Activity Based Costing

|  |  |  |
| --- | --- | --- |
| 1. |  |  |

|  |  |  |
| --- | --- | --- |
| 2. |  |  |
| 3. |  |  |

|  |  |  |
| --- | --- | --- |
| 4. |  |  |
|  |  |  |
| 5. |  |  |
| 6. |  |  |
| 7. |  |  |
|  |  |  |
| 8. |  |  |
|  |  |  |
| 9. |  |  |

# Example 1: ABC Costing

Hensau Ltd has a single production process for which the following costs have been estimated for the period ending 31 December 20X1:

$

Material receipt and inspection costs 15,600

Power costs 19,500

Material handling costs 13,650

Three products – X, Y, and Z are produced by workers who perform a number of operations on material blanks using hand held electrically powered drills. The workers are paid $4 per hour.

The following budgeted information has been obtained for the period ending 31 December 20X1:

**Product X Product Y Product Z**

Production quantity (units) 2000 1500 800

Batches of Material 10 5 16

Data per product unit:

Direct material (square meters) 4 6 3

Direct material costs ($) 5 3 6

Direct labour (minutes) 24 40 60

No of power drill operations 6 3 2

Overhead costs for material receipt and inspection, process power and material handling are presently each absorbed by product units using rates per direct labour hour.

An activity based costing investigation has revealed that the costs drivers for the overhead costs are as follows:

Material receipt and inspection: Number of batches of material

Process power: Number of power drill operations

Material handling: Quantity of material (square meters) handled

**Required:**

Prepare summary which shows the budgeted product cost per unit for each product of X, Y and Z for the period ending 31 December 20X1 detailing the units costs for each cost element using:

* 1. The existing method for the absorption of overhead costs and
  2. An approach which recognizes the cost drivers revealed in the activity based costing investigation.

**(22 marks)**

Throughput Accounting

**Question 1**

WR Co manufactures three products, A, B and C. Product details are as follows:

**Product A Product B Product C**

$ $ $

Sales price 2.8 1.6 2.4

Materials cost 1.20 0.60 1.20

Direct labour cost 1.00 0.80 0.80

Weekly sales demand 4000 units 4000 units 5000 units

Machine hours per unit 0.5 hours 0.2 hours 0.3 hours

Machine time is bottleneck resource and maximum capacity is 4000 machine hours per week. Operating costs including direct labour costs are $10,880 per week. Direct labour workers are not paid overtime and work a standard 38 hour week.

**Required**

Determine the optimum production plan for WR Co and calculate the weekly profit that would arise from the plan.

**Question 2**

Will and Grace operate separate divisions making and selling products with identical cost structures.

Sales price per unit $50

Direct materials per unit $12

Direct labour per unit $8

Fixed production overheads of $200,000 per month are absorbed across the normal production level of 10,000 units per month. In each division assume a bottleneck capacity of 20,000 hours.

In April, Will makes and sells exactly 10,000 units whilst Grace makes 12,000 units and sells only

9,500.

Neither Will nor Grace has any opening or closing inventory of raw materials or components.

**Required**

Show which manager would benefit if bonuses were given on

(a) Profit

(b) Throughput accounting ratios

|  |  |  |
| --- | --- | --- |
| 1. |  |  |
|  |  |  |
| 2. |  |  |
|  |  |  |
| 3. |  |  |
|  |  |  |
| 4. |  |  |
|  |  |  |
| 5. |  |  |
| 6. |  |  |
|  |  |  |
| 7. |  |  |
| 8. |  |  |