OLD COURSE
FINAL COURSE- GROUP II

PAPER – 5: ADVANCED MANAGEMENT ACCOUNTING
SYLLABUS: 50%

Question paper

Question No.1 is compulsory. Candidates are also required to answer any five questions from the remaining six questions.

Maximum time: 3 hours **Maximum Marks:** 100

Question 1:

(a) Hindalco, a company that builds houses presents the following facts relating to a certain housing contract that it wishes to undertake:

The CEO's and Marketing Directors food and hotel expenses of **Rs** 3,750 were incurred for a meeting with a prospective client.

1,200 kg s of raw material Z will be required for the house .Inventory of Z available is 550 kg. It was purchased at **Rs** 580 per kg. It is use d by H in dal co in other projects .Its current market price is **Rs** 650 per kg . Its resale value is **Rs** 350 per kg.

The house will require 90 hours of engineers time .The engineers are paid affixed monthly salary of **Rs** 47,500 per engineer who can work 150 hours a month .Spare time is not available now and an engineer as to be hired for this house for one month .He cannot be used in any other project once he does this contract.

H in dalco will use a special earth quake proof found at ion material. This was developed by H in dalco at a cost of **Rs** 30,000 for some other project that had to be abandoned .fit does not use it in this project ,it can use it in some other project and charge the client **Rs** 50,000 for it.

A list of It given below .You are required to name the type of cost and state whether it is relevant or not in calculating the cost of the given housing project. (5marks)

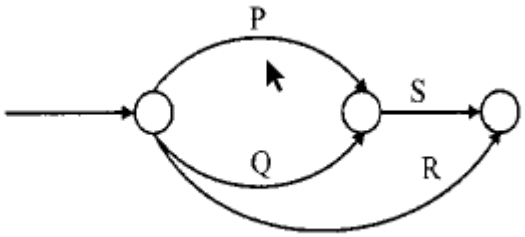
(b) P & G International Ltd. (PGIL) has developed a new product 'K" which is about to be launched into the market and anticipates to sell 80,000 of these units at a sales price of Rs 300 over the product life cycle of four years . Data pertaining to product 'K" are as follows:

Costs of Design and Development of Molds, Dies, and Other Tools	Rs8,25,000
Manufacturing Costs	Rs125 per unit
Selling Costs	Rs12,500 per year +Rs 100 per unit
Administration Costs	Rs50,000 per year
Warranty Expenses	5 Replacement Parts per 25 units at Rs 10 per part ;1 visit per 500 units (Cost Rs 500 per visit)

Required:

1) Compute the product 'K"s Life Cycle Cost".
2) Suppose PGIL can increase sales volume by 25% through 10% reduction in sell price. Should PGIL choose the lower price? ***(5 marks)***

(c) The following is a part of a network.

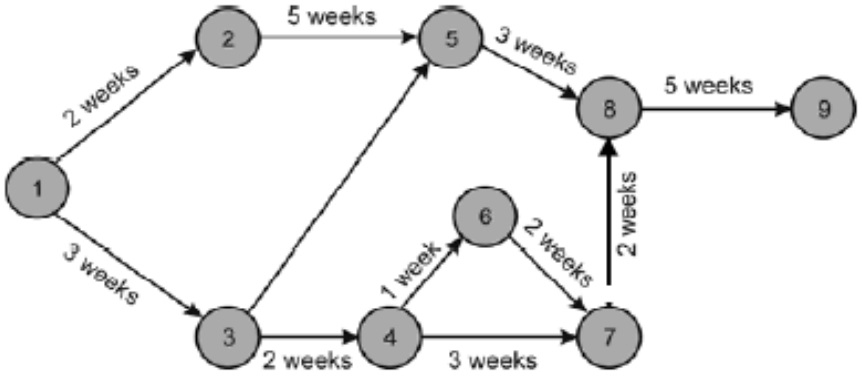


What are activities P and Q called? How would you rectify the situation? (5 marks)

(d) A network is given below:

(i) Name the paths and give their total duration.

(ii) Give three different ways of reducing the project above duration by four days.



(5 marks)

Question 2:

(a) R Ltd. Manufactures four products, namely A, B, C and D using the same plant and process. The following information relates to a production period:

Product	A	B	C	D
Output in units	720	600	480	504
Cost per unit:	Rs	Rs	Rs	Rs
Direct Material	42	45	40	48
Direct labour	10	9	7	8
Machine hours per unit	4hrs.	3hrs.	2hrs.	1hr.

The four products are similar and are usually produced in production runs of 24 units and sold in batches of 12 units. Using machine hour rate currently absorbs the production overheads. The total over he ads incurred by the company or the period is as follows:

	Rs
Machine operation and Maintenance cost	63,000
Setup costs	20,000
Store receiving	15,000
Inspection	10,000
Material handling and dispatch	2,592

During the period the following cost driver are to be used for the over head cost:

Cost	Cost driver
Set up cost	No. of production runs
Store receiving	Requisition raised
Inspection	No .of production runs
Material handling and dispatch	Orders executed

It is also determined that:

Machine operation and maintenance cost should be apportioned between setup cost, store receiving and inspection activity n 4:3:2.

- Number of requisition raised on store is 50 for each product and the no. of order executed is 192, each order being for a batch of 12 of a product.

Required:

(a) Calculate the total cost of each product, if all overhead costs are absorbed on machine hour rate basis.

(b) Calculate the total cost of each product using activity base costing.

(c) Comment briefly on differences disclosed between overhead traced by present system and those traced by activity based costing. ***(12 marks)***

(b) H.Ltd manufactures three products. The material cost, selling price and bottleneck resource details per unit are as follows :

Particulars	Product X	Product Y	Product Z
Selling Price(Rs)	66	75	90
Material and Other Variable Cost(Rs)	24	30	40
Bottleneck Resource Time (Minutes)	15	15	20

Budgeted factory costs for the period are Rs 2,21,600 . The bottleneck resources time available is Rs75,120 minutes per period.

Required

I. Company adopted throughput accounting and products are ranked according is product return per minute. Select the highest rank product.

II. Calculate throughput accounting ratio and comment on it

Question 3:

(a) The number of days of total float (TF), earliest start times (EST) and duration in days are given for some of the following activities.

Activity	TF	EST	Duration
1 – 2	0	0	
1 – 3	0		
1 – 4	5		
2 – 4	0	4	
2 – 5	1		5
3 – 6	2	12	
4 – 6	0	12	
5 – 7	3		
6 – 7		23	
6 – 8	2		
7 – 8	0	23	
8 – 9		30	6

(i) Draw the network.

(ii) List the paths with their corresponding durations and state when the project can be completed. ***(10 marks)***

(b) Write a short note on the distinction between PERT and CPM. ***(6 Marks)***

Question 4:

(a) On the basis of the following information determine the product-mix to give the highest profit it at least two products are produced:

Product	X	Y	Z
Raw material per unit(kg)	20	12	30
Machine hours per unit(hours)	3	5	4
Selling price per unit(Rs)	500	400	800
Maximum limit of production Unit	1,500	1,500	750

Only 9,200 hours are available for production at a cost of Rs 20 per hour and maximum 50,000 kg of material @ Rs 20 per kg., can be obtained.
(Only product mix quantities are to be shown, calculation of total profit at that product mix not required to be shown) ***(12 marks)***

(b) What are the steps in simulation? ***(4 marks)***

Question 5:

(a) A pastry vendor buys pieces of pastry every morning at Rs 4.50 each by placing his order one day in advance and sale them at Rs7.00 each. Unsold pastry can be sold next day at Rs 2.00 per piece and there after it should be treated as no value. The pattern for demand of pastry is given below:

Fresh Pastry:

Daily Sale	100	101	102	103	104	105	106	107	108	109	110
Probability	.01	.03	.04	.07	.09	.11	.15	.21	.18	.09	.02

One day old pastry:

Daily Sale	0	1	2	3
Probability	.70	.20	.08	.02

Use the following set of random numbers:

Fresh Pastry	37	73	14	17	24	35	29	37	33	68
One day old pastry	17	28	69	38	50	57	82	44	89	60

The vendor adopts the following rule.

If there is no stock of pastry with him at the end of previous day, he orders for 110 pieces otherwise he orders 100 or 105 pieces whichever is nearest actual fresh pastry sale on the previous day .Starting with zero stock and appending order of 10 5pieces, simulate for10 days and calculate vendor s profit. ***(12 marks)***

(b) A company Small budget Ltd. can produce any of its 4 products, A, B, C and D. Only one product can be produced in a production period and this has to be determined at the beginning of the production run. The production capacity is 1,000 hours. Whatever is produced has to be sold and there is no inventory build-up to be considered beyond the production period. The following information is given:

	A	B	C	D
Selling Price(Rs/unit)	40	50	60	70
Variable Cost(Rs/unit)	30	20	20	30
No .of units that can be sold	1,000	600	900	600
No .of production hours required per unit of product.	1 hour	1 hour and 15 minutes	1 hour and 15 minutes	2 hours

What are the opportunity costs of A, B, C and D? (4 marks)

Question 6:

(a) A manufacturing company 'Choice Ltd 'produces two types of product the SUPER and REGULAR. Resource requirements for production are given below in the table. There are 1,600 hours of assembly worker hours available per week. 700 hours of paint time and 300 hours of inspection time. Regular customers bill demand at least 150 units of the REGULAR type and 90 units of the SUPER type.

Table				
Product	Profit/ contribution Rs.	Assembly time Hrs.	Paint time Hrs.	Inspection time Hrs.
REGULAR	50	1.2	0.8	0.2
SUPER	75	1.6	0.9	0.2

Formulate and solve the given Linear programming problem to determine product mix on a weekly basis. ***(12 marks)***

(c) A company 'Confused Ltd.' has to decide whether to accept a special order or not for a certain product M in respect of which the following information is given:

Material A required	5,000kg	Available in stock. It was purchased 5 years ago at Rs.35 per kg. If not used for M, it can be sold as scrap @ Rs 15 per kg.
Material B required	8,000kg	This has to be purchased at Rs 25 per kg from the market.
Other hardware	Rs10,000	To be incurred
Dept X - Labour oriented	5 men for 1 month @	Labour to be freshly hired. No spare capacity available.

Dept Y - Machine oriented	3,000 machine hours @ Rs 5 per machine	Existing spare capacity may be used.
Patten and Specification	Rs 15,000	To be incurred for M, but after the order, it can be sold for Rs 2,000.

Considering relevant costs, find out the minimum value above which the company may accept the order. ***(4 marks)***

Question 7: (4 marks each)

(a) State the type of cost in the following cases:

(i) Cost associated with the acquisition and conversion of material into finished product.

(ii) Cost arising from a prior decision which cannot be changed in the short run.

(iii) Increase in cost resulting from selection of one alternative instead of another.

(iv) Rent paid for a factory building which is temporarily closed.

(b) Briefly explain the phases in the life cycle of a product.

(c) Explain the concept of relevancy of cost by citing three examples each of relevant costs and non-relevant costs.

(d) The following in dependent situation are given in JIT systems of production. You are required to state if each recommendation is valid or in valid and give a brief reason.

Sl. No	**Situation**	**Recommendation by the Cost Accountant**
(i)	A company produces LCD TVs. Presently, total inventory turn over is measured annually.	Compute inventory turnover every month. Break it down into raw material, WIP ,expensive inventory and finished goods.
(ii)	Textile company.	Accept employees' claim for pie cerate incentive for exceeding a certain production volume.
(iii)	Sports goods manufacturing company.	Closely monitor direct labour variances including idle time variances to convince employees to workfaster.
(iv)	Multiproduct production	Monitor the average setup time per machine in a period which is given by Aggregate set up time of all machines Total number of machines.

(e) Discuss briefly two methods of costing in the service sector and give examples.