FINAL CA – November 2017

ADVANCED MANAGEMENT ACCOUNTING

Test Code –P32

Branch (MULTIPLE) (Date :16.07.2017)

(50 Marks)

Note: All questions are compulsory.

Question 1(8 Marks)

A cake vendor buys pieces of cake every morning at `4.50 each by placing his order one day in advance and sale them at `7.00each. Unsold cake can be sold next day at ` 2.00 per piece and there after it should be treated as no value. The pattern for demand of cake is given below:

Fresh Cake:

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 cake:

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

Use the following set of random numbers:

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

The vendor adopts the following rule.

If there is no stock of cake with him at the end of previous day, he orders for 110pieces otherwise he orders 100 or 105 pieces whichever is nearest actual fresh cake sale on the previous day. Starting with zero stock and a pending order of 105 pieces, simulate for 10 days and calculate vendor's profit.

Question 2(8 Marks)

The following table shows for each activity needed to complete the road construction project, the normal time, the shortest time in which the activity can be completed and cost per day for reducing the time of each activity. The contract includes a penalty clause of ` 80 per day over 19 days. The overhead cost is ` 150 per day. The cost of completing the eight activities in normal time is ` 6,000.

Activity	*Normal time in days*	*Shortest time in days*	*Cost of reduction per day (`)*
1–2	*7*	*5*	*90*
1–3	*9*	*5*	*100*
1–4	*7*	*4*	*40*
2–4	*4*	*4*	*—*
2–5	*6*	*4*	*50*
3–6	*13*	*9*	*210*
4–6	*8*	*5*	*60*
5–6	*6*	*6*	*—*

Required

(i) Draw the network diagram for the project and identify the critical path and show normal duration and minimum duration of different paths.

(ii) Calculate the total cost associated to normal duration of the project.

(iii) Crash the relevant activities systematically and determine the lowest cost and the associated time.

Question 3(12 Marks)

Speedo Limited is a specialist car manufacturer that produces various models of cars. The organization is due to celebrate its 100th anniversary next year. To mark the occasion, Speedo Limited intends to produce a sports car; the Model Royal. As this will be a special edition, production will be limited to 1,000 numbers of Model Royal Cars.

Speedo Limited is considering using a target costing approach and has conducted market research to determine the features that consumers require in a sport car. Based on this market research and knowledge of competitor's products, company has decided to price the Model Royal at ` 9.75 Lacs. Company requires an operating profit margin of 25% of the selling price of the car. Details for the forthcoming year are as follows:

Forecast of direct costs for a Model Royal Car-

Labour…….` 2,50,000

Material……..` 4,75,000 Forecast of annual

overhead costs-

	` In lacs	Cost driver
Production line cost	2,310	See note 1
Transportation costs	900	See note 2

Note 1

The production line that would be used for Model Royal has a capacity of 60,000 machine hours per year. The production line time required for Model Royal is 6 machine hours per car. This production line will also be used to make other cars and will be working at full capacity.

Note 2

Some models of cars are delivered to showrooms using car transporters, 60% of the transportation costs are related to the number of deliveries made. 40% of the transportation costs are related to the distance travelled.

The car transporters have forecast to make a total of 640 deliveries in the year and carry 10 cars each time. The car transporter will always carry its maximum capacity of 10 cars.

The total annual distance travelled by car transporters is expected to be 2,25,000 kms. 50,000 kms of this is for the delivery of Model Royal cars only. All 1,000 Model Royal cars that will be produced will be delivered in the year using the car transporters.

Required

- Calculate the forecast total cost of producing and delivering a Model Royal car using Activity Based Costing principles to assign the overhead costs.

- Calculate the cost gap that currently exists between the forecast total cost and the target total cost of a Model Royal car.

Question 4(8 Marks)

A company operates a standard cost system to control the variable works cost of its only product. The following are the details of actual production, costs and variances for November, 2015.

Production and cost (actual)

Production…….. 10,000 units

Direct Materials (1,05,000 kg.)…….` 5,20,000

Direct Labour (19,500 hrs.)…….. ` 3,08,000

Variable Overheads…… ` 4,10,000

Cost variances

Direct materials – Price…….` 5,000 (F)

Direct materials – Usages…….` 25,000 (A)

Direct labour – Rate…….` 15,500(A)

Direct labour – Efficiency…….` 7,500 (F)

Variable overheads…….` 10,000 (A)

The Cost Accountant finds that the original standard cost data for the product is missing from the cost department files. The variance analysis for December, 2015 is held up for want of this data.

You are required to calculate:

(i) Standard price per kg. of direct material.

(ii) Standard quantity for each unit of output.

(iii) Standard rate of direct labour hour.

(iv) Standard time for actual production.

(v) Standard variable overhead rate.

Question5 (6 Marks)

Examine the **Validity** of following statements:

a. In the introduction stage, usual marketing strategy is to strengthen the supply chain relationships to make the product easily accessible by target customers.
b. In the introduction stage, competitors will purchase the product to carry out reverse engineering and understand how the product works, so that they can develop their own similar, but different product.
c. In the introduction phase, the firm will seek to avoid this competition by maintaining its selling price at the end of the introduction stage.
d. In the growth stage, if the product cannot be differentiated in other ways, the firm may need further reductions in selling price to maintain growth.
e. In the maturity stage, firms are tempted to engage in costly promotional price wars to wean away market share from competitors.
f. In the decline stage, failing sales may induce firms to slash marketing expenditure. Brand loyalty will be exploited to create profits.

Question 6 (8 Marks)

The following are the details regarding budgeted and actual production costs for the year 2013 of an industrial concern. You are required to prepare a Production Cost Budget for the year 2014.

	Budget		Actual	
Output (units)	39,900		40,600	

	Units	`	Units	`
Materials consumed	42,000	42,000	43,000	53,750
Wages at 1 hour per unit at ` 1 per unit Budget	---	39,900	---	44,660
Variable Overhead at `0.5 per unit Budget	---	19,950	---	20,600
Fixed Overheads	---	30,000	---	35,000
		1,31,850		1,54,010

During the budget period:

(1) Production is expected to reach 50,000 units,

(2) Material price are expected to increase further by the same percentage as they had increased over the budget period.

(3) Labour rates are expected to increase by ` 0.20 per hour above the actual rates shown above; efficiency is expected to decline by 10%; upto 31st December, 2013, there has beenno decline in efficiency.

(4) Variable overhead of previous year to be maintained.

(5) Fixed overheads are expected to rise by 10% per annum.

(6) Wastage of materials to be maintained at 2013 budget level.

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