marks
		OR	
	B)	Discuss various causes of stress in detail.	

Semester: I

Class: F.Y.B. Com

Duration: 2 Hrs

Paper Code and Title: Financial Accounting (COM-100)

Max. Marks:80

No. of Pages: 04 Date 1/11/2024

1) All Questions are Compulsory.

Instructions:

2) Question No.1 (A) is in not more than 800 words.

- 3) Question No. 2, 3, 4 & 5(A) and Question No. 2 (B) is not more than 600 words.
- 4) Question No. 3, 4 & 5 (B) and Question No. 2, 3, 4 & 5 (C) is not more than 400 words.
- Q.1 A i) Concept of Accounting.

 (8×2)

ii) Advantage of Single-Entry System.

16 Marks

- iii) What is Balance Sheet?
- iv)Concept of IFRS.
- v) What is Securities Transaction Tax?
- vi) Concept of Profit and Loss Account.
- vii) short note on Right Issue.
- viii) What is Brokerage?
- Q.2 A You are given the extract of Ledger balances taken from Sai Service Ltd, 12 Marks
 for the year ending 31st March 2024

Sai Service Ltd

Particulars	Amount (Rs)
Provision for Tax	60,000
Depreciation on Building	19,800
Sundry Expenses	42,000
Office Rent	24,000
Salaries	45,000
Materials Consumed	5,40,000
Building	1,50,000
Directors Remuneration	1,20,000
Factory Expenses	15,000
Sales	27,30,000
Return inward	78,000
Purchases	14,10,000

Closing Stock	4,50,000
Opening Stock	4,92,000
Wages	1,80,000
Debentures .	2,40,000
Interest on Bank Loan	24,000
Interest on Investment	30,000
Dividend received	18,000
Electricity and Power	72,000
Transport Charges	6,000

Prepare a statement of Profit and Loss as per Schedule III for the year ended 31st March 2024

OR

Q.2 B From the following Ledger balances of Sai Samarth Ltd, prepare a Balance sheet of the company as on 31st March 2024 as per schedule III of the Companies Act

12 Marks

Particulars	Amount (Rs)	Particulars	Amount (Rs)
Premises	6,00,000	Immovable Property	10,00,000
12% Debenture	8,00,000	Public Deposit	5,00,000
Employees provident Fund	1,30,000	Provision for taxation	1,80,000
Securities premium	80,000	Drafts on Hand	5,00,000
Cash in Hand	34,000	Bills Receivable	2,40,000
Share Capital	12,00,000	Brokerage on issue of shares	1,10,000
Sundry Creditors	1,16,000	Bank Overdraft	1,50,000
Loan to Manager	70,000	Advance to staff	1,24,000
Deposits with HDFC Bank (10 Years)	1,98,000	Trademarks	1,80,000
Prepaid Insurance	1,00,000		

C Elaborate on Accounting Concepts and Conventions.

04 Marks

Q.3 A Equipment is purchased for Rs. 40,000. At the end of four years, it has to be replaced. For this purpose, an insurance policy is taken out, the annual premium being Rs. 9,200. At the end of 4th year, a new machine costing Rs. 44,000 is installed. The old machine is written off.

12 Marks

Prepare necessary Ledger Accounts under insurance policy method

B Differentiate between Single Entry System and Double Entry System.

04 Marks

OR .

C Elaborate on features of single-entry system of accounting

04 Marks

Q.4 A On 1st April 2023 Mr. Deepak holds 20,000 Equity Shares of Rs. 10 each in RBL Ltd., at a cost of Rs. 3,00,000. 12 Marks

On 1st July 2023 he purchased 4,000 additional shares of the same company at a cost of Rs.64,000.

On 1st October 2023 Company issued a bonus of one share for every six shares held as on that date.

On 1st January 2024 he purchased the right shares, announced by Company at the rate of two shares for every five shares held as on that date at Rs. 12 each

On 31st January 2024 he purchased 2,000 additional shares of the same company at a cost of Rs. 36,000.

On 1st February he sold 1,000 shares for Rs. 20 each.

Prepare Investment in Equity Shares Account in the books of Mr. Deepak for the year ending 31st March 2024

B Meaning and causes of depreciation.

04 Marks

OR

C Explain any four users of accounting information

04 Marks

Q.5 A Mukesh is a merchant. Follows the practice of paying creditors for goods purchased through his Bank Account and making payments in cash on all nominal amounts.

12 Marks

Particulars	1.4.2023	31.3.2024
Cash in hand	30	50
Cash at Bank	1,000	1,500
Sundry Debtors	1,750	2,500
Sundry Creditors	3,410	3,750
Investments	6,250	6,250
Stock	2,500	1,870
	• .	

Transactions during the year 2021 were as follows:

Particulars	Rs.
Salaries Paid	1,500
General Expenses paid	3,500
Payment for Stationary	870
Payments for Rent and Rates	700
Lighting Charges	250
Cash Receipts from Debtors	31,250
Payments to Creditors through Bank of Trade Expenses in cash (Trade expense is Rs 4,750)	20,000
Payments to Bank:	7
Business	18,750
Additional Capital	250
Payments from Bank Account - Personal	3,250
Cash Payments - Personal	910
Stock taken for personal use	140

You are required to prepare Trading and Profit and Loss Account for the year ended 31st March 2024 and Balance sheet of Sagar on that date.

B Explain different types of Investment avenues available in India

04 Marks

OR

C Elaborate on Cum and Ex interest securities

04 Marks

Semester: I

Class: F.Y.B.Com

Duration: 2 Hours

Paper Code and Title: (UCOG104) Principles of Insurance (CBCS)

Max. Marks: 80

No. of Pages: 02

Date:1st November 2024

1) All Questions are Compulsory, However Internal choice is available.

Instructions: 2) Answer sub- Questions in Question No.1 and 2 in not more than 100 words.

- 3) Answer Questions No.3 to Question No.6 in not more than 400 words.
- Figure to the right indicates full marks for respective questions/ Sub-Question.

Q1. Answer any FOUR of the following

16 Marks

- a. Explain the importance of Risk Management.
- b. Explain in brief Insurance Contract.
- c. Distinguish between Insurance and Wagering Agreement.
- d. Explain the functions of Insurance.
- e. What is Reinsurance?
- f. Explain Grace Days and Nomination in Insurance.

Q2. Answer any FOUR of the following

16 Marks

- a. List down Private Companies of Life Insurance.
- b. Difference between Life & General insurance.
- c. What is Baggage Insurance?
- d. Explain Health Insurance.
- e. Explain any two types of Life Insurance.
- f. State and explain the benefits of Life Insurance.
- Q3. A Explain the various methods of Handling Risk in 12 Marks

Insurance.

OR

	12 Marks
Insurance.	
74:	
Elaborate the benefits of Insurance to Society.	12 Marks
OR .	
Elaborate the Role of Insurance in Economic	12 Marks
Development.	
Explain the various Life Insurance Policies.	12 Marks
OR ·	
Explain the procedure of issuing the Life Insurance Policy	12 Marks
to Policyholders.	
Elaborate the settlement of Claim in Fire Insurance.	12 Marks
OR	
What is Marine insurance? Explain the types of Marine	12 Marks
Insurance Policies.	
ALL THE BEST	
	Elaborate the benefits of Insurance to Society. OR Elaborate the Role of Insurance in Economic Development. Explain the various Life Insurance Policies. OR Explain the procedure of issuing the Life Insurance Policy to Policyholders. Elaborate the settlement of Claim in Fire Insurance. OR What is Marine insurance? Explain the types of Marine

Semester: I

Class: F.Y.B. Com Duration: 2 Hours

Paper Code and Title: Sustainable Development Max. Marks: 60

No. of Pages: 02

Date: 04th November 2024

1) All Questions are Compulsory; However, from Q.2 to Q.5 Internal choice is available.

Instructions: 2) Figure to the right indicate full marks for respective questions/ Sub- Question.

Q1. Answer the following

12 Marks

- Define Environmental Sustainability.
- ii) What is Sustainable Development?
- iii) Explain Climate Change.
- iv) What do you understand by Internal Migration?
- v) How would you define the Environment?
- vi) What is Sustainable Agriculture?

.O2. Answer the following

A) List any three objectives of Sustainable Development.

06 Marks

B) State the three Millennium Development Goals.

06 Marks

Q3. Answer the following

A) Explain how climate change affects migration patterns and the

06 Marks

reasons behind these changes

B) Discuss how sustainable development and climate change are

interconnected, highlighting their mutual impacts.

te change are 06 Marks

OR

C) Describe three key causes of climate change and explain how they contribute to the phenomenon.

Q4. Answer the following

- A) Explain the three goals of Sustainable Development and discuss how they are relevant to India's development efforts.
- B) Discuss how green technologies contribute to sustainable 06 Marks development and the benefits they provide.

OR

Explain the connection between industrial development and
 environmental pollution, highlighting the impacts of industrial activities on the environment.

Q5. Answer the following

- A) Provide an example of an environmental management practice and explain how it contributes to achieving sustainable development goals in a specific community.
- B) Identify a specific city experiencing the effects of climate change and discuss how these impacts are shaping its infrastructure and urban planning

OR

C) Choose a sustainable development strategy and explain how it can be applied in a local community to address environmental challenges.

Semester: I					
Class: F.Y.	B.Com		Duration: 1 Hour		
Paper Code	and Title	: (COM-145) Innovation and Start-ups	Max. Marks: 20		
No. of Page	es: 02				
Date:06th N	ovember	2024	D.		
	1) A	Il Questions are Compulsory to answer.			
Instruction	is: 2) (Question No. 3 to Question No. 5 has an option	(A is compulsory and write		
,	any	any one from B and C.			
	3) (0.1 answer should be in between 20-40 words each.			
	4) (). 2 to Q.3 answer should be between 30 - 50 words ear	ch.		
Q1.		Answer the following (4 x 1 Mark)	04 Marks		
	a.	Who is Trading Entrepreneur?			
200	ь.	What is conceptual skill of an entrepreneur?	*		
	c.	List the characteristics of an entrepreneur.			
	d.	Define Entrepreneurship.	•		
Q. 2	A	What are the Ethics in Entrepreneurship?	02 Marks		
Q. 2	В	Who is Imitative entrepreneur?	02 Marks		
Q. 3	A	David McClelland gave a model of motivation which three types of needs, namely, achievement, power and you interpret what this model is trying to explain.			
Q. 3	В	Explain the economic factors influencing entrepreneurs OR	thip. 02 Marks		
Q.3	C	Describe the process of Entrepreneurship.	02 Marks		
Q. 4	A	How one can overcome the Barriers in starting up of bu	nsiness. 02 Marks		
Q. 4	В	Explain the skills of an entrepreneur.	02 Marks		
		OR			
Q.4	C	"A formal arrangement by two or more parties to man	age and operate 02 Marks		

a business and share its profits". How would you interpret this sentence.

- Q. 5 A "The owner of Samrat Co. is facing the problem of labour turnover due to which the efficiency of the production has directly affected". If you were the owner of this company, how would you have reacted in the same situation.
- Q. 5 B "A great barrier that arises while starting a new business is managing the finances that can make things difficult for the entrepreneurs". How would you solve this problem using decision making skill as an entrepreneur of the company.

OR

Q.5 C How would you apply the Human Relationship Skill to influence the 02 Marks behavior of the employees working in the organization.

Semester: I Class: F.Y.B. Com Duration: 2 Hours Paper Code and Title: Micro-Economics (CC 3) (1845) Max. Marks: 80 No of Pages: 02 Date: 06th November 2024 1) All Questions are Compulsory, However Internal choice is available. Instructions: 2) Answer sub- Questions in Question No.1 and 2 in not more than 100 words. 3) Answer Questions No.3 to Question No.6 in not more than 400 words. 4) Figures to the right indicate full marks for respective questions/Sub-Question. Q1. Answer any four following 16 Marks Any four Determinants of Demand. ii) What is Revenue? And its types Any two Properties of Indifference Curve. iv) What is Perfectly Elastic Demand? v) What is the Marginal Rate of Technical Substitution? vi) What is the Average Fixed Cost? Q2. Answer any four of the following 16 Marks i) Write a note on the Monopoly Market. What is Second Degree Price Discrimination? ii) iii) Any four Features of Perfect Competition. What is Monopolistic Competition? iv) v) Short note on the cartel. Explain any four Features of Oligopoly. Explain the Law of Supply with the help of a schedule and diagram. Q3. 12 Marks OR Explain the Price Consumption Culve with the help of a diagram.

12 Marks

Q4. A) Explain Producer Equilibrium with the help of a diagram. 12 Marks OR 12 Marks Explain Internal Economies of Scale. Q5. A) Elaborate with the help of the diagram Short Run Equilibrium in the 12 Marks Perfect Competitive Market. B) Explain with the help of the diagram Long Run Equilibrium in a 12 Marks Monopoly Market. A) Explain the long Run Equilibrium in a Monopolistic Competition Q6 12 Marks Market. OR B) Explain the Kinked Demand Curve with the help of a diagram. 12 Marks

Semeste	er. I		
Class: F	Y.B. Com	Duration: 1 hour	
Paper C	Code and Title: VAC 100 -Environment Studies	Max. Marks: 40	
No. of I	Pages: 02		
Date:	68/11/2024		
Instruc	tions:		
1)	All Questions are Compulsory, However Internal	choice is available.	
2)	Figure to the right indicates full marks for respect		
Q.1.	Answer the following questions		(8)
	a) What is an ecosystem?		
	b) What are non-renewable resources?		
	c) Explain importance of Forest and its resources.		
	d) Define deforestation.		
		614	
Q.2.A.	i) What are the major environmental and social pro- dams?	blems caused by large	(3)
	OR		
A.	 i) Compare renewable and non-renewable energy s sustainability and environmental impact. 	ources in terms of	(3)
B.	i) Explain the energy flow in an ecosystem with an chain.	example of a food	(3)
C.	i) Describe the structure and function of a grassland different from a forest ecosystem?	decosystem. How is it	(2)
Q.3.A.	i) What are the major threats to biodiversity in Goa	?	(3)
	OR		
		and the state of t	(2)
	i) Explain the structure and functioning of a desert organisms adapt to the harsh conditions?		(3)
, В.	i) Define species diversity. How does it contribute to ecosystem?	o the stability of an	(3)
C.	i) Explain in-situ conservation of biodiversity. How wildlife sanctuaries contribute to this effort?	do national parks and	(2)

Q.4.A.	i) How does modern agriculture contribute to environmental degradation? Include the role of chemical fertilizers and pesticides. OR	(3)
A.	i) What are the benefits and limitations of using alternate energy sources? Provide examples.	(3)
В.	Name and briefly describe three types of aquatic ecosystems and their roles in the environment.	(3)
C.	 Explain how overgrazing leads to land degradation and its long-term effects on ecosystems. 	(2)
Q.5.A.	i) What are the major causes of habitat loss, and how does it affect wildlife?	(3)
	OR	
A.	i) How would you help a city reduce its use of groundwater to avoid shortages?	(3)
B.	i)How would you promote the use of organic farming in place of chemical pesticides?	(3)
C.	i) How would you reduce your daily use of water at home to save natural resources?	(2)

Swami Vivekanand Vidyaprasarak Mandal's College of Commerce Bori Ponda Goa

Repeat Semester End Examination, October 2024

Semeste	er: I				
Class: F	EY.B. Com Duration: 1	hr.			
		Max. Marks: 40			
		3 Oct 2024			
Instruc	tions:				
1)	All Questions are Compulsory, However Internal choice is available.				
2)	Figure to the right indicates full marks for respective question.				
Q.1.	Answer Any Five of the following	(10)			
	a) Define an Ecosystem.				
	b) Explain term 'Biodiversity Hotspot				
	c) What are the main threats to an ecosystem?				
ĸ	d) What is Biodiversity?				
	e) List four names of Threatened animals of India.				
	f) Need for Public Awareness.				
	g) Why is solar energy important?				
Q.2.A.	Explain the effects of mining activities on the environment.	(5)			
	OR				
A.	Write short note on Goa's Biodiversity	(5)			
B.	Write detailed note on In Situ and Ex situ Conservation.	(5)			
Q.3.A.	Briefly Explain Desert Ecosystem.	(5)			
	OR				
A.	Describe the structure and function of a grassland ecosystem	(5)			
В.	Explain structure and function of ecosystem.	(5)			
Q.4.A.	Briefly explain the importance of water resource.	(5)			
	OR				
· A.	Explain effect of deforestation.	(5)			
B.	Explain the energy flow in an ecosystem with an example of a food chain	(5)			

Semester: 1

Class: F.Y.B. Com

Duration: 01 Hour

Paper Code and Title: Indian Economic Thought

Max. Marks: 40

No. of Pages: 02

Date: 11th November 2024

1) All Questions are Compulsory; However Internal choice is available from Q2. to

Instructions: Q.5.

2) Figure to the right indicate full marks for respective questions/ Sub-Question.

Q1. Answer the following

4×2=08Marks

- i) What is Kautilya's definition of trade?
- ii) Who was Kautilya?
- iii) What is Dadabhai Naoroji Drain Theory?
- iv) What were Gopal Krishna Gokhale's views on public expenditure?

Q2. Answer the following

A) How did Dadabhai Naoroji's drain theory impact Indian nationalist 03 Marks thought and the independence movement?

OR

- A) What was Dr. Ambedkar's argument for supporting the Gold 03 Marks Standard?
- B) Illustrate Kautilya's views on public finance. 03 Marks
- C) What was the Swadeshi Concept of Gandhi 02 Marks

Q3. Answer the following

A) What measures did Romesh Chandra Dutt propose to remove 03 Marks poverty in India?

OR

A) How did Ranade justify the need for government intervention in the 03 Marks

	economy instead of following a laissez-faire approach?	
	B) What were Kautilya's views on the Economic functions of the state?	03 Marks
	C) What were Gandhi's views on the use of machinery?	02 Marks
Q4.	Answer the following	
	A) What were Dr. B.R. Ambedkar's views on currency, and how did he	03 Marks
	criticize the British monetary policy?	
	OR	
	A) What reforms were suggested by Gopal Krishna Gokhale?	03 Marks
	B) What are the key features of Indian economic ideas?	03 Marks
	C) What were Mahadev Govind Ranade's views on protectionism?	02 Marks
Q5.	Answer the following	
-	A) How would you apply Visveswaraya's vision of the government's role in promoting industrial development to India's current economic situation?	03 Marks
	OR	
- 60	A) How could Dadabhai Naoroji's suggested reforms in British public finance policy be applied to improve India's economic conditions during colonial rule?	03 Marks
	B) How could Kautilya's views on pricing and price control be applied in today's economy to manage inflation and ensure fair pricing	03 Marks
4	C) A country is facing high inflation and instability in its currency value. Economists are debating whether to adopt a gold standard to stabilize the economy. What is a gold standard, and how could implementing it potentially benefit the country in this situation?	02 Marks

Duration: 2 Hours

Semester: III Class S.Y.B. Com

Paper Code and Title: SEC 1 New Venture Planning (CBCS) Max. Marks: 80 No. of Pages: 01 Date: 11/11/2024 Instructions: 1) All Questions are Compulsory. However Internal choice is available. Answer sub- Questions in Question No.1 and 2 in not more than 100 words. 3) Answer Questions No.3 to Question No.6 in not more than 400 words. 4) Figure to the right indicates full marks for respective questions/ Sub- Question. Q1. Write short notes on the following (any four) (4x4=16)a) Merits of joint stock Company Advantages of Buying a business b) Requirements for filling Copyright c) d) Types of IPR Techniques for generating New Ideas e) Meaning of Venture Capital f) Q2. Write short notes on the following (any four) (4x4=16)Customer, sales, and competition analysis b) Concept of business plan Market research c) Advantages of acquiring new venture d) c) Angel investor Meaning of Intellectual property rights 1) Explain various sources of generating new ideas. O3. a) 12 What is Creative Thinking? Explain the role and impediments to b) 12 creative thinking. Discuss the procedure to File a copyright. Q4. a) 12 OR What is partnership? Explain Its merits and demerits. b) 12 Elaborate the role and functions of Business Incubators Q5. a) 12 What is Venture Capital? Explain the Criteria's used by Venture b) 12 Capitalist to Evaluate a new Venture. Explain the elements of a business plan. Q6. 12 a) 6) Explain how market analysis is an important factor in Business plan.

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Semester End Examination, November 2024

Semester :1 Class: F.Y.B.Com	D	
Paper Code and Title: Communicative English:	Spoken and Written(ENG-151)	uration:1 hou Max. Marks:4
No of Pages: 01		AMERICAN PROPERTY AND A PARTY OF
DATE: 13)11 24		
Instructions: 1. Figures to the right indicate makin 2. Start each question on a fresh page.	num marks.	
3. All the questions are compulsory.		
Q.1.) Answer the following questions:		4x2=8
a)What are Motivational speeches?	*	
b)Define the term Email.	D2	
c)How to collect data for a report?		
d) What are Goodwill letters?	*	
Q.2.A) Elaborate on the guidelines to write a	good Complaint letter.	8
OR	*	
Q.2.B)Explain the format of a report.	*	8
Q.3.A) Explain the format of an Email.		4
Q.3.B) Elaborate on Informative Speech.	¥2	4
Q.4.A)You are Sumit/Suman Govekar residing	at Birla Apartment Vasco, Goa Draft a Cov	ver
letter for the post of a Maths teacher at	: Gurukul High School ,Vasco,Goa. •	8
OR		
Q.4.B)You are Jack /Jasmine Vaz residing at Ca	langute,Goa. Draft a letter of condolence	
to your team mate regarding his/her fat	her's death.	8
Q.5.A)You are Shahrukh/Shahin Khan residing	at Star Apartment, Bicholim, Goa. Write a	a report on 8
Cleanliness drive organised at your col	lege .	
OR	N	
Q.5.B)You are Ramesh/Rohini Seth a General S	ecretary of your college. Draft a speech o	n the 8
occasion of Republic day.		

Semester: I

Class: F.Y.B.Com

Paper Code and Title: Commercial Arithmetic I (CC4)

Max. Marks: 80

Duration: 2 Hours

No. of Pages: 05

Date: 04/11/2024

1) All questions are compulsory.

Instructions:

- 2) Figures to the right indicate full marks.
- 3) Use of simple (non-scientific) calculator is allowed.
- 4) Graph papers and log tables will be supplied on request.

Q1. Answer the following:

5X4=20 Marks

 Construct the truth table for the following statement and classify as Tautology, Contradiction or Contingency.

$$p \land (p \rightarrow q) \rightarrow q$$

- Find the Simple Interest and amount on Rs.580 at the rate of 80% p.a. for 220 days.
- c) Find the value of 'n' if, $({}^{2n}P_3) = 36({}^{n}P_2)$
- d) Find the sum of all the numbers between 200 and 400, which are exactly divisible by 3.
- e) Solve the equations by using Cramer's Rule:

$$4x - 3y = 17 & 5x + y = 7$$

OR

Q2. Answer the following:

5X4=20 Marks

- a) Construct truth table for $(p \land q) \rightarrow (p \lor \sim q)$.
- Find the Simple Interest and amount on Principal Rs.8,400 at the rate of 8% p.a. for 3 years.
- c) i) In how many different ways one can arrange the letters of the word " MOUSE "?
 - ii) How many seating arrangements can be made for 7 students in 3 chairs?

- d) For the Arithmetic Progression (A.P) 1, 3, 5, 7, find T_n and S_n. Also calculate T₈ and S₈.
- e) Find the value of 'x' if. $\begin{vmatrix} 1 & 3 & 7 \\ 7 & 5 & 9 \\ x & 2 & 1 \end{vmatrix} = 32$

Q3. Answer the following:

5X4=20 Marks

- a) If A = {3x | x∈ N}, B = {3x + 1 | x∈ N } are the subsets of universal set X = N, find i) A∪B, A∩B, A^c, B^c
 ii) Verify (A∪B)^c = A^c ∩ B^c.
- Find the principal, if the compound Interest payable annually at 9% p.a. for 2 years is Rs.560.
- A club consists of 10 members of which 5 are engineers.
 A selection of 5 persons is to be done amongst these members.
 Find how many selections will have atleast 4 engineers.
- d) If $T_3 = 50$ and $T_6 = 6250$ are in Geometric Progression (G.P) then find the first term 'a' and common ratio 'r'.
- e) If $A = \begin{bmatrix} 3 & 2 \\ 4 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 2 \\ 1 & 0 \end{bmatrix}$ find matrix 'X' such that 3A B + 5X = 0.

OR

Q4. Answer the following:

5X4=20 Marks

- a) If $X = \{a, b, c, d, e, f, g, h, i, j\}$ is the universal set and $A = \{a, b, c, d, e\}$, $B = \{e, f, g\}$ and $C = \{e, h, i, j\}$ then verify that $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
- b) Calculate the Compound Interest and amount on Rs.1,000 at 4%
 p.a. compounded for 3 years.
- c) From 5 professors and 4 students a committee of 6 is to be formed. In how many ways, this can be done, if the committee contains atleast 3 professors.

- d) For the Geometric Progression 3, 6, 12, 24, Find T_n and S_n. Also find T₇ and S₇.
- e) If $A = \begin{bmatrix} 3 & -5 \\ 2 & 0 \end{bmatrix}$, $B = \begin{bmatrix} 1 & -2 \\ 3 & 4 \end{bmatrix}$, find AB and BA. Check if both are equal or not.

Q5. Answer the following:

5X4=20 Marks

- a) Prove that $p \leftrightarrow q \equiv (p \rightarrow q) \leftrightarrow (q \rightarrow p)$
- b) In a group of 65 people, 60 like either cricket or tennis, 40 like cricket, 10 like both cricket and tennis. How many like tennis? How many like tennis only and not cricket?
- Find the future value of Rs.5,00,000 after 3 years if compounded interest rate is 10% p.a.
- d) How many different numbers one can form using all the digits of the number i) 515252 ii) 3133447
- e) Ashok invests Rs.600 in the first month and increases his monthly investment by Rs.50 in every succeeding month.
 What will be his investment at the end of 4 years?

OR

Q6. Answer the following:

5X4=20 Marks

a) Check the validity of the following argument:

If it rains, there will be a traffic jam

It rained

Therefore, there was a traffic jam.

- b) In a recent survey of 600 students in a college, 150 were found to be drinking tea, 225 were drinking coffee and 100 were drinking both tea and coffee. Find out how many students were drinking neither tea nor coffee.
- c) Find the present value of Rs.30,550 to be paid 2 years from now with the rate of compounding at 8% p.a.

- d) A 3 digit number is to be formed using the digits from 1 to 9. How many such numbers can be formed if the repetition of digits is i) Allowed ii) Not Allowed
- e) Rama repays his interest free loan from a friend in 16 monthly instalments, such that each instalment is less than earlier by Rs.100. If the instalment is Rs.3000, find out his last instalment and calculate his loan amount.

Q7. Answer the following:

5X4=20 Marks

- a) The nth term of a Geometric Progression (G.P.) with a = 1 and r = 5 is 25. Find 'n' and calculate S_n . Also calculate S_3 .
- b) In how many years, the amount of money will be doubled the principal at the rate of 11% p.a.?
- c) There are 5 boys and 4 girls, out of whom a committee of 3 persons is to be formed. Find the number of ways in which this can be done, if i) there is no restriction on gender
 - ' ii) 2 boys and 1 girl is to be selected.
- d) Rakesh borrowed Rs.6,000 for his office at 5% p.a., to be compounded half yearly. Calculate the amount due to him at the end of 3 years. Also calculate compound interest.
- e) If A is a matrix given by $A = \begin{bmatrix} 1 & 1 & 3 \\ 2 & 2 & 1 \\ 3 & 0 & 1 \end{bmatrix}$
 - i) check if A is Singular or not
 - ii) find A'

OR

Q8. Answer the following

5X4=20 Marks

- a) If for an Arithmetic Progression T_8 = 19 and T_{16} = 35, find its nth term. Also find T_{21} .
- b) A person has taken a loan of Rs.50,000 to be returned in 6 monthly instalments at the rate of 12% p.a. compounded monthly. Find the EMI using the reducing balance method.

- c) 6 boys and 4 girls are made to sit in a row for a group photograph. How many different arrangements can be done so that, no two boys are together.
- d) Find the sum borrowed by Neeta from a bank on compound interest of 8% p.a. to be calculated annually, if she had to pay back Rs.30,460 after 3 years.

e) If
$$A = \begin{bmatrix} 2 & 5 \\ 1 & 3 \end{bmatrix}$$
, $B = \begin{bmatrix} 1 & 3 \\ 6 & 1 \end{bmatrix}$, $C = \begin{bmatrix} 4 & 7 \\ 5 & 2 \end{bmatrix}$.
Find $3A + 5B - 2C$.