



Register Number:

Date: 2-12-2020

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE-27

B.COM IFA – III SEMESTER

SEMESTER EXAMINATION: NOVEMBER 2020

BCIFA 3519 – PERFORMANCE MANAGEMENT - I

Time- 2 ½ hrs

Max Marks - 70

This paper contains five printed pages and four parts

SECTION A

Answer any FIVE of the following.

(5\*2 Marks = 10 Marks)

1. In target costing, which of the following would be an appropriate strategy to reduce a cost gap for a product that existed in a competitive industry with demanding shareholders?  
A Increase the selling price  
B Reduce the expectation gap by reducing the selling price  
C Reducing the desired margin on the product  
D Mechanizing production in order to reduce average production cost
2. Which of the following is a definition of the throughput accounting ratio?  
A Throughput contribution/hour on bottleneck  
B Conversion costs per hour/throughput per hour  
C Throughput per hour/conversion costs per hour  
D Total conversion costs/total throughput
3. Which of the following is considered to be a form of secondary research?  
A Desk research  
B Motivational research  
C Measurement research  
D Field research
4. Which of the following conditions must be true for a price discrimination strategy to be effective?  
A Buying power of customers must be similar in both market segments  
B Goods must not be able to move freely between market segments  
C Goods must be able to move freely between market segments  
D The demand curves in each market must be the same
5. Which of the following conditions would need to be true for a price skimming strategy to be effective?  
A An existing product where the owners have decided to increase prices to move the product up market  
B Where the product has a long life-cycle  
C Where the product has a short life-cycle  
D Where only modest development costs had been incurred
6. Which of the following statement(s) is/are true regarding life-cycle costing?  
(1) Life cycle costing takes into account all costs incurred in a product life cycle with exception of sunk costs incurred on research and development.  
(2) Life cycle costing ensures a profit is generated over the life of the product.

(3) Life cycle costing is most useful for products with an even weighting of costs over their life.

- A (1) and (2) only
- B (2) only
- C (2) and (3) only
- D (1), (2) and (3)

**SECTION B**

Answer any THREE of the following.

(3 \* 5 Marks = 15 Marks)

7. AB Company has been asked to quote for a special contract. The following information about the material needed has been given:

Material X:

Book value	Scrap value	Replacement Value
\$ 5 per kg	\$ 0.50 per kg	\$ 5.50 per kg

The contract requires 10 kgs of Material X. There are 250 kgs of this material in inventory which was purchased in error over two years ago. If Material X is modified, at a cost of \$2 per kg, it could then be used as a substitute for material Y which is in regular use and currently costs \$5 per kg.

What is the relevant cost of the materials for the special contract?

8. A company makes and sells product X and product Y. Twice as many units of product Y are made and sold as that of product X. Each unit of product X makes a contribution of \$10 and each unit of product Y makes a contribution of \$4. Fixed costs are \$80,000.

What is the total number of units which must be made and sold to make a profit of \$40,000?

9. An organisation manufactures and sells a single product, the W. It has produced the following budget for the coming year:

	\$	\$
Sales Revenue (1000units)		2500
Manufacturing Cost		
Fixed	800	
Variable	700	
Selling Cost		
Fixed Cost	500	
Variable cost	200	
Cost of sale		(2200)
Profit		300

If inventory levels are negligible, what is the breakeven point in units?

10. An organization has the following contribution function:

Description	Comment	Weight (kg)	\$
Good output	Expected good output is 70% of input and can be sold for \$120 per kg	700	84,000
Waste	Expected waste is 10% of input and must be scrapped at a cost of \$10 per kg	100	(1,000)
Scrap	Expected scrap is 20% of input and can be sold for \$15 per kg	200	3,000
<b>Total</b>		<b>1,000</b>	<b>86,000</b>

Monthly profit is thus expected to be \$16,000.

The company is looking at introducing new quality systems that will increase system costs by \$5,000 per month but will reduce waste from 10% to 4% of input. Scrap is expected to stay at 20% of input.

What would be the impact on monthly profit of implementing the proposal?

13. If demand for a product is 2,000 units when the price is \$200 and 3,000 units when the price is \$180, The variable cost of the product is \$100.  
 what are the demand and MR equations?  
 What is the optimum price to be charged in order to maximize profit?

#### SECTION D

Answer the following compulsory question. (1 \* 15 Marks = 15 Marks)

14. The 'Duke of York' is an independent cinema in Brightville. It is considering whether or not to hire a movie to show in its cinema for one week. If the management decides to hire the movie, it will be screened 20 times during the week. The cost of hiring the movie for the week is \$70,000.

You work as the cinema's accountant, and you have been asked to evaluate the financial effects of the decision to hire the movie. You have made the following estimates:

- a) Customers

The entrance fee for every customer is \$10. The number of customers watching the movie at each screening is uncertain, but has been estimated as follows: there is 50% probability 200 customers will attend the screening; 30% probability 250 customers will attend, and 20% probability 150 customers will come.

- b) Customer contribution for each sale of refreshments The average contribution per customer earned from the sale of refreshments is also uncertain but has been estimated as follows:

Contribution =  $5X + 10Y$

where

X = the number of units of product X produced, and

Y = the number of units of product Y produced.

A graph has identified that the optimal production plan exists at the point where the following two constraints cross:

Skilled labour:  $6X + 4Y \leq 62,000$

Unskilled labour:  $2X + 5Y \leq 50,000$

There is a maximum demand of 12,000 units of each product.

What is the number of units of Product Y produced in order to maximise contribution?

### SECTION C

Answer any TWO of the following

(2 \* 15 Marks = 30 Marks)

11. The ABC Company manufactures two products, Product Alpha and Product Beta. Both are produced in a very labour-intensive environment and use similar processes. Alpha and Beta differ by volume. Beta is a high-volume product, while Alpha is a low-volume product. Details of product inputs, outputs and the costs of activities are as follows:

	Direct labour hours/unit	Annual output (units)	Number of purchase orders	Number of set-ups
Alpha	5	1,200	75	40
Beta	5	12,000	85	60
			160	100

Fixed overhead costs amount to a total of \$420,000 and have been analysed as follows:

	\$
Volume related	100,000
Purchasing related	145,000
Set up related	175,000

Using Activity-based costing as the method of overhead absorption, what is the overhead cost per unit for each unit of product Beta (to two decimal places)?

12. The monthly budget for process X shows the following input/output analysis:

INPUTS			
Description	Comment	Weight (kg)	\$
Materials		1000	(50000)
System cost	Labour, utilities and other overheads	-	(20000)
Total		1,000	(70000)
OUTPUTS			

Probability	\$ average contribution per customer
40%	\$ 10per customer
25%	\$ 12 per customer
35%	\$ 8 per customer

Required: Prepare a decision tree to show the total contributions which could be generated from the above scenario. Based on the expected values, determine if the movie should be hired.

BCIFA 3519\_A\_20