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PAPER'S

(d) MBO;

Paper - 9 : Management Accounting Performance Management

Chapter 1 : Principles and Pattern of Management

2009 - June [8] Write short note on the following:

(4 marks)

Chapter 2 : Performance Measurement Systems

2009 - June [7] (b) The sales manager of XYZ Ltd. is judged by the total sales. Exceeding the sales budget is considered good performance. The sales budget and the cost data for the current year are shown below :

Particulars		Products		Rs. in '000
	Silk	Cotton	Wool	Total
Sales Budget	450	900	1,650	3,000
Variable Cost	225	405	495	1,125
Contribution	225	495	1,155	1,875
Actual Sales	1,500	1,200	600	3,300

Actual prices were equal to budgeted price and variable cost incurred were as budgeted per unit.

- (i) Did the sales manager perform well?
- (ii) Suggest better performance measurement criterion to be used by the company. (8 marks)
- 2009 June [8] Write short note on the following:
- (e) Customer Profitability Analysis;

(f) Non-financial Measures of Profitability. (4 marks each) Chapter 3 : Marginal Costing

2009 - June [3] (b) Great Eastern Enterprises which makes only one product, sells 1,00,000 units of its product making a loss of Rs. 1,00,000. The variable

cost per unit of the product is Rs. 8 and the fixed cost is Rs. 3,00,000. The company has estimated its sale demand as follows :

Sales Unit	Probability
1,00,000	0.10
1,20,000	0.15
1,40,000	0.20
1,60,000	0.30
1,80,000	0.25

Required:

(i) What is the probability that the company will continue to make losses? (3 marks)

(ii)	What is the probability	that the company w	ill make a profit	of at least
	Rs. 60,000?			(3 marks)

2009 - June [6] (b) A hospital record shows the cost of carrying out health checks in the last five accounting periods have been as follows:

Period	No. of patients seen	Total cost (Rs.)
1	650	17,125
2	940	17,800
3	1,260	18,650
4	990	17,980
5	1,150	18,360

Using the high-low method, estimate the cost of carrying out health checks on 850 patients in period 6. (6 marks)

Chapter 4 : CVP Analysis

2009 - June [3] (a) MNQ Ltd. has two plants operating at 100% and 75% of their capacities respectively, The company is considering a proposal to merge the two plants to optimise the available capacity. The following details regarding their present performance/operations as follows :

	Plant I	Plant II
Sales (Rs. in '000)	2,000	750
Variable Cost (Rs. in'000)	1,400	540
Fixed Cost (Rs. in '000)	300	140
V d d		

You are required to work out

(i) The capacity at which the merged plant will break-even.

- (ii) The profit of merged plant working at 80% and 90% capacity.
- (iii) Sales required if the merged plant is required to earn an overall profit of Rs. 22 thousands. (10 marks)

Chapter 5 : Linear Programming

2009 - June [4] (a) State the practical application of Linear Programming.

(6 marks)

(b) A manufacturer produces three models, VX-I, VX-II, VX-III, of a certain product. They uses two types of raw materials, A and B of which 4,000 and 6,000 units respectively are available. The raw material requirements per unit of the three models are given below :

SCANNER ICWA (Old Course) Stage - I	I
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Raw materials	Requirement per unit of given model		
	VX-I	VX-II	VX-III
А	2	3	5
В	4	2	7

The labour time for each unit of model VX-I is twice that of model VX-II and three times that of model VX-III. The entire labour force of the factory can produce the equivalent of 2,500 units of model. VX-I. The market survey indicates that the minimum demand of the three models are 500, 500 and 375 units respectively. However, the ratios of the number of units produced must be equal to 3 : 2 : 5. Assume that the profit per unit of models VX-I, VX-II and VX-III are Rs. 60,000, Rs. 40,000 and Rs. 1,00,000 respectively. Formulate the problem as a linear programming model in order to determine the number of units of each product which will maximize profit (solution not required).

Chapter 8 : Simulation

(10 marks)

2009 - June [8] Write short note on the following:

(a) Simulation;

(4 marks)

Chapter 9 : Budgetary Control

2009 - June [2] (a) An Airline Company's budget and actuals for the quarter January to March, 2009 are as under:

•	Rs. in '000	
	Budget	Actuals
Income	2,000	2,090
Variable Cost	1,200	1,452
Contribution	800	638
Fixed Cost	700	680
Operating Profit/(Loss)	100	(42)

The following further details are available:

- (i) There was a 9% decrease in air-fare resulting in a 5% decrease in the income for the quarter.
- (ii) Variable cost like fuel, wage, catering etc, are increased by 10% over the budget.

Prepare an analysis reconciling the budget and actual profits for the quarter. (10 marks)

	(IO marks)
(b) State behavioural aspects of Budgeting.	(6 marks)
2009 - June [8] Write short note on the following:	
(b) Investment Centre;	(4 marks)

(b) Investment Centre; Chapter 10 : Transfer Pricing

2009 - June [7] (a) Your company fixes the inter-divisional transfer price for its products on the basis of cost, plus a return on investment in the division. The Budget for Division A for 2009-10 appears as under :

Investment in Division A	Rs.
Fixed Assets	5,00,000
Current Assets	3,00,000

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Debtors	2,00,000	
Annual fixed cost of the division	8,00,000	
Variable cost per unit of product	10	
Budgeted volume	4,00,000	units per year
Desired ROI	28	
Determine the transfer price for Division A.		(8 marks)
Chapter 11 : Standard Costing		

2009 - June [5] (b) For the month of April 2009, the following information is provided about overheads expenses in an organization:

Actual variable overheads Rs. 6,00,000; Budgeted variable overheads Rs.8,00,000; Budgeted output 1,500 units; Actual output 1,300 units; Actual hrs. worked 1,800 hrs; Standard time 3 hrs./unit.

Calculate variances relating to overheads. (8 marks)

Chapter 12 : Resource Allocation

2009 - June [5] (a) Readymade Ltd. had identified the following overhead activities, cost and activity drivers for the coming years :

Activity	Expected cost (Rs.)	Driver	Capacity
Set up	60,000	No. of set ups	300
Ordering	45,000	No. of orders	4,500
Machine costs	90,000	Machine hours	18,000
Receiving	25,000	No. of parts	50,000
Assume that each	activity corresponds to a	process. The followi	ng two jobs

were completed during the year :

1 0 5		
	Job X	Job Y
Direct materials	(Rs.) 750	850
Direct labour (50 hours/job)	(Rs.) 600	600
Units completed	(Nos.) 100	50
No. set ups	1	1
No. of orders	4	2
Machine hours	20 hrs.	30 hrs.
Parts used	20	40

Normal activity is 4,000 Direct Labour Hours.

Your are required to:

Determine the unit cost for each job using ABC. Is it better method than traditional overheads allocation? Why? (6 + 2 = 8 marks)**2009 - June [6]** (a) The following table contains processing costs for two jobs on various machines. Each job must be processed on one machine. Determine the optimal set of pairings that will minimize total processing costs.

		1	2	3	4	
	А	14	20	11	19	
	В	12	10	15	9	
Machine	С	16	19	18	15	
	D	17	13	15	14	(10 marks)

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2009 - June [8] Write short note on the following: (c) ABC and Service Organisation; (4 marks) **Chapter 13 : Objective Questions** 2009 - June [1] $\{C\}$ (a) Fill in the blanks from the most appropriate options given: MRP is a production planning system that starts with (i) (a) TQM (b) master production schedule (c) budgeting. (ii) The adoption of JIT normally requires to improve _____. (a) inventory (b) production time (c) quality standards (iii) When MRP is extended most important resources is known as (a) inventory control (b) ERP (c) MRP-II (iv) Appraisal Costs are connected with _____ requirements. (a) measuring conformity (b) manpower planning (c) resource matching (v) External failure costs are discovered ______ to customers. (a) before the delivery (b) after the delivery (c) at the time of delivery $(1 \times 5 = 5 \text{ marks})$ 2009 - June [1] {C} (b) From the following choose the most appropriate answer : (i) Period cost means (a) Variable cost (b) Fixed cost (c) Prime cost (ii) If the fixed cost is Rs. 10,000 and profit-volume (PV) ratio is 50% the break-even will be (a) Rs. 20,000 (b) Rs. 50,000 (c) Rs. 10,000 (iii) Increase in capacity reduces the margin of safety if (a) Total cost remains unchanged (b) Fixed costs at new capacity are increased (c) Fixed cost increased and sales grow (iv) An increase in sales price (a) Lowers the BEP (b) Increases the BEP (c) Lowers the new profit

- (v) An increase in variable cost
 - (a) Reduces contribution
 - (b) Increases PV ratio
 - (c) Increases margin of safety $(1 \times 5 = 5 \text{ marks})$

2009 - June [1] {C} (c) Which of the following statements are True of False:(i) A budget manual is the summary of all budgets.

- (i) JIT Philosophy is dedicated to the elimination of waste.
- (iii) Labour efficiency variance is the difference between standard hours for actual output and actual hours.
- (iv) Recovered overheads and absorbed overheads mean one and the same thing.
- (v) ERP bridges the information gap across the organization.

 $(1 \times 5 = 5 \text{ marks})$

 $(1 \times 5 = 5 \text{ marks})$

2009 - June [1] $\{C\}$ (d) Define the following terms in not more than two sentences:

- (i) Perfection Standards;
- (ii) Capacity Cost;
- (iii) Cross Sectional Comparison;
- (iv) Financial Planning Model;
- (v) Economic Value Added (EVA).

Paper - 10 : Advanced Financial Accounting

Chapter 1 : Accounting Principles Concepts & Conventions

2009 - June [1] $\{C\}$ (a) Following are the applications of some accounting principles or assumptions. State the name of the relevant accounting assumption or principle herein:

- (i) Appending notes to the financial statements.
- (ii) Accounting of a small calculator as an expense and not as an asset. (2 marks)

Chapter 2 : National & International Accounting Standards

2009 - June [1] {C} (d) What is meant by qualifying asset in the context of accounting treatment of borrowing cost as per AS-16? (2 marks) (e) What do you mean by "Fellow subsidiary" in the context of related party disclosures as per AS-18? (2 marks)

(i) Mention three names of Intangible Assets other than goodwill, patents and copy right. (2 marks)

Chapter 4 : Valuation of Shares

2009 - June [4] The capital structure of Maidas Ltd. as on 31 st March, 2008 was as follows:

	(RS. IN Takns)
Equity Share Capital of Rs. 100 each per share	10
10% Preference Capital in shares of Rs. 100 each	6

12.5% Secured Debentures of Rs. 100 each Reserves 8 6

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- Annual average profit is Rs. 8 lakhs before interest and tax at the rate of 50%. Normal return on equity shares of similarly placed companies is 18% provided:
 - (i) After tax profits cover fixed interest and fixed dividends at least 3 times.
 - (ii) Equity capital and reserves are 120% of debentures and preference share capital.
 - (iii) Yield on shares is calculated at 60% of distributed profits and 10% on undistributed profits.

The Company used to pay dividend at 20% to equity shareholders.

Ascertain the value of equity shares of Maidas Ltd. by clearly showing:

- (a) Profit before interest and tax;
- (b) Fixed interest and dividend coverage;
- (c) Percentage of equity shareholders funds to fixed interest and dividend bearing capital;
- (d) Yield on equity shares;
- (e) Expected yield of equity shares, assuming a margin of 0.5% each for (b) and (c) above if necessary
- (f) Value per equity share. (4 + 2 + 2 + 3 + 4 + 1 = 16 marks)
- 2009 June [8] Write short notes of the following:
- (b) Intrinsic value of shares. (4 marks)

Chapter 5 : Amalgamation

- 2009 June [8] Write short notes of the following:
- (f) Amalgamation in the nature of merger. (4 marks)

Chapter 15 : Preparation of Accounts from Incomplete Records

2009 - June [6] At the time of internal audit of D & Co. Ltd. it was noticed that net balance of Rs. 1,80,000 extracted from the Sales ledger on 31st March, 2009 did not agree with the net balance in Sales Ledger Adjustment A/c. On checking the following errors were discovered and after the adjustment of which the books balanced and the corrected net total of Sales Ledger balances agreed with the amended balance in the Sales Ledger Adjustment A/c.—

- (i) A debit balance of Rs. 8,660 and credit balances amounting to Rs. 1,440 had been omitted from the list of balances.
- (ii) The Sales Return Book had been undercast by Rs. 10,100.
- (iii) The list of balances had been overcast by Rs. 1,100.
- (iv) A balance owing by P for Rs. 1,880 had been written off as bad on 31.3.09 and debited to Bad Debts, but no entry had been made in the Control Ledger.
- (v) A debit balance of Rs. 1,440 in the Sales Ledger had been listed as credit balance.
- (vi) No entries had been made in the Adjustment A/cs in respect of transfer of Rs. 4,100 standing to credit of D's A/c in the Purchase Ledger to his account in the Sales Ledger.

- (vii) V's account had been credited with Rs. 3,440 for goods returned by him but no other entry had been made in the books.
- (viii)No entry was made in the Control Ledger regarding
(a)Rs.440(b)Discount allowedRs.330Rs.330Rs.330Rs.330
 - (c) Discount received Rs. 220
- (ix) A discount of Rs. 550 allowed to V had been correctly recorded and posted in the books. This was subsequently disallowed and a corresponding amount entered in the Discount Received Column in the Cash Book and posted to V's A/c in the Purchase Ledger and included in the total of discount received.

You are required to prepare —

- (i) A statement reconciling the original net balances extracted from the Sales Ledger with the adjusted final balance in the Sales Ledger Control A/c.;
- (ii) The Sales Ledger Adjustment A/c, showing the necessary adjustment and the balance in the account before and after this adjustments.

(6 + 10 = 16 marks)

2009 - June [7] Sri Sandipan a trader keeps the following records for his transactions:

- (i) A Purchase Book in which he enters all his purchases invoices and cancels them as and when payment is made.
- (ii) A Sales Book in which he enters all his sales bills and marks them off as and when each is received.
- (iii) All the collections were deposited into the Bank and payments were made through cheques only except for petty payments which he met from his personal drawings.
- (iv) At the end of each year, he prepares a Profit and Loss A/c on cash basis.
- (v) As Sri Sandipan like to admit Sri Rana Pratap as a partner of his business, he requests you to prepare his Trading and Profit & Loss A/c for the year ended 31st December,2008 and the Balance Sheet on that date.

You are furnished the following information for the said purpose: The Bank Pass Book shows the following payments:

(a)	Paid for purchases including Rs. 2,660 in respect of the pre	evious
	period for which a sum of Rs.377 is still outstanding	Rs. 25,880
(b)	Salaries and wages	Rs. 6,822
(c)	Rent, Rates, Stationery & Insurance	Rs. 5,166
(d)	Additions to Furniture	Rs. 1,220
(e)	Advertising including Rs. 250 for the quarter ending 31st	
	March, 2009	Rs. 1,440
(f)	Repairs to premises	Rs. 644

(g) Personal drawings of Sri Sandipan, out of which he has paid

Rs. 577 for coolie and cartage, postage, entertainment and

miscellaneous expenses in connection with business. Rs. 4,400 Sri Sandipan had stock of Rs. 10,660 on hand at the beginning of the year. This included some old defective items, which he disposed off for Rs. 755 but he had forgotten to deposit the sale proceeds in his Bank account. The stock at the end amounted to Rs. 8,220.

Cash received for sales amounted toRs.47,880 of which Rs. 7,110 were collections in respect of the previous year. Outstanding debtors at the end of the year were Rs. 9,655. His Purchase Book for the year discloses that invoices of the total value of Rs. 2,177 have not been cancelled. He had a Bank balance of Rs. 1,255 as on 31st December, 2008. The list of Furniture & Fittings at the end of the period was Rs. 6,255.Expenses outstanding amount Rs. 644. No other information is available with the trader. Sri Sandipan. (16 marks) **Chapter 18 : Accounting for Bank**

······································	
2009 - June [1] {C} (j) What is Statutory Reserve u/s. 17	of Banking
Companies Act?	(2 marks)
2009 - June [8] Write short notes on the following:	
(a) Non-banking assets.	(4 marks)
Chapter 19 : Accounting for Insurance Companies	
2009 - June [8] Write short notes on the following:	
(c) Co-insurance in case of Insurance business.	(4 marks)
Chapter 20 : Insurance Claims	
2009 - June [3] On 20th June, 2009, the godown and business	premises of a
merchant were affected by fire and from accounting records	salvaged, the
following information is made available to you:	
	Rs
Stock of Goods at cost on 1st April, 2008	1,00,000
Stock of Goods at 10% below than cost as on 31 st March,	

Stock of Goods at 1070 below than cost as on 51 st Maten,	
2009	1,08,000
Purchases of Goods for the year from Ist April,	
2008 to 31.03.2009	4,20,000
Sales for the same period	6,00,000
Purchases less returns for the period	
from Ist April, 2009 to 20th June, 2009	1,40,000
Sales less Returns for the same period	3,10,000

Sales up to 20th June, 2009 included Rs. 40,000 for which goods had not been dispatched. Purchases up to 20th May, 2008 did not include Rs. 20,000 for which purchase invoices had not been received from supplies, though goods have been received at the godown.

Goods salvaged from the accident were worth Rs. 12,000 and these were handed over to the insured.

Ascertain the value of the claim for loss of goods/stocks which could be preferred on the insurer. (16 marks)

Chapter 21 : Electricity Company Accounts

2009 - June [1] {C} (b) How tariffs and dividend control Reserve can be utilised by an Electricity undertaking? (2 marks)
2009 - June [5] The following informations are culled out from the book of Scarce Electricity Ltd.:

Searce Electricity Etc	
	(Rs. in lakhs)
Sale of energy	15.0
Meter rents	1.0
Cost of generation	9.0
Selling and distribution expenses	2.0
Rent, rates and taxes	0.5
Management expenses (including Audit fee of 0.2)	0.5
Depreciation	0.5
Interest on loan from State Electricity Board	0.2
Contingency reserve income	0.3
Interest on security deposit	0.1
Interest from Bank	0.1
Contribution to Provident Funds	0.2
Original cost of fixed assets	40.0
Contribution from consumers for purchase of fixed assets	2.0
Cost of intangibles	0.5
Intangibles write off	0.1
Stores—opening	0.2
Stores—closing	0.3
Cash and Bank	
Balances—opening	0.3
-do—closing	0.2
Contingency reserve investments	5.0
Further details are as under:	
	(Rs. in lakhs)
Depreciation accumulation at the beginning of the year	5.0
Intangibles written off up to the beginning of the year	0.5
Security deposit of customers held in cash.	0.5
Tariffs and dividend control reserve- opening balance	1.0
Development reserve- opening balance	0.8
Amount carried forward for distribution to consumers	0.7
Loan from Electricity Board	3.0
Transfer to contingency reserve	0.4
R.B.I. Int. rate 6%	
From the given details calculate :	
(i) Clean mofit	

- (i) Clear profit
- (ii) Capital base
- (iii) Reasonable return

(iv) Amount available for dividend

(v) Contribution to tariffs and dividend control reserve

(5 + 4 + 4 + 2 + 1 = 16 marks)

Chapter 22 : Government Accounting in India

2009 - June [8] Write short notes on the following:

(d) Public Accounts Committee.(4 marks)(e) Purpose of Government and Commercial Accounts.(4 marks)Chapter 24 : Miscellaneous(4 marks)

2009 - June [1] {**C**} (c) (i) Name the two reports that must be attached to final accounts.

(ii) For the preparation of Balance Sheet which two alternative forms are prescribed under Part I of Schedule VI of the Companies Act, 1956.
 (2 marks)

2009 - June [2] R K and C have carried on business as drapers for 20 years and on 31st, March, 2008 their Balance Sheet was as under:

Liabilities		Assets	
	Rs.		Rs.
Bank overdraft	20,000	Plant and Machinery	32,000
Creditors for Suppliers	30,000	Premises	50,000
Creditors for expenses	18,000	Sundry Debtors	48,000
Capital accounts (fixed)		Stock in Trade	40,000
R-30,000		Cash and Bank Balances	8,000
K-20,000			
<u>C-20,000</u>	70,000		
Current accounts			
R-16,000			
<u>C-24,000</u>	40,000		
	1.78.000		1.78.000

The Profit and Losses were shared in the ratio of fixed capital on 31st March, 2008. The partners agreed that due to old age R would retire from the firm when its goodwill will be valued and proportionate share credited to R. It was also to R in satisfaction of his dues. Any excess or deficit would be settled in cash. It was also agreed that Stock in Trade and debtors would be taken at 90% of the book value and an unrecorded liability of bonus of Rs. 10,000 to staff brought into books. Goodwill of the firm was to be taken at Rs. 70,000.

After R's retirement, the business was carried on by K and C sharing profits and losses equally and till 30th June, 2008, the firm had made a net profit of Rs.30,000 after crediting each partner's Capital Account with Rs.500 p.m. as salary. No drawings were made by the partners in the quarter.

K and C now find that they cannot continue the business and decide to sell it to a private limited company as and from Ist July, 2008. The company is to take over the entire business for a consideration of Rs. 90,000 which the vendors agree to take 40% in 14% secured debentures and the balance in cash. To enable the company to pay the vendors and also leave it with a working

capital of Rs. 20,000, the Company makes issue of equity shares of Rs. 10/each at par.

Show the Balance Sheet of the Company after the take over of the business of K and C.

All workings should form part of your answer.(16 marks)Chapter 25 : Objective Questions

2009 - June [1] {C} (f) Fill up the blanks:

(i) Conversion of debt into equity shares is a ______ transaction.

(ii) Hull insurance may be for a period or for a _____. (2 marks)

(g) State with reasons whether the following propositions are true or false:

- (i) Short-workings arise when minimum rent is less than actual royalty.
- (ii) Revenue recognition of Royalties receivable from foreign countries is made on receipt basis. (2 marks)

(h) Fill up the blanks:

Government under AS-12 refers to _____ and similar bodies ____

(2 marks)

Paper - 11 : Auditing

Chapter 1 : Auditing Techniques and Practices

2009 - June [5] (a) Do you agree with the view that there are inherent limitations of audit ? (5 marks)

2009 - June [7] (a) What are the main sources of GAPP in India? (2 marks) Chapter 2 : Verification of Assets and Liabilities

2009 - June [3] How will you vouch/verify the following?

- (a) Company's liability towards gratuity;
- (b) Balance lying with the Central Excise Department;
- (c) Receipt of special subsidy for setting up industry in notified backward area;
- (d) Expenditure incurred for promotion of an existing product,

 $(4 \times 4 = 16 \text{ marks})$

2009 - June [7] (c) Briefly enumerate the general principles of verification of assets. (5 marks)

Chapter 4 : Statutory Auditors

2009 - June [2] (a) As statutory auditor of the company how will you deal with the following?

- (a) In the current year, LMN Ltd. has not provided for depreciation on fixed assets, as it has incurred losses the company argues that it would provide for the arrears of depreciation in future when it makes profit, and that the same is in accordance with the provisions of the Companies Act, 1956.
- (b) Current liabilities of LMN Ltd. include Rs. 1.8 lacs payable in respect of a notice of demand received on 14.08.2008 from the Income Tax Department. Upon a reminder from the company's tax auditor that this

tax liability is one which is payable, the company has paid the same on 02.05.2009 prior to the finalisation of Accounts.

- (c) A sum of Rs. 35,000 per month has been paid as remuneration to a director, who is not in the whole time employment of the company.
- (d) LMN Ltd. with its registered office at Kolkata, has a branch at Chennai. All books of account of the branch are maintained at the branch and quarterly financial statements are furnished to the head office. Your partner apprehends violation of section 209 of the Companies Act, 1956 which requires the head office to maintain books and records.

 $(4 \times 4 = 16 \text{ marks})$

Chapter 5 : Audit Report

2009 - June [4] As an auditor of a Limited company, how will you react to the following situations?

- (a) Company produced photocopies of fixed deposit receipts, as original receipts were kept in the personal locker of a Nationalised Bank, in the name of Director of Finance who is away on long foreign tour on company work.
- (b) Management makes a request to you not to comment on the realisability of certain debts as they have been covered in director's report.
- (c) Fixed Assets have been revalued and the resulting surplus has been adjusted against brought forward losses.
- (d) Structural alterations costing Rs.50 lakhs have been charged to building repairs account. $(4 \times 4 = 16 \text{ marks})$

Chapter 6 : Divisible Profits

2009 - June [1] {C} (b) Should all fictitious assets be written off before declaration of dividend? (6 marks)

Chapter 7 : Auditor and Internal Auditor

2009 - June [6] Write short notes on the following:

(f) Interface between internal auditor and statutory auditor. (4 marks) Chapter 8 : Internal Auditing

2009 - June [6] Write short notes on the following:

(b) Operational audit as an extension of internal audit; (4 marks) Chapter 10 : Organisation of Internal Auditing

2009 - June [8] (a) What are the advantages of a standard audit project ?

(5 marks)

(c) Discuss about the scope and functions of audit committee of a large enterprise. (5 marks)

Chapter 12 : Verification of Evidence

2009 - June [5] (b) The type of audit evidence affects the reliability of the audit evidence. Do you agree ? Discuss. (5 marks)
(c) Before framing an opinion about the financial statements, explain how an auditor should obtain sufficient and appropriate audit evidence. What are the

procedures adopted for collection of evidence? (6 marks)

Chapter 13 : Flow Chart Techniques

2009 - June [6] Write short notes on the following:(e) Audit Trail;

(4 marks)

2009 - June [8] (b) What is EDP Audit ? What is its prime objective ? Has it changed the method of collecting evidence of audit approach? (6 marks) Chapter 15 : Audit Notes and Working Papers

2009 - June [7] (b) What is audit engagement letter? Is it necessary to issueaudit engagement letter, each and every time for repetitive audit ? (3 marks)(d) Briefly sketch the importance of communication in the context of internalaudit work and preparation of report.(6 marks)

Chapter 16 : Auditing of Enterprises

2009 - June [6] Write short notes on the following:(a) Audit of incomplete records;

a)	Audit of incomplete records;	(4 marks)
d)	Audit of sanctions;	(4 marks)

Chapter 19 : Objective Questions

2009 - June [1] {C} (a) State with reasons whether the following statements are true or false (mere conclusion will not deserve any credit):

- (i) Materiality of the item does affect the depth of reliability of the evidence which an Auditor requires for arriving at a conclusion.
- (ii) There is no need to design better internal controls in an EDP or computerised system.
- (iii) A body corporate can be appointed as statutory auditor of a limited company after obtained special permission from the Central Government.
- (iv) Special notice is required for passing a resolution at an Annual General Meeting for appointing as auditor a person other than the retiring auditor, and not where it is intended to expressly provide that the retiring auditor shall not be reappointed.
- (v) The principal auditor of a limited company is entitled to rely on the work of another auditor of its component part.
- (vi) Assets given on lease should be disclosed as part of fixed assets in the financial statements of the lesser.
- (vii) Auditor of a company has to approach his work with suspicion.

 $(2 \times 7 = 14 \text{ marks})$

Paper - 12 : Quantitative Methods

Chapter 1 : Algebra of Vectors

2009 - June [1] {C} Attempt the questions:

Choose the correct option showing the proper reasons/calculations.

(C) ,

⁽c) If 2i - j + k and = i - 3j - 5k, then the magnitude of + is (A) 41,

⁽B) 21,

(2 marks) (D) None of these. **2009 - June [2]** (a) Given three vectors = 2i + 3j + 2k, = -2i + j + 2k and =i - 2j + 2k, show that $\times =$, Also find a unit vector perpendicular to each of and . (5 marks) Chapter 2 : Matrix Algebra 2009 - June [1] {C} Attempt the questions: Choose the correct option showing the proper reasons/calculations. (a) The value of the determinant is (A) 56, (B) 0, (C) -28, (D) None of these. (b) If A =, then A^{-1} is (A) (B) (C) (D) None of these. (e) If A = and B = and AB is a null matrix, then the value of k is (A) 2, (B) 1, (C) -1, (D) None of these. (2 marks each)

2009 - June [2] (b) If A = , B = , and $A^2 + B^2 = (A + B)^2$ then find the value of a. (5 marks) (c) Solve by Cramer's rule; 3x + y + z = 4, x + 2y - z = -3, x - y + 2z = 6. (5 marks)

Chapter 3 : Differential Calculus

2009 - June [1] {C} Attempt the questions: Choose the correct option showing the proper reasons/calculations.

(d) If $f(x) = (for x \neq 0)$, then f(x), f is

- (A) 1,
- (B)
- (C)
- (D) None of these. is
- (f)
 - (A) 0,
 - (B) 1,
 - (C) -1,
 - (D) None of these.
- (g) If $y = x^x$ then is
 - (A) $x (1 + \log x)$,
 - (B) $x^x \log x$,

- (C) $x^{x}(1 + \log x)$,
- (D) None of these.

,

- (h) If $x^y = e^{x-y}$ then the value of y is
 - (A)
 - (B)
 - (C)
 - (D) None of these.
- A manufacturer produced x unit of items at a cost of $100 40x + x^2$ (in (j) rupees). The number of items he produced at which the cost is a minimum is
 - (A) 20,
 - (B) 10,
 - (C) 40,
 - (D) None of these.

(2 marks each) **2009 - June [3]** (a) Investigate the existence of the limit of the function f(x)

 $= 2x^2 - x + 3$ as $x \rightarrow 1$ and the continuity of f(x) at x = 1. (5 marks) **(b)** If $xy = ax^3 + x \neq 0$ prove that x + 2 = 6. (5 marks) 2009 - June [4] (a) Find the function whose first order derivative with respect to x is . (5 marks)

(c) The demand and supply function under perfect competition are $y = 50 - x^2$ and $y = 2 (x^2 + 1)$ respectively. Find the price under market equilibrium, consumer's surplus and producer's surplus. (5 marks)

Chapter 4 : Integration

2009 - June [1] {C} Attempt the questions:

Choose the correct option showing the proper reasons/calculations.

- (i) dx is
 - (A) log 31,
 - (B) log 31,
 - (C) log 2
 - (D) None of these.

(2 marks)

(5 marks)

2009 - June [5] (a) Find the area of the region lying in first quadrant bounded by the parabola $y^2 = 16x$, the x-axis and the ordinate at focus after drawing a diagram. (5 marks)

Chapter 5 : Linear Programming 2009 - June [5] (b) Using graph paper maximize z = 4x + 3y subject to x + 2y

 $\leq 6, 2x + y \leq 6, x \geq 0, y \geq 0.$ (5 marks)

Chapter 6 : Game Theory

2009 - June [3] (c) Write short note :

(i) two-person zero-sum game, **Chapter 7 : Transportation**

2009 - June [3] (c) Write short note :

(ii) Vogel's approximation method for obtaining initial BFS. (5 marks) **Chapter 8 : Queuing Theory**

2009 - June [5] (c) In a bank cheques are cashed at a single teller counter. Customers arrive at the counter is a Poisson manner at an average rate of 20 customers per hour. The teller takes on an average a minute and a half to cash the cheque. The service time had been shown exponentially distributed. Calculate:

- (i) the utilisation factor for the system.
- (ii) the percentage of time the teller is busy.
- (iii) the average time a customer is expected to wait. (5 marks)

Chapter 9 : Probabilities

2009 - June [6] {C} Attempt the following :

Choose the correct alternative stating proper reasons/calculations.

- (a) If P(A) = 0.3, P(B) = 0.4 and P(A/B)= 0.5 then probability that, of two events A and B, only A occurs is
 - (i) 0.3,
 - (ii) 0.1,
 - (iii) 0.05,
 - (iv) 0.18.
- (b) For two independent events A and B, P(A) = 0.4, P(B) = 0.5. Then $P(A \cup B)$ is
 - (i) 0.9,
 - (ii) 0.7,
 - (iii) 0.2,
 - (iv) 0.1.
- (c) If two unbiased dice are thrown once the probability that sum of the points on the upper most faces of the dice fallen is at least 11 is
 - (i)
 - (ii) 0,
 - (iii)
 - (iv)
- (d) If pdf of a continuous r.v. X be

f(x) = k (constant), 1 < x < 2,

- = 0, otherwise;
- then E (X) is
 - (i) 2,
 - (ii) 1,
- (iii)
- (iv)
- (e) For a binomial distribution with parameters n = 4 and p =, standard deviation is
 - (i) -1,
 - (ii)
 - (iii) -

(iv) 1.

- (f) For a r.v. X following a Poisson distribution with parameter 4, P (X is atmost 1) is
 - (i) e^{-4} ,
 - (ii) e^4 ,
 - (iii) $5e^{-4}$
 - (iv) $5e^4$,
- (g) If X is a standard normal variable with $(2\pi)^{-1/2}$
 - dx = 0.34, then P (|X|<1) is
 - (i) 0.16,
 - (ii) 0.32,
 - (iii) 0.34,
 - (iv) 0.68.
- (j) In order to test unbiasedness of a die it is tossed twice. The null hypothesis of unbiasedness is rejected if and only if the sum of the numbers on the uppermost faces of the die is 2 or 12, The probability of type 1 error of the test is
 - (i)
 - (ii)
 - (iii)
 - (iv)

(2 marks each)

2009 - June [7] (a) The incidence of a certain disease in an industry is such that on an average, 20% of workers suffer from it. If 7 workers are selected at random, what is the probability that 5 or more have got the disease? Also obtain the mean and s.d. of the distribution. (5 marks)

(b) A problem in statistics is given to Asoke, Amal and Abdul and their probabilities of solving it are 1/5, 2/5 and 3/5 respectively. If all of them try independently, find to probability that the problem will be solved.

(5 marks)

2009 - June [8] (a) Packets of a certain washing powder are filled with an automatic machine with an average weight of 6 kg and s.d. of 50 gm. If the weight of a packet is normally distributed then find the percentage of packets weighing above 6.1 kg.

[Given $\phi(z) dz = 0.4772$ where z is a N (0.1) variable]. (5 marks) Chapter 10 : Population and Sampling

2009 - June [6] {C} Attempt the following :

Choose the correct alternative stating proper reasons/calculations.

- (i) A simple random sample of size 10 is drawn without replacement from a finite population of size 50. Variance of the population is 49. Then standard error of the sample mean is
 - (i) ,
 - (ii) 7,
 - (iii) 2,
 - (iv) .

(2 marks)

2009 - June [8] (b) A company surveyed employees to see whether they prefer a large increase in retirement benefits or a smaller increase in monthly salary. From a group of 1,000 male employees, 850 supported the retirement benefits. Of 500 female employees, 400 supported the retirement benefit.

Test the null hypothesis that the proportions of man and women supporting retirement benefits are equal.

[Given d.f. =	1	2	3	
$X^{2}_{0.05} =$	3.84	5.99	2.81]	(5 marks)
2009 - June	[9] (a) Find	the mean	and standard	deviation of a normal
distribution of	marks of stu	idents appe	aring in an ex	amination if 16% of the
students got m	arks below 5	2 and 16%	of the students	s got marks above 62.

(5 marks)

2009 - June [10] (a) A random sample of size 10 is drawn from a normal population with mean μ and variation $\sigma^2 = 4$ and the sample observations are 62,63,64,65,65,66,66,68,70,71. Test whether population mean μ = 67 at 5% level of significance against alternative $\mu \neq 67$. Determine 95% confidence interval of μ .

[Value of τ for $\alpha = 0.025$ is 1.96 where τ is N (0,1)] (5 marks) (b) A die is thrown 120 times with the following results:

Face :	1	2	3	4	5	6	Total	
Frequency:	20	18	22	30	16	14	120	
Test the fairne	ss of the d	lie in 5%	blevelof	signific	ance.			

Given : upper 5% points of chi-square distribution with 5 and 6 degrees of freedoms are 11.07 and 12.59 respectively. (5 marks) 2009 - June [11] (a) Write short note:

(ii) Frequency chi-square test.

(5 marks)

2009 - June [11] (b) A bakery keeps stock of a popular brand of cake. Previous experience shows the daily demand pattern for the items with associated probabilities as given below :

Daily demand(nos): 0 10 20 30 40 50 Probability: 0.01 0.20 0.10 0.50 0.14 0.05 Using the following sequence of random numbers to simulate the demand for next 12 days:

	49	19	89	73	05	12
Random numbers:	76	65	39	25	31	68

Also estimate the daily average demand for the cakes on the basis of simulated data and find out the stock situation at the end of 12th day, if the owner of the bakery decides to make 30 cakes every day. (5 marks)

Chapter 12 : Correlation

2009 - June [11] (a) Write short note on any one:

(i) Rank correlation Chapter 13 : Simple Regression (5 marks)

2009 - June [6] {C} Attempt the following :

Choose the correct alternative stating proper reasons/calculations.

(h)	If the two regression lines are $10y = 9x + 13$ and	d 10x = 9y - 6	then mean
	(,) is		
	(i) (3, 4),		
	(ii) (4, 3),		
	(iii) (3,-6),		
	(iv) $(-6, 3)$.		(2 marks)
2009	- June [9] (b) From the following data determin	e the regressi	ion lines of
x on	y and of y on x, and estimate the value of x when	y = 75 and the	he value of
y wh	en $x = 35$.		
Varia	able:	х	У
Arith	metic mean	30	90
Stan	dard deviation	2	3
Corr	elation co-efficient between x and y is 0.4.		(5 marks)
Chaj	pter 15 : Demand Analysis		
2009	- June [12] Attempt the following :		
(a)	If 20 % price rise causes a fall in demand by 35	% then is den	nand
	elastic?		
(b)	For output q, $\cot c = 200q - 5q^2 + $. Determin	e the output v	when
	marginal cost is minimum.	-	

- (c) For the demand curve q = with p and q being the price and quantity respectively, show that elasticity of demand is constant.
- (d) For the following two demand functions $x_1 = and x_2 = examine$ whether the commodities are competitive or complementary. (2 marks each)

2009 - June [13] Answer the following :

(a) Prove that the elasticity of demand = where AR and MR are average and marginal revenue respectively at any output. Verify the result for the demand law : p = 3 + 4x where p is the price per unit, and x is the output in demand. Describe the nature of demand when x = 2 units.

(5 marks)

Chapter 16 : Forecasting Techniques

2009 - June [12] Attempt the following :

(e) If $r_{12} = 0.65$, $r_{23} = 0.60$ and $r_{31} = 0.40$, find $r_{13,2}$ (2 marks) 2009 - June [13] (b) Find the trend values for the following series using a fouryear moving average with weights 1,2,1,1.

Year	1	2	3	4	5	6	7
Values	3	4	7	8	9	11	14

(5 marks)

(d) For a multivariate distribution of 3 variables x, y, z the following results were found:

x = 50,	y = 60,	= 70
$s_{x} = 2$,	$s_y = 3$,	$s_{z} = 4$
$r_{12} = 0.5$,	$r_{13} = 0.4,$	$r_{23} = 0.3$

where , are means of variables x, y, z, s_x , s_y , s_z are standard deviations of x, y, z, r_{12} , r_{13} , r_{23} are the correlation coefficients between x and y, between x and z and between y and z respectively. Find the multiple regression line of x on y and z and estimate the value of x for y = 65 and z = 75. (5 marks) **2009 - June [13]** (f) Write short note on the following :

(i) Components of a time series,

2009 - June [12] Attempt the following :

(f) Calculate the Paasche's Price Index from the following table;

Commodity	P_0	P_1	q_0	q_1
А	2	4	3	5
В	3	5	4	6
С	4	6	5	7
D	7	9	8	1

(g) Calculate the overall cost of living index number for the year 2008 with base year = 2000, for the following data:

Group	Index	Weight
	number	
Food	150	40
Clothing	70	20
Light and fuel	60	20
House rent	50	15
Miscellaneous	100	5

(h) If Laspeyre's price index number is written as weighted arithmetic mean of price relatives, what will be the weights? (2 marks each)

2009 - June [13] (c) Determine the price index number and quantity index number of the year 2001 with 1991 as base year using Fisher's method from the following data;

Commodity	Unit	Q	Quantity		Price (Rs.)	
		<u>1991</u>	2001	<u>1991</u>	2001	
А	kg	5	7	2	4	
В	dozen	5	10	3	5	
С	watt	2	3	5	9	
				(5	marks)	

Chapter 18 : Production Function Analysis and Miscellaneous 2009 - June [13] (e) The input-output table of 2- product economy is given below. Derive the gross output level of 2 commodities and also total labour.

<u>Producer</u>	Co	<u>Final deman</u>	
	Product 1	Product 2	
Product 1:	0.6	0.2	120
Product 2:	0.4	0.3	140
Labour per unit			
Product in mandays:	6	5	(5 marks)

2009 - June [13] (f) Write short note on the following :

(5 marks)



(ii) Production function.

(5 marks)

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