INTERNATIONAL UNIVERSITY OF EAST AFRICA
'Learning to Succeed'

FACULTY OF BUSINESS MANAGEMENT

END OF SEMESTER EXAMINATIONS - DECEMBER 2025

PROGRAMME: BBA
YEAR/SEM: YEAR 3/SEMESTER 1
COURSE CODE: ACC 3101
NAME: MANAGEMENT ACCOUNTING

DATE:
TIME:

INSTRUCTIONS TO CANDIDATES:

SECTION A

COMPULSORY QUESTION

Question 1:

Dust Free Publications (DFP) produces a wide range of newspa pers at two sites; Kampala and Mbarara and each site produce s a maximum of three newspapers. The sales department is re sponsible for sales and distribution and has signed a number of sales contracts with major clients who send in their orders f or the period. Also direct sales representatives sell the rest to ensure that all that is produced is sold. DFP currently compu tes newspaper costs using absorption costing and overheads are absorbed on a machine hour basis. As a measure to impr ove newspaper profitability, the directors have decided to intr oduce activity- based costing (ABC) system. They believe ABC will help to identify and divest poor performing newspapers. Site managers have been tasked to obtain and analyse the rel evant data for their sites.

The head of sales department opposed the introduction of the ABC system arguing that it is more expensive to administer a nd leaves out many practical problems like common costs unr esolved.

DFP's sales volume for January, 2015 was 35,050 newspapers and it had a constant sales growth rate of 10% per month. T he total sales volume comprises of 40% Sunset, 40% Gospel a nd 20% Breeze newspapers.

The following are extracts from the financial records of the Mbarara site for
Dece
mber,
2015.

Costs and revenues pe
r newspaper:

	Sunset Shs	Gospel Shs	Breeze Shs
Selling price	2,000	2,500	2,200
Direct materials	350	450	400
Direct labour	280	350	300
Direct overheads	800	1,000	800
Total cost	1,430	1,800	1,500
Cost drivers	Sunset	Gospel	Breeze
Labour hours per newspaper	0.10	0.18	0.15
Production runs	216	216	108
Number of deliver ies of materials	55	60	30

Budgeted fixed overheads:

Shs '000'

Indirect labour costs	2,600
Set up costs	4,560
Material handling costs	2,750

Labour hours are limited to 11,6
50 per month.

DFP plans to start manufacturing and selling various radi o sets and radio accessories. The newly recruited productio n engineer, Mr. Kasozi Kim proposes to include digital radios on the planned product range in order to benefit from the fa st growing technology. Kasozi argues that digital radios produ ce a better sound than the ordinary radios and have a large n umber of potential additional features like station scanning a nd one touch tuning.

A radio is produced by production workers assembling a varie ty of components. DFP plans to absorb production overheads i nto production costs on an assembly labour hour basis. Howe ver Kasozi proposes that DFP should consider a target costing approach for the digital radios.

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ed:

(a) Using the ABC system, compute the profit for each prod uct for December,
2015.

(18 marks)

(b) Compute the total profit if DFP is to work within the a vailable machine hours.

(4 marks)

(c) Suppose overtime hours are available at a cost of 10 0% increment in direct labour per newspaper, advise D

FP on whether it should introduce overtime working.

(d) Prepare a memo to DFP directors:

(4 marks)

(i) explaining how ABC system can be applied in DFP. (**4** marks**)** (ii) describing target costing and its pr ocess. (**4** marks**)** (iii) outlining steps that should be taken to close an identified cost gap in target costing process.

(6 marks) (Total 40 mark s)

Question 2:

Mumpe (U) ltd prepares the budgets at the beginning of every year. At the beginning of financial year 1st April 2018, you got the data from its records.

MUMPE (U) ltd

SOFP as at 31/3/2018		
	UGX '000	UGX '000

Non-Current Assets			
Plant & equipment (at cost)		75,000	
Less: Accumulated depreciation		25,000	50,000
Current Assets:			
Inventories: /R/M/ 600m @ 1,000/=		600	
	Finished goods 480 units @ 55,000	26,400	
		27,000	
Debtors		7,500	
Cash		17,500	52,000
Total Assets			102,000
Equity & liabilities			
Share capital			30,000
Retained earnings			69,500
Owner’s equity			99,500

Current Liabilities:			
Creditors			2,500
Capital employed			102,000

Basing on the above SOFP, the master budget for the financial year commencing on 1.04.2018 has to be prepared with the following additional information: -

a) The chief executive officer in his communication in budget guidelines hinted on the following:-

1. Increase selling price per unit from the current 65,000/- per unit to 70,000/- per unit.
2. Allocate 3% of sales to research & development (R&D) in order to keep a breast with technology and contain the competition.
3. Each head of department is to submit his/her budget to the Budget Officer within one week.

b) The marketing officer has come up with the following estimates of sales.

Quarter	Est Sales (Units)
1st	2,500
2nd	2,800

3rd	1,700
4th	3,000

1st Quarter next financial year

He has indicated that the selling price of 70,000/- will be acceptable to the market. But advertising expenditure has to be increased to 5% of sales.

c) Production manager has given the following unit costs for manufacturing a unit of the product.

	UGX
Raw material (10 meters @ 1,000/=)	10,000
Direct labour (1.5 hrs @ 20,000/=)	30,000
Variable overhead (50% of direct labour)	15,000
Total variable cost	55,000

Fixed manufacturing overhead per quarter 2,400,000/=

The fixed manufacturing overhead cost above includes depreciation on plant and equipment of UGX 1,500,000 per quarter.

Production manager advised that it's better to keep closing inventory of raw materials which is equal to 10% of next quarter's requirements because suppliers are erratic.

Closing inventory of raw materials and finished goods in quarter three will be the same figure as in quarter four.

From experience, he also advises to hold finished goods inventory worth 20% of expected sales of the next quarter.

d) The purchasing officer expects raw-materials to cost 1,000/= per unit in each quarter.

e) Financial controller advises the organization to tighten up on the collection of debts:

"We should plan for 70% of sales being collected in quarter of sales and the balance being collected in the next quarter," he said.

He further advises that raw materials purchases should be paid 60% in the quarter of purchase and 40% in the next quarter.

f) Administrative overheads are expected to cost 2,000,000/= per quarter.

g) All other costs are expected to be paid in the quarter in which they are incurred.

Required:

As the company's accountant, you're required to come up with a master budget i.e. including sales budget, production budget, raw material utilization and purchases budget, direct labour budget,

manufacturing overheads budget, selling and administrative overheads budget, cash budget, budgeted year Income statement and budgeted SOFP. (40 marks)

SECTION B

Attempt any Three Questions From Section B

Question 1:

Product P passes through three distinct processes to completion. In December 2022, the cost of production were as follows:-

Cost Item	Processes			Totals (shs)
	I	II	III	
Additional Materials	2,000	3,020	3,462	8,432
Direct Labour	3,000	4,000	5,000	12,000
Direct expenses	500	226	-	726

Production over heads are 6,000/=

1,000 units at 5/= were issued as input to process I, Out puts of each process were as follows:

Process I	920 Units
Process II	870 Units
Process III	800 Units

Normal Loss per Process were as follows;

Process I	10%
Process II	5%
Process III	10%

The loss in each process represented scrap which could be sold to a trader at a value as follows:

Process I shs. 30 per unit

Process II shs. 50 per unit

Process III shs. 60 per unit

There was no stock of materials of Work in progress in any department of production at the beginning and end of the period. Production overheads are absorbed in each process on the basis of 50% of the cost of direct labour.

Required:

Prepare process I, II and III accounts and abnormal Gain account. *[20 marks]*

Question 2:

a) ABC Ltd budgets to make 25,000 standard units of the product in four (4) hours each during the budget period of 100,000 hours. The actual out put during the period was 27,000 units which took 120,000 hours to make and finish. You are required to:

i) Calculate the efficiency ratio, *[2 marks]*

ii) Compute Capacity ratio, *[2 marks]*

iii) compute Production volume ratio. *[3 marks]*

Interpret the performance measures for each of the above ratios

b) Outline the features of effective store keeping in regards to materials management. ***[3 marks]***

c) Data has been provided by HR Department as follows:

- Number of workers on the payroll at the beginning of the year 1,800

- Number of workers on the payroll at the end of the year
  2,200

Required: calculate the following labour turnover rate using:

i) Separation method ***[2 marks]***

ii) Replacement method, and ***[2 marks]***

iii) Flux method. ***[2 marks]***

d) XYZ Ltd has a normal working week running from Monday to Friday for 40 hours. The basic rate of pay per hour is 20,000/=. Overtime worked during the normal week is paid at time and half and overtime on weekend is paid at two times. Okello is an employee of this company, during the week ended 20th July 2024, he worked 45hours during the normal working week and 12 hours at the weekend. Calculate Okello's Gross pay in away which can aid decision making ***[5 marks]***

e) Describe the role of management accounting in the planning and control of production activities**.** ***[4 marks]***

Question 3:

a) Define the CVP model and explain any five assumptions on which this model is based. ***[5 marks]***

b) With the help of a graph' explain the relationship between cost, volume of production and profitability of the organizations according to the economist, clearly showing the break-even-points. ***[4 marks]***

c) Suzen bag Company Limited makes and sells a single product "the

Bag", which has a variable production cost of 10,000 shs per bag and a variable selling cost of 4,000shs per bag. It sells the bag for 25,000 shs. Annual fixed production costs are 350,000,000, annual fixed administration costs are 110,000,000 and annual fixed selling costs are 200,000,000shs

Required;

i. Compute the Variable cost ratio **[3 marks]**
ii. How many bags should Suzen bag company produce and sale in order to break even **[3 marks]**
iii. what could be the BEP in terms of sales revenue **[5 marks]**
iv. Calculate the volume of sales and the sales revenue required to achieve an annual profit of 440,000,000shs **[5 marks]**

Question 4:

a) Activity Based Costing is a new costing system that has been designed and developed by management accounting gurus to overcome the limitations of traditional costing system of absorbing overheads to products and cost units in manufacturing entities. Discuss the advantages of ABC system over the traditional costing system. [5 Marks]

b) Explain the steps in implementing Activity Based Costing in an organisation that you are familiar with. [3 Marks]

c) Kamu planned to produce product KT which has to be processed through three cost centres A, B and C. The following budgeted data have been obtained from the books of Kamu.

Product	A	B	C

Materials cost per unit (UGX)	2,000	4,000	3,000
Direct labour hours per unit	2	5	1
Rate per direct labour hour(UGX)	1,500	2,000	3,000
Number of inspections to be made	5	3	2
Number of machine setups	7	8	10
Number of orders made	12	20	8
Number of requisitions to be made	7	5	8

Kamu had budgeted to produce 5,000 units of product KT. Kamu has budgeted to incur the following overhead costs:

Inspection	4,000.000/=
Setup costs	8,000,000/=
Ordering costs	10,000,000/=
Material storage costs	12,000,000/=
Total	34,000,000/=

Required: Using appropriate cost drivers apply Activity based costing system to determine:

i)

The total cost of producing product KT *[8 marks]*

ii) The unit cost of product KT *[2 marks]*

iii) The selling price of product KT assuming the company targets to get 25% profit on cost. *[4 marks]*

iv) Determine the total number of hours that will be required by the company to realize its budgeted output. *[3 marks]*

Question 5:

a) As a Manager' what would you give as the difference between standard Costing and Budgetary control. ***[5 marks]***

b) State and explain five Advantages of Standard Costing and variance Analysis. ***[5 marks]***

c) Chass Company planned to produce one unit of product M by using standard mixes of raw materials X and Y in the following proportions an prices.

Raw materials.	Standard
X	80 units at 600/= each.
Y	120 units at 500/= each
Total	**200 units**

The actual results are as indicated below:

Actual output	2000 kgs
Raw-material	Standard
X	160,000 units at 800/= each
Y	180,000 units at 650/= each
Total	**340,000 units**

Required: Calculate

i) Material price variance ***[4 marks]***

ii) Material Usage variance ***[4 marks]***

d) Give reasons why an organization would experience Favorable Material price Variance and Adverse Material Usage Variance. ***[7 marks]***

Question 6:

a) Budgeting is an essential control tool in all organizations and its key in Measuring the performance of Managers'. Explain all the pre-requisites for successful budgeting. ***[3 marks]***

b) What would you consider as the five main Advantages of Budgeting? ***[2 marks]***

c) Data has been received from the records of Bridge Limited next six months ending 1st July 2023.

	Jan	Feb	March	April	May	June
Budgeted sales units	6,000	6,200	6,500	7,000	6,800	6,700

Closing stock units	2,000	2,500	2,300	1,600	2,200	2,400

The company anticipated to sell each unit at 42,000/= for the month of January and February, then selling price will increase by 20% for the remaining months. The company had closing stock of finished goods amounting to 1,000 units as at 31st December 2022 . Bridge Company planned to reserve closing stock of finished goods at the end of month and are part of the produced units. Information got from the production manager indicates that each unit will require the following composition of costs to be complete.

Cost element	unit cost in shillings
Raw-materials 7 litres @ 3,000/= each	21,000
Labour costs 10 hours @ 1,000/= each	10,000
Variable overhead costs 20% of labour costs	2,000
Total	33,000

The stores manager states that the company's policy is to reserve raw-materials equivalent to 5% of the next month's requirements because the suppliers are unreliable. Closing inventory of raw materials in June will be the same figure as in May. The raw-materials are purchased from the suppliers at 19,500/= per litre.

Required: Prepare the following functional budgets

a) Sales budget ***[3 marks]***
b) Production budget ***[3 marks]***
c) Raw-materials utilization ***[5 marks]***
d) Raw-Material Purchase budget ***[4 marks]***
e) Labour cost budget ***[5 marks]***

Question 7:

a) Explain what a relevant cost is? And identify the key characteristics of a relevant cost **(5 marks)**

b) Laurent coffee shop makes 3 products, Cappuccino, Americano, and Espresso. The following information relates to unit costs, hours and selling price has been provided:

	Cappuccino [C]	Americano [A]	Espresso [E]
Machine hours per unit	10	12	14
Direct materials @500/= per kg	UGX 7,000 (14kgs)	UGX 6,000 (12kgs)	UGX 5,000 (10kgs)
Direct labour @750/= per HR	9,000 (12 Hrs)	6,000 (8 hrs)	3,000 (4 hrs)
Variable overheads	3,000	3,000	3,000
Variable costs	19,000	15,000	11,000
Selling price	25,000	20,000	15,000
Contribution	6,000	5,000	4,000
Demand is as follows	4000 cups	6000 cups	6000 cups

As a matter of company policy it is decided to produce a minimum of 1000 units of product E. the supply of materials in the period is unlimited, but machine hours are limited to 200,000 hours and direct labour hours to 50,000.

Required;

Compute the production levels that should be adopted for the three products in order to maximise profitability. **(20 marks)**

Question 8:

a) Mugume intends to sell his Mitusbishi Pajero which he bought in 2008 at 7,000,000/= and has so far got offers from two customers. First customer is offering to pay UGX 2,500,000 at that state. If he accepts that offer Mugume will only pay commission of UGX 100,000 to the brokers. However, the second customer is advising Mugume to Panel-beat the vehicle before he sells it and is willing to pay UGX 3,500,000 cash.
Mugume has realized that if the panel-beating is to be done the following costs will be incurred;

Spraying the vehicle	120,000/=
Labour costs	160,000/=
Spares	380,000/=
Tyres	600,000/=

Mugume will not pay commission to the brokers since the vehicle will not be parked in their yard.

Required: Between the first and Second offer, which one should Mugume Accept and why? ***[10 marks]***

b) Mugimu produces a single product and has budgeted for the production of 200,000 units during the next quarter. The unit cost estimates for the quarter are as follows:

	Cost per unit (UGX)
Direct materials	4.5
Direct labour	8.0
Variable overheads	3.5
Fixed overheads	4.0
Total	20.0

The company has received orders for 160,000 units during the coming period at the generally accepted market price of UGX 25 per unit. It appears unlikely that orders will be received for the remaining 40,000 units at a selling price of UGX 25 per unit, but Mr.Ojok

is prepared to purchase them at a selling price of UGX 17 per unit. Mugimu normally employs workers who are permanently employed.

Required:

i) Should the company accept Mr. Ojok's offer? ***[10 marks]***

ii) What qualitative factors should be considered before the decision is taken.

[5 marks]

Question 9:

a) Explain what a relevant cost is? And identify the key characteristics of a relevant cost **(5 marks)**

b) Laurent coffee shop makes 3 products, Cappuccino, Americano, and Espresso. The following information relates to unit costs, hours and selling price has been provided:

	Cappuccino [C]	Americano [A]	Espresso [E]
Machine hours per unit	10	12	14
Direct materials @500/= per kg	UGX 7,000 (14kgs)	UGX 6,000 (12kgs)	UGX 5,000 (10kgs)
Direct labour @750/= per HR	9,000 (12 Hrs)	6,000 (8 hrs)	3,000 (4 hrs)
Variable overheads	3,000	3,000	3,000
Variable costs	19,000	15,000	11,000

Selling price	25,000	20,000	15,000
Contribution Demand is as follows	6,000 4000 cups	5,000 6000 cups	4,000 6000 cups

As a matter of company policy it is decided to produce a minimum of 1000 units of product E. the supply of materials in the period is unlimited, but machine hours are limited to 200,000 hours and direct labour hours to 50,000.

Required;

Compute the production levels that should be adopted for the three products in order to maximise profitability. **(20 marks)**

Question 10:

a) In a meeting, the finance officer of Tiko Company suggested that the organisation needs both a cost and management accountant. Other member in the meeting strongly objected to the suggestion claiming that there is no difference in what the two will handle when hired. You have been called to the meeting as a technical person to advise. Please do so. *[5 marks].*

b) With clear examples, explain any five differences between management accounting and financial accounting. *[5 marks].*

c) Distinguish between Zero Based Budgeting and Incremental Budgeting' what do you consider as the advantages of incremental Budgeting? ***[5 marks]***

d) Various costing Methods are applied in businesses with an aim of promoting efficiency' state all factors considered by managers when choosing a costing method. ***[5 marks]***

e) What are the characteristics of Process costing and when is its applicability most ideal? ***[3 marks]***

f) Explain the meaning of abnormal loss and state all the possible causes of abnormal losses in Organizations. ***[2 marks]***

Question 11:

a) Activity Based Costing is a new costing system that has been designed and developed by management accounting gurus to overcome the limitations of traditional costing system of absorbing overheads to products and cost units in manufacturing entities. Discuss the advantages of ABC system over the traditional costing system. **[6 Marks]**

b) Explain the steps in implementing Activity Based Costing in an organisation that you are familiar with. **[6 Marks]**

c) Buffalo Corporation manufactures two products, Clocks and Watches. Overhead costs are currently allocated using direct labour hours, but the controller has recommended an activity based costing system using the following data:

Cost Activity Relationships:

Activity	Cost Driver
Production setup	No. of setups
Material Handling & Requisition	No. of requisitions
Packaging	Units Packed

Cost and Activity data

Production setup costs	Shs 240,000,000
Material Handling & Requisition costs	Shs 60,000,000
Packaging costs	Shs 120,000,000
Total overheads	Shs 420,000,000

Details relating to the two products

	Clocks	Watches
Number of setups	20	30
Material Handling and Requisition	36	72
Units packed	90,000	150,000
Direct labour hours (total hours 280,000)	70,000	210,000

Required:

Calculate the overhead rate for each product using;

i. The traditional costing method [4 marks]

ii. Activity based costing [7 marks]

iii. Comment on your answers above [2 marks]

Question 12:

a) M/S Tubes are manufacturers of tubes. The following are the details of their operations during 2012.

Ordering costs	100/= per order
Inventory carrying costs [covers per annum]	2% per cost of the tube
Cost of the tube	500/= per tube
Normal usage	100 tubes per week
Minimum usage	50 tubes per week
Maximum usage	200 tubes per week
Lead time	6-8 weeks

Assume a year of 52 weeks.

Required: Compute the following from the above data:

i) Economic Order Quantity [EQO] ***[2 marks]***

ii) Re-order level
[2marks]

iii) Minimum stock level
[2marks]

iv) Maximum stock level ***[2 marks]***

v) Number of orders to be made in a year ***[2 marks]***

vi) Total cost of managing stock ***[5 marks]***

b) ABC Ltd budgets to make 25,000 standard units of product in four (4) hours each during the budget period of 100,000 hours. The actual out put during the period was 27,000 units which took 120,000 hours to make and finish.

Required: i) Calculate the efficiency ratio, ***[2 marks]***

ii) Capacity ratio, ***[2 marks]***

iii) Production volume ratio. ***[2 marks]***

c) Kent Limited had a staff level of 800 employees at the beginning of the year and 1,200 employees at the end of the year. During the year, 500 employees left the organization and 300 were immediately replaced.
Required: Calculate the Replacement Labour Turnover rate. ***[4 marks]***