**Leeming Senior High School**

**Accounting and Finance ATAR (Year 12)**

**Unit 3**

**Task 2**

**Assessment Type:**

Test

**Total Marks:**

55 marks

**Conditions:**

**Period Allowed for Completion of the Task:**

50 minutes under invigilated conditions.

**Task Weighting**

5% of the school mark for this pair of units

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section 1 (10 marks)**

**Answer the first 6 questions by circling the most appropriate answer.**

1.A ‘cost object’ may be described as:

a) A process or product for which costs are measured and assigned

b) A target or standard against which cost performance can be measured

c) A problem area in a firm’s manufacturing process

d)Any of a), b) and c)

2.A job order costing system:

a) Is common in both manufacturing and merchandising firms

b) Allocates costs to a product, batch or service

c) Is essentially the same as process costing

d) Is not suitable for use in service industries

3.A mixed cost contains

 a) a variable cost and fixed cost element

 b) a product and period cost element

c) both retailing and manufacturing costs

d) both selling and administrative cost elements

4.Variance analysis:

a) Is essentially the same as budget performance reporting

b) Can only be used to evaluate direct costs

c) Measures the difference in performance from one period to the next

d) Compares actual results with a standard amount or value

5. An example of an indirect labour cost includes

1. bakers making bread
2. worker installing solar hot water systems
3. sewing machine operators in a clothing factory
4. cleaners who clean the clothing factory floor

6. When calculating the mark-up for a cost object, management will **not** consider

1. covering all product costs
2. covering all period costs
3. competition prices in the marketplace
4. the price consumers are willing to pay

7 Explain the following costs, showing how they would be classified (asset or expense) and giving an example of each. (4 marks)

 **Product Costs and Period Costs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Product Cost Definition** | **Includes all those costs that are attributable to a product.** | **Before the product is sold it is an asset. When it is sold it is an expense (cost of goods)** | **Computers sold by a computer shop.** | **2 marks** |
| **Period Cost Definition** | **Costs that are not product costs are period costs.** | **Expense** | **Advertising** | **2 marks** |

**Section 2 (45 marks)**

Question 8 (17 marks)

Celebrity Catering Pty Ltd, located in Cottesloe, provides continental cuisine for the VIP boxes at major events. They have been asked to quote for the upcoming World Cup qualifying match and have estimated the following:

|  |
| --- |
| **Catering Kitchen** |
| Overheads | $140 000 per month | Allocated by oven hours |
| Direct Materials | $80 000 |   |
| Direct Labour | 150 hours | Rate is $25 per hour |
| Equipment (Oven) Hours | 100 hours |  |
|  |  |  |
| **Catering Service** |
| Overheads | $180 000 per month | Allocated by direct labour hours |
| Direct Labour | 75 workers for an average of 20 hours each | Rate is $15 per hour |

**Additional Information:**

* Expected direct labour hours per month is 6600, which consists of 6000 hours for the Service Department and 600 hours for the Kitchen Department.
* Estimated ovens hours per month is 2000.

**Required**

1. Calculate the predetermined overhead rates for both the kitchen and service sections of the business. (4 marks)

**Workings:**

|  |
| --- |
| **Kitchen Department** |
| **Predetermined Overhead Rate** | **Budgeted Overhead Cost** | **140 000** | **$70 Per Oven Hour** | **2 marks** |
| **Budgeted Oven Hours** | **2 000** |

|  |
| --- |
| **Service Department** |
| **Predetermined Overhead Rate** | **Budgeted Overhead Cost** | **180 000** | **$30 Per Direct Labour Hour** | **2 marks** |
| **Budgeted Direct Labour Hours** | **6 000** |

Predetermined Overhead Rate for the Kitchen Department: **$70 Per Oven Hour**

 Predetermined Overhead Rate for the Service Department: **$30 Per Direct Labour Hour**

1. Calculate the total cost of catering for this function. (11 marks)

**Workings:**

|  |
| --- |
| **Kitchen Department** |
| **Direct Materials** |  | **$80 000** | **1 mark** |
| **Direct Labour** | **150 Hours x $25 Per Hour** | **$3 750** | **2 marks** |
| **Overheads** | **100 Hours x $70 Per Oven Hour** | **$7 000** | **2 marks** |
| **Total** |  | **$90 750** | **1 mark** |

|  |
| --- |
| **Service Department** |
| **Direct Labour** | **75 Workers x 20 Hours Each =** **1 500 Hours x $15 Per Hour** | **$22 500** | **2 marks** |
| **Overheads** | **1 500 Hours x $30 Per Direct Labour Hour** | **$45 000** | **2 marks** |
| **Total** |  | **$67 500** | **1 mark** |

Total Cost of Catering this Function: **$158 250**

1. If Celebrity Catering Pty Ltd has a mark-up of 120%, calculate the price to be quoted.

(2 marks)

**Workings:**

|  |
| --- |
| **Price To Be Quoted:** |
| **$158 250 x 2.20** | **$348 150** | **2 marks** |

Price to be Quoted: **$348 150**

Question 9 (11 marks)

Petersen Pushbikes makes bicycles in a factory at Geraldton. They make two models, the Jackflash Racing Bike and the Alpmaster Mountain Bike. The production costs and sales are estimated to be as follows:

|  |  |  |
| --- | --- | --- |
|  | **Jackflash** | **Alpmaster** |
| Direct Materials Per Unit | $82 | $70 |
| Manufacturing Labour Per Unit | 3 hours @ $40/hour | 3.5 hours @ $40/hour |
| Estimated Annual Production | 2000 units | 3000 units |
| Budgeted Selling Price | $550 | $450 |

Fixed costs are estimated as follows:

**Manufacturing Overheads**

Factory Rent and Maintenance Costs $102 000

Supervisor Salary $162 000

**General Overheads**

Salaries and Wages $240 000

Marketing Costs $125 000

Manufacturing overheads are allocated on the basis of labour hours. The total number of labour hours expected to be worked in the year is 16 500 hours.

**Required**

Calculate the standard cost per unit of both models. (11 marks)

**Workings:**

|  |
| --- |
| **Manufacturing Overheads** |
| **Predetermined Overhead Rate** | **Budgeted Overhead Cost** | **264 000** | **$16.00 Per Labour Hour** |
| **Budgeted Labour Hours** | **16 500** |

|  |
| --- |
| **Jackflash** |
| **Direct Materials** | **$82.00** |
| **Direct Labour (3 Hours x $40.00)** | **$120.00** |
| **Overheads (3 Hours x $16.00)** | **$48.00** |
| **Total Cost** | **$250.00** |

|  |
| --- |
| **Alpmaster** |
| **Direct Materials** | **$70.00** |
| **Direct Labour (3.5 Hours x $40.00)** | **$140.00** |
| **Overheads (3.5 Hours x $16.00)** | **$56.00** |
| **Total Cost** | **$266.00** |

**Standard Cost (Jackflash): $250.00 per unit**

**Standard Cost (Alpmaster): $266.00 per unit**

Question 10 (8 marks)

A company manufactures skirts. The materials used are cotton fabric, buttons, labels and threads. The cotton fabric is regarded as direct materials, while the buttons, labels and threads are indirect materials and part of the manufacturing overheads.

The standard cost of direct materials is $12.50 per metre, while the actual cost of direct materials is $12.70 per metre. The company purchased 25,000 metres of material.

The standard material quantity is 3.1 metres per skirt. The company manufactures 2,000 skirts for the month. The actual quantity used is 6,500 metres.

(a) Calculate the direct material price variance and comment on the reason for the variance.

 (4 marks)

**Workings**:

|  |  |
| --- | --- |
| **Direct Materials Price Variance =** | (AP – SP) x AQP |
| ie. (Actual Price of Input – Standard Price of Input) x Actual Quantity of Input Purchased |

|  |  |
| --- | --- |
| **Direct Materials Price Variance =** | ($12.70 - $12.50) x 6500 |

|  |  |
| --- | --- |
| **Direct Materials Price Variance =** | **$1300 U** |

Direct Material Price Variance: **$1300 U**

Comment: **The reason for this variance is the actual price of input ($12.70) was higher than the standard price of input ($12.50) by 20 cents which, with a production level of 6500, impacted the final costs to the tune of an extra $1300.**

(b) Calculate the direct materials usage variance and comment on the reason for the variance. (4 marks)

**Workings:**

|  |  |
| --- | --- |
| **Direct Materials Quantity (Usage) Variance =** | **(AQI - SQA) x SP** |
| **ie. (Actual Quantity of Input Issued – Standard Quantity of Input Allowed for Actual Output) x Standard Price of Input** |
| **Where SQA = SQ x AO** |
| **ie. Standard Quantity Per Unit x Actual Output in Units Produced** |

|  |  |
| --- | --- |
| **Direct Materials Quantity (Usage) Variance =** | **(6500 – 6200 (3.1 x 2000)) x 12.50** |

|  |  |
| --- | --- |
| **Direct Materials Quantity (Usage) Variance =** | **$3750 U** |

Direct Material Usage Variance: **$3750 U**

Comment: **The reason for this variance is the actual quantity of direct materials used (6500 metres) was higher than the standard quantity of direct materials allowed (6200 metres) by 300 metres which impacted the final cost of the materials to the tune of an extra $3750.**

Question 11 (9 marks)

A company manufactures skateboards. The standard rate of the company for direct labour is $25 per hour. Each skateboard should require 20 hours of direct labour to manufacture. Last month the company made 600 skateboards. The actual direct labour consumed was 14 000 hours at $24 per hour.

(a) Calculate the direct labour rate variance and comment on the reason for the variance. (4 marks)

**Workings**:

|  |  |
| --- | --- |
| **Direct Labour Rate Variance =** | **(AR - SR) x ADLH** |
| **ie. (Actual Rate Per Direct Labour Hour Worked – Standard Rate Per Direct Labour Hour Worked) x Actual Direct Labour Hours Worked** |

|  |  |
| --- | --- |
| **Direct Labour Rate Variance =** | **(24.00 – 25.00) x 14 000** |

|  |  |
| --- | --- |
| **Direct Labour Rate Variance =** | **($14 000) F** |

Direct Labour Rate Variance: **($14 000) F**

Comment: : **The reason for this variance is the actual rate per direct labour hour worked ($24.00) was lower than the standard rate per direct labour hour worked ($25.00) by $1.00 per hour which impacted the final direct labour rate to the tune of saving the business $14 000.**

 (b) Calculate the direct labour efficiency variance and comment on the reason for the variance. (5 marks)

**Workings:**

|  |  |
| --- | --- |
| **Direct Labour Efficiency Variance =** | **(ADLH - SDLHA) x SR** |
| **ie. (Actual Direct Labour Hours Worked – Standard Rate Per Direct Labour Hours Allowed For Actual Output) x Standard Rate Per Direct Labour Hour** |
| **Where SDLHA = SDLH x AO** |
| **ie. Standard Direct Labour Hours Allowed Per Unit x Actual Output in Units Produced** |

|  |  |
| --- | --- |
| **Direct Labour Efficiency Variance =** | **(14 000 – 12 000 (20 x 600)) x 25.00** |

|  |  |
| --- | --- |
| **Direct Labour Efficiency Variance =** | **$50 000 U** |

Direct Labour Efficiency Variance: **$50 000 U**

Comment: **The reason for this variance is the actual direct labour hours worked (14 000) was higher than the standard direct labour hours worked (12 000) by 2 000 hours which impacted the final direct labour efficiency to the tune of costing the business an additional $50 000 to cover the extra hours.**