



No. of Pages - 13

No of Questions - 07

**SCHOOL OF ACCOUNTING AND BUSINESS**  
**BSc. (APPLIED ACCOUNTING) GENERAL / SPECIAL DEGREE**  
**PROGRAMME**

**YEAR I SEMESTER I (INTAKE VI – GROUP A)**  
**END SEMESTER EXAMINATION – AUGUST 2016**

**AFM 10230 Fundamentals of Management Accounting**

Date : 08th August 2016  
Time : 9.00 a.m. – 12.00 p.m.  
Duration : Three (03) hours

**Instructions to Candidates:**

- This paper consists of three parts (A, B and C).
- Part A – Answer **ALL** questions in the separate sheet provided
- Part B – **Question No. 02 is Compulsory**
- Part C – Answer **Three (03)** Questions only
- The total marks for the paper is 100.
- The marks for each question are shown in brackets.
- Use of scientific calculator is allowed.
- Graph Sheets are provided on request.
- Answers should be written neatly and legibly

## Part A

Answer ALL Questions

### Question No. 01

1. Which one of the following statements regarding the evolution of Management Accounting is correct?
  - a. Management Accounting concepts used as late as 1980's had been developed by 1925
  - b. Manual costing systems developed in 1920's were transformed to automated systems by 1960
  - c. Origin of Management Accounting can be trace back to the times of the Industrial Revolution
  - d. Since 1960, a rapid growth of Management Accounting practices was observed
2. Which one of the following is incorrect with regard to the decision making process?
  - a. Management Accounting provides necessary information for a manger to take prudent decisions
  - b. Decisions should be aligned to strategic goals of the organization
  - c. Controlling as a post implementation act, is not a part of the decision making process
  - d. Alternative courses of action must be evaluated to achieve strategic goals of the organization
3. A company makes chairs and tables. Which one of the following items would be treated as an indirect cost?
  - a. Wood used to make a chair
  - b. The salary of the production manager of the company
  - c. Fabric to cover the seat of a chair
  - d. Metal used for the legs of a chair
4. A production worker is paid a fixed salary of Rs. 15,000 per month, with an additional Rs.10 for each unit produced during the month. How is this labour cost best described?
  - a. A semi – variable cost
  - b. A variable cost
  - c. A step fixed cost
  - d. A fixed cost

5. A company incurs the following costs at various activity levels.

<b>Total cost</b>	<b>Activity Level</b>
<b>(Rs.)</b>	<b>(Units)</b>
250,000	5,000
312,500	7,500
400,000	10,000

If high - low method is used, calculate the fixed cost for the period?

- a. Rs. 100,000
  - b. Rs. 200,000
  - c. Rs. 150,000
  - d. Rs. 50,000
6. A company manufactures two products, X and Y, in a factory divided into two production cost centres, primary and finishing. The following budgeted data is available:

<b>Cost centre</b>	<b>Primary</b>	<b>Finishing</b>
Allocated and apportioned fixed overhead	Rs.96, 000	Rs.82, 500
Direct labour minutes per unit:		
Product X	36	25
Product Y	48	35

Budgeted production is 6,000 units of product X and 7,500 units of product Y. Fixed overhead costs are to be absorbed on a direct labour hour basis.

What is the budgeted fixed overhead cost per unit for product Y?

- a. Rs. 11
- b. Rs. 12
- c. Rs. 14
- d. Rs. 15

7. The following data is available for a paint department for the latest period.

Budgeted production overhead	Rs.150, 000
Actual production overhead	Rs. 150,000
Budgeted machine hours	60,000
Actual Machine hours	55,000

Which one of the following statements is correct?

- a. There is no under or over absorption of overhead
  - b. Overhead is Rs.13,636 over - absorbed
  - c. Overhead is Rs. 12,500 under - absorbed
  - d. Overhead is Rs.12,500 over - absorbed
8. A company uses process costing to establish the cost per unit of its output.

The following information is available for the last month:

Input units	10,000
Output units	9,850
Opening inventory	300 units, 100% complete for material and 70% complete for conversion cost
Closing inventory	450 units, 100% complete for material and 30% complete for conversion cost

The company uses the *weighted average method* of valuing inventory.

What are the equivalent units for conversion costs?

- a. 9,505 units
- b. 9,715 units
- c. 9,775 units
- d. 9,985 units

9. Process 1 produces two joint products (X and Y) and one by-product (Z). The following information is available.

	<b>Product X</b>	<b>Product Y</b>
Sales units	21,000	18,000

It is now possible to sell by product 'Z' at Rs.2 after further processing. Further processing cost amount to Rs. 0.50 per unit of by – product, which 2000 units are produced.

Costs for the month of November are as follows,

Raw material input Rs.216, 000

Conversion cost Rs.72, 000

If joint costs are apportioned on the basis of sales units, what is the joint - cost apportioned to joint product A?

- a. Rs.153,461
  - b. Rs.155,077
  - c. Rs.131,538
  - d. Rs.132,923
10. A Ltd has fixed costs of Rs.60, 000 per annum. It manufactures a single product which it sells for Rs.20 per unit. The contribution to sales ratio is 40%. A Ltd.'s breakeven point in units is:
- a. 1,200
  - b. 3,000
  - c. 5,000
  - d. 7,500.

**(Total 20 Marks)**

## PART B

### **Question No. 02 (Compulsory)**

Ring Ltd is a manufacturing organization producing three products, P, Q and R. All made from the same material. The company uses the *absorption costing method* to allocate overhead costs to cost units with direct labour hours as the basis for absorption.

The business analyst of Ring Ltd has recently suggested the Activity Based Costing (ABC) method to be used in future. As part of his suggestion he has also presented the following cost pools and cost drivers.

Cost pool	Rs.	Cost driver
Material receipt and inspection	1,437,500	Number of purchase orders
Machine set up cost	105,600	Number of set ups
Product packaging cost	625,000	Number of product packages
Machine testing	30,000	Number of machine tests
Machine maintenance and cleaning	163,750	Number of machine runs
	<b><u>2,361,850</u></b>	

The following additional data relates to the different products:

Product	P	Q	R
Number of purchase orders per batch	10	15	10
Number of batches	10	15	25
Number of machine set ups	50	30	40
Number of product packages	300	450	500
Number of machine tests	20	30	50
Number of machine runs per batch	10	12	15
Number of units produced	10,000	15,000	22,000

The budgeted direct costs of the three products are as follows:

<b>Product</b>	<b>P</b> <b>Rs. per unit</b>	<b>Q</b> <b>Rs. per unit</b>	<b>R</b> <b>Rs. per unit</b>
Direct materials	30	35	40
Direct labour (Rs.15 per hour)	30	45	52.5

Ring Ltd currently uses cost - plus pricing, adding a margin of 20% in deciding the selling price.

**Required:**

- a. Calculate the total production cost of Products P, Q and R using the absorption costing method to absorb overhead costs to cost units.

(06 Marks)

- b. Calculate the total production cost of Products P, Q and R using ABC to absorb overhead cost to cost units.

(10 Marks)

- c. Calculate the selling price under the above two costing methods.

(04 Marks)

**(Total 20 Marks)**

## PART C

Answer **Three (03)** Questions only

### **Question No. 03**

- a. Briefly describe the features of **the process costing system** with two examples from the real scenario.

(05 Marks)

- b. Following information relates to **Process 2** of Lace Work Ltd for period 1.

Opening work in progress is 400 units. Following percentages of material, labour and overhead was completed during the previous period.

- Material (valued at Rs. 12,000)	- 100%
- Labour (valued at Rs. 8,000)	- 50%
- Overhead cost (valued at Rs. 6,000)	- 30%

4600 units of inputs were transferred from the previous process with a value of Rs. 59,000  
During the year the following costs were incurred.

Additional raw material	Rs. 92,000
Labour cost	Rs. 63,700
Overhead	Rs. 53,640

Closing working Progress is 500 units

- Material 100% Complete
- Labour 50% Complete
- Overhead 50% Complete

### **Required:**

- i. Assuming the company uses the FIFO method for valuing work in progress, calculate the total cost of the finished goods for the period 1.
- (10 Marks)
- ii. Prepare Process 2 account for the Lace Work Ltd.

(05 Marks)

**(Total 20 Marks)**



#### **Question No. 04**

- a. Diaz Ltd produces a single item of confectionary, Product S that is sold for Rs.12 per unit. You have been provided with the following information about ‘S’ for the forthcoming year: Sales 6,000 units, Variable costs Rs. 7 per unit. Budgeted overheads amount to Rs.20, 000. The Finance Director has asked you to prepare documents for a presentation to the Board of Directors.

**Required:**

- i. Calculate (i) breakeven point (ii) margin of safety (expressed as a percentage of budgeted sales) and explain this briefly.  
(3 Marks)
- ii. Construct a contribution break even chart.  
(3 Marks)
- b. Leather Ltd. has been in the clothing market for the last 3 years and operates in an industry which is very competitive and volatile. Leather Ltd.’s management accountant has heard that break even analysis could be used to assess the risk of the business and thereby assist managers in their decision making.

The following information on Leather Ltd. and its product portfolio is also available – figures are per annum:

<b>Products</b>	<b>Production/ Sales volume</b>	<b>Selling price (per unit)</b>	<b>Variable cost (excluding material cost per unit)</b>	<b>Material (leather per unit)</b>
		<b>Rs.</b>	<b>Rs.</b>	<b>Meters</b>
Bags	1000	400	150	1
Belts	2000	125	50	0.25
Shoes	1500	150	65	0.5
Jackets	3500	300	125	1.5

Leather is regularly used in the production of all the products. The company has recently discovered that there is likely to be a shortage of leather in the market for the coming year. Leather used in production is purchased from a supplier on JIT basis for Rs. 60 per meter.

For now, enough material can be sourced from the supplier to satisfy the production requirement. Fixed cost per annum is Rs.580, 000.

### **Required**

- i. Calculate the break-even sales revenue and quantity for each product  
(5 Marks)
  - ii. Explain how unavailability of leather and the rise in its price affect the profitability and break-even point of Leather Ltd. No calculation is required.  
(5 Marks)
  - iii. Outline the limitations of break – even analysis.  
(4 Marks)
- (Total 20 Marks)**

### **Question No. 05**

Kamal Perera, a self-employed builder, has been asked to quote a price for some building work required by a customer. Kamal's accountant has compiled the following figures, together with some notes as a basis for a quotation.

	<b>Rs.</b>	<b>Note</b>
<u>Direct materials</u>		
Bricks 200,000 at Rs.2,000 per thousand	400,000	Note i
200,000 at Rs.2,200 per thousand	440,000	Note i
Other material	50,000	Note ii
<u>Labour cost</u>		
Skilled 320 hours at Rs. 1,200 per hour	384,000	Note iii
Unskilled 200 hours at Rs. 800 per hour	160,000	Note iv
<u>Other costs</u>		
Scaffolding hire	35,000	Note v
Depreciation of general purpose machinery	20,000	Note vi
General overheads 5,200 hours at Rs.10 per hour	52,000	Note vii
Plans	<u>50,000</u>	Note viii
Total cost	1,591,000	
Profit	<u>318,200</u>	Note ix
Suggested price	<u><u>1,909,200</u></u>	

## Notes

- i. The project requires 400,000 bricks of which 200,000 are already in inventory and 200,000 will have to be bought in. This is a standard type of brick regularly used by Kamal Perera. The 200,000 in inventory were purchased earlier in the year at Rs. 2,000 per 1,000 bricks. The current replacement cost of this type of brick is Rs. 2,220 per 1,000 bricks. If the bricks in inventory are not used on this job Kamal is confident that he will be able to use them later in the year.
- ii. Other material will be bought in as required; this figure represents the purchase price.
- iii. Kamal will need to be on site whilst the building work is performed. He therefore intends to do 80 hours of the skilled work himself. The remainder will be hired on an hourly basis. The current cost of skilled workers is Rs.1,200 per hour. If Kamal does not undertake the building work for this customer he can either work as a skilled worker for other builders at a rate of Rs. 1,200 per hour or spend the 80 hours completing urgently needed repairs in his own house. He has recently had a quotation of Rs.120,000 for labour to repair his home.
- iv. Kamal employs four unskilled workers on contract guaranteeing them a 40 hour week at Rs.800 per hour. These unskilled labourers are currently idle and would have sufficient spare time to complete the project under consideration.
- v. This is the estimated cost of hiring scaffolding.
- vi. Kamal estimates that the project will take 20 weeks to complete. This represents 20 weeks' straight line depreciation on the equipment used. If the equipment is not used on this job it will stand idle for the 20 week period. In either case its value at the end of the 20 week period will be identical.
- vii. This represents the rental cost of Kamal's storage yard. If he does not undertake the above job he can rent his yard out to a competitor who will pay him a rent of Rs. 5,000 per week for the 20 week period.
- viii. This is the cost of the plans that Kamal had already drawn for the project.

- ix. Kamal attempts to earn a mark-up of 20% on cost on all work undertaken. Kamal is surprised at the suggested price and considers it rather high. He knows that there will be a lot of competition for the work.

**Required**

Prepare a cost statement, using relevant costing principles, showing the minimum cost that Kamal Perera should charge for the project. Make detailed notes showing how each cost has been arrived at with explanations.

**(Total 20 Marks)**

**Question No. 06**

- a. State the difference between by products and joint products  
(5 Marks)
- b. Bunny Ltd manufactures two products, Joint product A, Joint product B and by product C  
Manufacturing costs for a period total Rs.300, 000 incurred in the manufacture of:

Product	Quantity	Selling price
Product A	16,000 kgs	Rs.10 per kg
Product B	53,200 kgs	Rs. 7 per kg
Product C	2,770 kgs	Rs.1.20 per kg

Product B requires further processing after separation from the other two products which cost Rs.201, 000.

Product C also requires further processing to make it saleable amount to Rs.0.40 per kg.

**Required**

- i. Briefly explain the accounting treatment for the by-product C  
(No computation is required)  
(5 Marks)
- ii. Calculate the total profit earned by Products A and B in the period, using the net realisable values to apportion joint costs.  
(10 Marks)

**(Total 20 Marks)**

### **Question No. 07**

Just over two years ago, Limewire Ltd. was the first company to produce a specific 'off-the-shelf' accounting software package. The pricing strategy for the packages was to add a 50% mark-up to the budgeted full cost of the package. The company achieved and maintained a significant market share and high profits for the first two years.

Budgeted information for the current year (Year 3) was as follows.

**Production and sales** 15,000 packages

**Total cost** Rs. 200,000 per package

At a recent board meeting, the finance director reported that although costs were in line with the budget for the current year, profits were declining. He explained that the full cost included Rs. 80,000 for fixed overheads.

This figure had been calculated by using an overhead absorption rate based on labour hours and a budgeted level of production which, was much lower than the current capacity of 25,000 packages.

The marketing director stated that competitors were beginning to increase their market share. He also reported the results of a recent competitor analysis which showed that, when Limewire Ltd. announced its prices for the current year, the competitors responded by undercutting them by 15%. He informed the board that the market research showed that at a price of Rs. 550,000 there would be no demand for the packages but for every Rs. 100 reduction in price the demand would increase by 1,000 packages.

The managing director appeared to be unconcerned about the loss of market share and argued that profits could be restored to their former level by increasing the mark-up.

### **Required**

- i. Explain the managing director's pricing method of cost plus pricing and describe its advantages to the company.

(5 Marks)

- ii. Describe two alternative pricing methods that could have been implemented at the launch of the packages.

(5 Marks)

- iii. Based on the data supplied by the market research, derive a straight line demand equation for the packages.

(5 Marks)

- iv. Limewire Lad's total costs (TC) can be modelled by the equation

$TC = 120,000,000 + 192,000Q$ . Explain the meaning of this equation.

(5 Marks)

**(Total 20 Marks)**