

TEST PAPER - 1

Answer to Q no. 1 is compulsory and attempt any two from the rest three:

Working Notes should form part of the answer.

Full Marks : 50 Time allowed: 1 hr 40 mins

1. (a)

Shown below are the consumption figures forecast for a company in respect of a material.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Consumption	200	200	280	290	300	300	300	300	220	220	200	200

Reorder quantity: 80 units. Delivery time: 2 months to 4 months. Calculate average stock level. [3 marks]

(b)

Dept L absorbs Production OH using Direct Labour Hour Rate. Actual labour hours were 1,00,000 hrs. Actual POH amounted to ₹ 5,16,000. Assuming that POH were over-absorbed by ₹ 24,000, what was the OH absorption rate per hour? [3 marks]

(c)

Two products P and Q are obtained in a crude form and require further processing at a cost of ₹ 5 for P and ₹ 4 for Q per units before sale. Assuming a net margin of 25 percent on cost, their sale prices are fixed at ₹ 13.75 and ₹ 8.75 per unit respectively. During the period, the joint cost was ₹ 88,000 and the outputs were: P – 8,000 units and Q – 6,000 units

Ascertain the joint cost per unit.

[5 marks]

(d)

ABC Ltd manufactures Picture Tubes and has a capacity of 1,000 units per month. The following cost sheet has been prepared on ideal standards by the management accountant:

DESCRIPTION	Fixed Cost per unit (₹)	Variable cost per unit (₹)	Total cost per unit (₹)
Direct Material	--	2,000	2,000
Fixed overheads	1,000	--	1,000
Variable overheads	--	1,000	1,000
Total cost			4,000
Standard selling price			5,000

Details of direct material to be used is as under:-

DESCRIPTION	Standard quantity per unit of Picture Tube	Standard price per unit (₹)	Total cost (₹)
Glass shell	1	1,000	1,000
Phosphor	100 gms	5 per gm	500
Laquor	50 gms	5 per gm	250
Electron Guns	2	125	250
Total cost per picture tube			2,000

During a particular month, the actual usage of Glass shells and Electron guns was upto the standards. However there was a 15 % less usage accounted for both Phosphor and Laquor. The actual purchase price of these two raw materials did not vary from the standards established. However, the price paid for procuring Glass shell and Electron guns was ₹ 1,200 and ₹ 110 respectively. The actual production in the concerned month was 800 units of Picture tubes. There was no deviation in the fixed and variable overheads from the standards established.

You are required to compute the following:

- (a) Production Volume Variance. [2 marks]
 (b) Usage and purchase price variance of all the concerned direct material. [5 marks]
 (c) Profit made by the company in the relevant month with an actual selling price of ₹ 6,000 per Picture Tube. [2 marks]

2. (a)

In a factory, the basic wage rate is ₹. 10 per hour and overtime rates are as follows:

Before and after normal working hours: 175% of basic wage rate

Sundays and holidays: 225% of basic wage rate

During the previous year, the following hours were worked:

Normal time: 1,00,000 hours

Overtime before and after working hours: 20,000 hours

Overtime on Sundays and holidays: 5,000 hours

Total: 1,25,000 hours

The following hours have been worked on job 'Z':

Normal: 1000 hours.

Overtime before and after working hrs. : 100 hours.

Sundays and holidays: 25 hours.

Total: 1125 hours.

You are required to calculate the labour cost chargeable to jobs 'Z' and overhead in each of the following instances:

- (a) Where overtime is worked regularly throughout the year as a policy due to the labour shortage.
 (b) Where overtime is worked irregularly to meet the requirements of production.
 (c) Where overtime is worked at the request of the customer to expedite the job.

[9 marks]

- (b) From the following details show the necessary accounts in the Cost Ledger under Non Integrated system. [6 marks]

	Materials	Work – in – progress	Finished Stock
Opening Balance (₹)	8,000	5,000	10,000
Closing Balance (₹)	11,000	9,000	12,000

Transactions during the period:	₹
Materials purchased	25,000
Wages paid (including (₹ 2,000 indirect)	10,000
Overheads incurred	8,000
Overheads absorbed	9,000
Sales	50,000

3. (a) Mr. Sen has given the following data:

No. of taxi owned	10
Cost of each taxi	₹ 54,600
Salary of manager	₹ 700 per month
Salary of Accountant	₹ 500 per month
Salary of Cleaner	₹ 200 per month
Salary of mechanic	₹ 400 per month
Garage rent	₹ 600 per month
Insurance Premium	5 % p.a.
Annual tax	₹ 900 per taxi
Driver's salary	₹ 350 p.m. per taxi
Annual repairs	₹ 1,000 per taxi
Life of a taxi	2,00,000 kms

A taxi runs, in all, 3,000 kms a month and 30% of this distance is run without any passenger. Petrol consumption is one litre for every 10 kms @ ₹ 4.41 per litre. Oil and other sundries are ₹ 10.50 per 100 kms. Calculate the cost of running a taxi per km. [9 marks]

(b) In a manufacturing unit, raw material passes through four processes A, B, C and D and the output of each process is the input of the subsequent process. The losses in the four processes are respectively 25%, 20%, 20% and 16-2/3 % of the input. If the end – product at the end of Process D is 25,000 kgs, what is the quantity of raw material required to be fed at the beginning of Process A and cost of the same at ₹ 7.50 per kg?

Find also the effect of increase or decrease in the material cost of the end – product for variation of every rupee in the cost of the raw material. [6 marks]

4. Attempt any five:

[3marks each]

(a) A Company manufactures a special product which requires a component 'Alpha'. The following particulars are collected for the year 2010:

- (i) Annual demand of Alpha : 8,000 units
- (ii) Cost of placing an order : ₹. 200 per order
- (iii) Cost per unit of Alpha : ₹. 400
- (iv) Carrying cost % p.a. : 20%

The company has been offered a quantity discount of 4% on the purchase of 'Alpha', provided the order size is 4,000 components at a time. Compute the economic order quantity. Advise whether the quantity discount offer can be accepted.

(b) What are the advantages and disadvantages of using Blanket Overhead Rate?

(c) Why is there a difference between profits of Cost Accounting and Financial Accounting?

(d) What is cost plus contract? What are its advantages?

(e) What are the features of Integrated Accounting System?

(f) What do you mean by shut down point and shut down cost?

TEST PAPER -2

Answer to Q no. 1 is compulsory and attempt any two from the rest three:

Working Notes should form part of the answer.

Full Marks : 50 Time allowed: 1 hr 40 mins

1. Answer any five of the following questions:

[4 marks each]

- (i) The following are the maintenance costs incurred in a machine shop for six months with corresponding machine hours.

DETAILS	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
Maintenance Costs (₹ in 000s)	30	32	27	34	28	29	180
Machine Hours	2,000	2,200	1,700	2,400	1,800	1,900	12,000

- (a) Analyse semi – variable maintenance costs into fixed and variable elements by High Low Points Method.
- (b) If the overhead recovery rate for Maintenance cost is ₹ 15 per machine hour, find the budgeted capacity on which the rate is based.
- (ii) Discuss the four different methods of costing along with their applicability to concerned industry.
- (iii) What do you mean by zero base budgeting? What are the steps in its preparation?
- (iv) Calculate from the following given data:
- (a) profit volume ratio
- (b) total fixed expenses
- (c) Sales required to earn an after tax profit of ₹ 60 lakhs. Tax rate 25%

₹. in lakhs

	2009	2010
Sales	150	200
Profit	30	50

- (v) What are the advantages of integrated accounting? How is it different from Inter Locking Accounting System?
- (vi) Distinguish between 'Committed Fixed Costs' and 'Discretionary Fixed costs'. Are they relevant for decision making?

2.

- (a) A Co. manufactures two products X and Y. Product X requires 8 hrs to produce while Product Y requires 12 hrs. In April, of 22 effective working days of 8 hours a day, 1,200 units of X and 800 units of Y were produced. The Co. employs 100 workers in production department to produce X and Y. The budgeted hours are 1,86,000 for the year.

Calculate Capacity, Efficiency and Activity Ratio.

[4 marks]

- (b) The standard and actual figures of a firm are as under:

Standard time for the job 1,000 hours

Standard rate per hour Re. 0.50

Actual time taken 900 hours

Actual wages paid ₹. 360

Compute

(i) Rate variance

(ii) Efficiency variance

(iii) Total labour cost variance

[4 marks]

- (c) Z Ltd uses standard costing system in manufacturing of its single product 'M'. The standard cost per unit of M is as follows:-

Direct Materials: 2 metres @ ₹ 6 per metre	₹ 12.00
Direct Labour: 1 hr @ ₹ 4.40 per hour	₹ 4.40
Variable Overhead: 1 hr @ ₹ 3 per hour	₹ 3.00
Total Cost	₹ 19.40

During the month of July, 6,000 units of M were produced and the actual cost data were as under:-

Material Consumed: 12,670 metres @ ₹ 5.70 per metre.	₹ 72,219
Direct Labour: ? Hrs @ ₹ ? per hour	₹ 27,950
Variable Overhead incurred (based on Direct Labour Hrs)	₹ 20,475
Variable Overhead Efficiency Variance	₹ 1,500 favourable

Find missing figures and all variances.

[7 marks]

3. The following information is available from the financial books of a company having a normal production capacity of 60,000 units for the year ended 31st March, 2010: [10 marks]

- Sales ₹.10,00,000 (50,000 units).
- There was no opening and closing stock of finished units
- Direct material and direct wages cost were ₹.5,00,000 and ₹.2,50,000 respectively.
- Actual factory expenses were ₹.1,50,000 of which 60% are fixed.
- Actual administrative expenses were ₹.45,000 which are complete fixed.
- Actual selling and distribution expenses were ₹.30,000 of which 40% are fixed.
- Interest and dividends received ₹.15,000.

You are required to prepare a statement reconciling profits shown by financial and cost books.

3. (b) The following details apply to an annual budget for a manufacturing company:

PARTICULARS	QUARTER			
	I	II	III	IV
Working Days	65	60	55	60
Production (units per working day)	100	110	120	105
Raw material purchases (% by weight of annual total)	30 %	50 %	20 %	--
Budgeted purchases price (per kg)	Re 1	₹1.05	₹1.125	--

Quantity of raw materials per unit of production: 2 kg
 Budgeted opening stock of raw materials: 4,000 kg (cost ₹ 4,000)
 Budgeted closing stock of raw materials: 2,000 kg
 Calculate the following budget figures:
 Quarterly and annual purchases of raw material, by weight and value. [5 marks]

4. (a)

A product passes through three process - A, B and C 10,000 units at a cost of ₹ 2.30 were issued to process A. The other direct expenses were as follows:

PARTICULARS	PROCESS A	PROCESS B	PROCESS C
Sundry materials (₹)	1,500	1,500	1,500
Direct Labour (₹)	4,500	8,000	6,500
Direct Expenses ((₹)	1,000	1,000	1,503

The overhead charges were 160% of direct labour. The final product was sold at ₹ 14 per unit fetching a profit of 20% on cost.

The wastage of process A was 5% and in process B 4%. The wastage of process A was sold at Re. 0.25 per unit and that of B at Re. 0.50 per unit and that of C at ₹ 2 per unit.

Find out the percentage of wastage in process C and Prepare Process Accounts [7 marks]

- (b) Compute a comprehensive machine hour rate for a machine in Production department 'A' of a factory from the following details:

Machine: Cost including installation charges: ₹ 20 lakhs
 Estimated useful life: 10 years
 Estimated salvage value 10%
 Working Hours: Number of working days: 300
 Number of shifts per day: 2
 Effective working hrs per shift: 7
 Stoppage for repairs and maintenance 200 hrs

Operating and other costs:

- (a) Wages of two operators (one for each shift) @ ₹ 5,000 p.m.
 (b) Salary of supervisor (one for each shift) @ ₹ 7,500 p.m. Only one fifth of supervisor's time is devoted to this machine.
 (c) Electric power: 20 units per hour, each unit costing ₹ 3.20

- (d) Insurance charges: ₹ 5,000 per annum
- (e) Repairs and Maintenance: ₹ 12,500 p.m.
- (f) Rent, rates and taxes: ₹ 10,000 p.a.
- (g) General lighting: ₹ 750 p.m.
- (h) Other factory overheads: ₹ 1,40,000 p.a.

[8 marks]

TEST PAPER - 3

Answer to Q no. 1 is compulsory and attempt any two from the rest three:

Working Notes should form part of the answer.

Full Marks : 50 Time allowed: 1 hr 40 mins

1. [4 marks each]

- (i) A Ltd. Maintains margin of safety of 37.5% with an overall contribution to sales ratio of 40%.

Its fixed costs amount to ₹. 5 lakhs.

Calculate the following:

(a) Break-even sales

(b) Total variable cost

(c) New 'margin of safety' if the sales volume is increased by 7 ½ %

- (ii) Calculate the proportion of profit to be taken to Profit & Loss Account under three methods when the DOC is 90% as per Contractee's architect and give your recommendation.

	₹
Total expenditure to date	4,50,000
Estimated further expenditure (including contingencies)	25,000
Contract price	6,12,000
Work certified	5,50,800
Work uncertified	34,000
Cash received	4,40,640

- (iii) The following details are given:

PARTICULARS	MASTER BUDGET	ACTUAL	VARIANCE
Units produced and sold	10,000 units	9,000 units	(1,000)
Sales (₹)	40,000	35,000	(5,000)
Direct Material (₹)	10,000	9,200	800
Direct Wages (₹)	15,000	13,100	1,900
Variable Overhead (₹)	5,000	4,700	300
Fixed Overhead (₹)	5,000	4,900	100

Figures in parentheses indicate adverse variances.

Prepare flexible budget and compare.

- (iv) Kill and Death Ltd hires a building to run a nursing home. The building has 4,000 sq ft of area consisting of 20 rooms of 120 sq feet each. The rest is general area. The monthly rent has been agreed at ₹ 1500 per 1,000 square feet. Lighting and Heating expenses are ₹ 4,000 per month.

The staff would consist of –

Two doctors at ₹ 35,000 per month each

Six nurses at ₹ 8,000 per month each

Four General Helpers at ₹ 4,500 per month each

It is expected that 90 % of the rooms will always remain occupied. If a margin of 1/6 th on takings is desired, ascertain the rent to be charged assuming a month of 30 days.

- (v) SWEET DREAMS Ltd uses a historical cost system and absorbs overheads on the basis of predetermined rate. The following data are available for the year ended 31st March 2010:

MANUFACTURING OVERHEADS	₹
Amount Actually Spent	1,70,000
Amount Absorbed	1,50,000
Cost of Goods Sold	3,36,000
Stock of Finished goods	96,000
Work in Progress	48,000

Using two methods of disposal of under absorbed overheads show the implication on the profits of the company under each method.

2. (a)

The following figures have been extracted from the cost records of a manufacturing unit:

	₹
Stores:	
Opening balance	32,000
Purchase of materials	1,58,000
Transfer from WIP	80,000
Issues to WIP	1,60,000
Issues to Repair and Maintenance	20,000
Deficiencies found in stock taking	6,000
WIP:	
Opening balance	60,000
Direct wages applied	65,000
Overheads applied	2,40,000
Closing balance of WIP	45,000

Finish products: Entire output is sold at a profit of 10 % on actual cost from WIP. Wages incurred ₹ 70,000. Overhead incurred ₹ 2,50,000.

Items not included in cost records: Income from investment ₹ 10,000, Loss on sale of capital assets ₹ 20,000.

Draw up store control account, WIP control account, Costing P/L account, Profit and Loss account and Reconciliation statement. [7 marks]

- (b) ABC Ltd commenced a contract on 1st April 2009. The total contract was for ₹ 25,00,000. Actual expenditure for the period 1st April 2009 to 31st March 2010 and estimated expenditure for 1st April 2009 to 31st March 2010 are given below:

PARTICULARS	2009-2010 (ACTUAL ₹)	2010 (9-MONTHS) (ESTIMATED ₹)
Material Issued	4,50,000	4,28,750
Labour: Paid	3,75,000	4,36,625
Outstanding at end	31,250	41,500

Plant	1,25,000	--
Sundry expenses: Paid	36,250	34,375
Prepaid at end	3,125	--
Establishment Charges	73,125	--

A part of the material was unsuitable and was sold for ₹ 90,625 (cost being ₹ 75,000) and a plant was scrapped and disposed of for ₹ 14,375. The value of plant at site on 31st March'2010 was ₹ 38,750 and the value of material at site was ₹ 21,250. Cash received on account to date was ₹ 8,75,000, representing 80 % of the work certified. The cost of work uncertified was valued at ₹ 1,36,875.

The Contractor estimated the following further expenditure that would be incurred in completion of the contract –

- (i) A further sum of ₹ 1,51,250 would have to be spent on the plant and the residual value of the plant on the completion of the contract would be ₹ 25,000
- (ii) Establishment Charges would cost the same amount per month as in the previous year.
- (iii) ₹ 40,700 would be sufficient to provide for contingencies.

Prepare Contract account and calculate the Estimated Total Profit on this contract. Profit Transferable to Profit and Loss Account is to be calculated by reducing Estimated Profit in Proportion of Work Certified and Contract Price. [8 marks]

3. (a) The existing incentive system of Alpha limited is as under:

Normal working week	5 days of 8 hours each plus 3 late shifts of 3 hrs each
Rate of payment	Day Work: ₹ 160 per hour
	Late Shift: ₹ 225 per hour
Average output per operator for 49 hours week i.e. including 3 late shifts	120 articles

In order to increase output and eliminate overtime, it was decided to switch on to a system of payment by results. The following information is obtained:

Time rate (as usual)	₹ 160 per hour
Basic time allowed for 15 articles	5 hours
Piece work rate	Add 20% to basic piece rate
Premium Bonus	Add 50% to time

Prepare a statement showing hours worked, weekly earnings, number of articles produced and labour cost per article for one operator under the following systems:

1. Existing time rate
2. Straight piece work
3. Rowan system
4. Halsey system

Assume that 135 articles are produced in a 40 hour week under Straight piece work, Rowan System and Halsey System above. [8 marks]

(b) Distinguish between Period Cost and Product Cost. [3 marks]

(c) Explain Break Even Analysis Chart. [4 marks]

4. Answer any five: [3 marks each]

(a) Following details relating to Product X during the month of April 2010 are available:

Standard cost per unit of X: Materials - 50 kg @ ₹ 40 per kg.

Actual Production: 100 units

MPV : ₹ 9,800 (A)

MUV: ₹ 4,000 (F)

Calculate the actual quantity of material used and actual purchase price during the month of April 2010.

(b) State the treatment of Scrap, Wastages and Defectives in Cost Accounting.

(c) In what circumstances FIFO and Average method are used for valuation of inventory?

(d) Which is the best method for apportionment of joint cost among the main products and why?

(e) From the following, calculate the amount of under absorption and discuss its treatment-

Factory Overhead incurred – ₹ 50,000

Actual output – 10,000 units

Budgeted output – 12,500 units

(f) What are the different types of Capacity?

TEST PAPER - 4

Answer to Q no. 1 is compulsory and attempt any two from the rest three:

Working Notes should form part of the answer.

Full Marks : 50 Time allowed: 1 hr 40 mins

1. Answer any five. [4 marks each]

(a) Given below is a list of industries. Give the method of costing and the unit of cost against each industry.

- (i) Nursing Home
- (ii) Steel
- (iii) Coal
- (iv) Bicycles
- (v) Interior Decoration
- (vi) Advertising
- (vii) Furniture
- (viii) Sugar company having its own sugarcane fields.

(b) What are the objectives of Cost Accounting and the factors essential for a good cost accounting system?

(c) Indirect manufacturing cost – 40 % of conversion cost

Prime Cost – ₹ 3,97,750

Cost of goods available for sale – ₹ 5,55,775

Opening inventory of finished goods – ₹ 37,750

Opening inventory of WIP – ₹ 40,000

Find Closing inventory of WIP

(d) For a process, the following details are given:

Input – 2,500 units

Normal loss – 10%

Finished goods - 1,800 units

Closing WIP – 500 units (DOC – 60 %)

Cost incurred: Materials – ₹ 2,00,000; Conversion Cost – ₹ 5,00,000

Find the value of Finished goods, Closing WIP and Abnormal Gain.

(e) List out the various stock levels of raw materials.

(f) Explain what is meant by Cost Apportionment and Cost Absorption. Illustrate each with examples.

2. (a) The following budgeted detail is available:

Direct material (2 kg @ ₹ 2.50 per kg)	₹ 5 per unit
Direct wages (2 hr @ ₹ 1 per hr)	₹ 2 per unit
Factory OH (50% fixed)	₹ 6 per unit
S/D OH (1/3 variable)	₹ 3 per unit
Selling Price per unit	₹ 18 per unit

When the budget was discussed, it was felt that the company would be able to achieve only a volume of 2,50,000 units of production and sales per quarter.

The following proposals were considered:

Proposal I:

(a) Sell 4,00,000 units per quarter by spending ₹ 2,00,000 on special advertising.

(b) The factory fixed cost will increase by ₹ 4,00,000 per quarter.

Proposal II:

Sell 5,00,000 units per quarter subject to the following conditions:

(a) Reduce SP by ₹ 2 per unit

(b) Variable Selling and Administration Cost will increase by 5%

(c) Direct material cost will be reduced by 1% due to discount.

(d) The fixed factory cost will increase by ₹ 2,00,000 more as in Proposal I.

The actual output produced for Quarter I were 4,00,000 units using 7,80,000 kgs of materials at ₹ 3 per kg and 8,10,000 hours at ₹ 1.10 per hr.

(1) Prepare a flexible budget for 2,50,000 unit; 4,00,000 units and 5,00,000 units. Also calculate the profits at each level.

(2) Find material and labour variances.

[10 marks]

(b)

A company manufactures a product from a raw material, which is purchased at ₹ 60 per kg. The company incurs a handling cost of ₹ 360 plus a freight of ₹ 390 per order. The incremental carrying cost of inventory of raw material is Re 0.50 per kg per month. In addition, the cost of working capital finance on the investment in inventory of raw material is ₹ 9 per kg per annum. The annual production of the product is 1,00,000 units and 2.5 units are obtained from one kg of raw material.

Required:

i. Calculate EOQ and Advise how frequently the orders be placed?

ii. If the company proposes to rationalize placement of orders on quarterly basis, what percentage of discount on raw materials should be negotiated?

[5 marks]

3.(a)

In the course of manufacture of the main product 'P', by products 'A' and 'B' also emerge. The joint expenses of manufacture amount to ₹. 1,19, 550. All the three products are processed further after separation and sold as per details given below:

		Main products	By-products	
		'P'	'A'	'B'
Sales	₹.	90,000	60,000	40,000
Costs incurred after separation	₹.	6,000	5,000	4,000
Profit as percentage on sales	%	25	20	15

Total fixed selling expenses are 10% of total cost of sales which are apportioned to the three products in the ratio of 20 : 40 : 40.

- (i) Prepare a statement showing the apportionment of joint costs to the main product and the two-by-products.
- (ii) If the by-product 'A' is not subjected to further processing and is sold at the point of separation for which there is a market, at ₹. 58,500 without incurring and selling expenses, would you advise its disposal at this stage? Show the workings.

[8 marks]

(b)

From the following prepare a statement of profit as per marginal and absorption costing system and reconcile the same:

SP per unit	₹ 40
VC per unit	₹ 5
Budgeted Fixed OH	₹ 1,000
Actual Fixed OH	₹ 1,200
Budgeted production	200 units
Actual production	100 units
Units Sold	80 units

[7 marks]

4. [3 marks each]

(a) Name six service departments of a manufacturing industry.**(b)** A Co. has a Profit volume ratio of 40%. What percentage increase or decrease in sales value will offset –

- (i) A 10 % decrease in SP
(ii) A 10 % increase in SP

(c)

What are the main features of Halsey and Rowan method of payment of remuneration? State how Rowan Scheme is better than Halsey Scheme. Given time allowed of 30 hours for a job and the wage rate of Re. 1.00 per hour, illustrate your answer by assuming your own figure for time taken to do the job.

(d) Distinguish between Job Evaluation and Merit Rating.**(e)** Find the escalation amount for the contract for which the following detail is given:

Material	Standard		Actual	
	Qty (tons)	Rate per ton	Qty (tons)	Rate per ton
A	3,000	1,000	3,400	1,100
B	2,400	800	2,300	700
C	500	4,000	600	3,900
D	100	30,000	90	31,500
Labour	Hours	Hourly rate	Hours	Hourly rate
L1	60,000	15	56,000	18
L2	40,000	30	38,000	35

TEST PAPER - 5

Answer to Q no. 1 is compulsory and attempt any two from the rest three:

Working Notes should form part of the answer.

Full Marks : 50 Time allowed: 1 hr 40 mins

1. (a) In an engineering Company, the factory overheads are recovered on a fixed percentage basis on direct wages and the administration overheads are absorbed on a fixed percentage on factory cost. The company has furnished the following data relating to two jobs undertaken by it in a period:

DETAILS	JOB 101	JOB 102
Direct Materials	54,000	37,500
Direct wages	42,000	30,000
Selling Prices	1,66,650	1,28,250
Profit Percentage on total cost	10%	20%

You are required to find out the percentage recovery rate of factory overheads and administrative overheads.

Also find the amount of factory overheads, administrative overheads and profit for each of the two jobs.

Using the above recovery rates fix the selling price of Job 103. The additional data being:

Direct materials ₹ 24,000

Direct wages ₹ 20,000

Profit percentage on Selling Price $12\frac{1}{2}\%$

[3 + 4 + 4 = 11 marks]

- (b) From the following information for the month of October, 2003, prepare Process III cost accounts and the necessary statements: [9 marks]

Opening WIP in Process III	1,800 units at ₹. 27,000
Transfer from Process II	47,700 units at ₹. 5,36,625
Transferred to Warehouse	43,200 units
Closing WIP of Process III	4,500 units
Units scrapped	1,800 units
Direct material added in Process III	₹. 1,77,840
Direct Wages	₹. 87,840
Production overheads	₹. 43,920

Degree of completion:

	Opening Stock	Closing Stock	Scrap
Material	80%	70%	100%
Labour	60%	50%	70%
Overheads	60%	50%	70%

The normal loss in the process was 5% of the production and scrap was sold @ ₹. 6.75 per unit.

2. (a)

Solo products Ltd. manufactures and sells a single product and has estimated a sales revenue of ₹ 126 lakhs this year based on a 20% profit on selling price. Each unit of the product requires 3 lbs of material P and 1 and 1/2 lbs of material Q for manufacture as well as a processing time of 7 hours in the Machine Shop and 2 and 1/2 hours in the Assembly Section. Overheads are absorbed at a blanket rate of 33-1/3% on Direct Labour. The factory works 5 days of 8 hours a week in a normal 52 weeks a year. On an average statutory holidays, leave and absenteeism and idle time amount to 96 hours, 80 hours and 64 hours respectively, in a year.

The other details are as under:

Purchase Price	Material P Material Q	₹ 6 per lb ₹ 4 per lb
Comprehensive Labour Rate	Machine Shop Assembly Shop	₹ 4 per hour ₹ 3.20 per hour
No. of employees	Machine Shop Assembly Shop	600 180
FINISHED GOODS:	Material P	Material Q
Opening Stock (20,000 units)	54,000 lbs	33,000 lbs
Closing Stock (Estimated) 25,000 units	30,000 lbs	66,000 lbs

You are required to:

- (a) Prepare Sales Budget.
 - (b) Prepare Material Purchase Budget.
 - (c) Capacity utilization of machine shop and Assembly section, along with your Comments. [10 marks]
- (b)** A departmental store has several departments. What bases would you recommend for apportioning the following items of expense to its departments:
- (1) Fire insurance of Building.
 - (2) Rent
 - (3) Delivery Expenses.
 - (4) Purchase Department Expenses.
 - (5) Credit Department Expenses.
 - (6) General Administration Expenses.
 - (7) Advertisement.
 - (8) Sales Assistants Salaries.
 - (9) Personal Department expenses.
 - (10) Sales Commission [5 marks]

3. (a) How are the workers paid under: [5 marks]

- (1) Halsey Scheme

- (2) Rowan Scheme
- (3) Halsey – Weir Scheme
- (4) Bedeaux scheme
- (5) Barth Scheme

(b) A process operates under a license to pay for a royalty of ₹ 5 per unit actually produced. During a period, the input in the process was 10,000 units. The output produced was 8,000 units. Normal yield of process is 85%. Record entries to account for royalty. [3 marks]

(c)

The standard set for a chemical mixture of a firm are given below. The standard loss in production is 10 %. During a period, the actual consumption and price for a good output of 182 kgs are also given. Calculate the Material variances.

Particulars	A	B
Standard Mix (%)	40	60
Standard Price (₹/kg)	20	30
Actual quantity (kg)	90	110
Actual price (₹/kg)	18	34

[7 marks]

4 . Answer any five:

- (a)** Classify cost in relation to cost centre.
- (b)** Explain the advantages and disadvantages of coding system.
- (c)** The following figures relate to a manufacturing company :-

Activity Level (units):	4,000	14,000
Total cost (₹.):	20,000	60,000

 Calculate Break – even point if per unit sales value is ₹ 6.50.
- (d)** What do you mean by Standard Load?
- (e)** A Co. manufactures two products X and Y. Product X requires 8 hrs to produce while Product Y requires 12 hrs. In April, of 22 effective working days of 8 hours a day, 1,200 units of X and 800 units of Y were produced. The Co. employs 100 workers in production department to produce X and Y. The budgeted hours are 1,86,000 for the year.
Calculate Capacity, Efficiency and Activity Ratio.
- (f)** Distinguish between Out of Pocket Cost and Imputed Cost.

TEST PAPER - 6

Answer to Q no. 1 is compulsory and attempt any two from the rest three:

Working Notes should form part of the answer.

Full Marks : 50 Time allowed: 1 hr 40 mins

1. (a)

ABC Ltd manufactures two products, A and B. The Co. had budgeted factory overhead of ₹ 3,40,000 and 2,00,000 labour hours. So, its overhead recovery rate is ₹ 1.70 per hour which is used for product costing. The break – up pf overhead and direct labour hour were:-

PARTICULARS	DEPARTMENT X	DEPARTMENT Y	TOTAL
Budgeted overhead	₹ 2,40,000	₹ 1,00,000	₹ 3,40,000
Budgeted DLHrs	1,00,000 hrs	1,00,000 hrs	2,00,000 hrs

Information:

- (1) Each unit of Product A requires 4 hours in Department X and 1 hour in Department Y. Also, each unit of Product B requires 1 hour in Department X and 4 hours in Department Y.
- (2) No WIP.
- (3) Closing Finished Goods – A: 2,000 units and B: 6,000 units
- (4) Budgeted Activity was attained.

Required:

1. Determine production and sales quantity of above year. [4 marks]
2. Ascertain the effect of using a Blanket Rate instead of department wise overhead rates on closing stock. [4 marks]

(b)

RST Ltd. has two production departments: Machining and Finishing. There are three service departments – Human Resource (HR), Maintenance and Design. The budgeted costs in these service departments are as follows –

PARTICULARS	HR (₹)	MAINTENANCE (₹)	DESIGN (₹)
Variable	3,00,000	5,80,000	4,00,000
Fixed	4,00,000	3,00,000	3,00,000
Total	7,00,000	8,80,000	7,00,000

The usage of these departments output during the year just completed is as follows –

USERS OF SERVICE	Hours of Service given		
	HR	MAINTENANCE	DESIGN
HR	--	--	--
Maintenance	1000	--	--
Design	1500	1,000	--
Machining	5,000	3,000	3,500
Finishing	2,500	4,000	2,500
Total	10,000	8,000	6,000

Required:

- i. Use the direct method to re – apportion RST Ltd.'s Service Department Costs to its Production Departments. [3 marks]
- ii. Determine the proper sequence and use it in re – apportioning the Firm's Service Department Costs by Step – Down Method [3 marks]

(c) Compute all Fixed Overhead Variances from the following: [6 marks]

Particulars	Budget	Actual
Output (units)	500	480
Hrs	2,000	2,300
Days	20	21
Fixed Overhead (₹)	80,000	92,000

2. Following is the sales budget for the first six months of the year 2010 in respect of PQR Ltd:

Month	Jan	Feb	Mar	Apr	May	June
Sales (units)	10,000	12,000	14,000	15,000	15,000	16,000

Finished goods inventory at the end of each month is expected to be 20% of budgeted sales quantity for the following month. Finished goods inventory was 2,700 units on January 1, 2010. There would be no WIP at the end of any month.

Each unit of finished product requires two types of raw materials as detailed below:

Material X – 4 kg @ ₹ 10 per kg

Material Y – 6 kg @ ₹ 15 per kg

Materials on hand in January 1, 2010 was 19,000 kgs of material X and 29,000 kgs of material Y. Monthly closing stock of material is budgeted to be equal to half of the requirements of next month's production.

Budgeted direct labour cost for the first quarter of the year 2010 is ₹ 10,89,000. Budgeted DLHr per unit of finished product is 0.75 hrs.

Actual data for the quarter one, ended on March 31, 2010 is as under:

Actual Production quantity: 40,000 units

Direct material cost (Purchase cost based on materials actually issued to production)

Material X: 1,65,000 kgs @ ₹ 10.20 per kg

Material Y: 2,38,000 kgs @ ₹ 15.10 per kg

Actual direct labour hours worked: 32,000 hours

Actual direct labour cost: ₹ 13,12,000

Required:

- (a) Prepare Monthly Production quantity budget for the quarter one
- (b) Prepare Monthly raw material Consumption budget from Jan to April 2010
- (c) Prepare Material Purchase quantity budget for the quarter one.
- (d) Draw a flexible budget.

[15 marks]

3. (a)

A fire destroyed some accounting records of a company. You have been able to collect the following from the spoilt papers/records and as a result of consultation with accounting staff in respect of January, 2010:

- (i) Incomplete Ledger Entries:

Raw-Materials A/c	
Beginning Inventory 32,000	
Work-in-Progress A/c	
Beginning Inventory 9,200	Finished Stock 1,51,000
Creditors A/c	
Opening Balance 16,400	Closing Balance 19,200
Manufacturing Overheads A/c	
Amount Spent 29,600	
Finished Goods A/c	
Opening Inventory 24,000	Closing Inventory 30,000

(ii) Additional Information:

- (1) The cash-book showed that ₹ 89,200 have been paid to creditors for raw-material.
- (2) Ending inventory of work-in-progress included material ₹ 5,000 on which 300 direct labour hours have been booked against wages and overheads.
- (3) The job card showed that workers have worked for 7,000 hours. The wage rate is ₹ 10 per labour hour.
- (4) Overhead recovery rate was ₹ 4 per direct labour hour.

You are required to complete the above accounts in the cost ledger of the company: [9 marks]

(b)

A company within the food industry mixes powdered ingredients in two different processes to produce one product. The output of Process 1 becomes the input of Process 2 and the output of Process 2 is transferred to the packing department.

From the information given below, you are required to open accounts for Process 1, Process 2, abnormal loss and packing department and to record the transactions for a week ended.

Process 1 :--

Input:

Material A	6,000 kilograms at 50 paise per kilogram
Material B	4,000 kilograms at Rupee 1 per kilogram
Mixing Labour	430 hours at ₹.2 per hour
Normal Loss	5% of weight input, disposed off at 16 paise per kilogram
Output	9,200 kilograms.

No work in process at the beginning or end of the week.

Process 2 :--

Input

Material C	6,600 kilograms at ₹. 1.25 per kilogram
Material D	4,200 kilograms at Re. 0.75 per kilogram

Flavouring Essence	₹. 330
Mixing Labour	370 hours at ₹. 2 per hour
Normal Waste	5% of weight input with no disposal value
Output	18,000 kilograms.

No work in process at the beginning of the week but 1,000 kilograms in process at the end of the week and estimated to be only 50% complete so far as labour and overhead were concerned.

Overhead of ₹. 3,200 incurred by the two processes to be absorbed on the basis of mixing labour hours.
[6 marks]

4. Answer any five: [3 marks each]

(a) Profit volume ratio of a company is 50 % and margin of safety is 40 %.

Calculate the Break- even point and net profit if the sales volume is ₹ 50 lakhs.

(b) Distinguish between Casual worker and Out door worker.

(c) What is Cost centre? What are its different types?

(d) What are the causes of labour turnover? How it can be prevented?

(e) Discuss the principle of estimating fixed and variable cost?

(f) Define EOQ. What are its assumptions?

TEST PAPER - 7

Answer to Q no. 1 is compulsory and attempt any two from the rest three:

Working Notes should form part of the answer.

Full Marks : 50 Time allowed: 1 hr 40 mins

1. (a)

A product passes through two processes Process I and Process II. Input is introduced in Process I where Product A is produced which can be sold in the market at a selling price of ₹ 20 per litre. Product A can alternatively be taken to Process II wherefrom Product A – One will be produced which can be sold in the market at a selling price of ₹ 25 per litre. Further materials are added in Process II which yield 1.5 lit of Product A – One for every litre of Product A passed into that process. The details of cost in Process II are as under:

Direct Materials – ₹ 8 per lit

Variable Conversion Cost – ₹ 5 per lit

Fixed Conversion Cost – ₹ 10,000

Process II has capacity to handle upto 1,000 units of Product A.

You are required to :

(i) Advise whether Product A should be further processed

(ii) State the Minimum selling price of Product A – One.

[8 marks]

(b)

Mr. H. K. Piano Company showed a net loss of ₹ 4,16,000 as per their financial accounts for the year ended 31st march 2010. The cost accounts, however, disclosed a net loss of ₹ 3,28,000 for the same period. The following information was revealed as a result of scrutiny of the figures of both the sets of books:

(a) Factory overheads under recovered	: ₹ 6,000
(b) Depreciation under charged in financial accounts	: ₹ 10,000
(c) Interest on investment not included in costs	: ₹ 20,000
(d) Administrative overheads over absorbed	: ₹ 4,000
(e) Transfer fees credited in financial books	: ₹ 2,000
(f) Income tax provided	: ₹ 1,20,000
(g) Stores Adjustment credited in financial books	: ₹ 2,000

Prepare a Reconciliation Statement.

[5 marks]

(c)

Job No. 597 was commenced on October 10, 2010 and completed on November 1 , 2010. Materials used were ₹ 7,000 and ₹ 3,000. Other information is as follows:

Machine No. 1 used for 100 hours, the machine hour rate being ₹ 8

Machine No. 2 used for 75 hours, the machine hour rate being ₹ 6

Welders worked on the job for five days of 8 hours each, the labour rate per welder is ₹ 20 per hr.

Expenses not included for calculating the machine hour or direct labour hour rate totaled ₹ 20,000, total direct wages for the period being ₹ 2,00,000.

Ascertain the costs of Job No. 597.

[7 marks]

2. (a)

The overhead expense budget for a factory producing to a capacity of 200 units per month is as follows:

DESCRIPTION OF OVERHEAD	FIXED COST PER UNIT IN ₹	VARIABLE COST PER UNIT IN ₹	TOTAL COST PER UNIT IN ₹
Power and fuel	1,000	500	1,500
Repair and maintenance	500	250	750
Printing and stationery	500	250	750
Other overheads	1,000	500	1,500
TOTAL	3,000	1,500	4,500

The factory has actually produced only 100 units in a particular month. Details of overheads actually incurred have been provided by the accounts department and are as follows:

DESCRIPTION OF OVERHEAD	ACTUAL COST
Power and fuel	₹ 4,00,000
Repair and maintenance	₹ 2,00,000
Printing and stationery	₹ 1,75,000
Other overheads	₹ 3,75,000

Compute:

- (i) Overhead Expenditure Variance, and
- (ii) Production Volume Variance

[5 marks]

(b)

A Single product company sells its product at ₹ 120 per unit. In 2009, the company operated at a margin of safety of 40%. The fixed costs amounted to ₹ 7,20,000 and the variable cost ratio to sales was 80%.

In 2010, it is estimated that the variable cost will go up by 10 % and the fixed cost will increase by 5%.

Find the selling price required to be fixed in 2010 to earn the same Profit volume ratio as in 2009.

Assuming the same selling price of ₹ 120 per unit in 2010, find the number of units required to be produced and sold to earn the same profit as in 2009.

[10 marks]

- 3. (a)** Find out the cost of joint products A and B using contribution margin method from the following data: Sales: A : 100 kg @ ₹ 60 per kg

B : 120 kg @ ₹ 30 per kg

Joint costs :

Marginal cost ₹ 4,400

Fixed cost ₹ 3,900

[4 marks]

(b) Raw materials 'X' costing ₹ 100 per kilogram and 'Y' costing ₹ 60 per kilogram are mixed in equal proportions for making product 'A'. The loss of material in processing works out to 25% of the output. The production expenses are allocated at 50% of direct material cost. The end product is priced with a margin of $33\frac{1}{3}\%$ over the total cost. Material Y is not easily available and substitute raw material 'Z' has been found for 'Y' costing ₹ 50 per kilogram. It is required to keep the proportion of this substitute material in the mixture as low as possible and at the same time maintain the selling price of the end product at existing levels and ensure the same quantum of profit as at present.

You are **required** to compute what should be the ratio of mix of the raw materials X and Z.

[4 marks]

(c)

Calculate earnings of workers A, B and C under Straight Piece Rate System and Merrick's Multiple piece Rate System from the following particulars:

Normal rate per hour :	₹ 5.40
Standard time per unit:	1 minute
Output per day is as follows:	
Worker A –	390 units
Worker B –	450 units
Worker C –	600 units
Working hours per day	8 hours

[4 marks]

(d)

Two components, A and B are used as follows:

Normal Usage	50 per week each
Maximum Usage	75 per week each
Minimum Usage	25 per week each
Re order Quantity	A: 300, B: 500
Re Order Period	A: 4 to 6 weeks
	B: 2 to 4 weeks

Find (a) Re order Level, (b) Minimum Level and (c) Maximum Level.

[3 marks]

4. Answer any five:

- (a) Differentiate between Joint and Co product
- (b) Enumerate the steps in transfer of profit to Profit and Loss account in case of an incomplete contract.
- (c) How are losses treated in Process Costing?
- (d) Distinguish between Traditional Budgeting and Zero Base Budgeting
- (e) How can variances be disposed of in Standard Costing?
- (f) What do you mean by two tier machine hour rate? When it is calculated?

TEST PAPER - 8

Answer to Q no. 1 is compulsory and attempt any two from the rest three:

Working Notes should form part of the answer.

Full Marks : 50 Time allowed: 1 hr 40 mins

1. (a)

ABC Ltd is currently operating at 75 % of its capacity. In the past two years, the level of operations were 55% and 65% respectively. Presently, the production is 75,000 units. The company is planning for 85 % capacity level during 2010 – 2011.

The cost details are as follows:

	55% (₹)	65% (₹)	75% (₹)
Direct Materials	11,00,000	13,00,000	15,00,000
Direct Labour	5,50,000	6,50,000	7,50,000
Factory Overheads	3,10,000	3,30,000	3,50,000
Selling Overheads	3,20,000	3,60,000	4,00,000
Administrative Overheads	1,60,000	1,60,000	1,60,000
	24,40,000	28,00,000	31,60,000

Profit is estimated at 20 % on sales.

The following increases in costs are expected during the year:

Direct Materials	8 %
Direct Labour	5 %
Variable Factory Overheads	5 %
Variable Selling Overheads	8 %
Fixed Factory Overheads	10 %
Fixed Selling Overheads	15 %
Administrative Overheads	10 %

Prepare flexible budget for the period 2010 – 2011 at 85 % level of capacity. Also ascertain profit and contribution. [12 marks]

(b)

What is meant by Economic Batch Quantity? From the following calculate Economic Batch Quantity:

Annual Production:	6,000 units
Set up cost per run:	₹ 60
Manufacturing cost per unit:	₹ 20
Rate of Interest	20 % p.a.

[4 marks]

(c)

Kill and Death Ltd hires a building to run a nursing home. The building has 4,000 sq ft of area consisting of 20 rooms of 120 sq feet each. The rest is general area. The monthly rent has been agreed at ₹ 750 per 1,000 square feet. Lighting and Heating expenses are ₹ 4,000 per month.

The staff would consist of –

Two doctors at ₹ 15,000 per month each

Six nurses at ₹ 5,000 per month each

Four General Helpers at ₹ 3,000 per month each

It is expected that 80 % of the rooms will always remain occupied. If a margin of $1/3^{\text{rd}}$ on takings is desired, ascertain the rent to be charged assuming a month of 30 days. [4 marks]

2. (a)

From the following data for the year ended 31st Dec 2010, Calculate the inventory turnover ratio of the two items and put forward your comments on them.

	Material A	Material B
Opening Stock 1.1.2010	50,000	45,000
Purchases during the year	2,60,000	1,35,000
Closing Stock 31.12.2010	30,000	40,000

[4 marks]

(b)

What is idle time? How are normal and abnormal idle time treated in Cost Accounting? [3 marks]

(c)

In a factory, a machine is considered to work for 208 hours in a month. It includes maintenance time of 8 hours and set up time of 20 hours.

The expense data relating to the machine are as under:

- (a) Cost of the machine is ₹ 5,00,000. Life 10 years. Estimated scrap value at the end of life is ₹ 20,000.
- (b) Repairs and maintenance per annum is ₹ 60,480
- (c) Consumable stores per annum is ₹ 47,520
- (d) Rent of building per annum (the machine occupies $1/6^{\text{th}}$ of area) is ₹ 72,000
- (e) Supervisor's salary per month (common to three machines) is ₹ 6,000
- (f) Wages of operator per month per machine is ₹ 2,500
- (g) General lighting charges per month allocated to the machine is ₹ 1,000
- (h) Power 25 units per hour at ₹ 2 per unit

Power is required for productive purposes only. Set up time, though productive, does not require power. The supervisor and operator are permanent. Repairs and maintenance and Consumable stores vary with the running of the machine.

Calculate a two tier machine hour rate for (a) set up time and (b) running time. Find two tier rates if Repair and maintenance varies with productive hours. [8 marks]

3. On 31st March, 2010 the following balances were extracted from the books of the Supreme Manufacturing Company:

NAME OF ACCOUNTS	DEBIT	CREDIT
Stores Ledger Control A/c	45,000	
Work-in-Progress Control A/c	48,000	
Finished Goods Control A/c	15,000	
Cost Ledger Control A/c	--	1,08,000

TRANSACTIONS IN APRIL 2010	₹
Raw Materials Purchased	85,000
Returned to suppliers	2,000
Issued to Production	88,000
Returned to stores	3,000
Productive wages	50,000
Indirect labour	25,000
Factory overhead expenses incurred	35,000
Selling and Administrative expenses	40,000
Cost of finished goods transferred to warehouse	2,20,000
Cost of Goods sold	2,10,000
Sales	3,00,000

Factory overheads are applied to production at 180% of direct wages, any under/over absorbed overhead being carried forward for adjustment in the subsequent months. All administrative and selling expenses are treated as period costs and charged off to the Profit and Loss Account of the month in which they are incurred.

Show the following Accounts:

- Cost Ledger Control A/c
- Stores Ledger Control A/c
- Work-in-Progress Control A/c
- Finished Goods Stock Control A/c
- Factory Overhead Control A/c
- Costing Profit and Loss A/c
- Trial Balance as at 30th April, 2010

[15 marks]

4. Answer any five:

- What is Group Bonus? Name some group bonus schemes.
- Distinguish between Engineered Cost and Value added.
- Discuss the treatment of By Products in Cost Accounting?
- The ratio of variable cost to sales is 70%. The break even point occurs at 60% of the capacity sales. Find the capacity sales when fixed costs are ₹ 90,000. Also compute profit at 75 % of the capacity sales.

- (e) From the following data, Calculate (i) Rate of pay variance (ii) Labour efficiency variance and (iii) Labour cost variance:

PARTICULARS	STANDARD	ACTUAL
Number of men employed	100	90
Output in units	5,000	4,800
Number of working days in a month	20	18
Average wages per man per month	₹ 200	₹ 198

- (f) What are the different types of Overhead Rates?

TEST PAPER - 9

Answer to Q no. 1 is compulsory and attempt any two from the rest three:

Working Notes should form part of the answer.

Full Marks : 50 Time allowed: 1 hr 40 mins

1. Answer any five: [4 marks each]

(a) A company has three production and two service departments. Distribution summary of overheads is as follows:

Production Departments:

A ₹ 13,600

B ₹ 14,700

C ₹ 12,800

Service Departments:

X ₹ 9,000

Y ₹ 3,000

The expenses of service departments are charged on a percentage basis which is as follows:

	A	B	C	X	Y
Deptt X	40%	30%	20%	-	10%
Deptt Y	30%	30%	20%	20%	-

Apportion the cost of service departments by using repeated distribution method.

(b)

The following information is collected from the personnel department of ST Ltd for the year ending 31st December 2010:

Number of workers at the beginning of the year 8,000

Number of workers at the end of the year 9,600

Number of workers left the company during the year 500

Number of workers discharged during the year 100

Number of workers replaced due to left and discharges 700

Additional workers employed for expansion during the year 1,500

You are required to calculate labour turnover rate by using Replacement, Separation and Flux Method.

(c) From the following calculate Fixed Overhead Calendar, Capacity and Efficiency Variance.

Particulars	Budgeted	Actual
Output (units)	500	480
Fixed Overhead (₹)	80,000	92,000
Working days	20	21
Hours	2,000	2,300

- (d) State the relationship between cost accounting, financial accounting and management accounting.
- (e) At the time of physical stock taking, it was found that actual stock level was different from the clerical or computer records. What can be possible reasons for such differences? How will you deal with such differences?
- (f) Explain the treatment of Research and Development Overhead in Cost Accounting.

2. ABC and Co. Ltd. Has a production capacity of 5,00,000 units a year. Budgeted capacity utilization is reckoned as 90%. Standard Variable production costs are ₹ 27.50 per unit. The fixed costs are ₹ 9,00,000 per year. Variable selling costs are ₹ 7.50 per unit and fixed selling costs are ₹ 6,30,000 per year. The unit selling price is ₹ 50.

In the year just ended on 30th June 2010, the production was 4,00,000 units and sales were 3,75,000 units. The closing inventory on 30th June 2010 was 50,000 units. The actual variable production costs for the year were ₹ 87,500 higher than the standard.

- (i) Calculate the profit for the year by absorption costing method and by marginal costing method.
- (ii) Explain the difference in profits. [15 marks]

3. (a) Journalise the following transactions assuming that cost and financial transactions are integrated:

TRANSACTIONS	AMOUNT (₹)
Raw materials purchased	5,00,000
Direct materials issued to production	4,50,000
Wages paid (30% indirect)	3,00,000
Wages charged to production	90,000
Manufacturing expenses incurred	2,84,000
Manufacturing overhead charged to production	3,02,000
Selling and distribution costs	1,10,000
Finished products (at cost)	4,50,000
Sales	5,90,000
Closing stock	Nil
Receipts from debtors	3,25,000
Payments to creditors	4,10,000

[5 marks]

(b)

A contractor, who prepares his account on 31st December each year, commenced a contract on 1st April 2010. The costing records concerning the said contract reveal the following information on 31st December, 2010;

₹.

Materials charged to site	2,58,100
Labour engaged	5,60,500
Foremen's salary	79,300

Plants costing ₹. 2,60,000 had been on site for 146 days. Their working life is estimated at 7 years and their final scrap value at ₹. 15,000. A supervisor, who is paid ₹. 4,000 p.m. has devoted approximately three-fourths of his time to this contract. The administrative and other expenses amount to ₹. 1,40,000. Materials in hand at site on 31st December, 2010 cost ₹. 25,400. Some of the material costing ₹. 4,500 was found unsuitable and was sold for ₹. 4,000 and a part of the plant costing ₹. 5,500 (on 31.12.90) unsuited to the contract was sold at a profit of ₹. 1,000. The contract price was ₹. 22,00,000 but it was accepted by the contractor for ₹. 20,00,000. On 31st December, 2010, two thirds of the contract was completed. Architect's certificate had been issued covering 50% of the contract price and ₹. 7,50,000 had so far been paid on account.

Prepare contract account and state how much profit or loss should be included in the financial accounts to 31st December, 2010. Workings should be clearly given. Depreciation is charged on time basis.

Also prepare the Contractee's account and show how these accounts should appear in the Balance Sheet as on 31st December, 2010. [10 marks]

4. [3 marks each]

(a) How Standards and Budgets are inter related?

(b) A factory is currently running at 50% capacity and produces 5,000 units at a cost of ₹. 900 per unit as per details below:

	₹
Material	500
Labour	150
Factory overheads	150 (₹. 60 fixed)
Administrative overheads	100 (₹. 50 fixed)

The current selling price is ₹. 1,000 per unit. At 70% working, material cost per unit increases by 2% and selling price per unit falls by 2%.

Estimate profits of the factory at 70% working by preparing a flexible budget.

(c) A company has fixed cost of ₹. 90,000, Sales ₹. 3,00,000 and Profit of ₹. 60,000.

Required:

(i) Sales volume if in the next period, the company suffered a loss of ₹. 30,000.

(ii) What is the margin of safety for a profit of ₹. 90,000?

(d)

Calculate total passenger kilometres from the following information:- Number of buses 6, number of days operating in a month 25, trips made by each bus per day 8, distance covered 20 kilometres (one side), capacity of bus 40 passengers, normally 80% capacity utilization.

(e) Distinguish between controllable and uncontrollable cost.

TEST PAPER - 10

Answer to Q no. 1 is compulsory and attempt any two from the rest three:

Working Notes should form part of the answer.

Full Marks : 50 Time allowed: 1 hr 40 mins

1. JKL Limited produces two products J and K together with a by – product L from a single main (Process I). Product J is sold at the point of separation for ₹ 55 per kg, whereas product K is sold for ₹ 77 per kg after further processing into PRODUCT K2. By – Product L is sold without further processing for ₹ 19.25 per kg. Process I is closely monitored by a team of chemists who planned the output per 1,000 kg of input materials to be as follows:-

OUTPUT	KGS
Product J	500
Product K	350
Product L	100
Toxic Waste	50

The toxic waste is disposed at a cost of ₹ 16.50 per kg and arises at the end of processing.

Process II which is used for further processing of Product K into Product K2, has the following cost structure:-

COSTS	AMOUNT
Fixed Cost	₹ 2,64,000 per week
Variable cost	₹ 16.50 per kg processed

The following actual data relate to the first week of the month:

PROCESS I	
Opening Work – in Progress	Nil
Material Input (40,000 kg)	₹ 6,60,000
Direct Labour	₹ 4,40,000
Variable Overheads	₹ 1,76,000
Fixed overheads	₹ 2,64,000
OUTPUT	
Product J	19,200 kg
Product K	14,400 kg
Product L	4,000 kg
Closing Work – in – Progress	Nil
Toxic Waste	2,400 kg

PROCESS II	
Opening Work – in – Progress	Nil
Input of product K	14,400 kg
Output of product K2	13,200 kg
Closing Work – in – Progress (50 % converted and conversion costs were incurred in accordance with the planned cost structure)	1,200 kg

Required:

- (i) Prepare Process I account for the first week of the month using the final sales value method of attributing the pre – separation costs to joint products.
- (ii) Prepare the Toxic waste account and Process II account for the first week of the month.
- (iii) Comment on the method used by the JKL Limited to attribute the pre – separation costs to Joint products.
- (iv) Advise the management of JKL Limited whether or not, on purely financial grounds, it should continue to process Product K into Product K2 –
 - a. If Product K could be sold at the point of separation for ₹ 47.30 per kg and
 - b. If the 60 % of the weekly fixed costs of PROCESS II were avoided by not processing Product K further.

[6 + 6 + 3 + 5 = 20 marks]

2. (a) The following information on stock outs is supplied by a company:

Stock Out (units)	800	600	400	200	Nil
No. Of Times	2	3	5	10	30

The selling price per unit is ₹ 200. Inventory carrying costs are ₹ 19 per unit, while stock out costs are ₹ 50 per unit. From the given information, answer the following questions –

1. If the company wishes to never miss a sale, what would be its safety stock? What are the total costs associated with this level of safety stock?
2. What are the total costs associated with safety stocks of 600, 400 and 200 units?
3. What is the optimum safety stock level?

[2 + 9 + 1 = 12 marks]

(b)

What is meant by Uniform Costing? [3 marks]

3. (a) TB Ltd. has prepared the following sales budget for the first five months of 2010:

Month	Sales Budget (units)
January	10,800
February	15,600
March	12,200
April	10,400
May	9,800

Inventory of finished goods at the end of every month is to be equal to 25 % of sales estimate for the next month. On 1st January, 2010 there were 2,700 units of product on hand. There is no work – in – progress at the end of any month.

Every unit of product requires two types of materials in the following quantities:

Material A: 4 kg

Material B: 5 kg

Materials equal to one half of the requirement of next month's production are to be in hand at the end of every month. This requirement was met on 1st January, 2010.

Prepare the following budgets for the quarter ending 31st March 2010:

(a) Production Budget and

(b) Material Purchase Budget.

[8 marks]

(b) From the following calculate all Labour Variances:

Particulars	Grade A	Grade B	Grade C
No. in standard gang	20	20	10
Standard Wage Rate (₹ per hr)	5	3	2
Actual No. of workers	25	10	15
Actual Wage Rate (₹ per hr)	6	3	3

During a 4 hrs week the standard labour hour produced was 1900 hours.

[7 marks]

4. Answer any five:

[3 marks each]

(a) Explain Escalation Clause.

(b) What is the difference between Marginal Costing and Direct Costing?

(c) Distinguish between Job Costing and Process Costing?

(d) What are the methods of time keeping and time booking?

(e) How would you account for wastages and spoilage in cost accounting?

(f) Product Z has a PV Ratio of 28%. Fixed operating costs directly attributable to product Z during the Quarter II of the financial Year 2009 – 10 will be ₹ 2,80,000.

Calculate the sales revenue required to achieve a quarterly profit of ₹ 70,000.