**JAIPURIA INSTITUTE OF MANAGEMENT, INDORE**

**PGDM**

**SECOND TRIMESTER (Batch 2020-22)**

**END TERM IMPROVEMENT EXAMINATION, APRIL-2021**

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| --- | --- | --- | --- |
| Course Name | **Management Accounting** | Course Code | **FIN 202** |
| Max. Time | **2 hours** | Max. Marks | **50** |

**Q.1** Books and Beyond is an organized retail book-store. After experiencing success in the metropolitan cities Books and Beyond is planning to open up new stores in fast developing tier two cities .The costing department of the company has provided you the estimated cost related to a new book-store which the company intends to open at Lucknow. The store expects sales revenue of Rs 50 lakh. The major components of the variable cost would be Books Rs 20 lakh; Utilities Rs 10 lakh and Overheads Rs 10 lakh. The major components of the fixed cost would be Store Rental Rs 5 lakh; Advertising &Promotion Expenses Rs 1.50 lakh and Administrative Expenses Rs 3.50 lakhs.

|  |  |  |
| --- | --- | --- |
|  | Rs | Rs |
| Sales Revenue |  | 50,00,000 |
| Variable Costs:BooksUtilities Variable Overheads | 20,00,000 10,00,000 10,00,000 |   |
| Fixed Costs:Store RentalAdvertising &Promotion ExpensesAdministrative Expenses | 5,00,0001,50,0003,50,000 |  |

As manager Finance of Books and Beyond you are supposed to recommend the following:

i) What should be the level of sale the new book- storemust achieve to reach the break-even?

ii) Incase due to the inflationary trend in the economy the Books and Beyond expects the material cost and utilities to increase by 10%. And the company feels that the other costs shall remain unchanged. What impact would these changes have on the new book-store?

iii) Incase the Books and Beyond feels that there would be an increase in the fixed cost by Rs 2.50 lakh and the company also intends to generate a profit of Rs 4.50 lakh in a year, then how much sale should the new book-store have? **(10 Marks)**

**Q.2** The following particulars are extracted from the records of M.B. Plastics Ltd.

|  |  |  |
| --- | --- | --- |
|  | Plastic Pipes | Plastic Sheets |
| Sales (per unit) | Rs 270 | Rs 290 |
| Plastic Granules [Material Usage per unit : 4 kg ; 5kg] | ? | ? |
| Direct Wages [ Labour Usage per unit: 3 hrs ; 2 hrs] | ? | ? |
| Direct Expense | Rs 40 | Rs 55 |
| Fixed Expenses | Rs 50 | Rs 60 |

The plastic granules were procured @ Rs 15/kg. Labour was paid @ Rs 20/hr. The maximum sales potential of Plastic Pipes is 4,500 pipes and Plastic Sheets is 3,000 sheets.In case there is limited availability of raw material and only 25,000 kgs of plastic granules are available. Making use of the variable costing method suggest how many plastic pipes and plastic sheets should the company manufacture and sell to maximize the profits?

**(15 Marks)**

**Q.3** Parker Company produces an inkjet printer that sells for $150 and a laser printer that sells for $350. Last year, total manufacturing overhead costs of $1,050,000 were allocated based on direct labor hours. A total of 15,000 direct labor hours were required last year to build 12,000 inkjet printers (1.25 hours per unit), and 10,000 direct labor hours were required to build 4,000 laser printers (2.50 hours per unit). Total direct labor and direct materials costs for the year were as follows:

|  |  |  |
| --- | --- | --- |
| Particulars | **Inkjet Printer** | **Laser Printer** |
| Direct materials | $540,000 | $320,000 |
| Direct labor | $600,000 | $400,000 |

The management of Parker Company would like to use activity-based costing to allocate overhead rather than use one plant wide rate based on direct labor hours. The following estimates are for the activities and related cost drivers identified as having the greatest impact on overhead costs.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Activity**  | **Estimated Overhead Costs ($)** | **Cost Driver** | **Inkjet** | **Laser** | **Total** |
| Production Runs | 400000 | Number of Production Runs | 40 | 10 | 50 |
| Quality Inspections | 250000 | Inspection Hours | 1200 | 2800 | 4000 |
| Packaging and Shipping | 400000 | Number of units shipped | 12000 | 4000 | 16000 |
| Total | 1050000 |  |  |  |  |

*Required:*

1. Using the plant wide allocation method, calculate the predetermined overhead rate and determine the overhead cost per unit for the inkjet and laser products.
2. Using activity-based costing:
	1. Calculate the predetermined overhead rate for each activity
	2. Allocate overhead to each product and determine the overhead cost per unit.
	3. Calculate the product cost per unit for the inkjet and laser products?
3. Calculate the per unit profit for each product using the plant wide approach
4. and the activity-based costing approach. Comment on the differences
5. between the results of the two approaches. **(15 Marks)**

**Q.4** Maxim Fasteners distributes giant binder clips that sell for $3 each. Maxim pays $1.20 each to buy the clips. The company has $4,000 per month in fixed costs. Policies and other information follow:

* Inventory is maintained at the end of each month equal to 10% of the next month's projected sales in units.
* Purchases are paid 40% in the month acquired and the balance in the month after.
* All sales are on credit, and 30% are collect in the month of sale and 70% in the month after sale.
* Budgeted monthly sales in units for the first five months of 2021 are as follows:
* January 6,000 units
* February 5,000 units
* March 7,000 units
* April 9,000 units
* May 8,000 units
* Variable selling and administrative costs are $0.50 per clip and are paid in the month of incurred.

Prepare the budget for the month of April. **(10 Marks)**