CERTIFIED ACCOUNTING TECHNICIAN

STAGE 3 EXAMINATIONS

S3.2: MANAGEMENT ACCOUNTING

DATE: THURSDAY 29, AUGUST 2024

INSTRUCTIONS:

1. **Time Allowed: 3 hours**
2. This examination has **three** sections**: A, B & C.**
3. Section **A** has **ten multiple choice questions** equal to 2 marks each.
4. Section **B** has **two questions** equal to 10 marks each**.**
5. Section **C** has **three questions** equal to 20 marks each
6. All questions are compulsory
7. The question paper should not be taken out of the examination room

SECTION A

QUESTION ONE

Which of the following statements is not true about standards?

A Variances from ideal standards are useful for pinpointing areas where a close examination might result in large cost savings.
B Basic standards may provide an incentive to greater efficiency even though the standard cannot be achieved.
C Ideal standards cannot be achieved and so there will always be adverse variances. If the standards are used for budgeting, an allowance will have to be included for these 'inefficiencies'.
D Current standards or attainable standards are a better basis for budgeting, because they represent the level of productivity which management will wish to plan for.

(2 Marks)

QUESTION TWO

Which of the following statements is true about control activities?

A They are the objectives which internal controls seek to achieve.
B They are those policies and procedures that help ensure that objectives of the organization are carried out
C is part of the internal controls that includes the financial reporting system, and includes the procedures and records established to record, process and report transactions.
D it is a review of the effectiveness of internal control measures by assessing the effectiveness of controls on a timely basis and taking any necessary remedial actions.

(2 Marks)

QUESTION THREE

INEZA limited uses a time series model to forecast its sales. The trend equation of the company for the last 12 months is 654.36 – 6.2x. It is estimated that the 14^{th} month will have a seasonal variation of 0.983

Using a multiplicative model, **what will be the forecasted sales for the month**

A 568.54
B 564.01
C 557.91
D 567.56

(2 Marks)

QUESTION FOUR

Best ltd is a company that is located in Nyanza. The company specializes in the manufacture of steel. The finance manager is carrying out an analysis for the month of July 2024.
The actual information was as follows:

sales units	1,850
Sales revenue	FRW 37,000,000

Budgeted information:

Budgeted units	1800
Budgeted selling price	FRW 22,000

What is the total sales variance for the month of July 2024?

A FRW 2,600,000 F
B FRW 3,600,000 F
C FRW 2,600,000 A
D FRW 3,600,000 A

(2 Marks)

QUESTION FIVE

Below are statements on budget variance analysis:

1. An adverse variance is always good for the business
2. An adverse variance is always bad for the business

Consider the above Statements:

A Both statements are true
B Both statements are false
C Statements 1 is false and statements 2 is true
D Statements 1 is true and statements 2 is false

(2 Marks)

QUESTION SIX

Mutoni enterprises has two grades of labour employed within the organization. Information regarding the organization for the month of June 2024 is provided below:

Details	**Skilled workers**	**Unskilled workers**
Employees	26	35
Hours	13	20
Output (units)	10,998	20,300

W**hat is the productivity per hour for each category of workers?**

	Skilled	**Unskilled**
A	0.5	0.57
B	846	1015
C	423	580
D	580	423

(2 Marks)

QUESTION SEVEN

Which of the following information about variance reporting is false?

A It reports variances which exceed a certain amount or percentage
B It makes it easier for managers to spot important variances
C It avoids information overload
D All variances highlighted should be investigated

(2 Marks)

QUESTION EIGHT

KMB Manufacturing Ltd budgeted to use 9,000 unit of material at cost per unit of FRW 1,500 each. During the month of May 2024, production manager report shows that material usage in production were 9,200 Unit with total cost of FRW 14,030,000.

What is the material price variance?

A FRW 230,000 A
B FRW 230,000 F
C FRW 300,000 A
D FRW 300,000 F

(2 Marks)

QUESTIION NINE

The…… of a company is measured by its ability to satisfy its short term obligations as they become due.

A Liquidity
B Debt
C Profitability
D Activity

(2 Marks)

QUESTION 10

A total cost is described as staying the same over a certain activity range and then increasing but remaining stable over a revised activity range in the short term.

What type of cost is this?

A A fixed cost
B A variable cost
C A semi-variable cost
D A stepped fixed cost

(2 Marks)

SECTION B

QUESTION 11

a) Differentiate between fixed costs and variable costs (2 Marks)

b) Nyamirambo transporters owns a fleet of cars that are used by the top executive. The following information has been prepared by the management accountant relating to running costs of a four wheeler car.

1. The purchase price of the car is FRW 48 million. They have a useful life of 4 years with a residual value of 4 million. The car is depreciated using the straight line method.
2. The cost of petrol is estimated to be FRW 1,650 per mile.
3. The tyres are replaced after 30,000 miles. The cost per tyre is FRW100,000.
4. The annual routine maintenance cost per car is FRW 400,000. This cost will increase by 20% in the third year.
5. Insurance cost per annum per car is FRW 500,000.
6. The average repair cost per car is FRW 800,000 over four years and varies with mileage.
7. On average, a car travels 40,000 miles per annum.

Required:

Calculate the operating cost of a car covering 40,000 miles annually. (8 Marks)

(Total: 10 Marks)

QUESTION 12

a) **Explain five characteristics of the growth stage of product lifecycle** (5 Marks)

b) The general economic environment has a great impact on the performance of a business. It is therefore essential for every business to have a good understanding of the economic condition prevailing at any given time to determine the most appropriate cause of action or appropriate strategies.

Required:

i) With reference to the above statement, **identify the four main stages of the economic cycle and explain what happens in every stage.** (4 Marks)

ii) Name one factor other than economic factors that is analyzed in the environmental market analysis (1 Mark)

(Total: 10 Marks)

SECTION C

QUESTION 13

a) In most businesses the key budget factor is sales. Most businesses will find that there is a limit to the amount of sales that they can make, due to demand for their products and their own market share. However, it is also possible that the key budget factor may be shortage of labour availability.

Required:

With reference to the above statement, **make SIX recommendations on how to resolve the labour shortage problems** (6 marks)

b) Gasanze Steel Company operates in the western province of Rwanda. The company manufactures three main products: Metal Roofing (MR), Steel Beams (SB), and Mounting Brackets (MB). The following information relates to the company operations that is budgeted for the year ended 31st December 2025.

Particulars	**Metal Roofing (FRW)**	**Steel Beams (FRW)**	**Mounting Brackets (FRW)**
Sales	1,400,000	2,100,000	4,000,000
Direct labour (500 per hour)	350,000	750,000	1,500,000
Direct materials (FRW 100 per kg)	560,000	450,000	2,000,000
Variable Overheads (FRW)	280,000	450,000	250,000
Fixed costs (FRW)	140,000	200,000	260,000
Sales units (maximum)	3,500	1,500	1,000

Additional information:

1) The maximum direct labour hours that are estimated to be available in the year 2025 are 8,000 hours. Based on the nature of the work, the workers will not be in a position to work overtime and at the same time, the organization will not be able to employ additional workers.
2) The raw materials are limited to 29,350 kg per annum.
3) There will be no opening or closing inventories.

Required:

i) Using appropriate computations, identify the limiting factor **(**4 marks)

ii) Compute the sales mix that will maximize profits for Gasanze steel company (8 marks)

iii) Compute the resultant profit from ii above (2 marks)

(Total: 20 marks)

QUESTION 14

a) One of the most common methods of discounted cash flow analysis is the net present value method. It is used in investment planning and capital budgeting to analyze whether a proposed project is profitable or not.

Required:

With reference to the above statement, **highlight three disadvantages of the net present value method.** (3 marks)

b) Musanze printers LTD is intending to invest in a project with an immediate cash outflow of RWF 500,000 million. The receipts from this project are RWF 250,000 million in one year's time, FRW 150,000 million in two years' time, FRW 70,000 million in three years' time and finally FRW 60 million in four years' time. The interest rate applicable to the company is 7%. (*refer to the net present value table on the last page)*

Required:

i) Calculate the net present value of the project and advice the company on whether to invest on the project (3 marks)

ii) Calculate the internal rate of return (IRR) of the project (4 marks)

c) Performance indicators for the quality of goods can include both financial and non-financial performance indicators. **Suggest five non-financial indicators that may be used to assess customer satisfaction** (5 marks)

d) Performance measurement in the public sector has traditionally been perceived as presenting special difficulties. **Discuss these special difficulties** (5 marks)

(Total: 20 marks)

QUESTION 15

a) Differences between net profit and net cash flow mainly arise due to timing differences. **Discuss 5 such differences.** (5 marks)

b) Ineza Ltd. Is a company that makes and sells a single product branded "PEMA". The company is in the process of preparing its budget for the first quarter of the year 2025. The following information has been prepared by the management accountant of the company relating to product PEMA.

Month	January	February	March	April
Sales demand	3,200	3,500	4,200	5,300

Additional information:

1. The selling price per unit will be FRW 3400 in January 2025. The price is expected to increase by 12% every month.

2. The company uses a single type of raw material. Each unit of PEMA requires 50 kilograms @ at FRW 1100.
3. The production of PEMA requires the use of two grades of labour; semi-skilled and unskilled. Each unit of PEMA requires 8 hours of semi-skilled labour and 6 hours of unskilled labour. The cost per hour is FRW 2,300 and FRW 1,500 for semi-skilled and unskilled labour respectively.
4. The closing inventory of the finished products is 20% of the monthly sales demand while the closing inventory of the raw materials is 25% of the following month's requirement. The closing inventories of the finished products and raw materials as at December 2024 are estimated at 420 units and 32,500 Kgs respectively.

Required:

a) Sales budget (monthly) (3 marks)

b) Production budget in units (monthly) (4 marks)

c) Material purchase budget (monthly) (5 marks)

d) Direct labour budget (monthly) (3 marks)

(Total: 20 marks)

PRESENT VALUE TABLE

Present value of FRW1 i.e. $(1+r)^{-n}$

where r = interest rate

n = number of periods until payment

Periods Discount rates (r)

Present value interest factor of FRW1 per period at i% for n periods, PVIF(i,n)

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239

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