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

## YEAR I SEMESTER I (Intake V - Group A) END SEMESTER EXAMINATION - FEBRUARY 2016

AFM 10230 Fundamentals of Management Accounting

| Date | $:$ | 10th February 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. 01 is Compulsory
Part C - Answer Any Three (03) Questions

- The total marks for the paper is 100 .
- The marks for each question are shown in brackets.
- Use of scientific calculator is allowed.
- Answers should be written neatly and legibly


## PART A

Select the most appropriate answer.

1. Which of the following statement is relevant to Management Accounting?
i. GAAPs are applicable
ii. Focus on entire organization
iii. Only past data will be considered
iv. Prepare on ad-hoc Basis
2. Which of the following is usually classified as a step fixed cost?
i. Raw material
ii. Telephone expenses
iii. Supervisor salary
iv. Electricity expenses
3. Which of the following can be classified as direct labour?
i. Bricklayer of a building construction company
ii. General manager of a hotel
iii. Maintenance supervisor of a hospital
iv. Cashier of a restaurant
4. A Factory consist of three production cost centres (A, B, C) and two service cost centres (D, E).

Overhead costs allocated and apportioned to each cost centre are as follows.

| A | B | C | D | E |
| :--- | :--- | :--- | :--- | :--- |
| Rs.30,000 | Rs. 40,000 | Rs.50,000 | Rs.20,000 | Rs.10,000 |

The work offered by Services cost centres towards production cost centres are given as,

|  | A | B | C | D | E |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Percentage of service cost centre D | $20 \%$ | $40 \%$ | $40 \%$ |  |  |
| Percentage of Service cost centre E | $30 \%$ | $20 \%$ | $35 \%$ | $15 \%$ |  |

Reapportionment of service cost centre cost is based on the percentage of work offered to each department.

After reapportionment of service cost centre cost what is the total cost of Production cost centre B ?
i. Rs. 50,600
ii. Rs. 37,300
iii. Rs. 21,500
iv. Rs. 50,000
5. Chocolate company makes two products, Vanilla and Coffee. It has two production departments, Machine Department and Assembly department. Following budgeted information is available.

|  | Machining | Assembly |
| :--- | :--- | :--- |
| Labour hours per unit   <br> Vanilla 0.5 hour 0.20 hour <br> Coffee 1.00 hour 0.25 hour |  |  |

## Budgeted fixed overhead

| Absorption rate | Rs. 20 per hour | Rs. 40 per hour |
| :--- | :--- | :--- |
| Number of units | 4,000 | 4,000 |

What is the budgeted fixed overhead cost for Machine Department?
i. Rs. 72,000
ii. Rs. 64,000
iii. Rs. 120,000
iv. Rs. 4,000
6. Rose Company uses process costing system and the following information pertains to process 3 . In process 3 the normal loss amounts to $4 \%$ of input.

The input from process 2 was $8,500 \mathrm{~kg}$ and additional material of $4,250 \mathrm{~kg}$ was added. The output of finished goods was $12,700 \mathrm{Kg}$.

There were no opening or closing work in progress.
The abnormal gain or loss in kg for period 3 was:
i. 460 kg gain
ii. 290 kg loss
iii. 290 kg gain
iv. 460 kg loss
7. Which of the following are features of process costing
A. Homogeneous Products
B. Customer driven production
C. Finished goods are valued at an average cost per unit
i. A and C
ii. B and C
iii. C only
iv. A only
8. A Factory manufactures Microchips. During December work commenced on 9,000 new Microchips. This was in addition to 1,500 chips that were $60 \%$ complete at the start of the month. At the end of December there were 4,000 microchips that were $40 \%$ complete.

Total cost incurred during December month.
December 01 brought forward Cost Rs.20, 000
Incurred During the month Rs.150, 000

If the factory uses the weighted average method of spreading costs, what is the equivalent cost per Microchip for the month of December?
i. Rs. 19.80
ii. Rs. 20.98
iii. Rs. 16.22
iv. Rs. 17.13
9. R Company provides a single service to its customers. An analysis of its budget for the year ending December $31^{\text {st }} 2016$ given in for period 3. When the budgeted activity was 6,570 service units with a sales value of Rs. 72 each. The margin of safety was $21.015 \%$ as a percentage of sales.

The budgeted contribution to sales ratio of the service is $35 \%$.
How much is the budgeted fixed costs for the period 3 ?
i. Rs. 92,500
ii. Rs. 128,500
iii. Rs. 99,410
iv. Rs. 130,763
10. TVC Mobile Company is launching a new mobile phone and plan to initially set its price at a high level to attract high end customers so as to position the product as an expensive one. But they also plan to reduce the price later. What pricing strategy the TVC mobile company Employees?
i. Market penetration pricing
ii. Market skimming pricing
iii. Competitor based pricing
iv. Cost based pricing

## PART B

## Question No. 01(Compulsory)

Beverly Street (BS) is a Five Star Hotel offering two types of services to its Customers. Each type of service incurs the following direct costs per customer per day.

| Service | Full Board | Half Board |
| :--- | :---: | :---: |
|  | Rs. | Rs. |
| Food and related material per meal | 3,600 | 2,500 |
| Kitchen Staff Labour (Rs. 400 per hour) | 1,620 | 800 |

BS currently calculates the overhead cost per service using direct labour hours. Recently a local hotel has implemented activity-based costing (ABC). This has led the finance director at BS to consider whether this alternative costing technique in allocating overheads would bring any benefits to BS. He has obtained an analysis of BS's total overheads for the last year including respective cost driver information, all of which are shown below:

| Cost | Cost driver | Rs. |
| :--- | :--- | ---: |
| Administrative costs | Administrative time per customer | $1,870,160$ |
| House Keeping Cost | Length of customer stay | $6,215,616$ |
| Catering costs | Number of meals | 966,976 |
| General facility costs | Length of customer stay | $8,553,600$ |
|  |  |  |
| Total overhead costs |  | $\mathbf{1 7 , 6 0 6 , 3 5 2}$ |


| Service | Full Board | Half Board |
| :--- | :---: | :---: |
| No. of Customers | 14,600 | 22,400 |
| Administrative time per Customer (hours) | 1.5 | 1.5 |
| Length of Customer stay (hours) | $1,051,200$ | $1,075,200$ |
|  |  |  |
| Average no. of meals required per day | 3 | 2 |

## Required:

a. Calculate the full cost per service using current method of allocating overheads.
(6 Marks)
b. Calculate the full cost per service using Activity-based costing.
(10 Marks)
c. Advice the Finance director as to whether Activity-based Costing should be implemented at BH based on your results above.

## PART C <br> Answer only Three (03) Questions

## Question No. 02

i. State the difference Between Weighted Average Method and First in First out method (FIFO) of valuing work in progress.
(05 Marks)
ii. Following information is related to process 1 of Wild Cola Company, a carbonated soft drink manufacturer for the current period.

Opening work in Progress (400 Units)

- Material cost $100 \%$ Completed in the previous period

Rs. 7,200

- Labour cost 50\% completed in the Previous Period

Rs. 2,000

- Overhead cost $40 \%$ Completed in the previous period

Rs. 3,000

Material input
5000 Litres at the cost of Rs. 90,000
Labour cost
Rs. 50,000
Overhead cost
Rs. 65,000

Closing working progress (500 Litres)

- Material cost $100 \%$ complete
- Labour cost $50 \%$ complete
- Overhead cost $40 \%$ complete
a. Assuming that the Company Uses FIFO method for valuing work in progress calculate the total cost of the Finished Goods in the current period.
(10 Marks)
b. Prepare Process 1 Account for the Wild - Cola Company.
(05 Marks)
(Total 20 Marks)


## Question No. 03

i. What is meant by "Cost Volume Profit Analysis"?
(02 Marks)
ii. Following budgeted data is related to period 1 of Selfie Company a Camera Manufacturer.

Rs
Sales Revenue ( 10,000 cameras at Rs. 80,000 each)
800,000,000
Less - Variable Expenses (Rs.40, 000 per camera)
400,000,000
Contribution
400,000,000
Less - Fixed Overhead Cost
200,000,000
Net Profit
200,000,000
a. Calculate the breakeven point (BEP) in units and Revenue.
(04 Marks)
b. Calculate margin of Safety (MOS)
(02 Marks)
c. Calculate the required number of cameras to achieve a profit of Rs. $350,000,000$
(02 Marks)
iii. Nine Stars Company produces Product X and Product Y. Fixed overhead costs amount to Rs. 200,000 every year. The following budgeted information is available for both products for next year.

|  | Product X | Product Y |
| :--- | ---: | ---: |
|  | Rs | Rs |
| Selling price | 50 | 60 |
| Variable cost | 30 | 45 |
| Contribution per unit | 20 | 15 |
| Budgeted sales | 20,000 | 10,000 |

a. Calculate the breakeven point in units and Revenue.
(05 Marks)
b. If the Company is to achieve a profit of Rs. 90,000 how many units of Product X and Product Y should be manufactured?

## Question No. 04

Wood Work company Manufactures Furniture and has recently received a request from a customer to provide a one-off order of dining set, in excess of normal budgeted production. The order would need to be completed within two weeks. The following cost estimates have already been prepared:

Note
Rs. (‘000)

## Direct materials:

| Fabric | $400 \mathrm{~m}^{2}$ at Rs. 570 per m |  |  |
| :--- | :--- | :--- | ---: |
| Wood | 50 m at Rs. 1000 per m | 1 | 228 |
|  | 2 | 50 |  |

## Direct labour:

Skilled
200 hours at Rs. 950 per hour
3

Factory overheads 500 hours at Rs. 200 per hour 5 | 100 |
| :---: |

## Total production cost



Notes:

1. The fabric is regularly used by Wood Work co. There are currently $300 \mathrm{~m}^{2}$ in inventory, which cost Rs. 570 per m 2 . The current purchase price of the fabric is Rs. 600 per $\mathrm{m}^{2}$.
2. This type of wood is regularly used by Wood Work Co and usually costs Rs. 1000 per $\mathrm{m}^{2}$. However, the company's current supplier's earliest delivery time for the wood is in three weeks' time. An alternative supplier could deliver immediately but they would charge Rs. 1100 per m 2 . Wood Work Co already has $500 \mathrm{~m}^{2}$ in inventory but $480 \mathrm{~m}^{2}$ of this is needed to complete other existing orders in the next two weeks. The remaining $20 \mathrm{~m}^{2}$ is not going to be needed until four weeks' time.
3. The skilled labour force is employed under permanent contracts of employment under which they must be paid for 40 hours' per week's labour, even if their time is idle due to absence of orders. Their rate of pay is Rs. 950 per hour, although any overtime is paid at time and a half. In the next two weeks, there is spare capacity of 150 labour hours.
4. There is no spare capacity for semi-skilled workers. They are currently paid Rs. 550 per hour or time and a half for overtime. However, a local agency can provide additional semiskilled workers for Rs. 600 per hour.
5. The Rs. 200 absorption rate is Wood Work Co's standard factory overhead absorption rate; Rs. 100 per hour reflects the cost of the factory supervisor's salary and the other Rs. 100 per hour reflects general factory costs. The supervisor is paid an annual salary and is also paid Rs. 600 per hour for any overtime he works. He will need to work 20 hours' overtime if this order is accepted.
6. This is an apportionment of the general administration overheads incurred by Wood Work Co.

## Required:

Prepare, on a relevant cost basis, the lowest cost estimate which could be used as the basis for the quotation. Show clearly your workings.
(Total 20 Marks)

## Question No. 05

i. Distinguish between 'opportunity cost' and 'relevant cost' giving an example for each
(06 Marks)
ii. A company which manufactures and sells one single product is currently operating at $85 \%$ of full capacity, producing 102,000 units per month. The current total monthly costs of production amount to Rs. 330,000, of which Rs.75, 000 are fixed and are expected to remain unchanged for all levels of activity up to full capacity. A new potential customer has expressed interest in taking regular monthly delivery of 12,000 units at a price of Rs. 2.80 per unit. All existing production is sold each month at a price of Rs. 3.25 per unit. If the new business is accepted, existing sales are expected to fall by 2 units for every 15 units sold to the new customer. What is the overall increase in monthly profit which would result from accepting the new business? Your Answer should include notes and calculations with workings.
(09 Marks)
iii. Outsourcing is the use of external suppliers for finished products, Components or services. Which is also known as contract manufacturing or sub-contracting. Briefly explain reasons for the trend towards outsourcing activities observed currently.
(05 Marks)
(Total 20 Marks)

## Question No. 06

Fine Tune Co manufactures and sells base guitar. It conducted a market research last month and have just arrived at the conclusion that if unit price is Rs. 10,000 the demand will be 12,000 units per month. It has also been established that demand will rise or fall by 5 units for every Rs. 1 fall/rise in the selling price. The Marginal cost of the product is Rs. 800 .

## Required:

i. If Marginal Revenue $=a-2 b Q$ when the selling price $(P)=a-b Q$, Calculate the profit maximising selling price for a Base Guitar.
ii. State the Difference between profit mark up and profit margin.
iii. Write short notes on any two of the following
a. Market skimming pricing
b. Market penetration pricing
c. Competitor based pricing
d. Customer based pricing

