INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF RWANDA
Driving Sustainable Performance

CERTIFIED PUBLIC ACCOUNTANT

FOUNDATION LEVEL 2 EXAMINATIONS

F2.1: MANAGEMENT ACCOUNTING

FRIDAY: 7 DECEMBER 2018

INSTRUCTIONS:

1. **Time Allowed: 3 hours 15 minutes** (15 minutes reading and 3 hours writing).
2. This examination has **seven** questions and only **five** questions are to be attempted.
3. Marks allocated to each question are shown at the end of the question.
4. Show all your workings

QUESTION ONE

(a) Explain any **five** roles of Management Accounting to a manufacturing firm. **(5 Marks)**

(b) Bakunda & Sons Clothing (BSC) is a textile manufacturer located in Southern province of Rwanda. BSC processes cotton and silk into fine fabric and then to clothing of different designs which are sold to customers through its distributors. BSC received an offer of making dresses for two contestants of Miss Rwanda 2019. Normally BSC categorizes such special orders as jobs and these jobs have been coded as JBOO1 and JBOO2.

BSC's management accountant is still indifferent on the price that should be quoted for these dresses. The following estimates have been availed:

	JBOO1	**JBOO2**
Direct labour (hours)	2	3
Direct material:	RWF	RWF
Fabric	15,000	20,000
Yarn	3,000	5,000
Sewing threads	500	600
Buttons	200	300
Direct expenses	500	750

Production overheads of RWF 3,000 will be absorbed to jobs on the basis of direct labour hours. Labour rate per hour is RWF 500 and BSC adds a 25% mark-up on cost in pricing its products.

REQUIRED:

Determine the price that should be quoted by BSC for each job. **(10 Marks)**

(c) Ganza Restaurant (GR) employs Nirere and Ngeze as waiters but these employees are complaining of low salaries whereas GR considers its weekly wage bill to be high compared to sales.

In a bid to resolve these challenges, GR is considering remunerating these workers on either the basis of hours worked or number of customers served. The following information has been extracted from GR's last week's records:

	Nirere	Ngenze
Actual hours worked	38	34
Hourly wage rate (RWF)	1,000	1,100
Minutes taken serving customers:		
Local customers	252	720
Foreign customers	648	630

GR's policy requires waiter to take only 12 minutes and 18 minutes when serving a local and foreign customer respectively. GR plans to pay a waiter RWF 600 and RWF 900 for serving a local and foreign customer respectively.

REQUIRED:

Identify the remuneration method that will reduce GR's weekly wage bill. **(5 Marks)**

(Total 20 Marks)

QUESTION TWO

(a) With examples, distinguish between a profit center and an investment center. **(2 Marks)**
(b) Describe any **three** factors considered in designing an effective costing system. **(6 Marks)**

(c) Toto Automobiles Company (TAC) is a car assembling plant located in Nyanza town. The car passes through 3 assembling and 2 service sections before it is released to the market. The following cost information has been extracted from TAC's records for the year ending 30 September, 2018:

		Assembling sections			Service sections	
Details	Total cost	A	B	C	Quality control	Stores
		RWF '000'	RWF '000'	RWF '000'	RWF '000'	RWF '000'
Direct material	10,250	6,000	2,000	1,000	1,250	-
Direct labour	3,075	1,050	1,015	200	400	410
Power & lighting	1,025					
Rent	1,640					
Insurance	2,050					
Depreciation	820					
Canteen costs	1,640					
Total	20,500					

Additional information:

Kilowatts (units)	5,000	1,500	2,000	1,000	50	450
Area (m^2)	15,000	4,000	6,000	2,000	500	2,500
Book value (machinery RWF '000')	50,000	20,000	20,000	5,000	3,000	2,000
No of employees	200	60	80	30	10	20

Service department costs are applied as shown below:

	Assembling sections			Service Sections	
	A	B	C	Quality control	Stores
Quality control	30%	30%	30%	-	10%
Stores	25%	35%	35%	5%	-

REQUIRED:

Using repeated distribution method, reapportion service sections costs. **(12 Marks)**

(Total: 20 Marks)

QUESTION THREE

(a) Tech Designers Limited (TDL) deals in printing and designing of invitation cards for functions such as weddings, 'Gusaba', conferences among others. TDL would like to establish the cost-volume relation between factory overheads and the number of cards produced. The following cost data relates to the last 8 months of 2018:

Month	**Number of cards**	**Factory overheads (RWF)**
January	1,500	36,000
February	1,250	38,000
March	1,280	40,000
April	1,650	42,000
May	2,350	56,050
June	2,400	48,800
July	3,000	59,000
August	2,800	56,000

REQUIRED:

Using the high - low method, determine the factory overheads when 2,000 cards are produced. **(4 Marks)**

(b) Safi Rural Electrification Company (SREC) deals in buying and distribution of solar products. The company buys solar bulbs which are packed in boxes. Each box contains 50 bulbs. Opening inventory was 100 boxes valued at 14,000,000 on 1 January, 2018. The following transactions also occurred during the period of January to March, 2018.

Purchases/ receipt			***Issues/ sales***		
Date	*Quantity*	*Price per box (RWF)*	*Date*	*Quantity*	*Selling price per box (RWF)*
10 January	100	150,000	22 January	300	170,000
20 January	200	155,000			
3 February	300	160,000	10 February	300	180,000
28 February	200	154,000	15 March	200	190,000
13 March	250	153,000			

REQUIRED:

Using the first in first out (FIFO) method, determine the value of:

Closing inventory as at 31 March, 2018. **(8 Marks)**

Cost of goods sold. **(8 Marks)**

Explain the limitations of FIFO method. **(8 Marks)**

(c) Explain any **four** roles of costing in a service sector. **(3 Marks)**

(Total: 20 Marks)

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QUESTION FOUR

(a) Real Tyres Limited (RTL) manufactures and sells tyres of a standard size. RTL sells each tyre at RWF72, 000 which is considered a relatively affordable price by the local customers. The following information relates to a six month's period ended 31 October, 2018.

Production (tyres)	100,000
Sales	80% of production
Production costs:	**RWF '000'**
Direct materials	2,400,000
Direct labour	1,600,000
Production overheads	920,000
Selling and distribution costs:	
Salesmen's commissions	180,000
Advertising	74,000
Administration costs:	
Office salaries	245,700
Utilities	14,500
Rent for office space	72,000
General expenses	23,500

Production overhead costs are 60% variable but all selling, distribution and administration costs are fixed.

REQUIRED:

(i) Prepare for RTL a statement of profit or loss for the period ended 31.October, 2018 using the marginal costing technique**.** **(7 Marks)**

(ii) Explain the impact of absorption and marginal costing techniques on profit. **(3 Marks)**

(b) Explain any **six** weaknesses of using absorption costing as a traditional costing technique. **(6 Marks)**

(c) Explain steps involved in determining product costs using Activity based costing (ABC) technique. **(4 Marks)**

(Total: 20 Marks)

QUESTION FIVE

(a) Kengo Dairy Distributors Ltd (KDDL) is a sole distributor of milk products in the 2 major towns of Kibuye and Gisenyi in West Province. The company is considering dropping the Kibuye route because it is making losses and the price cannot be raised or lowered because of the stiff competition in the dairy market. The following information relates to the year ended 30 September, 2018.

	Kibuye	**Gisenyi**	**Total**
	RWF '000'	**RWF '000'**	**RWF '000'**
Sales	128,500	266,000	388,500
Variable costs	80,000	115,000	195,000
Contribution margin	48,500	151,000	199,500
Fixed costs:			
Direct fixed costs	45,000	101,000	146,000
Common fixed costs	16,000	33,000	49,500
Total fixed costs	61,500	134,000	195,500
Net income	(13,000)	17,000	4,000

Direct fixed costs of RWF 45,000,000 would be avoided if Kibuye route is dropped. Kibuye route cannot be substituted and investment in assets cannot be reduced if this route is dropped.

REQUIRED:

(i) With relevant computations, assess the impact of dropping Kibuye route on the overall profitability of KDDL. **(6 Marks)**

(ii) Suppose all the fixed costs are avoidable, state with the help of necessary computations, whether the advice in a (i) above would still stand. **(4 Marks)**

(b) Explain factors an organisation needs to consider in a 'make or buy' decision. **(3 Marks)**

(c) Premium Distillers Limited (PDL) specializes in production of local brew that is sold on the domestic market. The company has budgeted to produce 5,000,000 bottles of local brew in the financial year ending 31 December, 2019. PDL uses a number of ingredients to improve the concentration of the local brew which includes molasses which are purchased in batches of 1,000 kilograms each from Ruhiire Sugar Factory (RSF). PDL's management resolved to implement the economic order quantity (EOQ) technique as measure to reduce costs arising from inventory mismanagement.

RSF offers purchase discounts for bulky purchases and PDL is considering taking up this offer as a cost reduction strategy. Below is a schedule of RSF's offered purchase discounts:

Order quantity (batches)	Discount allowed
0 – 9	Nil
10 – 19	5%
Above 19	10%

Producing a bottle of local brew requires 0.05 kg of molasses which are purchased at RWF 1,000 per kg. Normally PDL spends RWF 50,000 to place an order for molasses and holding 1 kg of molasses costs RWF 125 plus 12% of the purchase cost.

REQUIRED:

Determine the number of batches of molasses that PDL should order in bulk so as to minimize inventory costs. **(7 Marks)**

(Total: 20 Marks)

QUESTION SIX

(a) Distinguish between the following budgeting terms:

(i) Incremental budgeting and activity-based budgeting. **(2 Marks)**

(ii) Rolling budgets and master budgets. **(2 Marks)**

(iii) Flexed budgets and fixed budgets. **(2 Marks)**

(b) Rugaasi Poultry Feeds Limited (RPFL) deals in manufacture and supply of poultry feeds which are packed and distributed in standard packets of 1 kg each. RPFL's estimated sales demand for the next period starting 1 January, 2019 is as follows:

Month	January	February	March	April	May	June
Sales (kg)	40,000	41,200	42,400	43,700	44,500	45,000

The following additional information is also relevant:

1. Selling price per kg of finished poultry feeds RWF 500.
2. 40% of the total sales are expected to be cash and the balance shall constitute credit sales. 60% of the credit sales are expected to be collected in the month following the sale while 35% will be collected two months later. RPFL estimates that 5% shall constitute bad debts hence deemed uncollectable.
3. Production is estimated at 110% of the month's sales units and the standard cost of each unit of output is expected to be as follows.

Input material	Quantities (kg)	Price per kg (RWF)	Total cost (RWF)
Maize bran	0.7	100	70
Silver fish	0.2	750	150
Sunflower	0.1	250	25
Total cost			**245**

4. 80% of purchased input material shall be on cash term basis and the balance shall be paid the following month.
5. RPFL expects to have a total of 12 employees who shall be paid RWF 250,000 per month. However, the manager in addition to his monthly salary, shall earn a monthly bonus equivalent to 5% of his annual basic salary.
6. To improve sales, the company will acquire a second-hand delivery van worth RWF 11,500,000 to be paid in 2 consecutive equal instalments effective February 2019. The van will be depreciated at 25% per annum effective April 2019.
7. RPFL intends to open up new outlets in the western province and as a result, the company intends to acquire a one year 25% loan worth RWF 12,000,000 from Ruzoora Cooperative in January, 2019 and the monthly loan instalment payments are expected to be RWF 1,250,000 effective February, 2019.

REQUIRED:

Prepare RPFL's cash budget for the period of January to June, 2019.

(14 Marks)
(Total: 20 Marks)

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QUESTION SEVEN

a) Explain any **five** roles of setting standard costs in an organization. **(5 Marks)**

b) Comfort Beds Limited (CBL) manufactures bed covers and blankets which it supplies to both domestic and foreign markets. It uses a just-in-time system and holds no inventories. In October 2018, CBL budgeted to produce 15,000 bed covers and 13,000 blankets and the standard cost requirements of producing a unit of bed cover and blanket are provided below.

Details	**Bed covers**	**Blankets**
Material (Cotton)	2.5 metres at RWF 3,750 per metre	2 metres at RWF 3,750 per metre
Direct Labour	2 hours at RWF 2,150 per hour	1.5 hours at RWF 2,200 per hour
Production overheads	30% of direct labour	10% of material cost

The standard idle time for producing each unit of bed cover and blanket is included in the respectively standard direct labour cost above at 5% of each respectively standard direct labour cost. CBL's budgeted selling price of each unit of a bed cover is RWF 17,500 and RWF 25,000 for a blanket.

Actual Production/Sales levels for bed covers and blankets for October, 2018 were 11,000 and 10,000 respectively. The actual cost of cotton in October, 2018 was RWF 4,000 per metre. 27,000 metres of cotton were used to make the bed covers while 21,500 metres were used to make the blankets.

The actual time paid for in October amounted to 22,500 hours at RWF 2,000 per hour and 14,700 hours at RWF 2,250 per hour for bed covers and blankets respectively of which 10% was idle time. The actual selling prices for each unit of bed covers and blankets were RWF 18,000 and RWF 23,500 respectively.

REQUIRED:

Determine the following variances:

(i) sales price variance **(2 Marks)**

(ii) material Price variance **(2 Marks)**

(iii) material Usage variance **(2 Marks)**

(iv) labour rate variance **(2 Marks)**

(v) labour Efficiency variance **(2 Marks)**

(vi) labour Idle time variance **(2 Marks)**

(c) Explain any three causes of cost variances in organisations **(3 Marks)**

(Total: 20 Marks)