

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

Marks

1. (a)	Match the following expressions in column I with the most relevant topic in column II.	1x5=5 (1)												
	<table><tr><th>Column I</th><th>Column II</th></tr><tr><td>Balanced Score Card</td><td>Inventory Control</td></tr><tr><td>Under Absorbed Overhead</td><td>Marginal Costing</td></tr><tr><td>Contribution</td><td>Method of Wage Payment</td></tr><tr><td>Piece Rate</td><td>Supplementary Rates</td></tr><tr><td>Perpetual Inventory System</td><td>Performance Analysis</td></tr></table>	Column I	Column II	Balanced Score Card	Inventory Control	Under Absorbed Overhead	Marginal Costing	Contribution	Method of Wage Payment	Piece Rate	Supplementary Rates	Perpetual Inventory System	Performance Analysis	
Column I	Column II													
Balanced Score Card	Inventory Control													
Under Absorbed Overhead	Marginal Costing													
Contribution	Method of Wage Payment													
Piece Rate	Supplementary Rates													
Perpetual Inventory System	Performance Analysis													
(b)	Fill in the blanks:	1x5=5												
(i)	The term used to charge overheads to cost units is called _____	(1)												
(ii)	Sales minus Break-even sales is called _____	(1)												
(iii)	Material usage variance is the sum of _____	(1)												
(iv)	In absorption costing _____ cost is added to inventory.	(1)												
(v)	In Television industry the most appropriate method of costing is _____ costing.	(1)												
(c)	State whether the following statements are True (T) or False (F).	1x5=5												
(i)	If an expense can be identified with a specific cost unit, it is treated as direct expense.	(1)												
(ii)	Time and motion study which is a function of the engineering department is useless for determination of wages.	(1)												
(iii)	Fixed costs vary with volume rather than time.	(1)												
(iv)	Future costs are not relevant while making managerial decision.	(1)												
(v)	In break-even analysis it is assumed that variable costs fluctuate inversely with time.	(1)												
(d)	Identify correct answer from the given alternatives of the following questions:	1x5=5												
(i)	Which of the following concept is known as cost behavior-oriented approach to product costing? A. Standard costing B. Marginal costing C. Process costing D. Absorption costing	(1)												
(ii)	"Conversion cost" refers to A. Manufacturing costs incurred to produce units of output B. All costs associated with manufacturing other than direct labour costs C. The sum of direct material costs and all factory overhead costs D. The sum of raw material costs and overheads costs	(1)												
(iii)	Which of the following is the correct valuation base for finished goods stock for balance sheet purposes? A. Variable cost per unit B. Marginal cost per unit C. Production cost per unit D. Total cost per unit	(1)												
(iv)	Which of the following is true at break-even point? A. Total Sales revenue = Variable cost B. Profit = Fixed cost C. Sales revenue = Total cost – Variable cost D. Contribution = Fixed cost	(1)												
(v)	If the raw material prices are affected by inflation, which of the following methods of valuing stocks will give the lowest gross profit? A. LIFO B. Replacement cost C. FIFO D. Simple average.	(1)												

(e) Choose the correct answer from the brackets. 1x5=5

- (i) In a company there were 1200 employees on the rolls at the beginning of a year and 1180 at the end. During the year 120 persons left service and 96 replacements were made. The labour turnover according to flux method is _____ %. [5.04, 4.03, 9.08]

(ii) The variable cost of product increases by 10% and the management raise the unit selling price by equal amount. The fixed cost remain unchanged. Then BEP of the firm _____ [Increase, decrease, unchanged].

(iii) The factory where standard costing is followed, 4600 kg of materials at Rs. 10.50/kg where actually consumed resulting in a price variance of Rs. 4800 (A) and usage variance of Rs. 4000 (F). The standard cost of actual production is Rs. _____ [100000, 96000, 120000].

(iv) If the capacity usage ratio of a production department is 90% and activity ratio is 99%, the efficiency ratio of the department is _____ %. [120, 110, 90].

(v) The output of three different products P, Q and R in a factory are 20000 kg,15000 kg and 15000 kg respectively. If costs are in proportion 4 : 6 : 7, then the cost per equivalent unit is Rs. _____ [10, 7, 5].

2. (a) What is idle time? Explain the causes for idle time. 5 (0)

(b) A worker is allowed 60 hours to complete a job on a guaranteed wage of Rs. 10 per hour. He completes the job in 48 hours. For the saving in time, how much he will get under Halsey Premium Plan (@50% Bonus)? 5 (0)

(c) A company makes components for television sets using two service departments and two production departments. The inter-departmental relationship andoverhead costs are given below: 5 (0)

	Percentage of service provided to			
	Maintenance	Scheduling	Moulding	Assembly
From:				
Maintenance	—	10%	40%	50%
Scheduling	20%	—	50%	30%
Total overhead cost (Rs.)	7,50,000	4,00,000	3,78,000	2,76,000

You are required to show the amount of Scheduling Department costs and Maintenance Department costs to be allocated to the Production Department, using Simultaneous Equation Method.

3. (a) The following was the expenditure on a contract for Rs. 12,00,000 commenced in January 2008: 5 (0)

	Rs.
Materials	2,40,000
Wages	3,28,000
Plant	40,000
Overheads	17,200

Cash received on account of the contract up to 31st December was Rs. 4,80,000 being 80% of the work certified. The value of materials in hand was Rs. 20,000. The plant had undergone 20% depreciation. Prepare contract account.

(b) A factory has two production processes. Normal loss in each process is 10% and scrapped units sell for Re. 0.50 each from process 1 and 3 each from process 2. Relevant information for costing purposes relating to period 5 are as follows: 10 (0)

Direct materials added:	Process I	Process II
Units	2,000	1,250
Cost	Rs. 8,100	Rs. 1,900
Direct labour	Rs. 4,000	Rs. 10,000
Production overhead	150% of direct labour cost	120% of direct labour cost
Output to Process 2/finished goods	1,750 units	2,800 units
Actual production overhead	Rs. 17,800	

Workout cost per unit of output and losses.

4. (a) "Costs may be classified in a variety of ways according to their nature and the information needs of the management." —Explain. 5 (0)

(b) A hotel has a capacity of 100 single rooms and 20 double rooms. The average occupancy of both single and double rooms is expected to be 80% throughout the year of 365 days. The rent for the double rooms has been fixed at 125% of the rent of the single room. The costs are as under: 10 (0)

Variable costs:	Single room Rs. 220 each per day; Double room Rs. 350 each per day
Fixed costs:	Rs. 49,64,000

Calculate the rent chargeable for single and double rooms per day in such a way that the hotel earns a margin of safety of 20% on hire of room.

5. (a) State the distinguishing features of standard cost. 5 (0)

(b) The following information was obtained from the records of a manufacturing unit using standard costing system: 10 (0)

Particulars	Standard	Actual
Production	4000 units	3800 units

Working days	20	21
Fixed overheads	Rs. 40,000	Rs. 39,000
Variable overheads	Rs. 12,000	Rs. 12,000

Calculate:

(a) Variable overhead variance;
(b) Fixed overhead expenditure variance;
(c) Fixed overhead volume variance;
(d) Fixed overhead efficiency variance;
(e) Fixed overhead calendar variance.

The following are the estimated sales of a company for eight months ending 30:11:2007.

Month	Estimated Sales (Units)
April 2007	12,000
May 2007	13,000
June 2007	9,000
July 2007	8,000
August 2007	10,000
September 2007	12,000
October 2007	14,000
November 2007	12,000

As a matter of policy, the company maintains the closing balance of finished goods and raw materials as follows:

Stock item	Closing balance of a month
Finished goods	50% of the estimated sales for the next month
Raw materials	Estimated consumption for the next month

Every unit of production requires 2 kg of raw material costing Rs. 5 per kg.

Prepare Production Budget (in units) and Raw Material Purchase Budget (in units and cost) of the company for the half year ending 30 September 2007.

Explain the methods of Transfer Pricing.

Distinguish between Marginal Costing and Absorption Costing.

A company produces 30,000 units of product A and 20,000 units of product B per annum. The sales value and costs of the two products are as follows:

Sales Value:	Rs. 7,60,000	Factory Overheads:	Rs. 1,90,000
Direct Material	Rs. 1,40,000	Administrative and Selling Overheads:	Rs. 1,20,000
Direct Labour:	Rs. 1,90,000		

50% of the factory overheads are variable and 50% of the administrative and selling overheads are fixed. The selling price of A is Rs. 12 per unit and Rs. 20 per unit for B.

The direct material and labour ratio for product A is 2 : 3 and for B is 4 : 5. For both the products, the selling price is 400% of direct labour. The factory overheads are charged in the ratio of direct labour and administrative and selling overheads are recovered at a flat rate of Rs. 2 per unit for A and Rs. 3 per unit for B.

Due to fall in demand of the above products, the company has a plan to diversify and make product C using 40% capacity. It has been estimated that for C direct material and direct labour will be Rs. 2.50 and Rs. 3 per unit respectively. Other variable costs will be the same as applicable to the product A. The selling price of product C is Rs. 14 per unit and production will be 30,000 units.

Assuming 60% capacity is used for manufacture of A and B, calculate—

(i) Present cost and profit;
(ii) Cost and profit after diversification;
(iii) Give your recommendations as to whether to diversify or not.

Write short notes on any three of the following:

JIT;

Activity Based Costing;

Benchmarking;

Uniform Costing;

Flexible Budgeting.

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

Marks

1. (a) Match the following correctly with what is relates:

Merit rating

Supervisors' salaries

Variance analysis

Decision making

Point rating

Design of the product

Value engineering

Basis for remunerating employees

Angle of incidence

Job evaluation

engineered cost

Profitability rate

Management by Exception

1x5=5 (0)
- (b) State whether the following statements are True (T) or False (F).

1x5=5

(i) If an expense can be identified with a specific cost unit, it is treated as direct expense;

(0)

(ii) Time and motion study which is a function of the engineering department is useless for the determination of wages;

(0)

(iii) ABC analysis is made on the basis of unit prices of materials;

(0)

(iv) The relationship of value, function and cost can be expressed as Cost = Value/Function;

(0)

(v) Standard hour is the standard time required per unit of production.

(0)
- (c) Choose the correct answer from the brackets:

1x5=5

(i) The annual demand of a certain component bought from the market is 1,000 units. The cost of placing an order is Rs. 60 and the carrying cost per unit is Rs. 3 p.a. The Economic Order Quantity for the item is _____ (200, 400, 600).

(0)

(ii) The monthly cost of maintenance of machinery for 12,000 machine hours run is Rs. 1,70,000 and for 18,500 hours it is Rs. 2,02,500. The cost of maintenance for 14,000 hours is Rs. (1,90,000, 1,80,000, 1,85,000)

(0)

(iii) A company's fixed cost amounts to Rs. 120 lakhs p.a. and its overall P/V ratio is 0.4. The annual sales of the company should be Rs. _____ lakhs to have a Margin of Safety of 25% (400, 500, 600)

(0)

(iv) In a company there were 1200 employees on the rolls at the beginning of a year and 1180 at the end, during the year 120 persons left and 96 replacements were made, the rate of labour turnover according to flux method is _____ (5.04, 4.03, 9.08)

(0)

(v) The output of three different products P, Q and R in a factory are 20000 Kg. 15000 Kg. and 15000 Kg. respectively. If the costs are in proportion 4 : 6 : 7, then the cost per equivalent product unit is Rs. _____ (10, 7, 5)

(0)
- (d) Fill in the black; with suitably:

1x5=5

(i) Margin of safety is _____ or _____.

(0)

(ii) Material usage variance is the sum of _____ and _____.

(0)

(iii) A flexible budget recognizes the behaviour of _____ and _____.

(0)

(iv) Profit volume graph shows the relationship between _____ and _____.

(0)

(v) Efficiency is basically a ratio of _____ and _____.

(0)
- (e) In the following cases, choose the correct answer:

1x5=5

(i) In activity based costing, costs are accumulated by

(0)

A. Cost objects;

B. Cost benefit analysis;

C. Cost pool;

D. None of the above.

- (ii) A company maintains a margin of safety of 25% on its current sales and earns a profit of Rs. 30 lakhs per annum. If the company has a profit volume (P/V) ratio of 40%, its current sales amount to (0)
- A. Rs. 200 lakhs;
B. Rs. 300 lakhs;
C. Rs. 325 lakhs;
D. None of the above.
- (iii) In a factory of PEE Ltd. where standard costing is followed, the budgeted fixed overhead for a budgeted production of 4800 units is Rs. 24,000. For a certain period actual expenditure incurred was Rs. 22,000 resulting in a fixed overhead volume variance of Rs. 3,000 (Adv.). Then actual production for the period was (0)
- A. 5400 units;
B. 4200 units;
C. 3000 units;
D. None of the above.
- (iv) Zee Ltd. uses material—A for the production of Product M. The safety stock of material A is 300 units; the supplier quotes a delivery delay of two or three weeks. If the company uses 500 to 800 units a week according to the activity levels, the re-order level of material—A will be (0)
- A. 2300 units;
B. 2400 units;
C. 2700 units;
D. 28 units.
- (v) A worker has time rate of Rs. 15/hr. He makes 720 units of a component (standard time 5 minutes/unit in a week of 48 hours). His total wages including Rowan bonus for the week is (0)
- _____.
A. Rs. 792;
B. Rs. 820;
C. Rs. 840;
D. Rs. 864.

2. (a) Discuss the essentials of a good incentive scheme. 5 (0)

(b) The standard hours for job X is 100 hours. The job has been completed by Amar in 60 hours. Akbar in 70 hours and Anthony in 95 hours. The bonus system applicable to the job is as follows: 5 (0)

Percentage of time saved to time allowed	Bonus
Saving up to 10%	10% of time saved
From 11% to 20%	15% of time saved
From 21% to 40%	20% of time saved
From 41% to 100%	25% of time saved

The rate of pay is Rs. 10 per hour. Calculate the total earnings of each worker and also the rate of earnings per hour.

(c) A company has three production departments, A, B and C and two service departments, P and Q. The following figures are available from the primary distribution summary. 5 (0)

Department	Dept. A	Dept. B	Dept. C	Dept. P	Dept. Q
From primary distribution (Rs.)	3,150	3,700	1,400	2,250	1,000

The expenses of the services departments are to be apportioned on a percentage basis as follows:

Department	Dept. A	Dept. B	Dept. C	Dept. P	Dept. Q
P (%)	40	30	20	—	10
Q (%)	30	30	20	20	—

Prepare secondary distribution summary as per the simultaneous equations method.

3. (a) State the fundamental principles of Process Costing. 5 (0)

(b) Prabhu Builders Ltd. commenced work on 1st April, 2007 on a contract of which the agreed price was Rs. 5 lakhs. The following expenditure was incurred during the year up to 31st March, 2008. 10 (0)

Particulars	Amount Rs.
Wages	1,40,000
Plant	35,000

Materials	1,05,000
Head office expenses	12,500

Materials costing Rs. 10,000 proved unsuitable and were sold for Rs. 11,500 and a part of plant was scrapped and sold for Rs. 1,700. Of the contract price Rs. 2,40,000 representing 80% of work certified had been received by 31st March, 2008 and on that date the value of the plant on the job was Rs. 8,000 and the value of materials was Rs. 3,000. The cost of work done but not certified was Rs. 25,000.

It was decided to (a) Estimate what further expenditure would be incurred in completing the contract. Ub) Compute from the estimate and the expenditure already incurred, the total profit that would be made on the contract and (c) Ascertain the amount of profit to be taken to the credit of Profit and Loss Account for the year ending on 31st March, 2008. While taking profit to the credit of Profit and Loss A/c. that portion of the total profit should be taken which the value of work certified bears to the contract price. Details of the estimates to complete the contract are given below:

(a) That the contract would be completed by 30th September, 2008.

(b) The wages to complete would amount Rs. 84,750.

(c) That materials in addition to those in stock on 31st March, 2008 would cost Rs. 50,000.

(d) That further Rs. 15,000 would have to be spent on plant and the residual value of the plant on 30th September, 2008 would be Rs. 6,000.

(e) The head office expenses to the contract would be at the same annual rate as in 2007–08.

(f) That claims, temporary maintenance and contingencies would require Rs. 9,000.

Prepare contract account for the year ended 31st March, 2008 and show your calculations of the sum to be credited to Profit and Loss A/c. for the year.

4. (a) New India Engineering Co. Ltd. produces three components A, B and C. The following particulars are provided:

5+5=10 (0)

	PRODUCT		
	A	B	C
	Rs.	Rs.	Rs.
Per Unit			
Sale Price	60	55	50
Direct Material	20	18	15
Direct Labour	15	14	12
Variable overhead expenditure	13	13	17
Fixed Cost is Rs. 1,00,000 per year			
Estimated Sales (in No. of Units)	2,000	2,000	2,000

Due to break–down of one of the machines, the capacity is limited to 12,000 machine hours only and this is not sufficient to meet the total sales demand.

You are required to work out

(a) what will be most profitable product mix that should be produced, and

(b) the total contribution from the revised product mix.

- (b) What are the factors those are taken into account by the Management while considering a Make or Buy decision?

5 (0)

5. (a) The standard process cost card for a processed item is as under:

10 (0)

	Rs. Per kg of Finished Product
Direct Material – 2 kgs @ Rs. 10 per kg	20
Direct Labour–3 hours @ Rs. 20 per hour	60
Fixed Overhead	90
Total	170

Budgeted output for the period is 1000 kgs.

Actual production and cost data for a month are as under:

Actual production (on equivalent production basis)

Material =	1400 kgs			
Labour =	1140 kgs			
Overheads =	1140 kgs			
Direct Material	2900 kgs	= cost	Rs.	32,000
Direct Labour	3300 hours	= cost	Rs.	68,000
Fixed Overhead			Rs.	88,000

You are required to work out the following variances:

(i) Material Price and Usage Variances;

(ii) Labour rate and Efficiency Variances; and

(iii) Fixed Overhead Budget Variance.

(b) Distinguish between Standard Costing and Budgetary Control. 5 (0)

6. (a) The following information relates to the production activities of Good Wish Ltd. for 3 months ending on 31st December, 2006: 10 (0)

Particulars	Amount in Rupees
Fixed Expenses:	
Management Salaries	2,10,000
Rent and Taxes	1,40,000
Depreciation of Machinery	1,75,000
Sundry Office Expenses	2,22,000
Total Fixed Expenses	7,47,000
Semi-Variable Expenses at 50% capacity	
Plant Maintenance	62,500
Labour	2,47,000
Salesmen's salaries	72,500
Sundry Expenses	65,000
Total Semi-Variable Expenses	4,47,000
Variable Expenses at 50% capacity	
Materials	6,00,000
Labour	6,40,000
Salesmen's commission	95,000
Total Variable Expenses	13,35,000

It is further noted that semi-variable expenses remain constant between 40% and 70% capacity, increase by 10% of the above figures between 70% and 85% capacity and increase by 15% of the above fig. between 85% and 100% capacity. Fixed expenses remain constant whatever the level of activity. Sales at 60% capacity are Rs. 25,50,000, at 80% capacity Rs. 34,00,000 and at 100% capacity Rs. 42,50,000. All items produced are sold. Prepare a flexible budget at 60%, 80% and 100% productive capacity.

(b) Define 'Operating Costing' and mention at least five activities where it is applicable. 5 (0)

7. (a) As of 31st March, 2008, the following balances existed in a firm's cost ledger, which is maintained separately on a double entry basis: 10 (0)

	Debit Rs.	Credit Rs.
Stores Ledger Control A/c	3,00,000	—
Work-in-progress Control A/c	1,50,000	—
Finished Goods Control A/c	2,50,000	—
Manufacturing Overhead Control A/c	—	15,000
Cost Ledger Control A/c	—	6,85,000
Total	7,00,000	7,00,000

During the next quarter, the following items arose:

Finished Product (at cost)	2,25,000
Manufacturing overhead incurred	85,000
Raw material purchased	1,25,000
Factory wages	40,000
Indirect labour	20,000
Cost of sales	1,75,000
Materials issued to production	1,35,000
Sales returned (at cost)	9,000
Materials returned to suppliers	13,000
Manufacturing overhed charged to production	85,000

You are required to prepare the Cost Ledger Control A/c., Stores Ledger Control A/c., Work-in progress control A/c. Finished Stock Ledger Control A/c., Manufacturing Overhead Control A/c., Wages Control A/c., Cost of Sales A/c and the Trial Balance at the end of the quarter.

(b) Explain the need for reconciliation of cost and financial accounts. Also state the reasons for difference in profit between the two accounts. 5 (0)

8. Write short notes on any three; 3x5=15

(a) Cost Volume Profit Analysis; (0)

(b) Limitations of Market Based Transfer pricing; (0)

(c) Profit Centre; (0)

(d) Essentials of Inter firm comparison; (0)

(e) Concept of split-off point and joint cost. (0)

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

Marks

1. (a) Match the statement in Column 1 with the most appropriate statement in Column 2: 1x5 (1)

Column 1	Column 2
1. Uniform Costing	A. Job evaluation
2. Value Analysis	B. Technique to assist inter-firm comparison
3. Residual Income	C. Promotes innovation and creativity
4. Stepped Cost	D. Supervisor's salaries
5. Point Rating	E. Measures divisional performance

- (b) State whether the following statements are
- True (T)*
- or
- False (F)*
- : 1x5

- (i) ABC analysis is made on the basis of unit prices of material. (0)
- (ii) Cost of tube used for packing tooth paste is indirect material cost. (0)
- (iii) Value analysis helps in cost control. (0)
- (iv) In process costing on distinction is made between direct and indirect material. (0)
- (v) Coal industry makes use of process costing. (0)

- (c) In the following cases one out of four answers is correct. You are required to indicate the correct answer (1 mark) and give your reason for answer (1 mark) : 2x5

- (i) A television company manufactures several components in batches. The following data relates to one component:
Annual demand – 32,000 units; Set-up cost/batch – Rs.120; Annual rate of interest – 12%;
Cost of production per unit – Rs.16.
The Economic Batch Quantity (EBQ) is
(A) 2500 (B) 4000 (C) 3000 (D) 2000 (0)
- (ii) Sales of two consecutive months of a company are Rs.3,80,000 and Rs.4,20,000. The company's net profits for these months amounted to Rs.24,000 and Rs.40,000 respectively. There is no change in P/V ratio or fixed costs. The P/V ratio of the company is
(A) 33.33% (B) 40% (C) 25% (D) None of these. (0)
- (iii) The repairs and maintenance of machinery in factory is a semi-variable cost having some relationship with the no.of machine hours run. It was Rs.17,500 during October 2009 for 7,500 machine hours worked and Rs.15,400 for November 2009 when only 5,400 machine hours were worked. The budgeted cost of repairs and maintenance for December 2009 when 6,200 machine hours are expected to be worked will be
(A) 17,200 (B) 16,800 (C) 16,200 (D) None of these (0)
- (iv) The budgeted annual sales of firm is Rs.80 lakhs and 25% of the same is cash sales. If the average amount debtors of the firm is Rs.5 lakhs, the average collection period of credit sales will be months
(A) ½ (B) 1 (C) 1½ (D) None of these (0)
- (v) The budgeted fixed overhead for a budgeted production of 10,000 units is Rs.20,000. For a certain period, the actual production was 11,000 units and the actual expenditure came to Rs.24,000. The volume variance would be
(A) Rs.4,000 (Adv.) (B) Rs.2,000 (Fav.) (C) Rs.2,000 (Adv.) (D) None of these (0)

- (d) Fill in the blanks suitably: 1x5

- (i) Work study consists of _____ and _____. (0)
- (ii) Two methods used for calculation of equivalent production are _____ and _____. (0)
- (iii) Economic Batch Quantity depends on _____ and _____ costs. (0)
- (iv) Normal idle time costs should be charged to _____ while that due to abnormal reasons should be charged to _____. (0)
- (v) A flexible budget recognizes the behaviour of _____ and _____ costs. (0)

2. (a) Distinguish between Scrap, Spoilage and Defectives in an engineering industry. 5 (0)

(b) In a factory bonus system, bonus hours are credited to the employees in the proportion of time taken, which time saved bears to time allowed. Jobs are carried forward from one week to another. No overtime is worked and payment is made in full for all units worked on, including those subsequently rejected. From the following information you are required to calculate for each employee:					5 (0)
(i) The bonus hours and amount of bonus earned;					
(ii) The total wage costs; and					
(iii) The wages cost of each good unit produced.					
Particulars	Worker A	Worker B	Worker C		
Basic rate per hour	Rs.10	Rs.16	Rs.12		
Units produced	2600	2200	3600		
Time allowed for 100 units	2 hours 30 minutes	3 hours	1 hour 30 minutes		
Time taken	52 hours	75 hours	48 hours		
Rejects	100 units	40 units	400 units		
(c) The production department of a factory furnishes the following information for the month of March 2007:					5 (0)
Materials used — Rs.54,000					
Direct wages — Rs.45,000					
Overheads — Rs.36,000					
Labour hours worked — 36,000					
Hours of machine operation — 30,000					
For an order executed by the department during a particular period, the relevant information was as under:					
Materials used — Rs.6,00,000					
Direct wages — Rs.3,20,000					
Labour hours worked — 3,200					
Machine hours worked — 2,400					
Calculate the overhead charges chargeable to the job by the following methods:					
(i) Direct materials cost percentage rate;					
(ii) Labour hour rate; and					
(iii) Machine hour rate.					
(a) Briefly state the various causes of Labour Turnover.					5 (0)
(b) From the following particulars, prepare the following in the books of X Ltd.:					10 (0)
(i) Statement of equivalent production.					
(ii) Statement of apportionment of cost.					
• Opening stock as on 1 st August: 200 units @ Rs.4 per unit.					
• Degree of completion: Materials 100%, Labour and Overheads 40%					
• Units introduced during August: 1,050 units					
• Output transferred to the next process: 1,100 units					
• Closing stock: 150units					
• Degree of completion: Materials 100%, Labour and Overheads 70%					
• Other relevant information regarding the process:					
Materials: Rs.3,150, Labour: Rs.4,500 and Overheads: Rs.2,250.					
(a) Briefly describe what is meant by Activity Based Management.					5 (0)
(b) ABC Ltd. produces three joint products – X, Y and Z. The products are processed further. Pre–separation costs are apportioned on the basis of weight of output of each joint–product. The following data are provided for month just concluded:					5+5 (0)
Cost incurred upto separation point		Rs.10,000			
	Product X	Product Y	Product Z		
Output (in Litre)	100	70	80		
	Rs.	Rs.	Rs.		
Costs incurred after separation point	2,000	1,200	800		
Selling Price per Litre					
After further processing	50	80	60		
At pre–separation point (estimated)	25	70	45		
You are required to:					
(i) Prepare a statement showing profit or loss made by each product using the present method of apportionment of pre–separation cost; and					
(ii) Advise the management whether, on purely financial consideration, the three products are to be processed further.					

5. (a)	Distinguish between Cost control and Cost reduction.	5 (0)																																								
(b)	A hotel has a capacity of 100 Single rooms and 20 Double rooms. The average occupancy of both single and double rooms is expected to be 80% throughout the year of 365 days. The rent for double room has been fixed at 125% of the rent of single room. The costs are as under: Variable Costs: Single room Rs.220 each per day, Double room Rs.350 each per day. Fixed Costs: Single room Rs.120 each per day, Double room Rs.250 each per day. (calculated on the basis of current occupancy level) Calculate the rent chargeable for single and double rooms per day in such a manner that the hotel earns a profit of 25% on cost at current occupancy level.	5 (0)																																								
(c)	A company produces a single product. The selling price of the product is Rs.69.50 per ton. The variable cost is Rs.35.50 per ton, fixed cost for the period is Rs.18.02 lakh. (i) Calculate the Break Even Volume; and (ii) If the Break Even Volume represents 40% of the capacity of the plant, what will be the profit at 80% capacity if there is a reduction in sale price by 10% for additional 20% production and reduction by 15% for the next additional 20% production?	2+3 (0)																																								
6. (a)	State the principle reasons which give rise to variances between actual and standard in standard costing.	5 (0)																																								
(b)	The following information are provided to you for a month in respect of a workshop: (i) Overhead cost variance – Rs1,400 adverse (ii) Overhead volume variance – Rs.1,000 adverse (iii) Budgeted hours – 1,200hrs. (iv) Budgeted overhead – Rs.6,000 (v) Actual rate of recovery of overheads – Rs.8 per hour You are required to compute: 1. Overhead expenditure variance 2. Actual overheads incurred 3. Actual hours for actual production 4. Overheads capacity variance 5. Overheads efficiency variance 6. Standard hours for actual production	10 (0)																																								
7.	ABC Ltd. has prepared a flexible budget for the coming quarter. The following information is provided from the same: <table><tr><td>Production Capacity</td><td>40%</td><td>60%</td><td>80%</td><td>100%</td></tr><tr><td>Costs</td><td>Rs.</td><td>Rs.</td><td>Rs.</td><td>Rs.</td></tr><tr><td>Direct Labour</td><td>16,000</td><td>24,000</td><td>32,000</td><td>40,000</td></tr><tr><td>Direct Material</td><td>12,000</td><td>18,000</td><td>24,000</td><td>30,000</td></tr><tr><td>Production Overheads</td><td>11,400</td><td>12,600</td><td>13,800</td><td>15,000</td></tr><tr><td>Administrative Overheads</td><td>5,800</td><td>6,200</td><td>6,600</td><td>7,000</td></tr><tr><td>Selling and Distribution Overheads</td><td>6,200</td><td>6,800</td><td>7,400</td><td>8,000</td></tr><tr><td></td><td>51,400</td><td>67,600</td><td>83,800</td><td>1,00,000</td></tr></table> <u>However, due to recession the company will have to operate at 50% capacity in the coming quarter. Selling prices has to be lowered to an uneconomic level and expected sales revenue for the coming quarter will be Rs.49,500/-. But it is projected that in the next quarter following the coming quarter, the concern will operate at 75% capacity and generate a sales revenue of Rs.90,000.</u> <u>The Management is considering a suggestion to keep the operation suspended in the coming quarter and restart operation from the quarter when it is expecting to operate at 75% capacity. If the operation is suspended in the next quarter it is estimated that:</u> (a) The present fixed cost for the quarter would be reduced to Rs.11,000. (b) There will be cost of Rs.7,500 for closing down operations. (c) There would be additional maintenance cost of Rs.1,000 for quarter. (d) There would be an one time cost of Rs.4,000 in re–opening the plant. <u>You are required to advise whether the factory should be kept operational during the coming quarter and also what will be the profit at 75% capacity utilization level.</u>	Production Capacity	40%	60%	80%	100%	Costs	Rs.	Rs.	Rs.	Rs.	Direct Labour	16,000	24,000	32,000	40,000	Direct Material	12,000	18,000	24,000	30,000	Production Overheads	11,400	12,600	13,800	15,000	Administrative Overheads	5,800	6,200	6,600	7,000	Selling and Distribution Overheads	6,200	6,800	7,400	8,000		51,400	67,600	83,800	1,00,000	15 (0)
Production Capacity	40%	60%	80%	100%																																						
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Selling and Distribution Overheads	6,200	6,800	7,400	8,000																																						
	51,400	67,600	83,800	1,00,000																																						
8.	Write short notes on <i>any three</i> from the following:	3x5 =																																								
(a)	Supply Chain Analysis;	(0)																																								
(b)	Performance Budgeting;	(0)																																								
(c)	Cost Driver;	(0)																																								
(d)	Job Evaluation;	(0)																																								
(e)	Perpetual Inventory System.	(0)																																								

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

	Marks
1. (a) Match the following correctly :	1x5 (0)
(i) Scatter Diagram (A) Production Order (ii) Escalation Clause (B) Reverse Cost Method (iii) Perpetual Inventory (C) Splitting of Semi-variable Costs (iv) Material Requisition (D) Contract Costing (v) By Product Cost Accounting (E) Method of Maintaining Store Records	
(b) Which of the following statements are 'True' or 'False'?	1x5
(i) In ZBB important reference is made to the previous level of expenditure.	(0)
(ii) Just-in-time deals with controlling defects in time.	(0)
(iii) Production Budget is prepared before Sales Budget.	(0)
(iv) A key factor, which at a particular time or over a period, will not limit the activities of the organization.	(0)
(v) Profit planning and control is not a part of budgetary control mechanism.	(0)
(c) State whether the following statements are 'True' or 'False':	1x5
(i) Standard hour is the standard time required per unit of production.	(0)
(ii) Cost of tube used for packing tooth paste is indirect material cost.	(0)
(iii) Fixed Cost vary with volume rather than time.	(0)
(iv) Future costs are not relevant while making managerial decisions.	(0)
(v) In break-even analysis it is assumed that variable costs fluctuate inversely with time.	(0)
(d) Fill in the blanks suitably:	1x5
(i) A cost which does not involve any cash outflow is called _____ or _____ .	(0)
(ii) Contribution earned after reaching Break Even Point is _____ of the firm.	(0)
(iii) Two broad methods of costing are _____ and _____ .	(0)
(iv) Idle time variance is always _____ .	(0)
(v) Profit-volume graph shows the relationship between _____ and _____ .	(0)
(e) Choose the correct answer from the following:	1x5
(i) A firm requires annually 16,000nos. of a certain components which it buys at Rs.60 each. The cost of placing an order is Rs.120 and the annual storing charges work out 10% of the cost of component. To get maximum benefit the firm should place order for how many units at a time? (1) 1,000 units; (2) 900 units; (3) 800 units;	(0)
(ii) The scarce factor of production is known as (1) Linking factor; (2) Key factor; (3) Production factor;	(0)
(iii) The allotment of whole item of cost to a cost centre or cost unit is called as (1) Cost allocation; (2) Cost apportionment; (3) Overhead absorption;	(0)

	(4) Cost classification.																					
(iv)	If actual hours worked exceed the standard hours allowed, the variance which will occur is called as (1) Favourable labour efficiency variance; (2) Adverse labour rate variance; (3) Adverse labour efficiency variance; (4) Favourable labour rate variance.	(0)																				
(v)	The valuation of Closing Stock according to Last in First Out method of Pricing is done at (1) The latest prices; (2) The earliest prices; (3) At average prices; (4) None of the above.	(0)																				
2. (a)	Write a note on ABC system of Stores Control.	5 (0)																				
(b)	The employees in a factory are paid wages at the rate of Rs.7 per hour for an eight–hour shift. Each employee produces 5 units per hour. The overhead is Rs.10 per direct labour hour. Employees and the management are considering the following piece rate wage proposal: Upto 45 units per day of 8 hours – Rs.1.30 per unit From 46 units to 50 units – Rs.1.60 per unit From 51 units to 55 units – Rs.1.65 per unit From 56 units to 60 units – Rs.1.70 per unit Above 60 units – Rs.1.75 per unit The working hours are restricted to 8 hours per day. Overhead rate does not change with increased production. Prepare a statement indicating advantages to employees as well as to management of production levels of 40, 45, 55 and 60 unit.	5+5 (0)																				
3. (a)	What is meant by ‘Relevant Cost’? Explain with the help of illustration.	5 (0)																				
(b)	A factory is currently working at 50% capacity and produces 5,000 units at a cost of Rs.90 per unit as per details given below: Materials Rs.50 Labour Rs.15 Factory Overhead Rs.15(Rs.6 fixed) Administration Overhead Rs.10(Rs.5 fixed) The current selling price is Rs.100 per unit. At 60% working, material cost per unit increases by 2% and selling price per unit falls by 2%. At 80% working, material cost per unit increases by 5% and selling price per unit falls by 5%. Calculate the current profit at 50% working. Estimate profits of the factory at 60% and 80% working. Which capacity of production you recommend?	2+3+3+2 (0)																				
4. (a)	What is Inter Firm Comparison? Enumerate some of its advantages.	2+3 (0)																				
(b)	ABC Ltd. is manufacturing three products X, Y and Z. All the products use the same raw material which is scarce and available to the extent of 61,000 kg. only. The following information is available from records of the Company: <table><tr><td>Particulars</td><td>Product X</td><td>Product Y</td><td>Product Z</td></tr><tr><td>Selling Price per unit(Rs.)</td><td>100</td><td>140</td><td>90</td></tr><tr><td>Variable Cost per Unit(Rs.)</td><td>75</td><td>110</td><td>65</td></tr><tr><td>Raw Material Requirement per unit(Kg.)</td><td>5</td><td>8</td><td>6</td></tr><tr><td>Market Demand(Units)</td><td>5,000</td><td>3,000</td><td>4,000</td></tr></table> Fixed Costs are Rs.1,50,000 Advise the Company about the most profitable product mix. Compute the amount of profit resulting from such product mix.	Particulars	Product X	Product Y	Product Z	Selling Price per unit(Rs.)	100	140	90	Variable Cost per Unit(Rs.)	75	110	65	Raw Material Requirement per unit(Kg.)	5	8	6	Market Demand(Units)	5,000	3,000	4,000	4+6 (0)
Particulars	Product X	Product Y	Product Z																			
Selling Price per unit(Rs.)	100	140	90																			
Variable Cost per Unit(Rs.)	75	110	65																			
Raw Material Requirement per unit(Kg.)	5	8	6																			
Market Demand(Units)	5,000	3,000	4,000																			
5.	B.Ltd. started trading on 1st November 2008, manufacturing and selling one product. The standard cost per unit was: Direct material : Standard price Rs.10 per kilogram Standard quantity : 20 kilogram per unit Direct labour : Standard rate of pay Rs.5.50 per hour	5+10 (0)																				

Standard time allowance : 12 hours per unit

Production overhead costs, all classified as fixed, were budgeted at Rs.9,00,000 per annum. The standard time for producing one unit is 12 machine hours and normal capacity is 60,000 machine hours per annum. Production overhead is absorbed on machine hours.

For the year ended 31st October 2009, the costs incurred and other relevant information is given below:

Direct material used – 1,00,000 kilograms at a cost of Rs.10,50,000.
Direct wages paid – Rs.3,10,000 for 62,000 hours
Production overhead – Rs.9,26,000
Machine capacity used – 60,000 hours
Actual output – 4,800 units

Assuming no stocks of work-in-progress or finished goods at year end.

You are required to:

- (a) Show the standard product cost for one unit.
(b) Calculate variances for material(usage and price), labour (rate and efficiency) and overhead.

6. (a) Zenith Transport Company has given a route 40 kilometers long to run bus. The bus costs the Company a sum of Rs.1,00,000. It has been insured at 3% p.a. and the annual tax will amount to Rs.2,000. Garage rent is Rs.200 per month. Annual repairs will be Rs.2,000 and the bus is likely to last for 5 years. The driver's salary will be RS.300 per month and the conductor's salary will be Rs.200 per month in addition to 10% of taking as commission (to be shared by the driver and the conductor equally).

Cost of stationery will be Rs.100 per month. Manager-cum-accountant's salary is RS.700 per month. Petrol and oil will be Rs.50 per 100 kilometers. The bus will make 3 up and down trips carrying on an average 40 passengers on each trip.

Assuming 15% profit on taking, calculate the bus fare to be charged from each passenger. The bus will run on an average 25 days in a month.

(b) The Profit & Loss A/c. of XYZ Ltd., for the year ended 31st March 2010 was as follows:

Profit & Loss A/c for the year ended 31st March 2010

Dr.		Cr.	
Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Materials	4,80,000	By Sales	9,60,000
To Wages	3,60,000	By Work-in-Progress	
To Direct Expenses	2,40,000	Materials	30,000
To Gross Profit	1,20,000	Wages	18,000
		Direct Expenses	12,000
		By Closing Stock	1,80,000
Total	12,00,000	Total	12,00,000
To Administration Expenses	60,000	By Gross Profit	1,20,000
To Net Profit	66,000	By Dividends Received	6,000
Total	1,26,000	Total	1,26,000

As per the cost records, the direct expenses have been estimated at a cost of RS.30 per kg. and administration expenses at Rs.15 per kg. During the year Production was 6,000 kgs. and Sales were Rs.9,60,000.

Prepare a statement of costing Profit & Loss A/c. and reconcile the profit with financial profit.

7. (a) Starlight Co. Ltd. and Jupiter Co. Ltd. sell the same type of product. Budgeted Profit & Loss A/c. of these companies for the year ended 31st March 2009 given below:

	Starlight Co. (Rs.'000)		Jupitor Co. (Rs.'000)	
Sales		300		300
Less: Variable Cost:				
Material				
Labour	100		80	
Overhead	110	240	100	200
Fixed Cost	30	30	20	70
Budgeted Profit		30		30

You are required to find out the break-even point of each Company. Also state clearly which Company is likely to earn greater profit if there is (i) heavy demand; and (ii) poor demand for its product.

(b) State clearly limitations of Activity Based Costing.

8. Write short notes on any three; of the following:

8 (0)

7 (0)

10 (0)

5 (0)

5x3

-	(a) <u>Managerial Decision Making;</u>	-	(0)
-	(b) <u>Inter-Firm Comparison;</u>	-	(0)
-	(c) <u>Zero-Base Budgeting;</u>	-	(0)
-	(d) <u>Uniform Costing;</u>	-	(0)
-	(e) <u>Budget Manual;</u>	-	(0)
-	(f) <u>JIT.</u>	-	(0)

CMA Dec 2010

**I—P8(CMA)
Syllabus 2008**

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

		Marks																						
1. (a)	Match the statement in Column 1 with the appropriate statement in Column II:	1x5 (0)																						
<table><tr><th>Column 1</th><th>Column 2</th></tr><tr><td>Liquidity</td><td></td></tr><tr><td>(i) Value</td><td>(A) Technique of cost reduction</td></tr><tr><td>(ii) Engineering</td><td>(B) Current ratio</td></tr><tr><td>(iii) Angle of</td><td>(C) Value of benefit lost by choosing alternative course of</td></tr><tr><td>(iv) Incidence</td><td>(D) action</td></tr><tr><td>(v) Opportunity Cost</td><td>(E) Indicator of profit earning capacity</td></tr><tr><td>Value Analysis</td><td>Analyzing the role of every part at the design stage.</td></tr></table>			Column 1	Column 2	Liquidity		(i) Value	(A) Technique of cost reduction	(ii) Engineering	(B) Current ratio	(iii) Angle of	(C) Value of benefit lost by choosing alternative course of	(iv) Incidence	(D) action	(v) Opportunity Cost	(E) Indicator of profit earning capacity	Value Analysis	Analyzing the role of every part at the design stage.						
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(v) Opportunity Cost	(E) Indicator of profit earning capacity																							
Value Analysis	Analyzing the role of every part at the design stage.																							
(b)	State whether the following statements are True or False :	1x5																						
<table><tr><td>(i) Cost Accounting is a branch of Financial Accounting.</td><td>(0)</td></tr><tr><td>(ii) Bincard shows the quantity and value of stores.</td><td>(0)</td></tr><tr><td>(iii) The relationship of value, function and cost can be represented as Cost = Value/Function.</td><td>(0)</td></tr><tr><td>(iv) Integral accounts merge financial and cost accounts in one set of accounts.</td><td>(0)</td></tr><tr><td>(v) Obsolete stocks can be determined by the frequency of issues.</td><td>(0)</td></tr></table>			(i) Cost Accounting is a branch of Financial Accounting.	(0)	(ii) Bincard shows the quantity and value of stores.	(0)	(iii) The relationship of value, function and cost can be represented as Cost = Value/Function.	(0)	(iv) Integral accounts merge financial and cost accounts in one set of accounts.	(0)	(v) Obsolete stocks can be determined by the frequency of issues.	(0)												
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(c)	Fill up the blanks suitably:	1x5																						
<table><tr><td>(i) For designing a labour incentive scheme, the study of _____ and _____ is essential.</td><td>(0)</td></tr><tr><td>(ii) Economic batch quantity depends on _____ and _____ costs.</td><td>(0)</td></tr><tr><td>(iii) Variable costs go on changing with the _____ level.</td><td>(0)</td></tr><tr><td>(iv) _____ is a must for meaningful inter-firm comparison.</td><td>(0)</td></tr><tr><td>(v) Normal idle time cost should be charged to _____.</td><td>(0)</td></tr></table>			(i) For designing a labour incentive scheme, the study of _____ and _____ is essential.	(0)	(ii) Economic batch quantity depends on _____ and _____ costs.	(0)	(iii) Variable costs go on changing with the _____ level.	(0)	(iv) _____ is a must for meaningful inter-firm comparison.	(0)	(v) Normal idle time cost should be charged to _____.	(0)												
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(iv) _____ is a must for meaningful inter-firm comparison.	(0)																							
(v) Normal idle time cost should be charged to _____.	(0)																							
(d)	In the following cases one out of four answers is correct. You are required to indicate the correct answer (1 mark) and give your reason for answer (1 mark) :	2x5																						
<table><tr><td>(i) If the minimum stock level and average stock level of a particular raw material are 4,000 and 9,000 units respectively, find out its reorder level.</td><td>(0)</td></tr><tr><td>(1) 9,000 units</td><td></td></tr><tr><td>(2) 10,000 units</td><td></td></tr><tr><td>(3) 4,000 units</td><td></td></tr><tr><td>(4) 5,000 units</td><td></td></tr><tr><td>(ii) Depreciation charged in costing books is Rs.12,500 and in financial books is Rs.11,200. What will be the financial profit when costing profit is Rs.5,000?</td><td>(0)</td></tr><tr><td>(1) Rs.5,000</td><td></td></tr><tr><td>(2) Rs.11,200</td><td></td></tr><tr><td>(3) Rs.6,300</td><td></td></tr><tr><td>(4) None of the above</td><td></td></tr><tr><td>(iii) A bus carries 25 passengers daily for 25 days and its mileage per month is 2000 kms. Its passenger kms. per month are</td><td>(0)</td></tr></table>			(i) If the minimum stock level and average stock level of a particular raw material are 4,000 and 9,000 units respectively, find out its reorder level.	(0)	(1) 9,000 units		(2) 10,000 units		(3) 4,000 units		(4) 5,000 units		(ii) Depreciation charged in costing books is Rs.12,500 and in financial books is Rs.11,200. What will be the financial profit when costing profit is Rs.5,000?	(0)	(1) Rs.5,000		(2) Rs.11,200		(3) Rs.6,300		(4) None of the above		(iii) A bus carries 25 passengers daily for 25 days and its mileage per month is 2000 kms. Its passenger kms. per month are	(0)
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(1) 50,000

(2) 25,000

(3) 30,000

(4) 60,000

(iv) A chemical is manufactured by combining two standard items of input A (standard price Rs.60/kg.) and B (standard price Rs.45/kg.) in the ratio 60% : 40%. During processing there is a loss of 10% of input. If during a month 1,200 kg. of the chemical is produced incurring a total cost of Rs.69,600, the total material cost variance will be

(1) Rs.2,400(A)

(2) Rs.2,400(F)

(3) Rs.3,000(A)

(4) Rs.2,000(F)

(v) A company has fixed costs of Rs.6,00,000 per annum. It manufactures a single product which it sells for Rs.200 per unit. Its contribution to sales ratio is 40%. Its break–even in units is

(1) Rs.7,500

(2) Rs.8,000

(3) Rs.3,000

(4) Rs.1,500

2. (a) A firm manufactures three joint products A, B, C and a by–product X by processing a common stock of material, which cost Rs.8 per kg. The details of output, market price and the initial processing cost for an input of 10,000 kg. of raw material is as follows:

Product	Output/kg.	Current Market Price/kg.–Rs.	Initial Processing Cost
A	5,000	18	Direct labour 1,000 hours @ Rs.20
B	2,500	20	Variable overheads: 80% of direct labour
C	1,500	24	Fixed overheads: Rs.21,000
X	500	4	

The company apportions common cost among joint products on physical units basis.

All the by–products can be further processed and sold at a higher market price, with some sales promotion efforts. The estimated processing cost, marketing cost and the final selling price are given below:

Product	Further Processing Cost per kg. – Rs.	Further Marketing Cost per kg. – Rs.	Final price per kg.–Rs.
A	4	2	28
B	5	2	26
C	6	2	34
X	2	1	6

You are required to compute

(i) Cost of joint products at the point of separation after initial processing.

(ii) Profit or loss if the products are sold without further processing.

(iii) Which of the products have to be processed further for maximizing profits? Show working.

(b) Explain ‘Cost Centre’ and ‘Cost Unit’.

3. (a) From the following forecast of income and expenditure prepare a Cash Budget for the three months ending on June, 2008:

Month	Sales (Rs.)	Purchase (Rs.)	Wages (Rs.)	Misc. (Rs.)
2008, February	1,20,000	84,000	10,000	7,000
March	1,30,000	1,00,000	12,000	8,000
April	80,000	1,04,000	8,000	6,000
May	1,16,000	1,06,000	10,000	12,000
June	88,000	80,000	8,000	6,000

Additional Information:

(i) Sales: 20% realised in the month of sales, discount allowed 2%, balance realised equally in two subsequent months.

(ii) Purchases: These are paid in the month following the month of supply,

(iii) Wages: 25% paid in arrears following month,

(iv) Misc. Expenses: Paid a month in arrears.

	(v) Rent: Rs.1,000 per month paid quarterly in advance due in April.											
	(vi) Income Tax: First instalment of advance tax Rs.25,000 due on or before 15 th June to be paid within the month.											
	(vii) Income from Investment: Rs.5,000 received quarterly in April, July etc.											
	(viii) Cash in Hand: Rs.5,000 in April 1, 2008.											
(b)	What is Zero Base Budgeting? State briefly its benefits.	5 (0)										
4. (a)	What are the avoidable and unavoidable causes of Labour Turn-over?	5 (0)										
(b)	A company manufactures a standard component. The details of current operations of the company are as follows: Number of workers employed 100 Weekly working hours 48 Average number of hours lost due to idle time per employee per week 8 Standard time required per unit 2 hours Hourly wage rate Rs.15 Current level of efficiency 80% For every unit sold the company is getting a cash profit of Rs.120 before charging labour cost. In view of the increased demand for the product, the company has come to an agreement with the labour union to raise the wage rate by Rs.3 per hour in return for the workers reducing the idle time by 4 hours and raising the operational efficiency to 90%. Calculate the (i) Net Profit at current operations; (ii) Net Profit after the agreement; and (iii) Increase/decrease in Net Profit.	4+4+2 (0)										
5. (a)	<u>What are the equivalent units of production? State two principal methods of calculating equivalent units.</u>	3+2 (0)										
(b)	<u>The budgeted working conditions for a cost centre are as follows:</u> Normal working per week . . 42 hours Number of machines . . 14 Normal weekly loss of hours on maintenance . . 5 hours per machine Number of weeks works per year . . 48 Estimated annual overheads . . Rs.1,24,320 Actual result in respect of a 4 week period are: Overhead incurred . . Rs.10,200 Machine hours produced . . 2,000 <u>On the basis of the above information you are required to calculate:</u> (i) The machine hour rate. (ii) The amount of under- or over-absorption of overhead.	8+2 (0)										
6. (a)	<u>Black & White Co. Ltd. manufactures 10,000 units of a product at a cost of Rs.4 per unit, which is sold in the domestic market at a sale price of Rs.4.25 per unit. In the next year (2008), there is a fall in the domestic market which can consume the whole products (10,000) if the sale price is reduced to Rs.3.72 per unit.</u> <u>The cost particulars are given below:</u> <table><tr><td></td><td>Rs.</td></tr><tr><td>Material</td><td>1.50 per Unit</td></tr><tr><td>Wages</td><td>1.10 per unit</td></tr><tr><td>Variable overhead</td><td>0.60 per unit</td></tr><tr><td>Fixed cost</td><td>Rs.8000</td></tr></table> <u>Marketing Manager has explored the foreign market and it is found that one foreign importer is ready to purchase 20,000 units of the product at a price of Rs.3.55 per unit. There is a capacity to produce 20,000 units in the factory. However, Rs.1,600 additional amount will be required towards fixed cost.</u> <u>You are advised to offer your views whether it is worthwhile to capture the foreign market?</u>		Rs.	Material	1.50 per Unit	Wages	1.10 per unit	Variable overhead	0.60 per unit	Fixed cost	Rs.8000	10 (0)
	Rs.											
Material	1.50 per Unit											
Wages	1.10 per unit											
Variable overhead	0.60 per unit											
Fixed cost	Rs.8000											
(b)	<u>What are the differences between Labour Rate Variance and Labour Efficiency Variance?</u>	5 (0)										
7. (a)	<u>What do you understand by Batch Costing? This type of costing is used in producing what type of goods.</u>	3+2 (0)										
(b)	<u>A company has two plants at locations I and II, operating at 100% and 75% of their capacities respectively. The company is considering a proposal to merge the two plants at one location to optimise available capacity. The following details are available in respect of the two plants:</u> <table><tr><td>Particulars</td><td>Location I</td><td>Location II</td></tr><tr><td>Sales (Rs.in lakhs)</td><td>200</td><td>75</td></tr></table>	Particulars	Location I	Location II	Sales (Rs.in lakhs)	200	75	5+5 (0)				
Particulars	Location I	Location II										
Sales (Rs.in lakhs)	200	75										

Variable Costs (Rs. in lakhs)	140	54
Fixed Costs (Rs. in lakhs)	30	14

For decision-making purposes you are required to work out the following information:

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

(ii) The profit of the merged plant working at 90% capacity.

8. Write short notes on <i>any three</i> from the following:	5x3=15	-
- (a) <u>Treatment of scrap in cost accounts;</u>	-	(0)
- (b) <u>Labour turnover;</u>	-	(0)
- (c) <u>Split-off point in joint-products and by products;</u>	-	(0)
- (d) <u>VED Analysis;</u>	-	(0)
- (e) <u>Supply-chain Analysis.</u>	-	(0)

CMA June 2011

I—P8(CMA)
Syllabus 2008

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

	Marks												
1. (a) Match the statement in Column I with the appropriate statement in Column II:	1x5 (0)												
<table> <tr> <th>Column I</th><th>Column II</th></tr> <tr> <td>(i) JIT System</td><td>(A) Decision Making</td></tr> <tr> <td>(ii) Output Costing</td><td>(B) Decision Package</td></tr> <tr> <td>(iii) Variance Anaylsis</td><td>(C) Management by exception</td></tr> <tr> <td>(iv) Differential Costing</td><td>(D) Coal Industry</td></tr> <tr> <td>(v) ZBB</td><td>(E) Control of inventory</td></tr> </table>	Column I	Column II	(i) JIT System	(A) Decision Making	(ii) Output Costing	(B) Decision Package	(iii) Variance Anaylsis	(C) Management by exception	(iv) Differential Costing	(D) Coal Industry	(v) ZBB	(E) Control of inventory	
Column I	Column II												
(i) JIT System	(A) Decision Making												
(ii) Output Costing	(B) Decision Package												
(iii) Variance Anaylsis	(C) Management by exception												
(iv) Differential Costing	(D) Coal Industry												
(v) ZBB	(E) Control of inventory												
(b) State whether the following statements are True or False:	1x5												
(i) Marginal costing is useful for long term planning.	(0)												
(ii) Cost of floppy disk used for office computer is administration overhead.	(0)												
(iii) No distinction is made between direct and indirect materials in process costing.	(0)												
(iv) ABC analysis is based on the unit price of materials.	(0)												
(v) Opportunity cost is the value of the benefit sacrificed in favour of an alternative course of action.	(0)												
(c) Fill up the blanks suitably:	1x5												
(i) Re—order Level is _____ usage multiplied by _____ lead time.	(0)												
(ii) _____ cost is the difference in total cost that results from two alternative courses of action.	(0)												
(iii) The Flux rate method of labour turnover considers employees _____ and employees _____.	(0)												
(iv) _____ arises when the actual process loss is less than the normal predetermined process loss.	(0)												
(v) _____ costing is a must for Inter—firm comparison.	(0)												
(d) In the following cases,one out of four answers is correct. You are required to indicate the correct answer and give brief workings:	2x5												
(i) A company uses material A for production of product Z.The supplier of Material A quotes a delivery period of 2 to 3 weeks .If the company uses 500 to 800 units of Material A per week according to activity levels,the Re—order Level of Material A will be (A) 1,000 units (B) 1,500 units (C) 2,400 units (D) None of the above.	(0)												

	(ii) Monthly cost of maintenance of machinery in a company for 12,000 machine hours run is Rs.1,70,000 and for 18,500 hours it is Rs.3,02,500. Cost of maintenance for 14,000 hours will be (A) Rs.1,90,000 (B) Rs.1,80,000 (C) Rs.1,85,000 (D) None of the above.	(0)																
	(iii) In two consecutive periods, sales and profit were Rs.1,60,000 and Rs.8,000 respectively in the first period and Rs.1,80,000 and Rs.14,000 respectively during the second period. If there is no change in fixed cost between the two periods, then what would be profit if sales are Rs.2,00,000? (A) Rs.16,000 (B) Rs.18,000 (C) Rs.20,000 (D) Rs.22,000	(0)																
	(iv) The budgeted annual sales of a firm is Rs.80 lakhs and 25% of the same is cash sale. If the average amount of debtors of the company is Rs.5 lakhs, the average collection period of credit sales is (A) 2 months (B) 1 month (C) 15 days (D) None of the above	(0)																
	(v) A hospital is opened for 365 days, but bed occupancy is 25 patients per day in 120 days and 20 beds occupied in another 80 days. Extra beds occupied during the year is 400. patient-days of the hospital is (A) 4,000 (B) 5,000 (C) 3,500 (D) 4,500	(0)																
2. (a)	Distinguish between job evaluation and Merit rating.	5 (0)																
(b)	The management of Zenith Co Ltd. are worried about their increasing labour turnover in their factory and before analysing the causes, they want to have an idea of the profit foregone as a result of labour turnover in the last year Last year, sales amounted to Rs.83,03,300/- and P/V ratio was 1/5. The total number of actual hours worked by the direct labour force was 4.45 lakhs. As a result of delays by personnel department in filling up the vacancies due to labour turnover, 60,000 potentially productive hours were not worked. The actual direct labour hours included 30,000 hours attributable to training new recruits, out of which half of the hours were unproductive. The costs consequent on labour turnover revealed on analysis the following: <table><tr><td></td><td>Rs</td></tr><tr><td>Settlement costs due to leaving</td><td>43,250</td></tr><tr><td>Recruitment costs</td><td>34,520</td></tr><tr><td>Selection and placement costs</td><td>42,610</td></tr><tr><td>Training costs</td><td>69,270</td></tr><tr><td>Total</td><td>1,89,650</td></tr></table> Assuming that the potential production lost as a consequence of a labour turnover could have been sold at the prevailing prices, find out the profit foregone last year as a result of labour turnover.		Rs	Settlement costs due to leaving	43,250	Recruitment costs	34,520	Selection and placement costs	42,610	Training costs	69,270	Total	1,89,650	10 (0)				
	Rs																	
Settlement costs due to leaving	43,250																	
Recruitment costs	34,520																	
Selection and placement costs	42,610																	
Training costs	69,270																	
Total	1,89,650																	
3. (a)	M/s Moonlight Co. Ltd. fixes the interdivisional transfer prices for its products on the basis of cost plus an estimated return on investment in its divisions. The relevant particulars of the budget for the Division 'x' for the year 2010-11 is given below: <table><tr><td>particulars</td><td>Amount (Rs)</td></tr><tr><td>Fixed Assets</td><td>6,00,000</td></tr><tr><td>Current Assets (other than Cash at Bank)</td><td>3,00,000</td></tr><tr><td>Cash at Bank</td><td>1,00,000</td></tr><tr><td>Yearly fixed cost for the division</td><td>9,00,000</td></tr><tr><td>Variable cost per unit</td><td>10</td></tr><tr><td>Budgeted volume of production per year (in units)</td><td>5,00,000</td></tr><tr><td>Desired return on Investment</td><td>30%</td></tr></table> you are required to determine the transfer price for Division 'x'.	particulars	Amount (Rs)	Fixed Assets	6,00,000	Current Assets (other than Cash at Bank)	3,00,000	Cash at Bank	1,00,000	Yearly fixed cost for the division	9,00,000	Variable cost per unit	10	Budgeted volume of production per year (in units)	5,00,000	Desired return on Investment	30%	7 (0)
particulars	Amount (Rs)																	
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Yearly fixed cost for the division	9,00,000																	
Variable cost per unit	10																	
Budgeted volume of production per year (in units)	5,00,000																	
Desired return on Investment	30%																	
(b)	The following cost data pertaining to the year 2010-11 have been collected from the books of ABC power Co. Ltd. prepare a cost sheet indicating the cost of generation of power per unit of KWH. Total unit generated are 15,00,000.	8 (0)																

	(i) Cost driver rates that are used for tracing appropriate amount of overheads to the said batch. (ii) The cost of batch of component.																																				
(b)	Distinguish between By–Products and joint products.	5 (0)																																			
7. (a)	List out the expenses which are of purely financial nature and recorded in Financial Accounts only and not recorded in Cost Accounts.	5 (0)																																			
(b)	In a factory three products A,Band C are produced from a single process. Each Product can be sold at the end of each process or can be further processed independently to produce separate products, which are marketed under different namesX,Y,Z respectively.	4+6 (0)																																			
Details for a period are given below:																																					
	<table><tr><th>Product</th><th>Initial Output (units)</th><th>Sales Price Rs.</th><th>Futher Processing Cost Rs.</th><th>Rejection rate</th></tr><tr><td>A</td><td>5,000</td><td>24 per unit</td><td>14 per unit</td><td>—</td></tr><tr><td>B</td><td>8,000</td><td>10 per unit</td><td>6 per unit</td><td>—</td></tr><tr><td>C</td><td>10,000</td><td>30 per unit</td><td>16 per unit</td><td>—</td></tr><tr><td>X</td><td></td><td>44 per unit</td><td>—</td><td>5%</td></tr><tr><td>Y</td><td></td><td>18 per unit</td><td>—</td><td>10%</td></tr><tr><td>Z</td><td></td><td>48 per unit</td><td>—</td><td>8%</td></tr></table>	Product	Initial Output (units)	Sales Price Rs.	Futher Processing Cost Rs.	Rejection rate	A	5,000	24 per unit	14 per unit	—	B	8,000	10 per unit	6 per unit	—	C	10,000	30 per unit	16 per unit	—	X		44 per unit	—	5%	Y		18 per unit	—	10%	Z		48 per unit	—	8%	
Product	Initial Output (units)	Sales Price Rs.	Futher Processing Cost Rs.	Rejection rate																																	
A	5,000	24 per unit	14 per unit	—																																	
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C	10,000	30 per unit	16 per unit	—																																	
X		44 per unit	—	5%																																	
Y		18 per unit	—	10%																																	
Z		48 per unit	—	8%																																	
Initial total process Cost Rs. 4 lakhs. Futher processing costs are incurred at the commencement of the second stage of operations. You are required to																																					
	(i) Calculate the apportionment of total cost to products A,B and C using sales value, (ii) State whether further process should be undertaken for each product or not.																																				
8.	Write short notes on any three of the following:	5x3																																			
(a)	Profit Centre.	(0)																																			
(b)	Budgetary Control.	(0)																																			
(c)	Cost Control and Cost Reduction.	(0)																																			
(d)	Material Purchase Budget.	(0)																																			
(e)	FSND Analysis.	(0)																																			

CMA Dec 2011

**I—P8(CMA)
Syllabus 2008**

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

1. (a)	Match the statement in Column I with the appropriate statement in Column II:	1x5 (0)												
	<table><tr><td>Column I</td><td>Column II</td></tr><tr><td>(i) Performance of Public Enterprises</td><td>(A) Measures Divisional Performance</td></tr><tr><td>(ii) Residual Income</td><td>(B) Purchase Order Processed</td></tr><tr><td>(iii) Cost Driver</td><td>(C) Future cost affected by decision making</td></tr><tr><td>(iv) Point Rating</td><td>(D) Shows profitability and capacity utilisation</td></tr><tr><td>(v) Relevant Cost</td><td>(E) Job Evaluation</td></tr></table>	Column I	Column II	(i) Performance of Public Enterprises	(A) Measures Divisional Performance	(ii) Residual Income	(B) Purchase Order Processed	(iii) Cost Driver	(C) Future cost affected by decision making	(iv) Point Rating	(D) Shows profitability and capacity utilisation	(v) Relevant Cost	(E) Job Evaluation	
Column I	Column II													
(i) Performance of Public Enterprises	(A) Measures Divisional Performance													
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(iii) Cost Driver	(C) Future cost affected by decision making													
(iv) Point Rating	(D) Shows profitability and capacity utilisation													
(v) Relevant Cost	(E) Job Evaluation													
(b)	State whether the following statements are TRUE or FALSE:	1x5												
	(i) Incentive systems benefit only workers.	(0)												
	(ii) Service departments do not render services to each other.	(0)												
	(iii) Contract costing is only a variant of Job costing.	(0)												
	(iv) Differential costing and Marginal costing mean the same thing.	(0)												
	(v) Standards are arrived at based on past performance.	(0)												
(c)	Fill–up the blanks suitably:	1x5												
	(i) In absorption costing _____ cost is added to inventory.	(0)												
	(ii) _____ becomes more effective in a firm with the use of standard costing.	(0)												
	(iii) In ‘make or buy’ decision, it is profitable to buy from outside only when the supplier’s price is below the firm’s own _____.	(0)												

	(iv) A cost which does not involve any cash outflow is called_____.	(0)															
	(v) _____ costing reduces the possibility of under pricing.	(0)															
	(d) In the following cases, one out of four answers is correct. You are required to indicate the correct answer and give brief workings:	2x5															
	(i) XYZ Co. Ltd. is having 400 workers at the beginning of the year and 500 workers at the end of the year. During the year 20 workers were discharged and 15 workers left the company. The Labour Turnover rate under ‘separation method’ is: A. 22.20% B. 7.78% C. 4.00% d. 14.40%	(0)															
	(ii) A factory operates a standard cost system, where 2000 kgs of raw materials @ Rs.12 per kg were used for a product, resulting in price variance of Rs. 6000 (F) and usage variance of Rs. 3000 (A). Then standard material cost of actual production was A. Rs. 20,000 B. Rs. 30,000 C. Rs. 25,000 d. Rs. 27,000	(0)															
	(iii) A company maintains a margin of safety of 25% on its current sales and earns a profit of Rs. 30 lakhs per annum. If the company has a p/v ratio of 40%, its current sales amount to A. Rs. 200 lakhs B. Rs. 300 lakhs C. Rs. 325 lakhs d. None of the above	(0)															
	(iv) The annual demand of a certain product is 8000 units, ordering cost per order is Rs. 40, carrying cost is 10% of average inventory value and purchase cost is Rs. 10 per unit. The EOQ for the product is A. 1200 B. 1000 C. 900 d. 800	(0)															
	(v) Sales for two consecutive months of a company are Rs. 3,80,000 and Rs. 4,20,000. The company’s net profits for these months amounted to Rs. 24,000 and Rs. 40,000 respectively. There is no change in P/V ratio or fixed costs. The P/V ratio of the company is A. $33\frac{1}{3}\%$ B. 40% C. 25% d. none of the above	(0)															
2.	(a) A company prepares a budget for a production of 200000 units. Variable cost per unit is Rs.15 and the fixed cost is Rs. 2 per unit. The company fixes its selling price to fetch a profit of 10% on cost. (i) What is the break–even point? (both in units and in Rs.) (ii) What is profit volume ratio? (iii) If it reduces its selling price by 5%, how does the revised selling price affect the break–even point and the profit volume ratio? (iv) If a profit increase of 10% is desired more than the budget, what should be the sales at the reduced price?	3+2+ (0) 3+2															
	(b) State briefly the effect on profitability under marginal costing and absorption costing.	5 (0)															
3.	(a) The following facts are extracted from the books of Alpha Radio Manufacturing Company for the year 2010. (i) It produces two types of radio— Type A and Type B and sells these in two markets— Kolkata and Siliguri. (ii) The budgeted and actual sales for the year 2010 are as follows:	10 (0)															
	<table> <tr> <th></th><th>Kolkata</th><th>Siliguri</th></tr> <tr> <td>Type A—Budgeted</td><td>1000 units at Rs. 200 each</td><td>800 units at Rs. 200 each</td></tr> <tr> <td>Actual</td><td>900 units at Rs. 200 each</td><td>750 units at Rs. 200 each</td></tr> <tr> <td>Type B—Budgeted</td><td>800 units at Rs. 300 each</td><td>600 units at Rs. 300 each</td></tr> <tr> <td>Actual</td><td>1000 units at Rs. 300 each</td><td>750 units at Rs. 300 each</td></tr> </table> Analysis of variance discloses that Type A is overpriced and Type B is underpriced. If the price of A Type radio set is reduced by 10% and price of B Type radio set is increased by 20% and if a modern and extensive advertisement campaign is introduced, then the following volume of sales could be made in the next year as expected by the Marketing Manager.		Kolkata	Siliguri	Type A—Budgeted	1000 units at Rs. 200 each	800 units at Rs. 200 each	Actual	900 units at Rs. 200 each	750 units at Rs. 200 each	Type B—Budgeted	800 units at Rs. 300 each	600 units at Rs. 300 each	Actual	1000 units at Rs. 300 each	750 units at Rs. 300 each	
	Kolkata	Siliguri															
Type A—Budgeted	1000 units at Rs. 200 each	800 units at Rs. 200 each															
Actual	900 units at Rs. 200 each	750 units at Rs. 200 each															
Type B—Budgeted	800 units at Rs. 300 each	600 units at Rs. 300 each															
Actual	1000 units at Rs. 300 each	750 units at Rs. 300 each															

Expected increase/decrease over the current budget	Kolkata Market	Siliguri Market
Product A: Due to change in pricing policy	+20%	+15%
Due to introduction of modern advertisement campaign	+5%	+3%
Product B: Due to change in pricing policy	+10%	(-)2%
Due to introduction of modern advertisement campaign	+5%	+5%
On the basis of above you are required to prepare sale budget for the year 2011.		

- (b) State the different between Forecast and Budget. 5 (0)
4. (a) Distinguish between "Incentives to indirect workers" and "Indirect incentives to direct workers". 5 (0)
- (b) Both direct and indirect employees of a department in a factory are entitled to production bonus in accordance with a Group Incentive Scheme, the outlines of which are as follows: 4+2+ (0)
2+2
- (i) For any production in excess of standard rate fixed at 10,000 tonnes per month of 25 days, a general incentive of Rs. 10 per tonne is paid in aggregate. The total amount payable to each separate group is determined on the basis of an assumed percentage of such excess production being contributed by it, namely @70% by direct labour, @10% by inspection staff, @12% by maintenance staff and @ 8% by supervisory staff.
- (ii) Moreover, if the excess production is more than 20% above the standard, direct labour also get a special bonus @ Rs.7 per tonne for all production in excess of 120% of standard.
- (iii) Inspection staff are penalised @ Rs. 20 per tonne for rejection by customers in excess of 1% of production (Actual).
- (iv) Maintenance staff are penalised @ Rs. 20 per hour of breakdown.
- From the following particulars for a month, workout the production bonus by each group:
- A. Production 13,000 tonnes (Actual)
- B. Rejection by customers—200 tonnes
- C. Machine breakdown—50 hours
5. (a) Budgets are classified according to Time. State how they are classified. 5 (0)
- (b) XYZ Ltd. manufactures four products A, B, C and D. Whose data are given below: 2+2+ (0)
2+2+2
- | | A | B | C | D |
|------------------------|-------|-------|-------|--------|
| Direct Materials (Rs.) | 3,000 | 6,000 | 9,000 | 18,000 |
| Direct Labour (Rs.) | 1,500 | 3,000 | 4,500 | 9,000 |
| Direct Labour Hours | 50 | 100 | 150 | 300 |
| Machine Hours | 30 | 15 | 10 | 5 |
- You are required to prepare a statement showing the allocation of factory overheads (which amounted to Rs. 1,08,000) using the basis of allocation as under:
- (i) Direct Material Cost
- (ii) Direct Labour Cost
- (iii) Direct Labour Hours
- (vi) Machine Hours
- Out of these four bases of allocation, which you prefer and why?
6. (a) Following are the particulars given by the owner of a hotel. You, as a Cost & Management Accountant, are requested to advise him that what rent should he charge from his customers per day so that he is able to earn 25% on cost other than interest: 10 (0)
- (i) Staff salaries Rs. 80,000 per annum.
- (ii) Room attendants salary Rs. 2 per day. The salary is paid on daily basis and services of room attendant are needed only when the room is occupied. There is one room attendant for one room.
- (iii) Lighting, heating and power. The normal lighting expenses for a room if it is occupied for the whole month is Rs. 50. Power is used only in winter and normal charge per month if occupied for a room is Rs.20.
- (iv) Repairs to Building— Rs. 10,000 per annum
- (v) Linen, etc.— Rs. 4,800 per annum
- (vi) Sundries— Rs. 6,600 per annum
- (vii) Interior decoration, etc.— Rs. 10,000 per annum
- (viii) Cost of Building at Rs. 4,00,000 and its depreciation rate is 5%
- (ix) Other equipment at Rs. 1,00,000 and its depreciation rate is 10%
- (x) Interest @ 5% may be charged on its investment in the buildings and equipment.
- (xi) There are 100 rooms in the Hotel and 80% of the rooms are normally occupied in summer and 30% rooms are busy in winter.
- [You may assume that period of summer and winter is six months each. Normal days in a month may be assumed to be 30.]
- (b) Explain the concept of 'Joint Costs' in joint products and by products. 5 (0)

7. (a) M/s. Jupiter & Co. Ltd. manufactures a product in its factory which presently utilises 60% of its capacity.

3+3+ (0)

3+1

The cost details including selling price are given below:

	Rs.
Sales 6000 units	5,40,000
Direct Materials	96,000
Direct Labour	1,20,000
Direct Expenses	20,000
Factory Overheads	2,00,000
Administration Overheads	21,000
Selling and Distribution Overheads	25,000

Out of fixed overheads, 12.5% and 20% of selling and distribution overheads variable with production and sales. Administration overheads are wholly fixed.

Now, it is revealed that existing product could not achieve budgeted level for two consecutive years, the management decides to introduce a new product with marginal investment but largely using present plant and machinery.

The cost data of the new product is given below:

	Rs.
Direct Materials	16 per unit
Direct Labour	15 per unit
Direct Expenses	2 per unit
Variable Factory Overheads	2 per unit
Variable Selling and Distribution Overheads	1.5 per unit

Marketing Manager of the company is expecting to sell 2000 units of new product at a price of Rs. 60 per unit.

The fixed factory overheads are expected to increase by 10% and fixed selling and distribution expenses will go up by Rs. 13,500 annually. Administration overheads will remain unchanged. You are advised to give your opinion. Should the new product be introduced?

(b) Distinguish between Job costing and Process costing.

5 (0)

8. Write short notes on any three of the following:

5x3 -

- (a) Limitations of market-based transfer pricing;
- (0)
- (b) Inter-Locking Accounts;
- (0)
- (c) Cost-plus Contract;
- (0)
- (d) Principal Budget Factor;
- (0)
- (e) Perpetual Inventory System.
- (0)

CMA June 2012

I—P8(CMA)
Syllabus 2008

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

1. (a) Match the statement in Column I with the appropriate statement in Column II:

1x5 (0)

Column I	Column II
(i) Bad Debt is	(A) not a distinct method of Cost Accounting
(ii) Flexible Budget	(B) a method used in Construction Industry
(iii) is	(C) allows goal congruence
(iv) Transfer Price	(D) a selling overhead
(v) Uniform Costing	(E) prepared for different levels of capacity utilization
is	
Contract Costing	
is	

(b) State whether the following statements are TRUE or FALSE:

1x5

- (i) Standard Costing may not be suitable for small concerns.
- (0)
- (ii) Cost Accounting is a branch of Financial Accounting.
- (0)
- (iii) Labour Turnover is the movement of people out of the organisation.
- (0)
- (iv) Transfer Pricing has significance for the purpose of measurement of divisional performance.
- (0)
- (v) Bincard shows the value of a material at any movement of time.
- (0)

(c) Fill-up the blanks suitably:

1x5

	(i) ABC analysis is made on the basis _____.	(0)																
	(ii) The success of the _____ costing is based on mutual belief and understanding.	(0)																
	(iii) A Budget is a statement that is always prepared _____ to a difined period of time.	(0)																
	(iv) _____ is the difference between the actual sales and the break–even sales.	(0)																
	(v) Activity Based Costing is based on the identification of _____.	(0)																
(d)	In the following cases, one out of four answers is correct. You are required to indicate the correct answer (1 mark) and give brief workings (1 mark):	2x5																
	(i) After inviting tenders for supply of raw materials, two quotations are received as follows—Supplier A Rs. 2.20 per unit, Supplier B Rs. 2.10 per unit plus Rs. 2,000 fixed charges irrespective of the units ordered. The order quantity for which the purchase price per unit will be the same — (a) 22,000 units (c) 20,000 units (b) 21,000 units (d) None of the above	(0)																
	(ii) Normal rate per hour for worker A in a factory is Rs. 5.40. Standard time per unit for the worker is one minute. Normal piece rate per unit for the worker is (a) Rs. 0.90 (c) Rs. 0.11 (b) Rs. 0.09 (d) None of the above	(0)																
	(iii) In case of joint products, the main objective of accounting of the cost is to apportion the joint costs incurred up to the split off point. For cost apportionment one company has chosen Physical Quantity Method. Three joint products ‘A’, ‘B’ and ‘C’ are produced in the same process. Up to the point of split off the total production of A, Band C is 60,000 kg, out of which ‘A’ produces 30,000 kg and joint costs are Rs. 3,60,000. Joint costs allocated to product A is (a) Rs. 1,20,000 (c) Rs. 60,000 (b) Rs. 1,80,000 (d) None of the above	(0)																
	(iv) A transport company is running five buses between two towns, which are 50 kms apart. Seating capacity of each bus is 50 passengers. Actually passengers carried by each bus were 75% of seating capacity. All buses ran on all days of the month. Each bus made one round trip per day. Passenger kms are (a) 2,81,250 (c) 1,87,500 (b) 5,62,500 (d) None of the above	(0)																
	(v) The cost per unit of a product manufactured in a factory amounts to Rs. 160 (75% variable) when the production is 10,000 units. When production increases by 25%, the cost of production will be Rs. _____ per unit. (a) Rs. 145 (c) Rs. 150 (b) Rs. 152 (d) Rs. 140	(0)																
2. (a)	Gupta Enterprise is operating at 60% capacity level producing and selling 60,000 units @ Rs. 50 per unit. Other relevant particulars are as follows: Cost per unit Material Rs. 20 Conversion Cost (variable) Rs. 10 Dealer’s margin (10% of sales) Rs. 5 Fixed cost for the period is Rs. 6,00,000 As there is a stiff compitition it is not possible to sell all the products at the existing cost price structure. The following alternative proposals are considered: (i) Decrease selling price by 20% (ii) Increase dealer’s margin from 10% to 20% Select the better alternative. Also calculate the sales volume required to maintain the same amount of profit under the alternative which is considered better assuming that volume of sales will not be a limiting factor under such alternative. Also assume that fixed cost will remain constant.	3+2+2+3 (0)																
(b)	State briefly the methods of segregating semi–valiable cost into fixed and variable.	5 (0)																
3. (a)	The budgeted overheads and cost driver volumes of Neptune Ltd. are as follows: <table><tr><th>Cost Pool</th><th>Budgeted Overheads (Rs.)</th><th>Cost Driver</th><th>Budgeted Volume</th></tr><tr><td>Material Procurement</td><td>2,90,000</td><td>No. of Orders</td><td>550</td></tr><tr><td>Material Handling</td><td>1,25,000</td><td>No. of Movements</td><td>340</td></tr><tr><td>Set–up</td><td>2,07,500</td><td>No. of Set–ups</td><td>260</td></tr></table>	Cost Pool	Budgeted Overheads (Rs.)	Cost Driver	Budgeted Volume	Material Procurement	2,90,000	No. of Orders	550	Material Handling	1,25,000	No. of Movements	340	Set–up	2,07,500	No. of Set–ups	260	5+5 (0)
Cost Pool	Budgeted Overheads (Rs.)	Cost Driver	Budgeted Volume															
Material Procurement	2,90,000	No. of Orders	550															
Material Handling	1,25,000	No. of Movements	340															
Set–up	2,07,500	No. of Set–ups	260															

Maintenance	4,85,000	Maintenance Hours	4,200
Quality Control	88,000	No. of Inspection	450
Machinery	3,60,000	No. of M/c hours	12,000

The firm has produced a batch of 2,600 components of AXL–5, its Material cost was Rs.1,30,000, and Labour cost Rs. 2,45,000.

The usage activities of the said batch are as follows:

Material Orders	— 26	Maintainance hours	— 600
Material Movements	— 18	Inspection	— 28
Set-ups	— 25	M/c hours	— 1,800

Required:

- Calculate Cost driver rates that are used for tracing appropriate amount of overheads to the said batch; and
- Ascertain the cost of batch of components using Activity Based Costing.

(b) What are the advantages of Target Costing?

5 (0)

4. (a) A company produces three joint products in one common process. The three products can either be sold at split off point or can be separately processed futther after split off point and sold separately. The estimated data for a particular month are as under:

4+4+2 (0)

	Product		
	X	Y	Z
Selling price at split off point (Rs./kg)	100	90	150
Selling price after further processing (Rs./kg)	200	190	260
Cost incurred on further processing (Rs.)	3,50,000	4,00,000	2,00,000
Output in kg	3,500	2,500	2,000

Joint costs incurred up to split off point are Rs. 2,40,000.

Such costs are apportioned to the three products according to quantity of production.

You are required to

- Prepare a statement of estimated profit or loss for each product individually and in total for the company for the month if all three products are (1) sold off at split off point and (2) further processed.
- Also advice how profit could be maximised by selectively selling the products individually either at split off point or after further processing.

(b) What are the problems associated with apportionment of joint cost?

5 (0)

5. (a) Richa Industries engaged in manufacturing Lunch Boxes is working to 50% capacity and produces 15,000 Lunch Boxes per annum. The present cost break up for one Lunch Box is as under:

3+2+5 (0)

Material Rs. 25; Labour Rs. 20 and Overhead Rs. 15 (60% variable).

The selling price is Rs. 75 per Lunch Box.

If it is decided to work at 60% capacity, the selling price falls by 2%. At 80% capacity, the selling price falls by 10% accompanied by a similar fall in the price of material but labour rate increases by 10%.

You are required to find out the most profitable capacity level amongst 50%, 60% and 80% capacity levels and also calculate the Break-even Point (in units) at above said levels.

- (b) Explain briefly to classification of overheads according to behavior.

5 (0)

6. (a) The following information is available from the financial accounts of Madhu Limited for the year ended 31st March, 2012:

3+3+4 (0)

	Rs.
Direct Material Consumption	.. 5,00,000
Direct Wages	.. 2,00,000
Factory Expenses	.. 7,60,000
Administration Expenses	.. 5,00,000
Selling and Distribution Expenses	.. 9,60,000
Bad Debts	.. 40,000
Preliminary Expenses (Written off)	.. 20,000
Legal Charges	.. 10,000
Dividend Received	.. 1,00,000
Interest on Deposit Received	.. 20,000
Sales–1,20,000 Units	.. 14,00,000
Valuation of Closing Stock in financial accounts:	
Finished Stock 40,000 Units	.. 4,40,000
Work–in–Progress (Valued at factory cost) both in cost and financial accounts	.. 1,60,000
The Cost Accounts reveal:	
Direct Material Consumption Rs. 5,60,000;	
Factory overhead recovered at 20% on prime cost;	
Administrative overhead at Rs. 6 per unit of production;	
Selling and Distribution overhead at Rs. 8 per unit sold.	

You are required to prepare:
(i) A statement showing costing profit or loss.
(ii) Profit & Loss Account showing profit or loss in Financial Books.
(iii) A statement reconciling the profits disclosed as per cost accounts and as per financial accounts.

- (b) Explain briefly benefits of Integrated Accounting System. 5 (0)

7. (a) From the following particulars furnished by M/s. Starlight Co. Ltd. find out (i) Material cost variance; (ii) Material usage variance and (iii) Material price variance. 4+3+3 (0)

Value of Material purchased	..	Rs. 9,000
Quantity of Material purchased	..	3,000 units
Standard quantity of materials required per tonne of finished product	..	25 units
Standard rate of material	..	Rs. 2 per unit
Opening Stock	..	Nil
Closing Stock of material	..	500 units
Finished production during the period	..	80 tonnes

8. Write short notes on any three of the following: 5x3 -

- (a) Absorption Costing; - (0)

- (b) Cost Control and Cost Reduction; - (0)

- (c) Zero–Base Budgeting; - (0)

- (d) Uniform Costing; - (0)

- (e) Activity Based Costing. - (0)

Time Allowed : 3 Hours

Full Marks : 100

*The figures in the margin on the right side indicate full marks.***Section I : Operation Management**

Answer Question No. 1 which is compulsory and any 2 questions from the rest, under Section I.

Marks

1. (a) For each part below, choose the most appropriate one and write its number only in the answer sheet: 1x6 (1)
Match column (1) with column (2)

Column (1)		Column (2)	
(i)	Castings	A.	Gravity Chute
(ii)	Pig Iron	B.	Rotary Kiln
(iii)	Steel	C.	Foundry
(iv)	Rails	D.	Blast furnace
(v)	Cement	E.	Open Hearth Furnace
(vi)	Material Handling	F.	Rolling Mills

- (b) Expand the following abbreviations: 1x3

(i) ASRS (1)

(ii) GERT (1)

(iii) AQL (1)

- (c) Put an appropriate word or two in blank position: 1x5

(i) _____ uses algebraic procedure to solve any problem, which satisfies the test of linearity and certainty. (1)

(ii) Under preventive maintenance "(hours worked for maintenance)/(Scheduled hours) x 100 = _____". (1)

(iii) Trend values of all years of the series may be obtained advantageously using the _____. (1)

(iv) _____ is a process that bakes on a white, brittle protection finish. (1)

(v) _____ is the degree to which a firm's own production system handles the entire supply chain starting from procurement of raw materials to distribution of finished goods. (1)

2. (a) A and M are two fierce competitors. N, a leading manufacturer of mobile phones approaches them separately to share what they can offer for outsourcing the manufacture of mobile phone components on a standardised machine whose operating cost is Rs. 40/- per hour. N requests you to evaluate and advice based on following offers made by A and M as to which of two should be chosen? 4 (1)

	Company A	Company M
Production Rate/hour	20 pieces	30 pieces
Mobile components / set up	8000 pieces	6000 pieces
Set up Costs	Rs. 600	Rs. 3000

- (b) What requirements need to be fulfilled in order to ensure that the full benefits of effective maintenance are achieved? 4 (0)

- (c) You as a work study engineer carry out the work sampling study. The following observations were made for a machine shop: 4 (0)

Total number of observations – 2000, No working activities – 500.
Ratio between manual to machine element – 3 : 1, Average rating factor – 110%.
Total number of jobs produced during study – 500 units.
Rest allowance – 10%,
Calculate the standard time for the job.

- (d) Mr. X is considering an interchange of departments B and C in the present layout. The present layout and the handling frequencies between the departments are given. What would be the effect of interchange assuming that the departments are of the same size? Also assume that the material handling cost per unit length travel between departments is same. 4 (0)

A		C			E	
B		D			F	
From/To	A	B	C	D	E	F
A	–	20	70	0	40	0
B	–	–	50	200	0	10
C	–	–	–	30	120	40
D	–	–	–	–	50	220
E	–	–	–	–	–	30
F	–	–	–	–	–	–

3. (a) A key electric component lasts for maximum of 3 weeks. The chances of its failing at the end of first week is 0.1 and the chance of its falling at the end of second week is 0.3. The cost per component for individual replacement is Rs. 5 and cost of component for bulk replacement is Rs. 3. What is the optimal replacement period assuming there are 100 components initially?

4 (0)

- (b) The following is the demand for Product A in 5 towns:

4 (0)

Population (in lacs) : X	9	5	8	5	3
Demand : Y	12	20	15	10	5

Estimate the demand for product A for a town with a population of 10 lacs.

- (c) Company A wants to made large giant trucks called LARJO. Company A now requests you to list out the plant layout principles it should consider before taking any decision?

4 (0)

- (d) (i) Briefly enlist and explain the rules to be enforced for proper control of maintenance work.

3 (0)

- (ii) List out the internal factors, which influence the choice of technology in an organisation?

3 (0)

4. (a) Load Shedding Power Utility Company has been the task of power supply by the State. The Company has noticed that the system has been experiencing the following number of failures for months over the past one year.

4 (0)

Number of failures	0	1	2	3
Number of months this occurred	2	3	3	4

Each breakdown costs an average of Rs. 10,000/– Preventive maintenance can be carried out for a cost of Rs. 3,000/– to limit the failures to an average of one per month. The Company seeks your advice on which policy is most suitable for adoption.

- (b) The fixed cost for the production of a particular item is Rs. 200 per month. Its variable cost being Rs. 3 per unit and its sale price being Rs. 7 per unit, determine its break–even volume. What would be the profit if 2,000 such units were sold in a month? How many such units should be sold to earn a profit of Rs. 3,000 per month?

5 (0)

- (c) A shaft 1,200 mm in length is being machined on a lathe. If the spindle rotates 600 r.p.m. and the feed is 0.25 mm per revolution, how long will it take the cutter to pass down the entire length of the shaft?

3 (0)

- (d) A workshop has 30 nos. of identical machines. From the failure pattern of the machines it is calculated that the expected time before failure is 3 months. It costs Rs. 200 to attend a failed machine and rectify the same. Compute the yearly cost of servicing the broken down machines.

2 (0)

- (e) Explain and briefly explain the following in the context of technology used to enhance production.

2x2

- (i) AGV,

(0)

- (ii) AIS

(0)

Section II : Information Systems

Answer Question No. 5, which is compulsory and any 2 questions from the rest, under Section II.

5. (a) Put an appropriate word or two in blank position:

1x5

- (i) Oracle is based on a concept of _____ Technology;

(1)

- (ii) _____ is a mechanism of defining user profile based on physical parameters and behaviour;

(1)

- (iii) The advantages of fast communication through internet technology has opened new dimension for _____ of Commercial jobs and India has been taking full advantage of the same due to its location and English language skills;

(1)

- (iv) _____ basically sends a mail to the e–mail address of the receiver;

(1)

- (v) _____ System is a software that controls the hardware devices, software, Communication media and channels.

(1)

- (b) Each statement below is either **True** or **False**. Indicate the same in your answers:

1x5

(i)	Virtual memory is a provision of primary storage which acts as secondary memory;	(1)																
(ii)	Readymade software is one, which meets the full–customised requirements of a specific organisation;	(1)																
(iii)	In Multiprogramming, one CPU processes a number of programs by time–sharing technique;	(1)																
(iv)	Microwave transmission consists of low frequency radio transmission;	(1)																
(v)	Inkjet and Laser Printers are examples of Impact Printers.	(1)																
(c)	Explain the following abbreviations:	1x4																
(i)	ORDBMS;	(1)																
(ii)	OLAP;	(1)																
(iii)	EEPROM;	(1)																
(iv)	TCP/IP.	(1)																
6. (a)	PTC a large manufacturer of agro–based products is in the process of evaluation to go in for an ERP package for managing its entire Financial, Supply Chain Management, Manufacturing, Procurement, Inventory, and Sales etc, and requests you to list out the common criteria it should consider before selection of a package.	4 (0)																
(b)	Explain peer–to–peer architecture and list out its benefits?	5 (0)																
(c)	Name common modules of an ERP Package and a few important sub–systems under each module.	5 (0)																
(d) (i)	Name any two models of DBMS;	2 (0)																
(ii)	What does one mean by "Going Live".	2 (0)																
7. (a)	List the nature of preparatory work to be undertaken before a decision on outsourcing of information system services can be taken?	4 (0)																
(b)	What is Access Control? What are the checks one needs to ensure before executing a system of access control?	4 (0)																
(c)	Depending on the level of management, different functional areas will require various types of MIS reports. Keeping this in view, you are required to list out kind of reports under the following categories: (i) Top level (Strategic) Reports required for Production Management; (ii) Middle Level (Tactical) Reports for Production Management; (iii) Operational Level (Operational) Reports for Sales Management.	6 (0)																
(d)	Q. File and Smile Online asks you to draw a flow chart for calculation of income tax as per slabs prescribed which are as below: <table><tr><td>Salary in currency limit</td><td>Rate %</td></tr><tr><td>Up to 1,50,000</td><td>Nil</td></tr><tr><td>1,50,001 to 3,00,000</td><td>10</td></tr><tr><td>3,00,001 to 5,00,000</td><td>20</td></tr><tr><td>5,00,001 and above</td><td>30</td></tr></table>	Salary in currency limit	Rate %	Up to 1,50,000	Nil	1,50,001 to 3,00,000	10	3,00,001 to 5,00,000	20	5,00,001 and above	30	4 (0)						
Salary in currency limit	Rate %																	
Up to 1,50,000	Nil																	
1,50,001 to 3,00,000	10																	
3,00,001 to 5,00,000	20																	
5,00,001 and above	30																	
8. (a)	One of the important factors for the success for MIS is the quality of software. List out the criteria, which the software must fulfil for the basis for selection apart from meeting the user specific functional specifications?	4 (0)																
(b)	What are the characteristics of a database?	4 (0)																
(c)	List the salient features of a WAN?	4 (1)																
(d)	Fill up the following missing blocks which form part of the system development team in a System Development Life cycle. Write missing answer against Serial Number only in the answer sheet; <table><tr><th>Sl. No</th><th>Step</th><th>Person Responsible</th><th>Responsibility</th></tr><tr><td>1.</td><td>System proposal</td><td>?</td><td>Study requirement and prepare proposal for clearance by management</td></tr><tr><td>2.</td><td>Systems Implementation</td><td>Programmer and Systems Analyst</td><td>?</td></tr><tr><td>3.</td><td>?</td><td>Programmers</td><td>To develop programs according to systems specifications and testing the programs</td></tr></table>	Sl. No	Step	Person Responsible	Responsibility	1.	System proposal	?	Study requirement and prepare proposal for clearance by management	2.	Systems Implementation	Programmer and Systems Analyst	?	3.	?	Programmers	To develop programs according to systems specifications and testing the programs	3 (1)
Sl. No	Step	Person Responsible	Responsibility															
1.	System proposal	?	Study requirement and prepare proposal for clearance by management															
2.	Systems Implementation	Programmer and Systems Analyst	?															
3.	?	Programmers	To develop programs according to systems specifications and testing the programs															
(e)	Name three popular ERP packages.	3 (1)																

Time Allowed : 3 Hours

Full Marks : 100

*The figures in the margin on the right side indicate full marks.***Section I : Operation Management**

Answer Question No. 1 which is compulsory and any 2 questions from the rest, under Section I.

Marks

1. (a) For each part below, choose the most appropriate answer out of the four options indicated below each part: 1x4

- | | |
|---|-----|
| (i) The activity of specifying when to start the job and when to end the job is known as; | (0) |
| (a) Planning, (b) Scheduling (c) Timing, (d) Follow-up | |
| (ii) Most suitable layout for job production is: | (0) |
| (a) Line layout, (b) Matrix layout, (c) Process layout, (d) Product layout. | |
| (iii) The act of assessing the future and making provisions for it is known as: | (0) |
| (a) Planning, (b) Forecasting, (c) Assessment, (d) Scheduling. | |
| (iv) One of the important charts used in programme control is: | (0) |
| (a) Material chart, (b) Gantt chart, (c) Route chart (d) Inspection chart | |

- (b) Given below are two lists—list 'A' containing six observations and list 'B' containing various functional areas associated with production management. Expand the abbreviations and match them with the corresponding functional areas. 1x6 (0)

List 'A'	List 'B'
LP	Quality control
PERT	Project Planning
CRAFT	Inventory management
MRP	Product design
CAD	Product mix determination
AOQ	Plant layout

- (c) Mention the name of the metal working process involved in carrying out the following operations and also state the machine/equipment on which this is carried out: 1x4

- | | |
|--|-----|
| (i) Reducing the diameter of a cylindrical object. | (0) |
| (ii) Making a cylindrical hole on an object. | (0) |
| (iii) Very fine finishing of the inside diameter of a cylindrical liner. | (0) |
| (iv) Reducing the thickness of one side of a metal cube. | (0) |

2. (a) Expand the following systems of production technology. Narrate the main features related to enhancement of production and the advantages derived from the system. 4x2

- | | |
|-----------|-----|
| (i) FMS, | (0) |
| (ii) CIM. | (0) |

- (b) A company manufactures items X_1 and X_2 which are sold at a profit of Rs.35 per unit of X_1 and Rs.25 per unit of X_2 .
 X_1 requires 3 kgs. Of materials, 4 man'hours and 2 machine'hours per unit.
 X_2 requires 2 kgs. Of materials, 3 man'hours and 2 machine'hours per unit.
During each production run, there are 350kgs. Of materials available, 600 mna'hours and 550 machine hours for use.

Formulate under Simplex method of linear programming:

- | | |
|---|-----------|
| (i) The objective function and the linear constraints, and | 2+2+2 (0) |
| (ii) The equations after introducing slack variables. | |
| (iii) What are the various methods of solving a linear programming problem? | |

- (c) The annual sales of TV sets by a dealer in Delhi are as under: 4 (0)

Year	2004	2005	2006	2007	2008
Sales (thousand units)	3	14	36	4	33

Fit a linear trend equation to the sales figure and estimate the sales for the year 2009.

3. (a) As on August 1, the following jobs are to be processed. Their processing times and due dates are given:
- | Job | A | B | C | D |
|-----------------------|-----------|----------|----------|----------|
| Processing time(days) | 2 | 6 | 7 | 12 |
| Due date | August-12 | August-7 | August-4 | August-8 |
- Sequence the jobs based on minimum critical ratio.
- (b) What are the factors that force an organization to redesign plant layout? 4 (0)
- (c) Briefly explain: 2x2
- (i) MDD as a sequencing rule for single facility. (0)
- (ii) Advantages of NC Machines. (0)
- (d) A company is planning to undertake the production of medical testing equipment and has to decide on the location of the plant. Two location are being considered, namely, A and B. The fixed costs of two locations are estimated to be Rs.25 lakhs and Rs.30 lakhs respectively. The variable costs are Rs.300 and Rs.250 per unit respectively. The average sale price of the equipment is Rs.550 per unit. Find the range of annual production/sales volume for which each location is most suitable. 4 (0)
- (e) What types of work are carried out during routine maintenance? 2 (0)
4. (a) A shaft of 3000 mm in length requires machining on a lathe. If the spindle executes 1500 r.p.m. and the feed is 0.20mm per revolution, how long does it take the cutter to pass down the entire length of the shaft? 2 (0)
- (b) Requirement of raw materials for a company is 250 units per month. The carrying cost for the same is 10% of its purchase price which is Rs.10 per unit. The ordering cost is Rs.15 per order. Compute EOQ and related total cost. 4 (0)
- (c) Calculate the number of units expected to fail in a year and the mean time between failures from the following: 4 (0)
- Testing time = 100 hours
Samples tested = 50units
Failures = 2 units
Average usage = 2 hours/day
Total sales in the year = 500 units
- (d) What are the requirements to be fulfilled in order to get the full benefits of effective maintenance? 3 (0)
- (e) A Public Transport Corporation has gathered the data about the number of breakdowns for months over the past two years in their new fleet of vehicles: 5 (0)
- | | | | | | |
|--------------------------------|---|---|----|---|---|
| Number of breakdowns | 0 | 1 | 2 | 3 | 4 |
| Number of months this occurred | 3 | 7 | 11 | 2 | 1 |
- Each breakdown costs the firm an average of Rs.3000. For a cost of Rs.1375 per month. Preventive maintenance can be carried out to limit the breakdowns to an average of one per month. Which policy will be suitable for the firm?

Section II : Information Systems

Answer Question No. 5, which is compulsory and any 2 questions from the rest, under Section II.

5. (a) Expand the following abbreviations: 1x5
- (i) DML (0)
- (ii) MICR (0)
- (iii) ASCH (0)
- (iv) GUI (0)
- (v) ISAM (0)
- (b) Put an appropriate word or two in blank position: 1x4
- (i) _____ means loading Operating System in computer after power is switched on. (0)
- (ii) Programs written in High Language are called _____. (0)
- (iii) _____ is a process of continuous checking of possible encroachment of virus in a machine. (0)
- (iv) _____ is extracting of data from multiple data sources by way of interactive and analytical software tools. (0)
- (c) Each statement below is either *True* or *False*. Indicate the same in your answer: 1x5
- (i) ROM is used for temporary data storage. (0)
- (ii) Virtual memory is a provision of secondary storage which acts as primary memory. (0)

	(iii) File Volatility is the rate of change in the records in the file.	(0)																
	(iv) Data Mart has no relevance to Data Warehousing.	(0)																
	(v) ERP package converts the function of production management only and excludes Finance and Human Resources.	(0)																
6. (a)	Explain briefly the different phases in implementation methodologies of an ERP system.	5 (0)																
(b)	Fill up the following missing blocks which form part of the decision making pattern. Write missing answer against Serial Number only in the answer sheet:	3 (0)																
	<table><tr><th>Serial No.</th><th>Level of Management</th><th>Decision making on</th><th>Information support from</th></tr><tr><td>1.</td><td>Lower Level</td><td>?</td><td>Transaction Processing</td></tr><tr><td>2.</td><td>Middle Level</td><td>Planning & Control</td><td>?</td></tr><tr><td>3.</td><td>Top Level</td><td>?</td><td>Executive System/Expert System</td></tr></table>	Serial No.	Level of Management	Decision making on	Information support from	1.	Lower Level	?	Transaction Processing	2.	Middle Level	Planning & Control	?	3.	Top Level	?	Executive System/Expert System	
Serial No.	Level of Management	Decision making on	Information support from															
1.	Lower Level	?	Transaction Processing															
2.	Middle Level	Planning & Control	?															
3.	Top Level	?	Executive System/Expert System															
(c)	What are the sub-system under the Sales and Distribution Module of an ERP system?	4 (0)																
(d)	What is Data Warehousing? Give examples of strategic use of data warehousing in different business environment.	2+2 (0)																
(e)	What are the advantages of Database Management System?	2 (0)																
7. (a)	What is ‘Risk Management’ in an Information System and what are the steps involved in it?	1+3 (0)																
(b)	Name the four divisions in COBOL. What are its advantages?	2+2 (0)																
(c)	(i) What will be the nature of costs to be included in the budget for implementation of an ERP package?	3+1 (0)																
	(ii) What is ‘Gap Analysis’ in ERP Life Cycle?	(0)																
(d)	Explain FTP mentioning the steps involved in it.	3 (0)																
(e)	List and Briefly explain the models used for representing the information.	3 (0)																
8. (a)	(i) What are the objectives of Information System Auditing?	3 (0)																
	(ii) Explain the major areas for imposition of system of Internal Control.	4 (0)																
(b)	What are the facilities that are required in the computer for an access to the Internet? What are the problems associated with use of Internet?	2+4 (0)																
(c)	What is E–Commerce? What are the components involved in it? What are the steps by which a transaction takes place in E–Commerce?	1+1+3 (0)																

OMS Dec 2009

***I—P9(OMS)
Syllabus 2008***

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Section I : Operation Management

Answer Question No. 1 which is compulsory and any 2 questions from the rest, under Section I.

Marks

1. (a) For each part below, choose the most appropriate answer out of the four options indicated below each part: 1x4
- | | |
|--|---|
| (i) Variety reduction is generally known as | (0) |
| (a) Less varieties, | (b) Simplification, |
| (c) Reduced varieties, | (d) None of the above. |
| (ii) Line of best fit is another name given to | (0) |
| (a) Method of least squares, | (b) Moving average method, |
| (c) Semi-average method, | (d) Trend line method. |
| (iii) The card, which shows the number of rejected products from the total quantity produced, is | (0) |
| (a) Quality control card, | (b) Inspection card, |
| (c) Rejection card, | (d) Job card. |
| (iv) Route card and technological route card are | (0) |
| (a) Different type of documents, | (b) Route card shows route and technological card shows |

the technology used,
(c) Same type of documents, (d) One is prepared by Production Manager and the other by Dispatcher.

(b) Expand the terms in List ‘A’ and match them with the related functional areas of production management in List ‘B’ :

List ‘A’	List ‘B’
SPT	Production control
ISO	Work measurement
CNC	Scheduling
MTM	Machine tool
WIP	Standardisation

(c) Put an appropriate word or phase in blank position:

(i) Statistical analysis is used to determine the optimum policy of _____ maintenance.

(ii) _____ layout is used for mass production.

(iii) Factor comparison is a method of _____ .

(iv) _____ cannot be delegated.

(v) Ergonomics is another name for _____ .

2. (a) From the following time series data of sales of refrigerators project the sales for the year 2010:

Year	2002	2003	2004	2005	2006	2007	2008
Sales (thousand units)	90	100	102	93	104	109	102

(b) Enumerate four differences between PERT and CPM.

(c) Write short notes on:

(i) Case hardening

(ii) Centrifugal casting,

(iii) Galvanising,

(iv) Hobbing machine.

(d) A manufacturer requires 10,000 components for use during the next year which is assumed to consist of 250 working days. The cost of storing one component for one year is Rs.40 and the cost of placing order is Rs.320.

There must always be a safety stock of two working days usage and the lead time from the supplier will be 5 working days. Assume that usage takes place steadily throughout the working days, delivery takes place at the end of the day and the orders are placed at the end of the working day. Compute (i) EOQ and (ii) Re–order Point.

3. (a) A company planning to start an assembly unit of television sets has to decide on the location of its plant at any of the three cities viz. Kolkata, Delhi or Mumbai. The extent of fixed and variable costs for each of these locations are estimated to be as under:

Locations	Kolkata	Delhi	Mumbai
Fixed Costs per annum Rs. lakhs	30	50	25
Variable cost per unit Rs.	300	200	350

The expected selling price is Rs.700 per unit.
Calculate:

(i) The range of annual production/sales volume for which each location is most suitable.

(ii) Which one of the three locations is most suitable for a production/sales volume of 18000 units?

(iii) BEP for each location.

(b) What are the principles for a plant layout?

(c) What are the characteristics of a good plant layout?

4. (a) A company has 3 factories and 3 customers. The following table gives the transportation cost per unit from the factories to the customers and also the quantities available and required. Determine the initial transportation solution using Vogel’s method.

Factory	A	B	C	Availability
F1	10	11	20	10
F2	15	12	10	2
F3	17	9	16	8

	Requirement	8	5	7	20
(b)	Justify the necessity of keeping records of Maintenance Work Done. What should you ensure to get the full benefits of effective maintenance?				2+3 (0)
(c)	Super Electronics manufactures TV sets and carries out the picture tube testing for 2500 hours. A sample of 200 tubes was put through this quality test during which 4 tubes failed. If the average usage of TV by customer is 5 hours/day and if 15000 TV sets were sold, then in one year how many tubes were expected to fail and what is the mean time between failures for these tubes?				3+1 (0)
(d)	Expand the term CIM and write the implication of adopting CIM.				1+2 (0)

Section II : Information System

Answer Question No. 5 which is compulsory and any 2 questions from the rest, under Section II.

Marks

5. (a) Put an appropriate word or phrase in blank position: 1x6

- (i) An _____ system is one which interacts with its environment and can change itself to accommodate the modifications. (0)
- (ii) _____ are the procedure and rules for inter computer communication. (0)
- (iii) _____ Device is a reading device used to interpret printed, hand – written data directly from source documents. (0)
- (iv) _____ is the logical steps of problem decision in which a problem is divided into distinct logical conditions and actions under each condition are framed. (0)
- (v) File activity = _____ / Number of records in the file. (0)
- (vi) _____ is a illegal action with the help of computer technology to make financial gain, to have unauthorized access to private information of others, to damage software/data etc. (0)

(b) Which of the following features will apply for an Interpreter and which ones for a Compiler? 0.5x10 (0)

- (i) Cost of software is high
- (ii) Translation takes place during execution
- (iii) Execution time is high
- (iv) Translates the whole program
- (v) Requires more memory
- (vi) Cost of software is less
- (vii) Translation happens in one go
- (viii) Execution is fast
- (ix) Requires less memory
- (x) Translates line by line

(c) Each statement below is either *True* or *False*. Indicate the same in your answer: 1x3

- (i) Transaction Files are basically intermediate files created during processing for an application area. (0)
- (ii) In bus topology, a single network cable runs within a specified area and the terminals are connected to it. (0)
- (iii) An Executive Information System (EIS) takes care of the requirement of information for senior managers only and hence is not a useful tool for people working in different managerial levels. (0)

6. (a) The following are the fields and its size in a purchase order record: 4 (0)

Field Name	Maximum Field Size
Purchase Order Number	5
Vendor Code	2
Order Quantity	4
Order Date	6

The maximum number of estimated outstanding purchase order records will be 500. Expected increase in total records is 10%. The software also requires an overhead of 20% for minimizing collision and overflow conditions. Compute the total file space requirement after allowing for 10% contingency factor on the total size.

- (b) Explain self-regulatory aspect of an Information System. 3 (0)
- (c) What are the advantages of Client-Server Technology. 4 (0)
- (d) Make a list of commonly used internet protocols. 3 (0)

(e)	Indicate the points to be considered while designing Source Documents.	4 (0)																		
7. (a)	What is data mining? What are the various types of services available from the related software tools?	3+3 (0)																		
(b)	What are generally the sub-systems in the Manufacturing Module of an ERP Package?	3 (0)																		
(c)	How will you start the selection process of an ERP Package? What would be the criteria for the selection? What are costs to be included in the Budget for implementation of ERP?	3+3+3 (0)																		
8. (a)	What is computer fraud? What is the motive behind computer fraud? Name five common types of computer fraud.	1+3+5 (0)																		
(b)	How do you distinguish between Internet and Intranet? What are the problems usually faced by users of Internet?	2+4 (0)																		
(c)	A company engaged in steel manufacturing activities is considering the implementation of an ERP system. The company has a few computerized applications running in different areas of the organisation. All these will be discontinued after ERP system is implemented. A software firm has given a quotation for the new system which states that the implementation will take a little more than a year and the capital cost will be Rs.86 lakhs (payable as Rs.55 lakhs in the first year and Rs.31 lakhs in the second year). The management is wondering as to when the ERP system will recover all of its initial costs and start making a profit. What would be your answer based on the above data and the following information about operational costs (Rs. lakhs)?	3 (0)																		
<table><tr><td></td><td>Year 1</td><td>Year 2</td><td>Year 3</td><td>Year 4</td><td>Year 5</td></tr><tr><td>Old system</td><td>25</td><td>28</td><td>34</td><td>45</td><td>47</td></tr><tr><td>New system</td><td>—</td><td>7</td><td>14</td><td>15</td><td>16</td></tr></table>				Year 1	Year 2	Year 3	Year 4	Year 5	Old system	25	28	34	45	47	New system	—	7	14	15	16
	Year 1	Year 2	Year 3	Year 4	Year 5															
Old system	25	28	34	45	47															
New system	—	7	14	15	16															

OMS June 2010

I—P9(OMS)
Syllabus 2008

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Section I : Operation Management

Answer Question No. 1 which is compulsory and any two questions from the rest, under Section I.

Marks

1. (a) For each part below, choose the most appropriate answer out of the four options given against each part: 1x5

(i)	Most suitable layout for continuous production is: (a) Process layout, (b) Group technology, (c) Line layout, (d) Matrix layout.	(0)
(ii)	To decide workload for men and machines: (a) Medium range forecasting is used. (b) Short term forecasting is used. (c) Long range forecasting is used (d) Combination of long range and medium range forecasting is used.	(0)
(iii)	In solving a problem on Line of Balance, the number of workstations required is given by: (a) Cycle Time/Total Time, (b) Cycle Time/Element Time, (c) Total Time/Element Time, (d) Total Time/Cycle Time	(0)
(iv)	JIT stands for: (a) Just in time purchase, (b) Just in time production, (c) Just in time use of materials, (d) Just in time order of materials.	(0)
(v)	The act of assessing the future and making provisions for it is known as: (a) Planning, (b) Forecasting, (c) Assessment, (d) Scheduling	(0)

- (b) Match the products in Column I with the production centers in Column II: 0.5x10 (0)

Column I	Column II
(A) Steam	(i) Blast Furnace
(B) Electricity	(ii) Boiler
(C) Steel	(iii) Generator
(D) Petrol	(iv) Open Hearth Furnace
(E) Iron	(v) Refinery

(F) Cloth	(vi) Assembly Line
(G) Car	(vii) Smithy
(H) Castings	(viii) Spinning Mill
(I) Cotton Yarn	(ix) Foundry
(J) Forgings	(x) Power Loom

(c) Examine each statement and indicate whether it is ‘True’ or ‘False’. 1x4

(i) A transformer is a device that uses electrical energy to produce mechanical energy;	(0)
(ii) A transistor is a semiconductor device commonly used as an amplifier or an electrically controlled switch;	(0)
(iii) The ultimate objective of production planning and control is to contribute to the profits of the enterprise;	(0)
(iv) Level capacity plan is based on "produce-to-stock and sell" approaches wherein the production systems are operated at uniform production levels and finished goods inventories rise and fall depending upon whether production level exceeds demand or vice versa from time period to time period.	(0)

2. (a) It is observed that there exists a relationship between Expenditure on Advertising and the Annual Sales. The details for last six years are as follows: 6 (0)

Year	Expenditure on Advertising (Rs. Crore)	Annual Sales (Rs. Crore)
2004	1	18
2005	2	23
2006	4	32
2007	3	28
2008	10	38
2009	4	29

Estimate the Annual Sales when Expenditure on Advertising is Rs. 5 Crore.

(b) What is Degeneracy in a simplex LPP? How is it resolved? 2+2 (0)

(c) Briefly write about Maintenance Request. 2 (0)

(d) A sample of 10 pieces is drawn from the production of last two hours of an automatic screw machine and each unit is inspected for several characteristics and is classified as "OK" or "Not OK". The number of units marked "Not OK" for the last 20 samples are given in the following table in succession: 5+1 (0)

SI No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Not ok units	0	2	1	1	0	3	0	1	1	2	1	0	2	3	0	0	2	0	0	1

Find $\bar{P}$ and the control limits. Comment on the automatic machine condition.

3. (a) A manager has to decide about the number of machines to be purchased. He has three options i.e., purchasing one, or two, or three machines. The data are given below: 3+2 (0)

Number of Machines	Annual fixed cost (Rs.)	Corresponding range of output (units)
1	10,000	0 to 400
2	12,000	401 to 700
3	20,000	701 to 1000

Variable cost is Rs. 20 and revenue is Rs. 40 per unit.

- (i) Determine the break-even point for each range;
(ii) If projected demand is between 600 and 750 units, how many machines should the manager purchase?

(b) Expand the following: 1x3

(i) CRAFT;	(0)
(ii) SRAC;	(0)
(iii) USP.	(0)

(c) Put an appropriate word or phrase in blank position: 1x6

(i) _____ casting metal working process is used main for steel and iron and it can also be used for brass, aluminium, bronze, copper, etc, and relatively large amount of metal is to be removed.	(0)
(ii) In _____ method of analytical evaluation of a job, different points are assigned to the different characteristics of doing jobs.	(0)
(iii) Technological _____ arises due to continuous improvements in the methods and techniques of production and sometimes the rate of improvement is so fast that it becomes economical to replace the machinery before its expected life.	(0)

- (iv) In solving a linear programming problem, _____ method is generally used where there are two or three variables. (0)
- (v) The _____ consists of a powerful desktop computer and graphics software that enables a designer to manipulate geometric shapes. (0)
- (vi) The product layout involves the arrangement of machines in one line depending upon the _____ of operations. (0)
- (d) Replacement policy is being considered for a new machine installed. Find the year when the replacement is to be made based on the following information: 4 (0)
- | Year | 1 | 2 | 3 | 4 | 5 |
|---|-------|-------|-------|-------|-------|
| Replacement cost at beginning of the year | 1,700 | 2,000 | 2,500 | 2,850 | 3,000 |
| Salvage value at the end of the year | 1,175 | 1,200 | 900 | 400 | 0 |
| Operating costs | 500 | 700 | 750 | 1,100 | 1,200 |
4. (a) A manufacturer's study of various locations has found that the following costs vary from one location to another. The firm will finance the new plant from deposits bearing 5% interest. Determine the most suitable location for a sales volume of 20,000 units/year. 6 (0)
- | Location | A | B | C |
|--------------------------------------|-------|-------|-------|
| Revenue (Rs. per unit) | 16.00 | 25.00 | 12.00 |
| Labour (Rs. per unit) | 0.50 | 1.00 | 0.80 |
| Plant (Rs. crore) | 0.25 | 0.35 | 0.45 |
| Material & Equipment* (Rs. per unit) | 0.20 | 0.50 | 0.25 |
| Electricity (Rs. p.a. '000) | 25.00 | 28.00 | 30.00 |
| Water (Rs. p.a. '000) | 7.00 | 5.00 | 4.00 |
| Transportation (Rs. per unit) | 0.01 | 0.05 | 0.10 |
| Taxes (Rs. p.a. '000) | 22.00 | 15.00 | 30.00 |
- *This cost includes a period depreciation, but no interest.
- (b) Distinguish between Multipurpose and Single purpose Machine tools. 4 (0)
- (c) A SSI unit is engaged in manufacturing fuel nozzles for engines. The operations are performed on a CNC vertical drilling cum tapping centre. The operation cycle time is as follows:
Drilling time : 50 secs.
Tapping time : 95 secs.
Tool change time of ATC : 25 secs. 6 (0)
- For feeding the nozzle the unit designed a fixture holding 10 nozzles at a time and set up time for the 10 nozzles in the fixture is 90 secs. The unit recently received an additional order to the extent of 1 lakh nozzles per year. Assuming the manpower is no constraint, how many additional drilling cum tapping center the unit should install under capacity augmentation plan? Average rejection is 2.5% of the produced nozzles. Assume 300 working days per year of 8 hours per day shift, 20% time the drilling tapping centers are not available due to preventive maintenance and utilization is 70% of the available time due to power and services line shutdown.
- (d) Briefly explain "Flow control" as a basic type of Production control. 2 (0)

Section II : Information Systems

Answer Question No. 5, which is compulsory and any 2 questions from the rest, under Section II.

5. (a) Put an appropriate word or phrase in blank position: 1x6
- (i) Generally, an MIS uses Computer System and _____ technology to collect information from different operational points and disseminate them to different users for decision making; (0)
- (ii) _____ is a provision of secondary storage which acts as primary memory; (0)
- (iii) _____ a program means eliminating errors in the program; (0)
- (iv) In a database, duplicate data are eliminated and thus _____ is controlled; (0)
- (v) _____ consists of high frequency radio transmission and is generally used for high volume data transmission and point-to-point communication; (0)
- (vi) _____ is a redundant digit derived from some mathematical relation, out of other digits of the code, which is incorporated in the code itself to ensure correctness of code. (0)
- (b) Match the items in Column I with those in Column II. 1x4 (0)
- | Column I | Column II |
|---------------------|--|
| (A) Search Engine | (i) A language system that delivers programs to user which can be run on the user's machine. |
| (B) JAVA | (ii) Spreadsheet package |
| (C) Microsoft Excel | (iii) A programming language |
| (D) C++ | (iv) A web site enabling users to access various levels of information |

(c) Each statement below is either ‘True’ or ‘False’. Indicate the same in your answers:	1x4
(i) OCR is reading device used to interpret printed, hand–written data directly from source documents;	(0)
(ii) In a ring topology, the transmitted signal is regenerated at each node thereby minimizes the transmission error and enhances the safe distance coverage area;	(0)
(iii) While taking the decision for an ERP package and its implementation in an enterprise, it is easy to budget for the same as one just needs to get the price of the package from established vendors like Oracle. SAP etc. and arrive at a budget;	(0)
(iv) Interpreter translates the whole program, while Compiler translates line by line.	(0)
6. (a) What are the measures to ensure Access Security with Checks in a computer system?	5 (0)
(b) What are the guidelines to conduct audit of computerised accounting system?	8 (0)
(c) "Digital signatures do for electronic documents what hand written documents do for printed documents". What is a digital signature? How is it created and verified?	2+3 (0)
7. (a) What is knowledge management and what are its benefits?	1+3 (0)
(b) What is BPR? Explain different steps in BPR.	1+6 (0)
(c) List eight basic features of an MIS.	0.5x8 (0)
(d) List six common criteria for selecting an ERP package.	0.5x6 (0)
8. Write short notes on any six of the following:	3x6
(a) Normalization;	(0)
(b) Extranet;	(0)
(c) Biometric Security;	(0)
(d) Data Warehousing;	(0)
(e) EDI;	(0)
(f) Packet Switching;	(0)
(g) Data Mart;	(0)
(h) Test Deck.	(0)

Oms Dec 2010

I—P9(OMS)
Syllabus 2008

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Section I : Operation Management

Answer Question No. 1 which is compulsory and any two from the rest, under Section I.

Marks

1. (a) For each part below, choose the most appropriate answer out of the four options indicated below each part: 1x5

(i) Linear programming is a technique used in	(2)
(a) Plant layout, (b) Production programme, (c) Product mix, (d) Manufacturing sequence	
(ii) Relaxation allowances are considered in	(0)
(a) Time study, (b) Method study, (c) Ergonomic study, (d) Feasibility study,	
(iii) PERT is	(0)
(a) Event oriented technique, (b) Activity oriented technique, (c) Both (a) and (b), (d) None of these,	
(iv) Industrial Engineering is a	(0)
(a) Line function, (b) Staff function, (c) Both line and staff function, (d) Co–ordination function,	

- (v) Annealing is a process of

(a) Joining, (b) Forming, (c) Machining, (d) Heat treatment.

- (b) Match the terms in Column I with the relevant terms in Column II.

I	II
(A) Foundry	(i) Gearbox
(B) Machine Shop	(ii) Value Analysis
(C) Brainstorming	(iii) Electrode
(D) Automobile	(iv) Lathe
(E) Forge Shop	(v) Cupola
(F) Welding	(vi) Power Hammer
(G) Heat Treatment	(vii) Rubber
(H) Tyres Plant	(viii) Hardening
(I) Assembly Line	(ix) Go–No–Go gauge
(J) Inspection	(x) Conveyor

- (c) What recording technique will be used for the following production situation?
- (i) To reduce movement of materials.

(ii) To reduce ineffective body movements.

(iii) To study one operator running one machine.

(iv) To develop work bench layout.

2. (a) A manufacturing organisation operates an incentive scheme on slab-rates based on cost of production as shown below:

Savings in production cost (Labour + Material + Overheads)	Incentive Amount (as % of savings)
1–10%	5%
11–20%	15%
21–40%	30%
41–70%	40%
Above 70%	50%

Three workers X, Y, and Z take 25 hours, 30 hours and 15 hours respectively to produce 10 units of the product and their respective wage rates are Rs. 6.00, Rs. 6.50 and Rs. 7.00 per hour. The material cost is Rs. 50/- per unit and the overhead recovery rate is @ 500% of cost of wages. The standard cost of production per unit is determined at Rs.175 per unit.

What is the amount of incentive earned by each of these workers and what is the actual cost of production per unit in each case?

- (b) Expand the following:
- (i) GERT

(ii) CRP

(iii) CIM

(iv) MTBF

(v) TQM

- (c) A shaft 600 mm long is machined on a lathe at a speed of 200 r.p.m. Calculate the time taken for the cutter to pass through the length of the shaft if the feed is 0.30 mm per revolution.

3. (a) Given below is the existing process layout of a factory manufacturing toys:

C	B	D
E	A	F

The following table gives the trip matrix for the unit. Arrive at an improved layout using the Load Distance matrix assuming that E and F should remain at their current positions:

From/To	A	B	C	D	E	F
A			2	2	1	
B			1		6	5
C				1	4	
D						5
E						1
F						

- (b) A solar manufacturing company has observed the following number of breakdowns in its new lantern over the past year:

No. of	0	1	2	3
--------	---	---	---	---

breakdowns				
No. of months it occurred	3	6	2	1

It costs the firm Rs. 1500 to rectify a lantern. Should the company go in for preventive maintenance at Rs. 600 per month which will limit the breakdown to one per month? Please advise.

- (c) A tool manufacturing SSI Unit requires about 900 nos. of HSS bars of size 2 cm square and 10 cms length in machined and annealed condition. The unit can get the input as above in two ways: 5 (0)
- (i) Purchase un-machined HSS bars of standard size of 2.5 cm square and 10 cms length from market at a price of Rs. 60.00 per piece and then machine in its machine shop with shapers to size 2 cms square and 10 cms length and anneal it further in its heat treatment shop. The cost of shapers is Rs. 6 per cubic centimeter of metal removed. The annealing cost is Rs. 900 for a batch size of upto 200 nos. maximum and if the batch size is smaller the same cost will be incurred. The HSS scrap produced after machined can be sold in scrap market at the rate of Rs. 4 per cubic cm.
- (ii) The unit has got an offer from another firm for supply of machined and annealed HSS bars @ Rs. 115 per piece.
Which alternative should the unit adopt?

- (d) What are the advantages of preventive maintenance? 3 (0)
4. (a) M/s HMT Bearings Ltd. is committed to supply 24,000 bearings per annum to M/s Lokesh Machines on a steady daily basis. It is estimated that it costs Re. 1.00 as inventory holding cost per bearing per month and that the setup cost per run of bearing manufacture is Rs. 3240. 2+1+2 (0)
- (i) What is the optimum run size for bearing manufacture?
- (ii) What should be the interval between the consecutive optimum runs?
- (iii) What is the minimum inventory holding cost?

- (b) Differentiate between Jigs and Fixtures. What are their uses in a production system? 1+2 (0)

- (c) Explain grading method of job evaluation. 2 (0)

- (d) Jaago Engineering is analyzing the efficiency of its work and service personnel. Its service procedure is classified into the following seven activities along with its duration: 8 (0)

Activity	Duration(Hrs.)	Precedence Activity
A	8	–
B	4	–
C	6	A
D	9	B
E	11	A
F	3	C
G	1	D,E,F

From the above details:

- (i) Draw the network diagram,
- (ii) Find the critical path,
- (iii) Calculate the expected time,
- (iv) Slack time for each path,
- (v) Earliest Start and Finish Time,
- (vi) Latest Finish and Start Time.

Section II : Information Systems

Answer Question No. 5, which is compulsory and any two questions from the rest, under Section II.

5. (a) Put an appropriate word in blank position: 1x4

- (i) Check digit is to ensure _____ of code. (0)
- (ii) Firewall offers an effective system to protect _____ access (0)
- (iii) Time sharing allows number of jobs processed _____ (0)
- (iv) Debugging is the process of eliminating _____. (1)

- (b) Expand the following acronyms: 1x5

- (i) BPR; (1)
- (ii) PROM; (0)
- (iii) VGA; (0)

(iv)	OLAP;	(0)																		
(v)	ASCII.	(0)																		
(c)	Each statement below is either True or False. Indicate the same in your answers:	1x5																		
(i)	Interpreter translates a whole program.	(0)																		
(ii)	File volatility is the rate of change in the records in a file.	(0)																		
(iii)	Cache memory is a very fast RAM.	(0)																		
(iv)	Oracle is a programming language.	(0)																		
(v)	DBMS reduces data redundancy.	(0)																		
6. (a)	What are generally the sub-systems in Sales and Distribution Module of an ERP Package?	5 (0)																		
(b)	What is Gap analysis? How is it important in ERP implementation?	1+2 (0)																		
(c) (i)	What is Computer fraud? Describe five common types of computer fraud?	1+5 (0)																		
(ii)	Mention two important measures each for detection of fraud and prevention of damage out of fraud.	2+2 (0)																		
7. (a)	What is an Interface device? Describe three commonly used Interface devices.	1+3 (0)																		
(b)	What is a virus scanner? Describe briefly the functions of a virus scanner.	1+3 (0)																		
(c)	PQR Ltd. is considering three options to acquire for computerizing one of its important functional areas. The options are: (i) Buying the software package available in the market; (ii) Engaging software industries to design the software; (iii) Developing the software in-house with the help of their own IT people. Narrate the relative advantages and disadvantages of each option.	6 (0)																		
(d)	Match Column I with relevant term in Column II:	0.5x8 (0)																		
	<table><tr><th>I</th><th>II</th></tr><tr><td>(A) Encryption</td><td>(i) Relating to measurement of network speed</td></tr><tr><td>(B) Broadband</td><td>(ii) Output device</td></tr><tr><td>(C) Peer-to-Peer</td><td>(iii) Communication between two pieces of hardware</td></tr><tr><td>(D) Bandwidth</td><td>(iv) Scrambling of Data</td></tr><tr><td>(E) Handshaking</td><td>(v) Picture elements in individual dots</td></tr><tr><td>(F) LCD</td><td>(vi) Collection of computers with same access right as every other computer on the network</td></tr><tr><td>(G) Spooling</td><td>(vii) Buffer storage to reduce processing delays</td></tr><tr><td>(H) Pixels</td><td>(viii) Different kind of transmission at the same time</td></tr></table>	I	II	(A) Encryption	(i) Relating to measurement of network speed	(B) Broadband	(ii) Output device	(C) Peer-to-Peer	(iii) Communication between two pieces of hardware	(D) Bandwidth	(iv) Scrambling of Data	(E) Handshaking	(v) Picture elements in individual dots	(F) LCD	(vi) Collection of computers with same access right as every other computer on the network	(G) Spooling	(vii) Buffer storage to reduce processing delays	(H) Pixels	(viii) Different kind of transmission at the same time	
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(A) Encryption	(i) Relating to measurement of network speed																			
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(G) Spooling	(vii) Buffer storage to reduce processing delays																			
(H) Pixels	(viii) Different kind of transmission at the same time																			
8.	Write short notes on any six of the following:	3x6																		
(a)	Models to represent Information;	(0)																		
(b)	Search Engines;	(0)																		
(c)	Computer as audit tools;	(0)																		
(d)	Problems in Internet;	(0)																		
(e)	VB;	(0)																		
(f)	Audit Charter;	(0)																		
(g)	Characteristics of Data Base;	(0)																		
(h)	WAN.	(0)																		

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Section I : Operation Management

Answer Question No. 1 which is compulsory and any two from the rest, under Section I.

Marks

1. (a) Examine each statement and indicate whether it is ‘ True ’ or ‘ False ’: 1x5

- (i) MRP is a marketing technique.

(0)
- (ii) FMS stands for ‘ Flexible Machine System ’.

(0)
- (iii) Method Study should precede Work Measurement.

(0)
- (iv) ‘ Z ’ chart is a chart used in Programme Control.

(0)
- (v) EOQ formula does not consider storage cost.

(0)

(b) Match the terms in Column I with the relevant terms in Column II: 0.5x8 (0)

I	II
(A) Feeding coal continuously into the furnace in an Electric Power Station	(i) Electromagnet
(B) Handling crates on Pallets within a factory	(ii) Electric Arc Furnace
(C) Moving a heavy load above the Machine on the shop floor in a workshop	(iii) Gravity Chute
(D) Transporting fertilizer packed in bags to a railway wagon/truck on the ground below	(iv) Drilling Machine
(E) Making a small deep hole in block of metal	(v) Planing Machine
(F) Machining a large flat surface on metal	(vi) E.O.T.Crane
(G) Melting steel for making castings	(vii) Fork – lift Truck
(H) picking up bits of iron and steel in a scrap yard	(viii) Belt Conveyor

(c) For each part below, choose the most appropriate answer out of the four options given against each part: 1x5

- (i) Ergonomics is another name of

(0)

(a) Chemical Engineering

(b) Human Engineering

(c) Mechanical Engineering

(d) Electrical Engineering
- (ii) ALDEP is a technique used in

(0)

(a) Production Planning

(b) Resource Management

(c) Plant Layout

(d) Maintenance Management
- (iii) The study of relationship between the load on hand and the capacity of the work center is known as

(0)

(a) Scheduling

(b) Loading

(c) Routing

(d) Controlling
- (iv) Buffer Stock is built to cater to

(0)

(a) Machine Breakdown

(b) Import Substitution

(c) Fluctuating Load

(d) Diversification
- (v) Independent Float is

(0)

(a) Total Float — Head Slack

(b) Earliest Start Time — Earliest Finish Time

(c) Free Float — Total Float

(d) None of these

2. (a) Manufacturing of a gunmetal bush requires operations on Lathe, Milling and Drilling machine tools. The operator efficiencies, standard times, and machine tool availabilities are as follows: 9 (0)

Type of Machine Tool	Operator Efficiency	Standard man – hours/ bush	Machine Tool availability
Lathe	75%	0.15	95%
Milling	80%	0.20	75%
Drilling	80%	0.10	75%

If the factory operates one shift of 8 hours for 6 days in a week, how many Lathe, Milling and

Drilling machines will be required to produce 2000 bushes/week? What will be the percentage of spare capacity available in each type of machine tool?

(b) Expand the following:

1x5

(i) ASRS

(0)

(ii) VAM

(0)

(iii) SPT

(0)

(iv) AQL

(0)

(v) MTBF

(0)

(c) A workshop has 25 nos. of identical machines. The failure pattern of the machine is given below:

4 (0)

Elapsed time after maintenance attention (in month)	Probability of failure
1	0.10
2	0.15
3	0.15
4	0.15
5	0.20
6	0.25

It costs Rs. 160 to attend a failed machine and rectify the same. Compute the yearly cost of servicing the broken down machines.

3. (a) Two alternative set-ups, A and B are available for the manufacture of a component on a particular machine, where the operating cost per hour is Rs. 25/–

3+5 (0)

	Set – up A	Set – up B
Components/Set – up	20,000 pieces	30,000 pieces
Set – up cost per year	Rs. 500	Rs. 600
Production rate/hour	20 pieces	40pieces

Find out the manufacturing cost/piece under each set-up. Which of these set-ups should be used for long range and economic production, assuming 3000 hours of working in a year?

(b) What are the four classes of Drilling machines?

4 (0)

(c) Mention the advantages of the following advancements in production technology:

3+3 (0)

(i) Robots

(ii) FMS

4. (a) An article is processed on three machines A,B and C as shown below:

3+3+3 (0)

Machine	Machine operation time (minutes)			Preparation time (min/day)	Cleaning time (min/day)
	Time	Processing	Total		
A	2	2.5	4.5	15	10
B	3	10	13	30	10
C	2	5	7	25	10

A study revealed that if the jigs for machines B and C were to be redesigned, loading and unloading times could be reduced to 2 minutes and 1 minute respectively:

(i) Find the number of pieces produced per day (single shift of 8 hrs.)

(ii) Costing has shown that unless production is increased by 20 per cent, the installation of new jigs would not be worthwhile. would you recommend redesign of jigs?

(iii) If the number to be produced is large, suggest changes in present arrangement and estimate new production rate.

(b) What is the utility of a Single Purpose Machine Tool? Describe a Single Purpose Machine Tool designed for cutting Gears. What are Spur and Helical Gear?

2+2+2 (0)

(c) A manufacturing company has a product line consisting of five work stations in series. The individual work station capacities are given. The actual output of the line is 540 units per shift,

1+2 (0)

Work station No.	1	2	3	4	5
Capacity/shift	700	650	700	650	600

Calculate (i) System capacity (ii) Efficiency of the production line.

Section II : Information Systems

Answer Question No. 5, which is compulsory and any two questions from the rest, under Section II.

5. (a) Put an appropriate word in blank position:

1x4

(i) Intranet is an in-house version of _____.

(1)

(ii) Peoplesoft is an _____ package.

(0)

(iii) Laser printer is a _____ printer.

(0)

(iv) Half-duplex is a mode of data _____.

(0)

(b) Expand the following acronyms:

1x5

	(i) B2C;	(0)																				
	(ii) EPROM;	(0)																				
	(iii) MODEM;	(0)																				
	(iv) RISC;	(0)																				
	(v) GUI	(0)																				
(c)	Each statement below is either ‘ True ’ or ‘ False ’. Indicate the same in your answers:	1x5																				
	(i) Random files are stored on magnetic tapes.	(0)																				
	(ii) MICR is a device to read characters.	(0)																				
	(iii) Operating system is an application software.	(0)																				
	(iv) BPR is an exercise to follow ERP implementation.	(0)																				
	(v) Normalisation is a process of organizing data in a data base.	(0)																				
6. (a)	What are the types of File Organization with respect to the mode of access? Mention at least three advantages under each type of file organization.	2+6 (0)																				
(b)	Narrate the concept and characteristics of a data base.	1+3 (0)																				
(c) (i)	What are the different models of DBMS?.	2 (0)																				
(ii)	What is the basic concept in the hierarchical Database? Mention main features of hierarchical database structure.	1+3 (0)																				
7. (a)	In a payroll system, the employee master file is being designed to have records of fixed length consisting of the following fields:	6 (0)																				
	<table><tr><th>Field Name</th><th>Maximum Field Size</th></tr><tr><td>Employee Number</td><td>6</td></tr><tr><td>Employee Name</td><td>35</td></tr><tr><td>Designation</td><td>10</td></tr><tr><td>Date of Birth</td><td>6</td></tr><tr><td>Date of Joining</td><td>6</td></tr><tr><td>Section Code</td><td>3</td></tr><tr><td>Qualification</td><td>20</td></tr><tr><td>Training Codes</td><td>10</td></tr><tr><td>Scale of Pay</td><td>10</td></tr></table>	Field Name	Maximum Field Size	Employee Number	6	Employee Name	35	Designation	10	Date of Birth	6	Date of Joining	6	Section Code	3	Qualification	20	Training Codes	10	Scale of Pay	10	
Field Name	Maximum Field Size																					
Employee Number	6																					
Employee Name	35																					
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Date of Birth	6																					
Date of Joining	6																					
Section Code	3																					
Qualification	20																					
Training Codes	10																					
Scale of Pay	10																					
	The Employee Master has 2000 employee records presently. Once an employee leaves, his record is deleted.However, it is estimated that there may be fresh recruitment upto 15% of present strength in future. The file management software also requires an overhead of 20% for minimizing probabilities of collision and overflow conditions. Compute the total file space requirement after allowing for 10% contingency factor on total.																					
(b)	What are the stages of the System Development Life Cycle?	4 (0)																				
(c)	What are the points to be considered while designing a new source document?	4 (0)																				
(d)	Match the items in Column I with those in Column II:	0.5x8 (0)																				
	<table><tr><th>I</th><th>II</th></tr><tr><td>(A) ALU</td><td>(i) Knowledge base</td></tr><tr><td>(B) Parallel run</td><td>(ii) Winchester</td></tr><tr><td>(C) Expert System</td><td>(iii) Programming language</td></tr><tr><td>(D) PASCAL</td><td>(iv) Change-over</td></tr><tr><td>(E) Fixed Disk</td><td>(v) CPU</td></tr><tr><td>(F) VA</td><td>(vi) Processed data</td></tr><tr><td>(G) Transaction log</td><td>(vii) Cost Control</td></tr><tr><td>(H) Information</td><td>(viii) Audit trail</td></tr></table>	I	II	(A) ALU	(i) Knowledge base	(B) Parallel run	(ii) Winchester	(C) Expert System	(iii) Programming language	(D) PASCAL	(iv) Change-over	(E) Fixed Disk	(v) CPU	(F) VA	(vi) Processed data	(G) Transaction log	(vii) Cost Control	(H) Information	(viii) Audit trail			
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(G) Transaction log	(vii) Cost Control																					
(H) Information	(viii) Audit trail																					
8.	Write shore notes on any six of the following:	3x6																				
(a)	Reasons for Outsourcing Information System Function;	(0)																				
(b)	Steps involved in Data Warehousing;	(0)																				
(c)	HTTP and HTML;	(0)																				
(d)	Role of Security Administrator;	(0)																				
(e)	System adopted by SET;	(0)																				
(f)	OLAP;	(0)																				
(g)	AI;	(0)																				
(h)	Going Live.	(0)																				

Time Allowed : 3 Hours

Full Marks : 100

*The figures in the margin on the right side indicate full marks.***Section I : Operation Management**

Answer Question No. 1 which is compulsory and any two from the rest, under Section I.

1. (a) Put an appropriate word in blank position: 1x5

- (i) _____ is the process of polishing a work, after grinding, by means of abrasive materials to give fine finish. (0)
- (ii) _____ is a type of surface treatment by an electro-chemical process which gives a slight anticorrosion protection and improves the appearance of the product. (0)
- (iii) In formulating the linear programming problem, the basic step is to set up some _____ model. (0)
- (iv) Under CPM, the project is analysed into different operations or activities and their relationships are determined and shown on the _____ diagram. (0)
- (v) Wear and _____ are the two main causes for replacement of machinery. (0)

- (b) Match the terms in Column I with the relevant terms in Column II: 0.5x8 (0)

Column I	Column II
(A) Inventory Control	(i) Turbo-Alternator
(B) Network Analysis	(ii) Milling Machine
(C) Aviation Fuel	(iii) Shaping Machine
(D) Hydro-electricity	(iv) Crashing
(E) Helical groove on shaft	(v) Value Analysis
(F) Improvement in productivity	(vi) Stock Level
(G) 'V' groove in a Vee-block	(vii) Honing
(H) Very fine finishing of the inside diameter of a cylinder liner	(viii) Refinery

- (c) For each part below, choose the most appropriate answer out of the four options given against each part: 1x5

- (i) Cutting tools are produced from: (0)
(A) High Speed Steel, (B) Nickel, (C) Cobalt, (D) Silica.
- (ii) The following establishes time sequence of operations: (0)
(A) Routing, (B) Sequencing, (C) Scheduling, (D) Dispatching.
- (iii) Arrangement of machines depending on sequence of operations happens in: (0)
(A) Process Layout, (B) Product Layout, (C) Hybrid Layout, (D) Group Technology Layout.
- (iv) Buffer stock is built to cater for: (0)
(A) Fluctuating load, (B) Machine breakdown, (C) Import substitution, (D) Diversification.
- (v) Linear Programming is a technique used for determining: (0)
(A) Production Programme, (B) Plant Layout, (C) Product Mix, (D) Manufacturing sequence.

2. (a) A department of a company has to process a large number of components/month. The process equipment time required is 36 minutes/component, whereas the requirement of an imported process chemical is 1.2 litres/ component. The manual skilled manpower required is 12 minutes/component for polishing and cleaning. The following additional data are available: 4+1 (0)

	Availability/month	Efficiency of utilisation
Equipment-hours	500	85%
Imported Chemicals-Litres	1,000	95%
Skilled manpower-hours	250	65%

- (1) What is the maximum possible production under the current conditions?

(2) If skilled manpower availability is increased by overtime by 20%, what will be the impact on production increase?																													
(b)	"The term 'Quality Control' consists of two words 'quality' and 'control'". (i) What are implied by the terms 'quality' and 'control'? (ii) From the discussions under (i), please arrive at a definition of 'Quality Control'. (iii) Mention six major objectives of 'Quality Control'.	3+2+3 (0)																											
(c)	Draw the schematic diagram from the following table showing tasks to be performed on an assembly line in the sequence and time specified: <table><tr><th>Task</th><th>Time (Seconds)</th><th>Tasks that must precede</th></tr><tr><td>A</td><td>50</td><td>–</td></tr><tr><td>B</td><td>40</td><td>–</td></tr><tr><td>C</td><td>20</td><td>A</td></tr><tr><td>D</td><td>45</td><td>C</td></tr><tr><td>E</td><td>20</td><td>C</td></tr><tr><td>F</td><td>25</td><td>D</td></tr><tr><td>G</td><td>10</td><td>E</td></tr><tr><td>H</td><td>35</td><td>B,F,G</td></tr></table>	Task	Time (Seconds)	Tasks that must precede	A	50	–	B	40	–	C	20	A	D	45	C	E	20	C	F	25	D	G	10	E	H	35	B,F,G	3 (0)
Task	Time (Seconds)	Tasks that must precede																											
A	50	–																											
B	40	–																											
C	20	A																											
D	45	C																											
E	20	C																											
F	25	D																											
G	10	E																											
H	35	B,F,G																											
(d)	Replace the 'missing words' with appropriate terms in the formula contained in the following paragraph: "The analytical approach to evaluate the work done by preventive maintenance is (i) (Inspections incomplete)/('missing words') x 100 should be less than 10%. (ii) (Hours worked for maintenance)/('missing words')x 100 = Performance of the department."	1+1 (0)																											
3. (a)	A lathe machine is used for turning operation and it takes 40 minutes to process the component. Efficiency of the lathe is 90 per cent and scrap is 20 per cent. The desired output is 600 pieces per week. Consider 48 hours per week and 50 weeks in a year. Determine the number of lathes required.	6 (0)																											
(b)	Expand the following: (i) EMQ (ii) ABFS (iii) TCM (iv) MBO (v) SPM	1x5 (0)																											
(c)	Please describe the situation where 'Assembly Line Balancing' is required. What are the factors that cause problems in Line Balancing? Suggest the steps in solving the issue	2+2+3 (0)																											
4. (a)	The probabilities of failure P_n of an equipment in the n th period after maintenance have been estimated as follows: <table><tr><td>n</td><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>P_n</td><td>0.1</td><td>0.2</td><td>0.4</td><td>0.3</td></tr></table> Cost of preventive maintenance: Rs.150; Cost of breakdown maintenance: Rs. 1,000; Determine the optimum frequency of preventive maintenance.	n	1	2	3	4	P_n	0.1	0.2	0.4	0.3	4 (0)																	
n	1	2	3	4																									
P_n	0.1	0.2	0.4	0.3																									
(b)	(i) Explain what is a Slack Variable under Simplex Method of Linear Programming. (ii) A small manufacturing firm produces two types of gadgets, A and B, which are first processed in the foundry, then sent to the machine for finishing. The number of man-hours of labour required in each shop for the production of each unit of A and B and the number of man-hours the firm has available per week are as follows: <table><tr><td></td><td>Foundry</td><td>Machine Shop</td></tr><tr><td>Product A: Man–hours/unit"</td><td>10</td><td>5</td></tr><tr><td>Product B: Man–hours/unit</td><td>6</td><td>4</td></tr><tr><td>Firm’s capacity per week (in hours</td><td>1,000</td><td>600</td></tr></table> Construct the objective function and the corresponding equations for calculating how many units should be produced per week so that the profit is maximum. The profit on the sale of A is Rs. 30 per unit as compared to B’s Rs. 20 per unit.		Foundry	Machine Shop	Product A: Man–hours/unit"	10	5	Product B: Man–hours/unit	6	4	Firm’s capacity per week (in hours	1,000	600	2 (0) 3 (0)															
	Foundry	Machine Shop																											
Product A: Man–hours/unit"	10	5																											
Product B: Man–hours/unit	6	4																											
Firm’s capacity per week (in hours	1,000	600																											
(c)	Examine each statement and indicate whether it is 'True' or 'False':	1x5																											

(i) Industrial Engineering is not a line function.	(0)
(ii) Ranking is one of the Job Evaluation Techniques.	(0)
(iii) Results available from work sampling study is 100% accurate.	(0)
(iv) Standard time does not allow for relaxation of the operators.	(0)
(v) Incentives are substitutes for lower wages.	(0)
(d) A company which is planning to undertake the production of medical testing equipments has to decide on the location of the plant. Three locations are being considered, namely, A, B and C. The fixed costs of three locations are estimated to be Rs. 300 lakhs, Rs. 500 lakhs and Rs. 250 lakhs respectively. The variable costs are Rs. 3,000, Rs. 2,000 and Rs. 3,500 per unit respectively. The average sales price of the equipment is Rs. 7,000 per unit. Find: (i) The range of annual production/sales volume for which each location is most suitable. (ii) Select the best location, if the sales volume is of 18,000 units.	2+2 (0)

Section II : Information Systems

Answer Question No. 5 which is compulsory and any two questions from the rest, under Section II.

5. (a) For each part below, choose the most appropriate answer out of the four options given against each part: 1x5

(i) Barcode is: (A) Unit used in banking industry; (B) Universal product code; (C) Spreadsheet package; (D) Scan graphs.	(0)
(ii) 'Packet switching' on the Internet refers to: (A) Type of circuitry; (B) Switching components; (C) Method of data movement; (D) Packet of hard copy of documents.	(0)
(iii) Which of the following is NOT an operating system? (A) OS/2; (B) Win XP; (C) Oracle; (D) UNIX.	(0)
(iv) A network topology where all computers are connected to a central hub is called: (A) Ring; (B) Bus; (C) Star; (D) Token.	(0)
(v) Assembly language is: (A) Machine dependent; (B) Machine independent; (C) Partly dependent and partly independent; (D) Not a programming language.	(0)

- (b) Put an appropriate word in blank position: 1x5

(i) _____ indicates a sequence of instructions that repeat until a predetermined count or other test is satisfied.	(0)
(ii) An _____ is a boundary shared by human beings and computer.	
(iii) _____ means browsing for information over the Internet.	(0)
(iv) In the Windows system, a Folder is a storage area for_____.	(0)
(v) Information of a permanent nature is stored in a _____ file.	(0)

- (c) Each statement below is either *True* or *False*. Indicate the same in your answers: 1x4

(i) Memory is used to store data, programs and results.	(0)
(ii) Only executable files can be infected by virus.	(0)
(iii) On-line processing and real-time processing are same.	(0)
(iv) Light pens and Joysticks are both pointing devices.	(0)

6. (a) Briefly describe any five program design tools. 5 (0)

- (b) A Company sells merchandise to wholesale and retail outlets. Wholesale customers receive a 2% discount on all orders. The company also encourages both wholesale as well as retail customers pay cash on delivery by offering a 2% discount for this method of payment. Another 2% discount is offered on orders of 500 or more units for all. Draw a decision table for the above conditions and actions. 8 (0)

- (c) Expand the following acronyms: 1x5

(i) DSS;	(0)
----------	-----

	(ii) SRAM;	(0)																		
	(iii) HLL;	(0)																		
	(iv) SDLC;	(0)																		
	(v) DBMS.	(0)																		
7. (a)	What are generally the sub-systems in the Manufacturing Module of an ERP package?	4 (0)																		
(b)	What is Integration Testing? What are the different strategies adopted for this? What are the types of testing approach? How does the auditor satisfy himself in this regard?	1+1+2+1 (0)																		
(c)	A consumer wants to purchase a ready-made item on-line by using his credit card. Narrate the steps to complete the transaction and get delivery of the item.	5 (0)																		
(d)	Match the items in Column I with those in Column II	0.5x8 (0)																		
	<table><tr><th>Column I</th><th>Column II</th></tr><tr><td>(A) Inverted Tree</td><td>(i) Web sites that allow users to communicate with various other users on-line</td></tr><tr><td>(B) Trap door</td><td>(ii) Measure of processing performance</td></tr><tr><td>(C) URL</td><td>(iii) Hierarchical data structure</td></tr><tr><td>(D) MIPS</td><td>(iv) Provides information about location of a document</td></tr><tr><td>(E) Chat Rooms format</td><td>(v) File Attachment</td></tr><tr><td>(F) Firewall</td><td>(vi) Access to system bypassing normal system control</td></tr><tr><td>(G) Top Management</td><td>(vii) Strategic Planning</td></tr><tr><td>(H) E-mail</td><td>(viii) Access Security with Checks in Computer System</td></tr></table>	Column I	Column II	(A) Inverted Tree	(i) Web sites that allow users to communicate with various other users on-line	(B) Trap door	(ii) Measure of processing performance	(C) URL	(iii) Hierarchical data structure	(D) MIPS	(iv) Provides information about location of a document	(E) Chat Rooms format	(v) File Attachment	(F) Firewall	(vi) Access to system bypassing normal system control	(G) Top Management	(vii) Strategic Planning	(H) E-mail	(viii) Access Security with Checks in Computer System	
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8. Write short notes on any six of the following:		3x6																		
(a)	Fourth Generation Language;	(0)																		
(b)	Client-Server Architecture;	(0)																		
(c)	Audit Trail;	(0)																		
(d)	Cost of ERP Implementation;	(0)																		
(e)	Salient features of LAN;	(0)																		
(f)	Data Mart;	(0)																		
(g)	Executive Information Systems;	(0)																		
(h)	Disaster Recovery.	(0)																		

OMS June 2012

***I—P9(OMS)
Syllabus 2008***

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Section I : Operation Management

Answer Question No. 1 which is compulsory and any two from the rest, under Section I.

1. (a)	For each part below, choose the most appropriate answer out of the four options given against each part:	1x5
(i)	One of the product examples for Line Layout is: (A) Repair Workshop, (B) Welding shop, (C) Engineering College, (D) Cement.	(0)
(ii)	The card which is prepared by the dispatching department to book the labour involved in each operation is: (A) Labour card, (B) Wage card, (C) Credit card, (D) Job card.	(0)
(iii)	Jigs are used in machine tool for holding: (A) Tools, (B) Work piece, (C) Head stock, (D) Tail stock.	(0)
(iv)	Cost reduction can be achieved through:	(0)

	(A) Work sampling,	(B) Value analysis,	(C) Quality assurance,	(D) Supply chain management.							
(v)	Addition of value to raw materials through application of technology is:				(0)						
	(A) Product,	(B) Production,	(C) Advancement,	(D) Transformation.							
(b)	Put an appropriate word or two in blank position:				1x5						
(i)	_____ is a Single Purpose Machine Tool designed for cutting gears.				(0)						
(ii)	A key application of _____ is to reduce the current before transmitting electrical energy over long distance through wires .				(0)						
(iii)	_____ is a technique for determining the quantity and timing for the acquisition of dependent demand items needed to satisfy master production schedule requirements.				(0)						
(iv)	To evaluate the work done by preventive maintenance, _____ is derived at from the total time of stoppage of the machine for scheduled and unscheduled maintenance work.				(0)						
(v)	In linear programming, the word ‘linear’ establishes certain relationships among different _____.				(0)						
(c)	Match the terms in Column I with the relevant terms in Column II:				0.5x8 (0)						
	Column I		Column II								
	(A) Making a cylindrical hole in an object		(i) Lathe								
	(B) Joining two metallic objects		(ii) Value Analysis								
	(C) Heat Treatment		(iii) Flow Diagram								
	(D) Thread in a nut		(iv) Machine Data Card								
	(E) To reduce movement of materials		(v) Riveting								
	(F) To study one operator one machine		(vi) Drilling								
	(G) Shortest processing time		(vii) Hardening								
	(H) Brain storming		(viii) Scheduling								
2. (a)	Location A would result in annual fixed costs of Rs. 3,00,000, variable costs of Rs. 63 per unit and revenues Rs. 68 per unit. Annual fixed costs at Location Bare Rs. 8,00,000, variable costs are Rs. 32 per unit and revenues are Rs. 68 per unit. Sales volume is estimated to be 25,000 units/year. Calculate BEP for each location and determine which location will be attractive.				2+3 (0)						
(b)	The faculty in a college is planned to rise to strength of 50 staff members and then to remain at that level. The wastage of recruits depends upon their length of service and is as follows:				5+3 (0)						
	Year	1	2	3	4	5	6	7	8	9	10
	Total %age who left upto the end of year	5	35	56	65	70	76	80	86	95	100
(i)	Find the number of staff members to be recruited every year.										
(ii)	If there are seven posts of Head of Deptt. for which, length of service is the only criterion of promotion, what will be the average length of service after which a new entrant should expect promotion?										
(c)	Expand the following:				1x5						
(i)	BOLT				(0)						
(ii)	DNC				(0)						
(iii)	CBA				(0)						
(iv)	FMS				(0)						
(v)	LOB				(0)						
3. (a)	M/s Kambu Ltd. are the manufacturers of Lamps. The following are the details ot their operation during 2011: Average monthly market demand 2,000 lamps Ordering cost Rs. 200 per order Inventory carrying cost 20% per annuam Cost of lamps Rs. 1000 per lamp Normal usage 100 lamps per week Minimum usage 50 lamps per week Maximum usage 200 lamps per week Lead time to supply 4 – 6 weeks Compute from the above:				2x5 (0)						
(i)	Economic order quantity.										
(ii)	If the supplier is willing to supply quarterly 1,500 units at a discount of 10%, is it worth accepting?										
(iii)	Maximum level of stock.										

(iii)	‘Firmware’ is associated with (A) Application software for firms; (C) Benchmark software;	(B) Special purpose hardware device; (D) Software in ROM.	(0)																		
(c)	Put an appropriate word in blank position:		1x4																		
(i)	The purpose of _____ is to determine whether the developed or acquired software achieves its specified requirements.		(0)																		
(ii)	In _____ Network, terminals (end nodes) are connected to a central node or hub node.		(0)																		
(iii)	The basic aim of _____ in data structure is to eliminate redundancy and inconsistent dependency.		(0)																		
(iv)	In Control Unit of CPU, the summation of instruction time and execution time is called _____ time.		(0)																		
(d)	Each statement below is either ‘True’ or ‘False’. Indicate the same in your answers:		1x3																		
(i)	An open system is a self-contained one and normally a rigid one.		(0)																		
(ii)	Data mart is a complex form of data warehousing, costly and time consuming		(0)																		
(iii)	A record is identified by its key field.		(0)																		
6. (a)	Briefly define Information System Infrastructure and its basic components.		1+3 (0)																		
(b)	A company is planning to procure hardware and asks you to advise on the options available before them for hardware procurement. Please list out the options and comparative advantages for each option.		2+4 (0)																		
(c)	In a Purchase Order Processing system, a purchase order record has the following fields:		6 (0)																		
	Field Name	Maximum Field Size																			
	Purchase-order-number	6																			
	Vendor Code	3																			
	Order-quantity	5																			
	Order-date	6																			
	It is estimated that at any point of time, the outstanding Purchase Order file would have a maximum of 750 outstanding purchase order records in the file (once material is received, the purchase order record is purged from the file). However, there may be a 15% increase in the total number of records in near future. The file management software also requires an overhead of 20% for minimising probabilities of collision and overflow conditions. Compute the total file space requirements after allowing for 10% contingency factor on the total.																				
(d)	In a disk pack, number of tracks in each surface are 200 and number of sectors in each track are 22. If there are 10 Nos. of recording surfaces and 500 bad sectors in the disk pack, calculate total number of good sectors.		2 (0)																		
7. (a)	A consumer desires to transact in Electronic Cash. What are the steps involved in transferring money between the parties? State the benefits of using Electronic Cash.		4+2 (0)																		
(b)	You as Finance Manager has received a proposal from your IT Department to enter into an annual maintenance contract for ERP software that has been implemented in the company. Considering the fact that ERP packages are proven software packages, why should the company enter into the contract?		4 (0)																		
(c)	Expand the following acronyms:		1x3																		
(i)	FTP;		(0)																		
(ii)	TCP/IP;		(0)																		
(iii)	URL		(0)																		
(d)	A manufacturing company is considering the implementation of an ERP system. The company has a few computerised applications running in different areas of the organisation. All these will be discontinued after ERP system is implemented. A software firm has given a quotation for the new system which states that the implementation will take a little more than a year and the capital cost will be Rs. 95 lakhs (payable as Rs. 75 lakhs in the first year and Rs. 20 lakhs in the second year). The following information about Operational Costs (Rs. lakhs) are also available:		5 (0)																		
		<table><tr><td></td><td>Year 1</td><td>Year 2</td><td>Year 3</td><td>Year 4</td><td>Year 5</td></tr><tr><td>Old system</td><td>30</td><td>33</td><td>38</td><td>42</td><td>49</td></tr><tr><td>New system</td><td></td><td>18</td><td>17</td><td>18</td><td>19</td></tr></table>		Year 1	Year 2	Year 3	Year 4	Year 5	Old system	30	33	38	42	49	New system		18	17	18	19	
	Year 1	Year 2	Year 3	Year 4	Year 5																
Old system	30	33	38	42	49																
New system		18	17	18	19																
	The management is wondering as to when the ERP system will recover all of its initial costs and start making a profit. What would be your answer based on the above data?																				
8.	Write short notes on any six of the following:		3x6																		
(a)	Firewall;		(0)																		
(b)	Fibre optics;		(0)																		
(c)	Expert system;		(0)																		
(d)	CASE tools;		(0)																		
(e)	Peer-to-peer architecture;		(0)																		
(f)	Advantages of Flow charts;		(0)																		
(g)	Computer fraud;		(0)																		
(h)	Cryptography & Encryption.		(0)																		

Applied Indirect Taxes

AIT June 2009

***I—P10(AIT)
Syllabus 2008***

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

	Marks
1. (a) Fill in the blanks:	2x5=10
(i) Goods under Central Excise must be _____ (movable/immovable) and _____ (marketable/packaged).	(0)
(ii) CETA specifies some _____ (process/operations) as amounting to manufacture. This will be said to be manufactured _____ (even if/unless) as per court decisions they do not amount to manufacture.	(0)
(iii) Processing can amount to manufacture if a _____ (new/existing) and _____ (identifiable/similar) product known in the market emerges.	(0)
(iv) Exclusive economic zone extends to _____ (200/300) nautical miles from the base line of the coast. Beyond _____ (100/200) nautical miles is High Seas.	(0)
(v) General Free Allowance (GFA) under Customs Act is _____ (allowed/not allowed) on unaccompanied baggage; GFA is _____ (allowed/not allowed) on alcoholic liquor or wines up to two litres.	(0)
(b) State with reasons, whether true or false:	5x3=15
(i) Brand owner is considered as manufacturer under Central Excise.	(0)
(ii) Under Central Sales Tax Act, for an activity to be classified as business profit motive is immaterial.	(0)
(iii) The concession under Customs Act for person who is transferring his residence to India whereby he is eligible to bring used personal and household articles to India without duty is applicable to Indian residents returning from overseas after 2 years but not available to foreigners.	(0)
2. (a) What do you understand by transit and transshipment of goods? Under what conditions do they enjoy exemptions from duty under the Customs Act, 1962?	10 (0)
(b) The assessable value of an imported items is Rs. 1,00,000. Basic customs duty is 20%, additional duty of customs is 2% and secondary and higher education cess is 1% on duty. No additional duty of customs is chargeable on such goods u/s 3(5) of the Act. Compute the amount of customs duty payable. Also state the amount of credit available to the importer.	5 (0)
3. Write short notes on any three of the following	5x3=15
(a) Appeals to appellate authority under CST Act;	(0)
(b) Meaning of "accessory" for excise duty purpose;	(0)
(c) Duty Entitlement Pass Book (DEPB) scheme;	(0)
(d) Specific Audit as per S. 14A of Central Excise Act, 1944.	(0)
4. (a) Who is a job worker? State how is value determined when the goods are manufactured on job work basis.	3+6 (0)
(b) A Ltd. supplies raw material to a job worker J Ltd. After completing the job-work, the finished product of 5,000 packets are returned to A Ltd. putting the retail sale price as Rs. 20 on each packet. The product in the packet is covered under MRP provisions and 40% abatement is available on it. Determine the assessable value under Central Excise Law from the following details:	6 (0)
Cost of raw material supplies	Rs. 28,000
Job worker's charges including profit	Rs. 9,000
Transportation charges for sending raw material to the job worker	Rs. 4,000
Transportation charges for returning the finished packets to A Ltd.	Rs. 4,000

5. (a)	Outline the provisions relating to registration under service tax.	7 (0)
(b)	Explain 'Export of Service' under service tax. What is the exemption available to exporter of service from service tax?	8 (0)
6. (a)	A dealer effected following inter-state sales during the quarter July 2008–September, 2008, (a) Invoice No. 25 dated 5th July, 2008; Rs. 1,12,400 (tax not shown separately), (b) Invoice No. 26, dated 13th August, 2008; Rs. 50,000 plus tax @ 4% i.e. Rs. 2,000. Total Rs. 52,000, (c) Invoice No. 27 dated 18th September, 2008; Rs. 20,000 plus tax @ 4% Rs. 800 i.e. Total Rs. 20,800, (d) Invoice No. 2B dated 27th September, 2008; Rs. 31,200. Tax not shown separately. Goods returned within 6 months were Rs. 8,400 (inclusive of taxes). Sales Tax rate is 4% if goods are sold within the State. What is the turnover and what is tax payable, if the buyers did not issue C Form?	8 (0)
(b)	What is the impact of VAT of CST?	7 (0)
7. (a)	Explain the provisions relating to cenvat credit on goods, services and capital goods under Central Excise.	8 (0)
(b)	An assessee cleared various manufactured final products during June, 2008. The duty payable for June, 2008 on his final products was as follows: Basic Rs. 2,00,000, Education Cesses—as applicable. During the month he received various inputs on which total duty paid by suppliers of inputs was as follows: Basic duty Rs. 50,000, Education Cess Rs. 1,000, SAH education Cess Rs. 500. Excise duty paid on capital goods received during the month was as follows: Basic duty Rs. 12,000, Education Cess Rs. 240, SAH Education Cess Rs. 120. Service Tax paid on input service was as follows: Service Tax Rs. 10,000, Education Cess Rs. 200, SAH Education Cess Rs. 100. How much duty the assessee will be required pay by GAR–7 challan for the month of June 2008, if assessee had no opening balance in PLA account? What is last date for payment?	7 (0)
8. (a)	Mention briefly any five illustrative cases under the Customs, Central Excise Duties and Service Tax Drawback Rules, 1995, where all the industry Drawback rates will not apply.	6 (0)
(b)	Write notes on Special Brand Rate.	4 (0)
(c)	ABC Co. Ltd. provided services valuing Rs. 8 lakhs during the financial year 2007–08. During 2008–09, it has provided taxable services valuing Rs. 10 lakhs and has received payments towards payable services Rs. 8.5 lakhs. It has also received services in the nature of transport of goods by road valuing Rs. 50,000, in respect of which it is the person liable to pay service tax. Compute the service tax, if any, payable by ABC Co. Ltd. for the financial year 2008–09. It is given that goods transport service is exempt to the extent of 75% of value thereof.	

AIT Dec 2009

I–P10(AIT)
Syllabus 2008

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

1. (a)	State with reasons whether the following is true or false.	3x5=15
(i)	Parts used for repair or replacement during warranty period are excisable.	(0)
(ii)	The conveyances are not allowed to leave India without written permission from the customs authorities.	(0)
(iii)	Central excise authorities cannot raise demands contrary to the approved classification/price list retrospectively.	(0)
(iv)	There are common provisions in Customs/Central Excise/ST.	(0)
(v)	Delay in filing appeal can be condoned but condonation is not a matter of right.	(0)
(b)	Fill up the blanks:	
(i)	Appeals under Central Excise and Customs must be filed within _____ days from the date of communication order.	1 (0)
(ii)	Exclusive economic zone extends to _____ nautical miles from the base line under the customs Act.	1 (1)
(iii)	Compressing and bottling gas _____ (is/is not) manufacture.	1 (0)
(iv)	Erection of civil structure _____ (is/is not) taxable services.	1 (0)
(v)	At present deduction _____ (is/is not) available on the basis of equalised freight and Central Excise.	1 (0)
(vi)	Laptop Computer (Note Book Computer) brought as baggage by person above 18 years of age _____ (is/is not) fully exempt from customs duty.	1 (0)
(vii)	Captive consumption is _____ to duty, value is determined on the basis of cost+	2 (0)

	_____ %.	
(viii)	Job work is not _____ .	1 (0)
(ix)	Show cause notice issued by an officer beyond his power will be _____ .	1 (0)
2. (a)	Briefly examine the significance of the levy of “auto Dumping duty” under the Customs Tariff Act.	7 (0)
(b)	Sakti has imported certain goods by AIR. FOB value of goods is \$2000. Freight \$ 500 and insurance \$ 50. Rate of Exchange is \$ 1 = Rs.50. Landing charges is 1% of CIF value. Calculate the assessable value for Customs Duty.	8 (0)
3.	Write short notes on <i>any three</i> of the following:	3x5=15
(a)	Related person under the Central Excise Act.	(0)
(b)	Determination of value when goods are manufactured on job work basis.	(0)
(c)	Transaction value under the Central Excise Act.	(0)
(d)	Special Audit or Cenvat Credit Audit under section 14AA of the Central Excise Act.	(0)
4. (a)	Explain the provisions of interest on delayed payment under Central Excise and Customs.	7 (0)
(b)	Explain the provisions of the Central Excise Act, 1944 which empower the Central Government not to recover the duties of excise not levied or short levied or short levied as a result of general practice. If the duty has been paid despite such practice, is it refundable?	6+2 (0)
5. (a)	State briefly whether sales tax will be levied on the following:	3+3 (0)
	(i) Shares and debentures	
	(ii) Sale of newspapers	
(b)	Write notes on – e-payment of excise duty and state whether it is compulsory or not.	7+2 (0)
6. (a)	State how the VAT system operates.	5 (0)
(b)	What will be the consequences in case the ‘subject goods’ are not used by the manufacturer for the purpose specified in the notification? When will the subject goods be deemed as not been used for intended purpose?	5 (0)
(c)	Discuss the validity or otherwise of the following statements with reasons–	2½ x 2=5
	(i) Input cleared as such to a job worker on 1.10.2008 was not returned in 180 days, assessable value being RS.20,000, Excise duty @ 16.48%, 50% of the inputs were received on 1.4.2009. In this situation no Cenvat will be allowed in the year ending on 31.3.2009.	(0)
	(ii) Purchased a plant for Rs.1,16,480 cum-duty (excise duty rate 16.48%) on 12.12.2008 and received the plant into factory on 5.4.2009. Cenvat allowed will be only Rs.8,240 for the year ended on 31.3.2009.	(0)
7. (a)	A dealer effected following interstate sales during the quarter January – March’09 Invoice No.1 dt.01.01.09 Rs.1,02,000 inclusive of Tax Invoice No.2 dt.31.01.09 Rs.50,000 exclusive of tax CST Rs.1,000 Total Rs.51,000 Invoice No.3 dt.01.02.09 Rs.40,800 inclusive of CST. Invoice No.4 dt.15.02.09 Rs.25,500 inclusive of CST Invoice No.5 dt.01.03.09 Rs.2,00,000 exclusive of tax. Following further information is given All registered dealers gave form ‘C’ except purchase of goods of invoice No.5. 50% of goods pertaining to invoice No.1 are returned on 21.3.09. 10% of goods pertaining to invoice No.2 is rejected. CST is 2%, State Sales Tax is 8% Compute the taxable turnover and tax payable.	8 (0)
(b)	CST is single point tax. Elucidate. A sells goods worth Rs.1,00,000 in Delhi to ‘B’ a registered dealer in Madras. B gives ‘C’ form and pays CST of Rs.2,000/-. B sells it to ‘D’ for Rs.1,10,000 a registered dealer by delivery of R/R and endorsing it on the back of R/R. Is there any CST liability to ‘D’	4 (0)
(c)	What is deemed sale in CST?	2 (0)
(d)	Why certificate in form ‘H’ is necessary to a penultimate exporter?	1 (0)
8.	Describe, in brief, the procedure for export of goods under bond as per Rule 13 of C.E. Rules, 1944.	15 (0)

Time Allowed : 3 Hours

Full Marks : 100

*The figures in the margin on the right side indicate full marks.**Answer **Question No. 1** which is compulsory and any five from the rest.**Wherever required, the candidate may make suitable assumptions and state them clearly in the answers.**All Questions relate to the assessment year 2010–11 unless stated otherwise in the question.*

Marks

1. (a) Fill in the blanks:

1x11=11

- | | |
|---|-----|
| (i) E-payment of service tax is mandatory where the service tax paid in the immediate preceding year is not less than Rs. _____ . | (0) |
| (ii) Taxes and duties are _____ in arriving at the assessable value for customs duty purposes. | (0) |
| (iii) VAT rate applicable within Gujarat State for gold is 1%; if gold is sold to an unregistered buyer in Delhi, the CST is chargeable at _____ %. | (0) |
| (iv) EOU can sell a portion of their production in Domestic Tariff area (DTA) upto _____ % of their _____ value of exports in earlier year. | (0) |
| (v) A service provider _____ avail CENVAT credit of special CVD paid u/s 3(9) of Customs Tariff Act. | (0) |
| (vi) The adjudicating authority _____ review the order passed by it earlier. | (0) |
| (vii) An importer who knowingly mis-declares assessable value can be imprisoned for a period up to _____ years. | (0) |
| (viii) An assessee can claim refund of excise duty within _____ from relevant date u/s 11B of the Central Excise Act, 1994. | (0) |
| (ix) EOUs have to issue _____ certificate for obtaining inputs without payment of excise duty. | (0) |
| (x) Margin of dumping means the difference between _____ and _____ . | (0) |
| (xi) First appellate authority can condone delay up to _____ days in filing the CST appeal if proper cause is shown. | (0) |

(b) State with reasons, whether the following statements are true or false (Answers without reasoning will not receive any credit):

2x7=14

- | | |
|---|-----|
| (i) VAT helps in checking tax evasion and in achieving neutrality. | (0) |
| (ii) Installation/use of capital goods is a pre-requisite for taking CENVAT credit. | (0) |
| (iii) According to Central Excise Act, 1944, 'Assessment' includes self assessment of duty and also provisional assessment. | (0) |
| (iv) There is provision for payment of Central Excise Duty 'under protest'. | (0) |
| (v) Customs officer should pass an adjudication order in all situations where an assessment is done more than the claim of importer/exporter. | (0) |
| (vi) The Commissioner of Central Excise is empowered to review the service tax orders passed by the officers subordinate to him and re-adjudicate it, in case he finds the order to be legally inappropriate. | (0) |
| (vii) The person providing both taxable and non-taxable services and not maintaining separate books of accounts, wishing to avail Cenvat credit is required to reverse 6% of the value of exempted services. | (0) |

2. (a) State the powers of Central Government in the area of taxation, as per the Constitution of India.

7 (0)

(b) Bopara & Co., which has heavy indirect taxes outlay, wishes to know the situations in which it can file a revision application with the Central Government. Please outline the various situations.

8 (0)

3. (a) Briefly discuss the provisions of Section 14A of the Central Excise Act, 1944 relating to special audit.

5 (0)

(b)	Will the quantum of goods manufactured relating to printed laminated rolls with brand name, be considered for SSI exemption limit?	3 (0)
(c)	Is it correct to say that the concept of Input Service Distributor is a facility and not a compulsion for availing CENVAT credit?	4 (0)
(d)	Who are the persons liable to pay Central excise duty?	3 (0)
4. (a)	From the following data, you are required to compute the customs duty payable by Sukbhir & Co:	8 (0)
	(In Euro) FOB value of textile machinery Air freight Expenses incurred by seller for improving the design, at buyer–importer’s request Transit Insurance Exchange rate 1 Euro=Rs.60 Basic duty 25% Rate of CVD 16%Rate of SAD 3% 1,00,000 26,000 4,000 2,000 The price offered to the importer is a special discounted price. The buyer–importer has been specifically directed not to disclose this price to any buyer in India. Seller’s normal selling price is 1,20,000 Euro.	
(b)	Briefly discuss the aspects relating to self assessment by an importer on the basis of ‘Risk Management System’. State the categories of eligible and ineligible persons who can make use of this scheme.	7 (0)
5. (a)	<u>Arun of Tamil Nadu sells his land along with the standing crops and trees for Rs.20 lakhs to David of Kerala. Central Sales Tax Officer wants to assess to tax the value of standing crops and trees in the said land. Comment.</u>	4 (0)
(b)	<u>The following items relating to inter–State sales have been recoded separately in the books of account of Nathan&Co., dealer in CST:</u>	8 (0)
	(RS.in’000) Sales as per bills(excluding CST) Excise Duty Labour charges for packing goods. Insurance charges incurred by Nathan & Co.for goods transported (charged separately in invoices) Freight charges incurred: For moving goods from factory to depot From depot to buyers(incidental to sale) Design charges incurred for manufacturing goods as per buyer’s design 1,420 80 18 20 45 25 50 <u>You are required to compute the taxable turnover of Nathan & Co. and the CST payable. Brief treatment of each item should be given.</u>	
(c)	<u>What is ‘Acquisition fraud’ in the context of VAT?</u>	3 (0)
6.	<u>Write Short notes on any three:</u>	5x3=15
(a)	<u>CENVAT credit where inputs are partially used for manufacture of dutiable goods/taxable services;</u>	(0)
(b)	<u>Deemed manufactures as per excise law is legal fiction;</u>	(0)
(c)	<u>Reverse charge in VAT and service tax;</u>	(0)
(d)	<u>Simplified Brand Rate Fixation scheme;</u>	(0)
(e)	<u>Monetary limits of adjudicating authorities, Officers of Central Excise, Customs and Service Tax.</u>	(0)
7. (a)	<u>Mr. Suresh Raina, who is rendering taxable services, wants to know what he should do, if he discovers a mistake after 90 days from the date of filing service tax return, resulting in short/excess payment of tax. Can he file a revised return?</u>	4 (0)
(b)	<u>Is there any obligation to file service tax return, even if no service tax is payable?</u>	3 (0)
(c)	<u>Discuss briefly the provisions conferring general exemption to small service providers in the context of levy of service tax.</u>	8 (0)
8. (a)	<u>What are the methods of valuation of customs duty? Is it mandatory that they should be applied sequentially?</u>	4 (0)
(b)	<u>Mr. Ram, the assessee, has purchased goods from Mr. Rahim, on high sea sales basis. Mr. Rahim has imported the same from Mr. Antony of Malaysia for an invoice value of 10,000 USD. Mr. Rahim has charged the assessee for 11,000USD. The assessee contends that while arriving at the assessable value for customs, the price charged by the foreign supplier to Mr. Rahim should be taken as the basis. Is the same correct?</u>	3 (0)
(c)	<u>Mrs. Bose is rendering taxable services, which were brought into the service tax net w.e.f.1.5.2009.</u> <u>The following information are made available to you:</u>	8 (0)
	(Rupees) (i) Amount received on 10.5.2009 for services provided in April, 2009 2,00,000	

(ii) Advance received from one client on 10.5.2009.	3,39,000
(iii) For balance services of Rs.7,00,000 bill was raised on 12.3.2010 and the amount due was received from the above client on 15.3.2010.	
(iv) Other taxable services billed and received during 1.5.2009 to 31.3.2010.	4,00,000
(v) Value of free services rendered in October, 2009.	1,50,000
<u>Compute the value of taxable services and service tax payable for the year ended 31.3.2010.</u>	

AIT Dec 2010

I—P10(AIT)
Syllabus 2008

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

*Answer **Question No. 1** which is compulsory and any five from the rest.*

Wherever required, the candidate may make suitable assumptions and state them clearly in the answers.

All answers relate to the assessment year 2010–11 unless stated otherwise in the question.

	Marks
1. (a) Fill in the blanks:	1x7=7
(i) Waste and Scrap will not be excisable unless it is specified in _____ .	(0)
(ii) In addition to departmental audit, C & AG carries out selective audits which is termed as _____	(0)
(iii) A passenger returning to India after stay in Germany for one week is entitled to bring goods up to Rs. _____ without payment of any Custom duty.	(0)
(iv) In case of imports other than imports by EOU the imported goods can be kept in Customs bonded ware-house for _____ days without paying any interest.	(0)
(v) An out-door caterer is providing full and substantial meals. His invoice does not show breakup between value of food and value of service. He is liable to pay service tax on _____ of the bill amount.	(0)
(vi) _____ is payable on inter state sales, while _____ is payable on sale within the State.	(0)
(vii) Central Sales Tax applies to the whole of India _____ the State of Jammu & Kashmir.	(0)
(b) State with reasons, whether the following statements are true or false (Answer without reasoning will not receive any credit):	2x5=10
(i) Repacking of an already manufactured product would amount to manufacture in Excise Law.	(0)
(ii) Customs duty is not paid by an importer and it was found that such non-payment was on account of fraud committed by him. In such case, there is no time limit for issue of show cause notice demanding duty and penalty.	(0)
(iii) A service provider is required to file return in form ST-4 on quarterly basis within 15 days from close of quarter.	(0)
(iv) Appeal against an order passed by the Registration authority must be filed within 90 days of the service of order to the Central Sales Tax Authority.	(0)
(v) Levy of VAT will have effect on retail price of goods.	(0)
(c) (i) Define Excisable goods as mentioned in Central Excise Act, 1944.	2 (0)
(ii) A sub-contract or is a taxable service provider. Do you agree? Discuss.	2 (0)
(iii) Goods under CST includes all kinds of movable property. Comment.	1 (0)
(iv) Is it possible for a Trader to claim refund of special CVD from customs department? State your views.	1 (0)
(v) VAT is termed as 'Consumption based' Tax. Explain.	2 (0)
2. (a) Briefly discuss about the general exemption and concessions given to SSI units for excise duty purposes.	4 (0)

(b)	Can an importer, exporter or 'person in charge' amend the documents submitted to customs authorities? If yes, from what date is the amendment effective?	3 (0)
(c)	Explain briefly the provisions of CST Act, relating to Inter-State sale by transfer of document of title to goods.	4 (0)
(d)	What is the "taxable event" in the case of export of goods under customs law? Is export duty payable in case of applicable goods where ship travels 40 nautical miles from Indian port and the title passes to the buyer, but the ship returns to India because of engine trouble? What is the relevant date for export duty?	4 (0)
3. (a)	Who is liable to pay Excise Duty in case goods are produced or manufactured on Job Work?	2 (0)
(b)	Discuss the includibility or otherwise to the assessable value under the Customs Act, 1962 of the following payments made by an importer to the overseas supplier of a second hand Plant in India:	2x2=4
(i)	Dismantling charges for removing the second hand Plant at the supplier's place and shipping to the Indian importer.	(0)
(ii)	Fees for supervision of erection and commissioning of plant in India. For this purpose the Foreign Supplier deputed their technicians in India.	(0)
(c)	What are the sources of Service Tax Law?	3 (0)
(d)	Discuss the validity or otherwise of the following statements with reasons:	2x2=4
(i)	Subsidy given by Government to manufacturer to compensate cost of production will form part of sale price.	(0)
(ii)	When goods are sent by VPP, the sale is said to take place in the State from where the parcel is sent.	(0)
(e)	State briefly the basic distinction between VAT and Sales Tax.	2 (0)
4. (a)	Explain steps involved in classifying a product under Central Excise Tariff Act.	5 (0)
(b)	Calculate the net service tax payable under the provision of the rule 2A of the Service Tax (Determination of value) Rules 2006 relating to determination of value of services in the execution of a works contract from the following particulars:	3 (0)
(i)	Gross amount for the works contract (excluding VAT) Rs.1,00,000.	
(ii)	Value of goods and materials sold in the execution of works contract Rs.70,000	
(iii)	CENVAT credit on (ii) above Rs.1,000.	
(iv)	Service tax paid on input services Rs.1,000.	
(v)	CENVAT credit on capital goods issued for works contract Rs.1,000.	
(vi)	Service tax rate for the relevant Assessment year is 10.30%. Make suitable assumptions and provide explanations where required.	
(c)	Which dealers are not eligible for composition scheme under VAT?	3 (0)
(d)	Sales Tax payable on product 'A' is sold within State of Punjab is 10%. If the product is sold in inter-state sale, what will be the Central Sales Tax payable if:	2 (0)
(i)	Buyer furnish 'H' form.	
(ii)	Buyer furnish 'J' form.	
(e)	An Importer imported a novel and new article. He was unable to classify his goods under any of the tariff heading or sub-heading and none matched with the goods under import. Even rules 1 to 3 of classification Rules could not find solution. Hence, no customs duty is payable on such product. Comment.	2 (0)
5. (a)	What do you understand by advance ruling under Service TAX? State briefly the question on which "Advance Ruling" can be sought?	5 (0)
(b)	How would you arrive at the assessable value for the purpose of levy of Excise Duty from the following particulars?	2 (0)
-	Cum-duty selling price exclusive of sales Tax Rs.20,000. Rate of Excise duty applicable to the product 10%; Trade discount allowed Rs.2,400, Freight Rs.1,500.	
(c)	A dealer purchased 22,000 kgs. of inputs on which VAT paid @ 4% was Rs.8,000. He manufactured 20,000 kgs. of finished product from the inputs. 2,000 kgs. was the process loss. The final product was sold at uniform price of Rs.10 per kg. as follows:	8 (0)
-	Good sold within State 8,000 kgs. Finished product sold in inter-state sale against 'C' Form 5,000 kgs. Goods sent on stock Transfer to consignment agents outside the State 4,000 kgs. Goods sold to Government departments outside the state 3,000 kgs. There was no opening or closing stock of inputs. WIP or finished products. The state VAT rate on the finished product of dealer is 12.5%. Calculate liability of VAT and CST. Find VAT credit available to dealer and tax required to be paid in cash.	

6. (a)	CIF value of imported goods is Rs.10,00,000. Basic Customs Duty payable is 10%. If the goods were produced in India. Excise Duty payable would have been 8%. Education cess is 2% and Special Education Cess is 1%. Spl. CVD is payable at appropriate rates. Find the Customs duty payable. What are the duty refunds/benefits available if the importer is (a) manufacturer (b) Service provider (c) Trader?	11 (0)
(b)	Define 'Works contract' as per CST Act. Can Sales Tax is levied on activity of textile processing?	4 (0)
7. (a)	M/s. P Ltd. used to label its products with a foreign brand and claimed exemption under a notification. The classification list was approved by the department after carrying out verifications and all returns were regularly filed. The invoice containing description of goods were also regularly approved by the department. The department denied the benefit of exemption to the assessee for previous period of five years, by invoking extended period of limitation under section 11A on the ground that it failed to declare the particulars regarding affixing of labels. Is the department justified? Discuss.	5 (0)
(b)	Write note on 'Input service' for purpose of Cenvat Credit as applicable to a manufacturer.	6 (0)
(c)	Name two situations where excise duty liability is not of the actual manufacturer but of the person who has supplied the raw material to the manufacturer.	2 (0)
(d)	Write a brief note on categories of services for classifying a service as export of service.	2 (0)
8. (a)	Explain provisions in respect of valuation for excise duty purposes determined when sales are generally through a related person.	5 (0)
(b)	Explain how DEPB scheme helps in making exported products tax free.	5 (0)
(c)	Discuss provisions relating to mandatory penalty equal to the amount to duty under the Central Excise Act and circumstances when such penalty shall be reduced.	5 (0)

AIT June 2011

***I—P10(AIT)
Syllabus 2008***

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

Wherever required the candidate may make suitable assumptions and state them clearly in the answers.

All Questions relate to the assessment Year 2011–12 unless stated otherwise in the question.

	Marks
1. (a) Fill in the blanks:	1x7=7
(i) Central excise is a duty on excisable goods manufactured or produced in India, other than-----.	(0)
(ii) Indian customs waters extend up to ----- nautical miles beyond territorial waters.	(1)
(iii) Offences under CST are-----but are bailable.	(0)
(iv) Registration of service tax is granted by-----of central excise.	(0)
(v) Bill of entry can be submitted-----days prior to expected date of arrival of vessel.	(0)
(vi) Article having eight digit code where customs duty rate is specified in the customs tariff is termed as-----.	(0)
(vii) For stock transfer of goods out of the state, input tax paid in excess of ----- will be eligible for tax credit.	(0)
(b) State with reasons whether the following statements are <i>true or false</i> (Answer with out reasoning will not receive any credit).	2x5=10
(i) Materials used for maintaining factory buildings are eligible for cenvat credit.	(0)
(ii) Second hand goods imported are not chargeable to customs duty.	(0)
(iii) Subsidy given by government to manufactures to compensate cost of production will form Part of sale price.	(0)
(iv) A service provider can opt for centralized registration under service tax even if he does not have any centralized billing system.	(0)
(v) Under VAT system there will be compulsory assessment at the end of each year.	(0)
(c) (i) what is the significance of taxable event in central excise?	2 (0)
(ii) State briefly the basic requirements of principle of natural justice in the context of	2 (0)

	adjudication in indirect taxes.	
(iii)	Define 'appropriate state' under the CST Act.	2 (0)
(iv)	Which committee recommended the introduction of service Tax?	1 (0)
(v)	What are the three variants of VAT?	1 (0)
2.	Write brief notes on following:	5x3=15
(a)	Subtraction method of VAT;	(0)
(b)	'Provisional Assessment' under Rule 7 of the central excise Rules, 2002;	(0)
(c)	Refund of special CVD paid on goods imported by a trader.	(0)
3. (a)	A trader supplies raw material of Rs.1,150 to processor. Processor Processes the raw material and supplies finished product to the trader. The processor charges Rs.450.Which include Rs.350 as processing expenses and Rs.100 as his (processor's) profit. Transport cost for sending the raw material to the Factory of processor is Rs.50.Transport charges for returning the finished product to the trader from the premises of the processor is Rs.60.The finished product is sold by the trader at Rs.2, 100 from his premises. He charges VAT separately in his invoice at applicable rates. The rate of duty is 16% plus education cess as applicable. What is the AV, and what is total duty payable?	4 (0)
(b)	Explain use of C, F and H form under CST Act.	4 (0)
(c)	Explain provisions in Cenvat Credit Rules in respect of 'input service distributor'.	7 (0)
4. (a)	Discuss provisions for valuation of exports, if value cannot be determined on basis of transaction Value.	6 (0)
(b)	An assessee cleared various manufactured final products during June, 2010.The duty payable for June, 2010 on his final products was as follows: Basic Rs.1, 00, 000, education cess as applicable. During the month, he received various inputs on which total duty paid by suppliers of inputs Was as follows: Basic duty Rs.25, 000, Education cess Rs.500, SAH education cess Rs.250.Excise duty Paid on capital goods received during the month was as follows: Basic duty Rs.6000, Education cess Rs.120, SAH education cess Rs.60.Service tax paid on input services as follows: service tax Rs.5000 Education cess Rs.100, SAH education cess Rs.50.How much duty the assessee will be required to Pay by GAR 7 challan for the month of June, 2010, if assessee had no opening balance in his PLA Account? What is last date for payment?	5 (0)
(c)	Explain the term "joint venture in India" under the explanation to section 28 E (c) of the Customs Act 1962 for the purpose of advance ruling.	2 (0)
(d)	Transfer of property in goods without consideration is chargeable to CST.Do you agree? Discuss.	2 (0)
5. (a)	<u>W dispatches goods from Karnataka to Orison and raises on X in Madhya Pradesh,W charges 4% CST and pays the same in Karnataka. During movement of goods, X sells goods to Y in west Bengal and Y Ultimately sells goods to Z in Orison.Z takes delivery of goods and the movement of goods comes to end. Sale from X to Y and Y to Z is by transfer of documents. Explain the form to be issued so that The subsequent sales are exempt from central sales tax.</u>	5 (0)
(b)	<u>State importance of tax invoices for VAT and requirements of the invoice.</u>	5 (0)
(c)	<u>Explain provisions in respect of exemption from service tax available to a small service provider.</u>	5 (0)
6. (a)	<u>Mr.X, a manufacturer sells goods to Mr.B a distributor for Rs.2000.(Excluding of VAT).Mr.B sells Goods to Mr.k, a wholesale dealer for Rs.2400.The wholesale dealer sells the goods to a retailer For Rs.3000, who ultimately sells to the consumers for Rs.4000.compute the tax liability, input Credit availed and tax payable by the manufacturer, distributor, wholesale dealer and retailer under in voice method assuming VAT rate @12.5%.</u>	4 (0)
(b)	<u>What is the difference between short levy and short payment?</u>	2 (0)
(c)	<u>FOB value of 1000 kgs goods exported is Rs.1,00,000.Rate of duty drawback on such export is Rs.30 Per kg.Market price of goods is Rs.25, 000 (in wholesale market). Ascertain whether the exporter is entitled to duty drawback in the above case,and if yet,what the quantum of such duty drawback is.</u>	2 (0)
(d)	<u>If any excisable goods are exempted from duty of excise absolutely, the manufacturer of such goods will be bound to avail the exemption. Comment .</u>	2 (0)
(e)	<u>Ware house goods can be transferred from one warehouse to another under the customs Act 1962 Do you agree? Discuss.</u>	2 (0)
(f)	<u>An assessee purchased inputs weighing 200 Kg.The duty paid on inputs was Rs.2000.During transit from supplier to the factory of manufacture .10 Kg of the inputs were destroyed. The destroyed quantity of inputs does not qualify to be 'inputs' within the meaning of the Cenvat Credit Rules, 2004. Discuss.</u>	2 (0)
(g)	<u>Special audit under sections 14 A and 14AA of the central Excise Act, 1944 can be done by a cost Accountant only. Comment.</u>	1 (0)

7. (a)	<u>Discuss briefly the power of the appellate tribunal to order "rectification of mistake" under Customs Act.</u>	<u>5</u> (0)														
(b)	<u>Define residential complex for purpose of service tax.</u>	<u>5</u> (0)														
(c)	<u>Explain situations where the provisions of unjust enrichment under section 11 B (2) of the Central Excise Act, 1944 will not apply and the applicant will be entitled to refund.</u>	<u>5</u> (0)														
8. (a)	<u>Electronic control corporation is a dealer in an electronic product,chargeable to CST at 2%.For the Year ended 31-03-2010,the dealer has shown total turnover (including CST) at Rs.19,38,000.In the above ,the dealer has treated the following amounts thus:</u> <table><tr><td>(i) Dharmada collected from buyers ,shown separately in invoice</td><td>Rs. 15,000</td></tr><tr><td>(ii) Weight charges incidental to sale</td><td>Rs. 6,000</td></tr><tr><td>(iii) Central excise duty collected (including cess)</td><td>Rs. 1,03,000</td></tr></table> The dealer has recorded the following amount in separate folios in the ledger: <table><tr><td>(i) Packing charges (these have been collected from buyer through debit notes)</td><td>Rs. 20,000</td></tr><tr><td>(ii) Cash discount allowed to buyer</td><td>Rs. 9,000</td></tr><tr><td>(iii) Indemnity/guarantee charges collected from buyer to cover loss during transit</td><td>Rs. 6,000</td></tr><tr><td>(iv) Marine insurance premium for transporting goods to the premises of buyer collected from buyers</td><td>Rs. 18,500</td></tr></table> <u>Determine the total and taxable turn over under CST Act, 1956 for the financial year 2009-10. You are required to show the treatment of each and every item distinctly.</u>	(i) Dharmada collected from buyers ,shown separately in invoice	Rs. 15,000	(ii) Weight charges incidental to sale	Rs. 6,000	(iii) Central excise duty collected (including cess)	Rs. 1,03,000	(i) Packing charges (these have been collected from buyer through debit notes)	Rs. 20,000	(ii) Cash discount allowed to buyer	Rs. 9,000	(iii) Indemnity/guarantee charges collected from buyer to cover loss during transit	Rs. 6,000	(iv) Marine insurance premium for transporting goods to the premises of buyer collected from buyers	Rs. 18,500	<u>5</u> (0)
(i) Dharmada collected from buyers ,shown separately in invoice	Rs. 15,000															
(ii) Weight charges incidental to sale	Rs. 6,000															
(iii) Central excise duty collected (including cess)	Rs. 1,03,000															
(i) Packing charges (these have been collected from buyer through debit notes)	Rs. 20,000															
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(iii) Indemnity/guarantee charges collected from buyer to cover loss during transit	Rs. 6,000															
(iv) Marine insurance premium for transporting goods to the premises of buyer collected from buyers	Rs. 18,500															
(b)	<u>Calculate the value of taxable service of Robin Transport Company engaged in the business of transport of goods by road .Give reasons for taxability or exemption of each item. No freight is received from any of the specified category of consignor/consignee. Suitable assumption may be made where ever required .Robin does not avail Cenvat credit.</u> <table><tr><td></td><td>Rs.</td></tr><tr><td>(i) Total freight charges received by Robin during the year</td><td>6,75,000</td></tr><tr><td>(ii) Freight charges received for transporting fruits</td><td>62,500</td></tr><tr><td>(iii) Freight collected for transporting small consignment for Persons who paid less than Rs.750 for each consignment</td><td>37,500</td></tr><tr><td>(iv) Freight collected for transporting goods in small vehicles For person who paid less than Rs.1500 per trip</td><td>75,000</td></tr></table>		Rs.	(i) Total freight charges received by Robin during the year	6,75,000	(ii) Freight charges received for transporting fruits	62,500	(iii) Freight collected for transporting small consignment for Persons who paid less than Rs.750 for each consignment	37,500	(iv) Freight collected for transporting goods in small vehicles For person who paid less than Rs.1500 per trip	75,000	<u>5</u> (0)				
	Rs.															
(i) Total freight charges received by Robin during the year	6,75,000															
(ii) Freight charges received for transporting fruits	62,500															
(iii) Freight collected for transporting small consignment for Persons who paid less than Rs.750 for each consignment	37,500															
(iv) Freight collected for transporting goods in small vehicles For person who paid less than Rs.1500 per trip	75,000															
(c)	<u>Assessable value of certain goods imported from USA is Rs.5,00, 000.The packet contains 5000 Pieces with maximum retail price of Rs.200 each. The goods are assessable under section 4A of Central Excise Act, 1944 after allowing an abatement of 40%.The excise duty rate is 10% ad Valorem.Calculate the amount of additional duty of customs under section 3 (1) of the customs Tariff Act, 1975 assuming basic customs duty @10%ad valorem</u>	<u>5</u> (0)														

AIT Dec 2011

**I—P10(AIT)
Syllabus 2008**

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five from the rest.

Wherever required the candidate may make suitable assumptions and state them clearly in the answers.

All Questions relate to the assessment Year 2011-12 unless stated otherwise in the question.

1. (a) Fill in the blanks: 1x7=7

(i)	Where goods are not _____ Excise Duty cannot be charged.	(0)
(ii)	As per Rule 6 of the Central Excise Rules, 2002, an Assessee is to make _____ of duty and pay the same.	(0)
(iii)	Under the Customs Act, where refund becomes due in the final assessment, interest will be payable if refund is not granted within _____.	(0)
(iv)	A dealer has made inter State sale of goods to a Buyer who has exported the goods. The Dealer is not liable to pay Central Sales Tax if the Buyer issues _____ Form to the Dealer.	(0)
(v)	An EOU Unit is required to execute _____ Bond.	(0)
(vi)	If Service Tax Return is filed late by one day, the late fee payable of Rs. _____.	(0)
(vii)	In case of _____ Excise Duty is payable by Procurer (Buyer) of the manufactured goods.	(0)

(b) State with reasons, whether the following statements are True or False (Answers without reasoning will 2x5=10 not receive any credit):

(i)	CEA, Customs Act, S.T. Act etc. have to be consistent with Constitution of India.	(0)
(ii)	There is no provision under the Customs Act for remission of Customs Duty on goods lost, damaged or pilfered.	(0)
(iii)	Commission received by distributors for distribution of Mutual Fund units are not liable to Service Tax.	(0)
(iv)	Excise Department cannot challenge the reasonability of MRP printed on the package.	(0)
(v)	Lottery ticket is not goods under the CST Act.	(0)
(c)	(i) State briefly the basic distinction between sales tax and Excise.	2 (0)
	(ii) what are non‐Vat goods?	2 (0)
	(iii) Goods already exported cannot be confiscated under Customs Act. —Explain.	2 (0)
	(iv) A, an individual has not provided any service in the half year period of April to September. Should he file any return for the period? Give your opinion.	1 (0)
	(v) Can Sales tax be levied if furniture is hired for one day for marriage functioned and returned after the function is over?	1 (0)

2. Write brief notes on following: 5x3=15

(a)	Refund of Cenvat credit in cash.	(0)
(b)	Indian Customs Waters under the Customs Act, 1962.	(0)
(c)	Tax payer’s identification number (State level VAT).	(0)
3. (a)	BMK services, a partnership firm, gives the following particulars relating to the services provided to various clients by them for the half–year ended on 30–09–2010.	4 (0)
	(i) Total bills raised for Rs. 14,90,000 (inclusive of service tax). this amount includes a bill for Rs. 30,000 was raised on an United Nations Organisation. Further, payments of bills for Rs. 2,00,000 were not received till 30–09–2010.	
	(ii) Amount of Rs. 1,00,000 was received as an advance from Gupta Business service Ltd. on 25–09–2010 to whom the services were to be provided in October, 2010. You are required to work out: (1) taxable value of service; (2) amount of service tax payable. Service tax rate is 10.30%.	
(b)	Dealers whose turnover is below specified limits are eligible for simplified composition scheme under VAT. What is the turnover limit as specified in White Paper on VAT? State which dealers are not eligible for composition scheme under State VAT even if their annual turnover is below specified limit.	4 (0)
(c)	Explain provisions of ‘rectification of order’ under service tax.	5 (0)
(d)	Define exempted goods with reference to the provisions of Cenvat Credit Rules, 2004.	2 (0)
4. (a)	Calculate the VAT liability for the month and input tax credit from following details:	4 (0)
	(i) Input tax rate 5% and output tax rate is 15% in the state.	
	(ii) Inputs purchased in the month from within the State Rs. 30,00,000.	
	(iii) Output sold to buyers within the state during the month Rs. 20,00,000.	
	(iv) Output sold during the month to buyers as inter–state sales Rs. 4,00,000 (CST rate 2% against C form).	
	(v) Inputs purchased from other states as inter–state purchases against C form @ 2% Rs. 1,00,000.	
(b)	Compute the amount of Service Tax in the following cases assumig the applicable rate of service tax to be 10.3%:	4 (0)
	(i) A goods carriage carrying 10 (ten) consignments (All Belonging to different persons) at fare of Rs. 500 each.	
	(ii) A goods carriage carrying 5 (five) consignments (Booked by five different persons but addressed to the same consignee) at fare of Rs. 300 each.	
(c)	The goods manufactured by P Q & Co. have been used for the purpose of further manufacture of some other goods. The cost of production of goods so used captively is Rs. 1,00,000. Compute the assessable value of the captively used goods and duty chargeable thereon at 14% plus 3% education cess.	3 (0)
(d)	Ramesh, a Registered dealer in the state of Orissa furnishes the following data:	4 (0)
	Rs.	

Total Inter-State sales (C.S.T. not shown separately) during October to December, 2010	72,50,000
Included in the above sales: Excise Duty	7,00,000
Freight (Out of which Rs. 30,000 is not shown separately in invoice)	70,000
Insurance charges incurred prior to delivery of goods	20,000
Installation and commissioning charges shown separately in invoice	9,500
Incentive on sales received from manufacturer	12,500

Calculate turnover and C.S.T. payable assuming that all transactions were covered by valid 'C' forms.

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|--------|--|----------------|
| 5. (a) | <u>What is anti-dumping duty? Explain meaning 'margin of dumping', normal value and injury margin.</u> | <u>5</u> (0) |
| (b) | <u>State the situations in which the proper officers is authorised to issue show-cause notice under section 28 of the Customs Act, 1962 and also the time limit.</u> | <u>4</u> (0) |
| (c) | <u>Enumerate various categories of sale of goods, indicating when State VAT is payable, when Central Sales Tax is payable and when no VAT/CST is payable. Also indicate relevant entries in the constitution under which the State VAT/CST is levied.</u> | <u>4+2</u> (0) |
| 6. (a) | <u>Explain provisions relating to abatement of customs duty on damaged goods.</u> | <u>5</u> (0) |
| (b) | <u>Mr.R. Venkata Rao, an Indian resident, had gone to UK for business purposes. He brought following goods while returning to India (i) His personal effects like cloth etc. valued at Rs. 73,000, (ii) Two liter of liquor of Rs. 4,200, (iii) New Camera of Rs. 38,500, (iv) One laptop of Rs. 58,000. What is the customs duty payable?</u> | <u>5</u> (0) |
| (c) | <u>Explain provisions relating to ER-4 return.</u> | <u>5</u> (0) |
| 7. (a) | <u>Pren Industries Ltd. manufactured components for a lathe. The component was supplied to J.M. Star Services, who were manufacturers of the lathe. J.M. Star services supplied dies free of cost for manufacture of the component to Prem Industries Ltd. Cost of dies was Rs. 10,00,000. As per technical estimate, 20,000 components could be manufactured out of the tooling. In addition, Prem Industries Ltd. purchased tools on their own at Rs. 1,00,000 for manufacture of the components. estimated life of the tool was 25,000 component. These tools were capitalized by Prem Industries Ltd. in their books of account. Prem Industries Ltd. supplied 5,000 components to J.M. Star Industries for Rs. 190 per piece exclusive of taxes and duties, during first year of production. In addition, they charged Dharmada (charity) of Rs. 10 per piece separately. This Dharmada amount was given by Prem Industries Ltd. for donation to a Charitable Organisation. Excise Duty rate was 10% and education cess was as applicable. Calculate the assessable value and the excise duty payable for the year.</u> | <u>5</u> (0) |
| (b) | <u>JVK electronics Ltd. imported parts of Colour television (CTV) Components were imported in 94 consignments over a period of 22 months. The components imported were such that by assembly, a CTV could be manufactured, though all components were not imported in equal numbers. The components were independently usable as spares or sold in market. As per Rule 2(a) of GIR, any reference in a heading to goods shall be taken to include a reference to those goods complete or finished, removed unassembled or disassembled. customs Department clubbed all these consignments and by applying rule 2(a), claimed that assessee imported CTV in un-assembled condition and not components of CTV. Accordingly, show cause notice was issued to JVK Electronics Ltd. Advice JVK Electronics Ltd. you may take help of any decided case law.</u> | <u>5</u> (0) |
| (c) | <u>An SSI unit is not eligible for exemption from excise duty if it manufactures goods with brand name belonging to other person. However, SSI exemption is available if the goods bearing brand name of other person are manufactured in a specified area. Explain provisions relating to that area. Is there any limit to the exemption?</u> | <u>5</u> (0) |
| 8. (a) | <u>CENVAT Credit is available only if the specified duty paying document is available with manufacturer or service provider availing the CENVAT Credit. List any six of the documents eligible for availing CENVAT Credit.</u> | <u>3</u> (0) |
| (b) | <u>State the powers of Superintendent of Central Excise relating to adjudication and remission of Excise Duty.</u> | <u>3</u> (0) |
| (c) | <u>CUM duty price of a product (Excluding Sales Tax) is Rs. 1000. The manufacturer is allowing trade discount of Rs. 50. The Excise Duty rate is 10% plus education cess as applicable. Calculate the Excise Duty payable per piece.</u> | <u>3</u> (0) |
| (d) | <u>Write brief note on All Industry Duty Drawback Rates.</u> | <u>3</u> (0) |
| (e) | (i) <u>When does an advance rulling on service tax become void AB-Initio?</u> | <u>2+1</u> (0) |
| (ii) | <u>Who has the powers to appoint public warehouse at places notified under the Customs Act, 1962?</u> | (0) |

Time Allowed : 3 Hours

Full Marks : 100

*The figures in the margin on the right side indicate full marks.**Answer Question No. 1 (carrying 25 marks) and answer any five (each carrying 15 marks) from the rest.**Wherever required the candidate may make suitable assumptions and state them clearly in the answers.**All Questions relate to the assessment Year 2011–12 unless stated otherwise in the question.**Please: (1) Answer all bits of a question at one place.**(2) Open a new page for answer to a new question.**Working notes should form part of the answer.*

1. (a) Fill in the blanks:

1x9=9

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|--|-----|
| (i) Goods manufactured in SEZ are _____ goods. | (0) |
| (ii) An Assessee can claim refund of Excise Duty within _____ from relevant date in Form R. | (0) |
| (iii) Landing charge is _____ % of C I F value. It is a _____ charge. | (0) |
| (iv) In case import is through post, label/declaration on postal article is treated as _____. | (0) |
| (v) In case of Captive consumption, valuation is done on the basis of cost of production plus _____.
Cost of production is calculated as per _____ of the Institute of Cost and Works Accountants of India. | (0) |
| (vi) Central Government can grant general or total exemption from Service Tax but it can not grant with _____ effect. | (0) |
| (vii) R N R (Revenue Neutral Rate) is _____ % for most of the commodities. | (0) |
| (viii) Appeal to commissioner (Appeals) should be filed within _____ days from the order of Officer Lower in rank than commissioner. | (0) |
| (ix) Remand means sending the case back to _____ authorities for decision. | (0) |

(b) State with reasons, whether the following statements are *true* or *false* (Answers without reasoning will not receive any credit): 2x5=10

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| (i) Unbranded Software is service. | (0) |
| (ii) No anti – dumping duty is payable by EO Us under the Customs Act, 1962, even where the goods imported are used for manufacture of goods sold in India. | (0) |
| (iii) If goods are pilfered in port before clearance, customs duty is still payable by the importer. | (0) |
| (iv) Specific duty leviable under the Central Excise Act is based on the value of article/goods being assessed. | (0) |
| (v) Insurance company which takes possession of damaged goods for which it has paid, sells the damaged goods. The insurance company is a dealer under the Central Sales Tax Act. | (0) |

(c) In each of the cases given below, one out of four alternatives is correct. Indicate the correct answer (= 1 mark) and give workings/reasons briefly in support of your answer (= 1 mark). 2x3=6

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|---|-----|
| (i) ALIANCE & CO. a dealer in Delhi dealing in consumer goods, had purchased goods of Rs. 2,16,000 (exclusive VAT) and after adding for expenses of Rs. 24,000 and of Profit Rs. 60,000 had sold out the same. If the rate of VAT on purchase and sales is 12.5% what would be the amount of tax payable (Net) under VAT?
(A) Rs . 10,500
(B) Rs . 9,000
(C) Rs . 3,000
(D) None of the above | (0) |
| (ii) MR. SMITH a consulting engineer, raised a bill of Rs. 2,48,175 (Including Service Tax) on his client for consultancy Services rendered by him on January 15, 2012. If a partial payment of Rs. 1,93,025 is received by Mr. Smith on February 5, 2012, what would be the amount of Service Tax payable by him for the quarter ending March 31, 2012.
(A) Rs . 23,175
(B) Rs . 1,75,000 | (0) |

	(C) Rs . 15,150 (D) Insufficient data	
	(iii) The selling price of VINTEX LTD. inclusive of basic Excise duty @ 8%, education cess @ 2%, SAHEC @ 1 % and CST @ 2% is Rs. 3,600. What would be the assessable value of the product per unit under the Central Excise Act? (A) Rs . 3325.94 (B) Rs . 3360.87 (C) Rs . 3065.10 (D) None of (a), (b) & (c)	(0)
2. (a)	Discuss the essential requirements for application of transaction value for the determination of assessable value.	3 (0)
(b)	Does ‘Renting of Lockers’ by Bank amounts to sale?	2 (0)
(c)	Answer the following with reference to decided case laws as to how value shall be determined under Sec. 14 of the Customs Act, 1962 and the rules made thereunder. (i) There has been a price rise between the date of contract and the date of actual importation. The contract was over 6 months before the date of shipments. (ii) The goods are purchased on High Seas.	2+2=4 (0)
(d)	Answer the following with reference to the Finance Act, 1994 as amended relating to applicability of Service Tax. (i) Services in relation to production of alcoholic liquor on Job Work basis. (ii) Services provided by a practicing Chartered Accountant representing a client before Income Tax Officer in Assessment proceeding. (iii) Services provided by a Club or association to its non – members.	2x3=6 (0)
3. (a)	Briefly state the provision of the Central Excise Act, 1944 relating to ‘payment of duty under protest’.	3 (0)
(b)	When can VAT registration be cancelled?	2 (0)
(c)	What is meant by: (i) Margin of Dumping and (ii) ‘Injury Margin’	2 (0)
(d)	VARUN & CO. is a dealer in an electronic product, chargeable to CST at 2%. For the year ended March 31, 2012, the dealer has shown total Turnover (including CST) is Rs. 39,27,000. In the above, the dealer has treated the following amounts thus: (i) Dharmada collected from buyers, shown Separately in invoices Rs. 28,000 (ii) Weighment charges incidental to sale Rs. 14,000 (iii) Central excise duty collected (including cess) Rs. 2,06,000 The dealer has recorded the following amounts in separate folios in the ledger: (i) Packing charges (These have been collected separately from buyers through Debit notes) Rs. 45,000 (ii) Cash discounts allowed to buyer Rs. 18,000 (iii) Indemnity/Guarantee charges collected from buyers to cover loss during transit. Rs. 12,000 (iv) Marine Insurance premium for transporting goods to the premises of buyers, collected from buyers. Rs. 32,000 Required: Determine the total and Taxable Turnover under the Central Sales Tax Act 1956 for the financial year 2011–12. (You are required to show the treatment of each and every items distinctly).	8 (0)
4. (a)	From the following information provided by S. K. compute the amount of VAT payable for the month of July, 2011. Input worth Rs. 2,00,000 were purchased within the state Rs. 4,00,000 worth of finished goods were sold within the state and Rs. 2,00,000 worth of goods were sold in the course of inter state trade. VAT paid on procurement of Capital goods worth Rs. 2,00,000 during the month was at 12.5%. If the input and output tax rate in the state are 12.5% and 4% respectively and the Central Sales Tax rate is 2%, show the total tax liability under the state V AT law and under the Central Sales Tax Act.	5 (0)
(b)	M/s. Rama Traders placed orders for import of sugar from various exporters abroad. All import documents were in the name of M/s. Rama Traders. After import, M/s. Rama Traders allotted the imported sugar to various buyer in India. No Sales Tax was charged as the sales were treated as "in the course of import". Is this in order? Discuss.	3 (0)

(c)	Does a Civil Courts have jurisdiction to hear matters of Indirect Taxes?	2 (0)						
(d)	VENTEX LTD, sold a machinery to TEXMECO on 28 th September, 2011 and the price of the machinery when it was removed from the factory at Hyderabad on the date of Sale was Rs. 4 lakh. The rate of excise duty aplicable is 10.3% (inclusive of EC & SAHEC) on the date of removal. TEXMECO LTD however, refused to take delivery of the machinery when it reached their destination. Subsequently VENTEX LTD. increased the prices of similar type of machinery to Rs. 4.50 lakh with effect from 1 st October 2011. The machinery as refused by TEXMECO LTD. has been sold on 3 rd October 2011 to Voith Ltd. at the revised price of Rs. 4.50 lakh. Required: (i) What is the value to be taken as assessable value? Explain with reasons. (ii) What is the duty payable on above transaction?	5 (0)						
5. (a)	<u>"Every manufacture is production; every production is not manufacture"—Explain the Statement (Under Central Excise Act).</u>	3 (0)						
(b)	<u>Discuss the following:</u> (i) Who is responsible to pay Service Tax when the recipient of sponsorship services is located out side India? (ii) Who is liable to pay e – payment of Service Tax?	2x2=4 (0)						
(c)	<u>ANURIM MACHINE LTD, a manufacture, has agreed to supply a machine on the following terms and conditions:</u> (i) Price of Machine : Rs. 4,08,000 (Exclusive of taxes and duties) (ii) Machine erection expenses : Rs. 31,000 (iii) Packing for transportation of Machine : Rs. 5,000 (iv) Design and drawing relating to manufacture of machine : Rs. 36,000 (Exclusive of taxes and duties) (v) Central Sales Tax : 2% (vi) Central Excise duty : 16% plus education cess and SAH education cess as applicable. (vii) Cash discount of Rs. 6,000 will be offered if full payment is received before despatch of goods. <u>Additional information is available:</u> (a) The buyer made all payment before delivery of machine. (b) The manufacturer incurred a cost of Rs. 1,200 in loading the machine in truck in his factory. These are not charged separately to buyer. <i>Required:</i> Determine the Assessable Value and Excise Duty payable.	8 (0)						
6. (a)	<u>DCK STOCK BROKERS LTD is a registered stockbroker on Mumbai Stock Exchange. DCK Stock Brokers Ltd furnishes you the following information fo services provided by it during the year 2011–12.</u> (i) Brokerage charged from investors for transaction (Sale/purchase of listed securities) on behalf of investors: Rs. 12 lakh (out of this certain transactions were entered into through sub–brokers and a brokerage of Rs. 1.80 lakh were paid during the year to various sub–brokers). (ii) Brokerage for transactions in listed securities for other brokers : Rs. 2.40 lakh; (iii) Commission/Brokerage for Arbitrage Transactions for other brokers : Rs. 3.00 lakh. (iv) Brokerage for purchase/sale of listed securities on Jaipur Stock Exchange through a Jaipur–based Broker: Rs. 6 lakh (out of this, brokerage of Rs. 2.40 lakh was paid to Jaipur broker). (v) Under writing Commission for underwriting issue of BPT Ltd : Rs. 30 lakh, (vi) Demat/Depository charges collected from various customers (on actual basis) and paid to the concerned Depository : Rs. 36 lakh. <u>Your are required to compute value of Taxable Service under ‘Stock Broking Services’ and Net Service Tax payable thereon.</u>	9 (0)						
(b)	<u>State with reason whether the following would amount to manufacture under the Central Excise Act, 1944:</u> (i) Printing of Colour Logo on glass bottle. (ii) Assembly and filling of different parts into one article.	2x2=4 (0)						
(c)	<u>How should "Value" be calculated for determining SSI for Central Excise purposes?</u>	2 (0)						
7. (a)	<u>Ascertain whether the refund of Service Tax paid on input services can be claimed in the following cases:</u> <table><tr><td></td><td>Rs.</td></tr><tr><td>Total credit of Service Tax on input services.</td><td>6,000</td></tr><tr><td>Total Turnover of out put service.</td><td>40,000</td></tr></table>		Rs.	Total credit of Service Tax on input services.	6,000	Total Turnover of out put service.	40,000	3 (0)
	Rs.							
Total credit of Service Tax on input services.	6,000							
Total Turnover of out put service.	40,000							

	Output service exported.	30,000
(b)	Write a brief note how the terms 'Warehouse', 'Warehouse goods' and 'Warehousing station' are defined in the Custom Act, 1962.	3 (0)
(c)	Which section is termed as 'charging section' under CEA.	1 (0)
(d)	COMFORT LTD, an importer, has imported a machine from USA at FOB Cost of $ 10000. (i) Freight from port in USA to Indian port was \$ 700 (ii) Insurance was paid to insurer in India Rs. 6000 (iii) Design and development charges of $ 2000 were paid to a consultancy firm in USA. (iv) The importer also spent an amount ofRs. 50,000 in India for development work connected with the machinery. (v) Rs. 10,000 were spent in transporting the machinery from India port to the factory of Importer (POLSON LTD). (vi) Rate of exchange as announced by RBI was : Rs. 44.70 = One US $. (vii) Rate of exchange as announced by CBE & C (Board) by notification under section 14(3)(a)(i): Rs. 44.60 = One US $. (viii) Rate which bank recovered the amount from importer : Rs. 44.30 = One US $. (ix) Foreign exporters have an agent in India. Commission is payable to the agent in Indian Rupees @ 5% of FOB price. Basic Custom Duty payable is 10%. <u>If similar goods produced in India, Excise duty payable would have been 16%. Special CVD is payable at 4%.</u> <u>Required:</u> (i) Find the customs duty payable. (ii) How much CENVAT can be availed by Importer if he is a manufacturer.	8 (0)
8. (a)	<u>ZEESLINA LTD cleared various manufactured final Products during September, 2011. The duty payable for September 2011 on his final products was as follows:</u> <u>Basic: Rs. 2,50,000.</u> <u>Education cesses as applicable</u> <u>During the month, he received various inputs on which total duty paid by suppliers of inputs was as follows:</u> <u>Basic duty : Rs. 60,000</u> <u>Education cess : Rs. 1,200 and</u> <u>SAH education cess: Rs. 600</u> <u>Excise duty paid on capital goods received during the month was as follows:</u> <u>Basic duty : Rs. 18,000</u> <u>Education cess: Rs. 360</u> <u>SAH education cess : Rs. 180</u> <u>Service Tax paid on input services was as follows:</u> <u>Service Tax: Rs. 15,000</u> <u>Education Cess: Rs. 300</u> <u>SAHE Cess: Rs. 150</u> <u>Required:</u> <u>How much duty ZEESLINA LTD (Assessee) will be required to pay by GAR-7 challan for the month of September 2011, if there was no opening Balance in his PLA Account?</u>	7 (0)
(b)	Name two situations where excise duty liability is not of the actual manufacturer but of the person who has supplied the Raw material to the manufacturer.	2 (0)
(c)	Write Short Notes on: (i) Place of Business under the Central Sales Tax Act 1956. (ii) Reverse Charge in VAT and Service Tax.	2x3=6 (0)