**NAGARJUNA COLLEGE OF INFORMATION TECHNOLOGY**

**Full Marks: 40**

**Pass Marks: 20**

**Time: 2 hrs.**

**Shankhamul -09, Lalitpur**

**SET - A**

**Pre-Board Exam 2080**

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| **BIM / Fourth Semester / ACC 202: Cost and Management Accounting** |

***Candidates are required to give answer in their own words.***

**Attempts all the questions.**

**Group "A"**

**Brief Answer Questions (10×2=20)**

1. State any two objectives of the management account.
2. What is the ABC inventory system?
3. Define fixed cost.
4. Write about opportunity cost.
5. What are overheads?
6. A manufacturing company provides you with the following information of a material:

• Economic order quantity of 4,000 units

• Annual requirement of 40000 units

• Cost per unit of material Rs.2

• Carrying cost is 10% of inventory value

**Required**: Ordering cost per order.

1. The following data are given to you:

Standard and actual output = 2,00 units

Output per hour = 1.5 units

Rate per hour = Rs.3

**Required**: Total wages under the Gant Task Bonus Scheme

1. XY Company Ltd. is working at its annual normal capacity of 5,000 units.

The total cost per unit is Rs.7.

The annual fixed costs are Rs.10,000.

**Required**: Total cost at 80% of the normal capacity.

1. The following information about a manufacturing company is presented below:

Actual hours worked 2,900

Fixed overhead (4,000 hours Normal Capacity) Rs.32,000

Actual production of 50 units

Standard hours per unit 60

Standard overhead rate per standard hour Rs.20

Actual overhead incurred Rs.65,000

**Required**: Overhead Spending Variance

1. The following information is available in respect of a material.

• Maximum stock level = 8,000 units

• Minimum consumption = 400 units

• Average consumption = 500 units

• Delivery period = 6 days – 10 days

• Re-order level = 6,000

**Required:** Reorder quantity

**Group "B"**

**Short Answer Questions (6×5=30)**

1. Differentiate between allocation and apportionment of overheads.
2. Differentiate between avoidable and unavoidable costs.
3. ABC Manufacturing Company has sufficient idle capacity therefore; it would like to see the possibility of manufacturing a component used in its final products. The company has been buying the component from outside suppliers at the rate of Rs.20. The other data have been presented below:

Annual need 25,000 units

Cost estimate for one unit:

Raw material Rs.9 Direct labor Rs.7 Manufacturing overheads Rs.8

The company has followed a system of defining its plant capacity in terms of direct labor hours. The normal capacity is 60,000 direct labor hours. The annual fixed manufacturing overhead is Rs.150,000. Two labor hours are needed to produce one unit.

**Required**: Differential cost analysis to decide whether the company should make or buy the components.

1. The following information is given to you:

**Standard:**

Material Quantity Standard Price per kg

A 40% Rs.20

B 60% Rs.30

**Actual:**

Material Quantity Actual Cost

A 70 kg Rs.1,470

B 130 kg Rs.4,160

Standard Loss is 10% and Actual output is 185 kg

**Required**: Material variances

1. The overheads of a Manufacturing Company are given below:

Fuel Rs. 46,000

Rent Rs. 50,000

Store overheads Rs. 36,000

Amenities to staff Rs. 24,000

Following further details are provided to you:

Production department

A B

Horse Power 10 8

Machine hours 3000 2000

Area occupied sq. feet 3000 2000

No. of staff 15 9

Direct material Rs. 30000 18000

**Required**: Overhead rate per machine hour for both products

1. The following is the information about a Manufacturing Company with a Normal Capacity of 20,000 units:

Years 2078 2079

Production units 20,000 21,000

Sales units 19,000 20,000

Fixed factory overhead at Normal Capacity Rs.100,000

Fixed administrative overhead Rs.40,000

Fixed selling overhead Rs.30,000

Unit selling price Rs.30

Variable cost per unit Rs.:

Raw material 8

Direct labor 6

Direct expenses 4

**Required**: Income Statement under Absorption Costing for the year 2079 and reconcile profit without preparing Variable Costing Statement.

**Group "C"**

**Long Answer Questions (3×10=30)**

1. “The main objective of inventory management is to supply all kinds of inventory regularly in such a manner that there is no shortage of materials and the production may not have to be stopped”, discuss.
2. Following is the information of a renowned Hotel in Kathmandu

• Total number of single rooms = 30

• Total number of double rooms = 20

Annual expenses (Rs.) summary:

• Room attendant’s salary = 50,000 per month

• Administrative staff salary = 60,000 per month

• Other helpers’ salaries = 20,000 per month

• Lighting and heating = 160,000 per annum

• Repair and maintenance = 40,000 per annum

• Depreciation of buildings = 5% of Rs.5,000,000

• Depreciation of other fixed assets = 15% of Rs.1,000,000

• Insurance = Rs.15,000 per month

• Miscellaneous = Rs.200,000 per annum

Occupancy ratio:

• For 4 months = Single rooms 100%

Double rooms 80%

• For 8 months = Single rooms 70%

Double rooms 50%

Profit margin 20% on cost

Assume that the double room shall be regarded as 1.5 of the single room for fixing the rate of the room.

**Required:**

a. Operating cost statement

b. Room charge for single and double rooms per day

1. The sales revenue and profit of a manufacturing company for two years were as follows:

Year Sales Revenue (Rs) Profit (Rs)

2078 500,000 (15,000)

2079 700,000 15,000

**Required:**

i) Profit volume ratio

ii) Fixed cost

iii) Brake-even point in Rs.

iv) Break-even point in units if selling price per unit is Rs.100

iv) Sales to earn a desired profit after tax of Rs.30,000 if the tax rate is 25%

v) Profit when sales are Rs.1,000,000

vi) Margin of safety ratio if actual sales are Rs.900,000

**Group "D"**

**Comprehensive Answer Question (1 × 20 = 20)**

1. A renowned organization is planning to prepare a functional budget for their decision purpose from the following information:

Total sales for six months are 200,000 units, which are apportioned as:

Chaitra 15%, Baisakh 20%, Jestha 15%, Ashad 10%, Shrawan 10%, Bhadra 20% and Ashwin 10% respectively.

The selling price per unit will be Rs.20

Purchase: One unit of finished goods requires 2 kg of material at a cost of Rs.10.

Wages: Each unit of finished good will need 2 labor hours and the rate per labor hour will be Rs.3

Overhead: Variable manufacturing cost will be Rs.3 per unit and fixed manufacturing cost for the year will be Rs.120,000

Inventory policy: Material: 50% of the subsequent month’s requirement

Finished goods: 20% of the subsequent month’s sale

**Required:** For four months from Baisakh to Shrawan

a. Sales budget

b. Production budget

c. Material purchase budget

d. Labor budget

e. Manufacturing overhead budget

f. Cost of goods sold budget

**NAGARJUNA COLLEGE OF INFORMATION TECHNOLOGY**

**Full Marks: 100**

**Pass Marks: 50**

**Time: 3hrs.**

**Shankhamul -09, Lalitpur**

**SET - B**

**Pre-Board Exam 2080**

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| **BIM / Fourth Semester / ACC 202: Cost and Management Accounting** |

***Candidates are required to give answer in their own words.***

**Group – A**

**Brief Answer questions. (10 × 2 = 20)**

1. What is cost accounting? Explain
2. Write about the functional classification of overheads.
3. The following information is given to you:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Months | July | Aug. | Sep. | Oct. | Nov. |
| Output in units | 250 | 350 | 450 | 550 | 650 |
| Total cost Rs. | 15500 | 16500 | 17500 | 18500 | 19500 |

**Required:** Classification of cost into fixed and variable using least square methods.

1. Calculate economic order from the given information.

* Annual requirement = 10000 units - Ordering cost = Rs. 10 /order
* Carrying cost is 10% of inventory value.

1. The following overheads are extracted from the record of a Company.

Welfare = Rs 15000 Repair = Rs. 10000

Other information:

|  |  |  |
| --- | --- | --- |
|  | No. of employees | Value of assets |
| Dept. A | 5 | Rs. 40000 |
| Dept. B | 10 | Rs. 80000 |

**Required:** Overheads of each department.

1. A Co. has a fixed cost of Rs. 90000 with sales of Rs. 300000 and a Profit of Rs. 60000. Calculate the P/v ratio and margin of safety for a year.
2. The following data are given:

Fixed cost = Rs. 100000 Normal capacity = 20000 units

Variable cost per unit = Rs 20

**Required:** Flexible budget for 5000 and 15000 units.

1. From the following data calculate total wages under Halsey Plan.

Standard time = 50 Hours Time taken = 35 Hours

Standard wages rate per hour = Rs. 50

1. A Co. sells product X - 20000 units @ Rs. 10 each and product Y - 10000 units @ Rs. 20 each. Quarterly sales are as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Quarter | 1st | 2nd | 3rd | 4th |
| % of Sales | 25 | 20 | 25 | 30 |

**Required:** Sales Budget by Product and Quarter.

1. A transport company has 2 buses running 2 towns covering 20km apart. The sitting capacity of each bus is 40 passengers. The bus makes two round trips per day. The average passenger occupancy is 75%, and buses run 25 days a month.

**Required:** Total passenger kilometers per month.

**Group-B**

**Short Answer questions: (6 × 5 = 30)**

1. A Manufacturing Company purchases 2,000 parts of a machine for its annual needs @ Rs.10 per part. The carrying cost of inventory is Rs.4 per part and set up cost is Rs.40 per set up

**Required:**

1. Economic order size
2. The supplier provides a discount of 3% if the purchasing lot contains 2,000 parts at a time.

Should the offer be accepted?

1. A new automatic machine was purchased on 1st January 2023 worth Rs.500,000. The total cost of all machinery inclusive of new machinery was Rs.7,500,000.The following particulars are available:

The expected life of the machine 10 years

Scrap value at the end of ten years Rs.5,000

The area occupied by the machine 100 sq. ft

Repair and maintenance for the machine during the year Rs.2,000

Expected number of working hours of machine per year 4,000 hours

The insurance premium annually for all the machines Rs.4,500

Electricity consumption for the machine per hour (@Rs.0.75 per unit) 25 units

The area occupied by other machines 1500sq.ft

Rent per month of the department Rs.800

Lighting charges for 20 points for the whole department out of which 3 points are for the machine Rs.120p.m.

**Required:** Machine hour rate

1. A company has a monthly normal production capacity of 50,000 decoration pieces. The sales price per piece is Rs.20. The cost statement for 30,000 decoration pieces is:

Materials Rs.130,000 Labor Rs.180,000

Other supplies Rs.90,000 Fixed cost Rs.60,000

An offer is received at Rs.16 per piece for the supply of 25,000 decoration pieces every month.

**Required:** Differential income statement and the opportunity cost of the offer.

1. At 75% of normal capacity the selling department of a factory sales of Rs,12,00,000 with the following expenses:

Depreciation Rs.72,000 Salery Rs.2,40,000

Wages Rs.64,000 Commission 21% of sales

Other fixed cost Rs.50,000

**Required:** Statement of flexible budget at 60%,70%, and 90%.

1. The following data are extracted from the record of a factory:

Normal capacity 10,000 units Production units 12,000 units

Sales unit 14,000 units Opening stock 5,000 units

Material cost Rs.20 / unit Labor Rs.15/unit

V. Manufacturing Rs.10/unit F. Manufacturing Rs.150,000

Selling overhead Rs.40/unit (40% fixed)

Selling price Rs.100/unit

**Required:** i) Income statement under absorption costing

ii) Reconcile profit under variable costing

1. The following information is given:

Annual needs 120,000 units Ordering cost Rs.400/order

Carrying cost/unit/year Rs.0.12

The supplier Is willing to offer a discount as below:

* Above 40,000 units 2% discount
* 25,000 – 40,000 units 1% discount

**Required**: a) EOQ, Total cost at EOQ, and number of orders using the formula

1. EOQ by using the table method considering discount.
2. From the following data calculate possible material variances:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Materials | Standard | | | Actual | | |
| Qty in kg | Unit price | Total(Rs.) | Qty in kg | Unit price | Total(Rs.) |
| A | 20 | 2 | 40 | 15 | 3 | 45 |
| B | 30 | 3 | 90 | 25 | 6 | 150 |
| C | 50 | 6 | 300 | 40 | 5 | 200 |
| Total | 100 |  | 430 | 80 |  | 395 |

**GROUP-C**

**Long Answer question (3 × 10 = 30)**

1. “Financial accounting is historical whereas management accounting is futuristic in nature”. Comment on this statement.
2. The following is information about a renowned hotel in Kathmandu:

-Total number of single rooms 20

-Total number of double rooms 10

Annual Expenses (Rs.) summary:

-Medical staff salaries of 100,000 per month

-Administrative staff salaries of 50,000 per month

* Other helpers’ salaries of 25,000 per month
* Lighting and heating 150,000 per annum
* Repair and maintenance 50,000 per annum
* Depreciation of buildings 5% of Rs.5,000,000
* Depreciation of other fixed assets 15% of Rs.1,000,000
* Insurance Rs.10,000 per month
* Miscellaneous Rs.200,000 per annum

**Occupancy ratio:**

* **For 4 months:**

Single rooms 100%

Double rooms 80%

* **For 8 months**

Single rooms 70%

Double rooms 50%

Profit margin 25% on cost

Assume that the double room shall be regarded as 1.5 of the dingle room for fixing the rate of the room.

**Required:** a) Operating cost statement

1. Room charge for single and double rooms per day
2. You have been provided the following income statement of a company producing three products namely A, B, and C

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Particulars | A | B | C | Total |
| Sales in unit  Sales (Rs.)  Less. Variable cost  Contribution margin  Less: Fixed cost | 10,000 | 10,000 | 5,000 | 25,000 |
| 50,000  30,000 | 40,000  20,000 | 30,000  18,000 | 120,000  68,000 |
| 20,000 | 20,000 | 12,000 | 52,000  20,000 |
| Net profit |  |  |  | 32,000 |

**Required:**

1. Weighted contribution margin per unit
2. Overall, BEP in units and for each product
3. Overall, BEP units if the sales mix is changed to 1:22

**Group-D**

**Answer the following questions. (1 × 20 = 20)**

1. A company furnished the data mentioned below as per the records.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Months | Baishakh | Jestha | Ashadh | Shrawan | Bhadra |
| Sales units | 10,000 | 12,000 | 15,000 | 20,000 | 25,000 |

The company has adopted the policy to assume the ending inventory of finished goals at 60% of the next month’s sales needs, whereas, the raw materials stock requirement is expected at 100% of next month’s production need. Each unit of production will need 4 units of raw materials at a cost of Rs.20. The labor hour needed for the production of a unit is 2 hours at a cost of Rs.4 per hour.

The other costing details are:

|  |  |  |  |
| --- | --- | --- | --- |
| **Items** | Baishakh | Jestha | Ashadh |
| Variable factory overhead per unit | Rs.2 | Rs.3 | Rs.4 |
| Fixed overhead:  Supervision cost  Depreciation on plant  Work in progress  Opening  Closing | Rs.100,000  Rs.8,000  Rs.50,000  Rs.40,000 | Rs.100,000  Rs.8,000  Rs.40,000  Rs.60,000 | Rs.100,000  Rs.8,000  Rs.60,000  Rs.40,000 |

**Required:**

a) Production budget

b) Raw material purchase budget

c) Direct labor cost budget

d) Manufacturing overhead budget

e) Manufacturing cost budget

f) Cost of goods sold budget.