

510/3

Physics Practical

Paper 3

July/Aug 2024

3 Hours: 15 Min



**MEBU EXAMINATIONS CONSULT**  
**UGANDA ADVANCED CERTIFICATE OF EDUCATION**  
**PHYSICS PRACTICAL**  
**CONFIDENTIAL**

- Great care should be taken that the information given below does not reach the candidates either directly or indirectly.
- The description of the apparatus specified below does not necessarily correspond with the description in the question paper
- Candidates are not allowed to use reference books
- Each candidate should be provided with the following;

**Experiment 1: Mechanics**

1 Retort stand with a clamp.

1 Spiral spring with a pointer attached.

6 Slotted masses, each of 100 g.

1 Meter rule.

1 Stop clock or Stop watch.

**Experiment 2: Light**

1 Complete mathematical set.

1 Glass block (rectangular measuring 11 x 6 x 2 cm).

1 White sheet of paper.

1 Soft board.

4 Drawing pins.

4 Optical pins.

**Experiment 3: Electricity**

1 Ammeter (0 - 1.0 A).

1 Voltmeter (0 – 3.0 V).

1 Constantan wire (SWG 28) reel 50 GM measuring 1m labeled Q.

1 Cello tape.

2 Switches.

1 Slide Wire Potentiometer.

1 Single cell holder.

1 Double cell holder.

1 Center zero galvanometer 30-0-30.

1 Jockey.

Connecting wires.

**END**

P525/3 Instr. Sch

CHEMISTRY PRACTICAL

July/August 2024

3 Hours: 15 Min



**MEBU EXAMINATIONS CONSULT**  
**UGANDA ADVANCED CERTIFICATE OF EDUCATION**  
**CHEMISTRY PRACTICAL INSTRUCTIONS**  
**P525/3. INSTR. SCH.**

**CONFIDENTIAL**

Great care should be taken that the information given below does not reach the candidates either directly or indirectly.

**INSTRUCTIONS FOR PREPARING CHEMICALS AND APPARATUS**

**NB.** The head teacher **must** ensure that the teacher responsible for preparing the apparatus hands in his/her results properly sealed in a separate envelope and firmly fastened (attached) to the candidates' script envelope.

1. The descriptions of the reagents and chemicals specified below does not necessarily correspond with descriptions in the question paper. Candidates must not be informed of the differences.
2. Candidates are not allowed to use reference books (i.e. text books, booklets on qualitative analysis, etc.) during the examination.
3. In addition to the fittings, apparatus and substances ordinarily contained in the chemistry laboratory, each candidate will require.

**Each candidate should be provided with;**

- 1 Pipette of 25ml capacity.
- 1 Measuring cylinder of 50ml or 100ml capacity.
- 1 Volumetric flask (250cm<sup>3</sup>)
- 1 Thermometer (-10-100°C)
- 2 Conical flasks

2 Empty beakers

1 Burette ( $50\text{cm}^3$ )

8 Test tubes in a rack

$200\text{cm}^3$  of 2.0M sulphuric acid

$100\text{cm}^3$  of FA1

$100\text{cm}^3$  of FA2

6ml of R.

1.2g of A (sodium oxalate)

3.0g of Y

**Easy access to:**

- ✓ Heat source.
- ✓ Weighing balance reading, to at least one decimal point.
- ✓ Common reagents for identifying gases, cations, anions and organic compounds.

FA1 is prepared by dissolving 3.10g of potassium manganate (VII) in water one litre of solution.

FA2 is prepared by dissolving 19.6g of diammonium iron (II) sulphate-6-water, in water to make one litre.

Y is Hydrated  $\text{MgCl}_2 + \text{CuCO}_3$  in a ratio of 2:1

R is Propan-2-ol

**END**

**P530/3 Inst.sch.**

**BIOLOGY**

**PRACTICAL INSTRUCTIONS**

**AUGUST 2024**

**3 Hours: 15 Min**



## **MEBU EXAMINATIONS CONSULT**

**UGANDA ADVANCED CERTIFICATE OF EDUCATION**

**MOCK EXAMINATIONS 2024**

**BIOLOGY**

**P530/3 Inst.sch.**

**PRACTICAL INSTRUCTIONS**

### **CONFIDENTIAL**

**This information is given only to facilitate preparation of the examination.**

**Great care should be taken that the information given below does not reach the candidates either directly or indirectly.**

### **INSTRUCTIONS FOR PREPARING SPECIMENS AND APPARATUS.**

The teacher responsible for preparing specimens must ensure that candidates are provided with correct specimens and other materials as specified in these instructions. Specimens and solutions which have been assigned codes should be presented to candidates using those codes only and not any other identifiers.

**Each candidate should be provided with;**

1. A freshly killed rat labelled **W**.
2. Solution **T** which is composed of **2%** starch and glucose.
3. Solution **N** which is composed of **2%** egg albumen.
4. **0.1M NaHCO<sub>3</sub>** solution labelled **R**.
5. **0.1M HCl** solution labelled **G**.
6. Morning glory labelled **E1**.
7. Crotonia labelled **E2**.
8. Part of the maize inflorescence labelled **E3**.
9. Hibiscus labelled **E4**

10.Panicum maximum Labelled **E5**.

11.Distilled water.

**Access to;**

12.Reagents for food tests.

13.Hand lens.

14.Beakers.

15.Source of heat.

16.Boiling tubes.

17.Test tube rack.

18.Droppers.

19.Stop watch/clock.

20.Mortar and pestle.

21.Razor blade.

**END**

515/3

AGRICULTURE CONFIDENTIAL

Mock exams

August, 2024.

2 Hours



# **MEBU EXAMINATIONS CONSULT**

**UGANDA ADVANCED CERTIFICATE OF EDUCATION**

**PRINCIPLES AND PRACTICES OF AGRICULTURE**

**CONFIDENTIAL**

## **INSTRUCTIONS:**

This information is only given to facilitate preparation of examination.

Great care should be taken that the information given below does not reach the candidates either directly or indirectly.

## **INSTRUCTIONS FOR PREPARING SPECIMENS AND APPARATUS:**

- The teacher responsible for preparing specimens must ensure that candidates are provided with correct specimens and other materials as specified in these instructions.
- Specimens and solutions which have been assigned codes should be presented to candidates using those codes only and not any other identity.
- A candidate is to be provided with each of the specimens. Where a specimen is to be used by more than one candidate, the teacher preparing specimens must devise a suitable system to enable the candidates to take turns at each specimen.

K1 - Pliers

K2 - Hole Digger

K3 - Claw hammer

K4 - King Post

K5 - Tape Measure

K6 - Wire Strainer.

**P**-Pure Milk.

**Q**-Milk diluted with water.

**R**-Ascorbic Acid.

T1 - Dry Maize Stalk

T2 - top soil

T3 - banana peelings

T4 - Wood Ash.

S1 - 30 grams of table salt

S2 - 10 grams of salt.

S3 - Pure water

L1 - 50 cm of dry Sand soil

L2 - 50 cm of dry Clay soil.

3 Measuring Cylinders

4 filter papers

Stop clock

2 funnels

Water source.

**END**



**S850/1**  
**Subsidiary Information**  
**and Communications**  
**Technology (ICT)**  
**(Theory)**  
**Paper 1**  
**August 2024**  
**2Hrs: 30 Min**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**INFORMATION AND COMMUNICATIONS TECHNOLOGY**

**SUBSIDIARY ICT**

**PAPER I**

**Time: 2 Hrs: 30 Min**

## **INSTRUCTIONS TO CANDIDATES**

Attempt **ALL** questions in this paper

The maximum time allocated to this paper is 2 hours 30 Minutes

The paper is made up of 20 equally weighted questions.

Write in dark blue or black pen in the spaces provided on the Question Paper. All answers should be written in the spaces provided.

No additional materials (answer sheets) are required.

The number of marks is given in brackets ( ) at the end of each question or part question.

The maximum mark for the paper is 100%

1(a) Differentiate between RAM and ROM. (02 marks)

.....

.....

.....

(b).Give Atleast two (2) storage devices used. (01 mark)

.....

.....

(c).Which specifications do you consider when choosing storage media? (02 marks)

.....

.....

2(a).Mention atleast three security measures that should be employed to ensure the safety of a computer laboratory. (03 marks)

.....

.....

.....

.....

.....

.....

(b).Define the term computer maintenance and suggest atleast one way how a computer can be maintained in a good working condition. (02 marks)

.....

.....

.....

3(a).Define the term search engine as applied to internet. (01 mark)

.....

.....

(b).Outline atleast two internet browsers that you know. (02 marks)

.....  
.....  
(c).Mention atleast two internet service providers. (02 marks)

.....  
.....  
4(a).What is artificial intelligence? (02 marks)

.....  
.....  
(b).Mention any three application areas where artificial intelligence is applied. (03 marks)

.....  
.....  
(5) (a) Distinguish between assemblers and compilers as used in programming language. (03 marks)

.....  
.....  
(b).Outline any two programming languages. (02 marks)

.....  
.....  
6(a).Define the term e-mail communication (2 mark)

.....  
.....  
(b).Explain the following components of an email (02 marks)

(i) Subject

.....  
.....  
(ii).Compose

.....

.....

(b).Give **one** example of hypertext markup language (html) in a URL? (1 mark)

.....

7(a).Define the term **data backup**. (01 mark)

.....

.....

b).Outline the **three** forms of data backup techniques. (03 marks)

.....

.....

.....

.....

.....

(c).Mention any two data backup media. (01 mark)

.....

.....

(8)(a). Define the term **computer ethics**. (01 marks)

.....

.....

(b). State **two** unethical practices by computer user. (02 marks)

.....

.....

.....

.....

(c). Write short notes on the following terms. (02 marks each)

(i).Copyright.

.....

.....

(ii). Intellectual property.

.....

.....

9(a). Define the following terms as used in system analysis and design.

(i).System (01 mark)

.....

.....

(ii).Systems Development Life Cycle. (02 marks)

.....

.....

(b). Identify **atleast two** ICT related employment opportunities in Uganda today. (02 marks)

.....

.....

.....

.....

10(a).Define the term word processor. (01 marks)

.....

.....

(b).Mention atleast two word processing software on market today. (02 marks)

.....

.....

(c). Give any **two** advantages of using electronic processors over ordinary type writers.

(02 marks)

.....

.....

11(a). Define the term computer security risks. (01 marks)

.....

.....

(b). Outline any two examples of computer security risks. (02 marks)

.....

.....

(c).give some guidelines how you can prevent hardware theft. (02 marks)

.....

.....

(12)(a).define the following terms as applied in booting.

(i).Cold boot (01 marks)

.....

.....  
(ii).Warm boot (01 marks)  
.....  
.....

(b).State three conditions under which a user may restart a computer. (03 marks)  
.....  
.....  
.....

13(a). Distinguish between **Physical topology** and **Logical topology**. (02 marks)  
.....  
.....  
.....

(b).mention atleast three examples of physical topology. (03 marks)  
.....  
.....

.....  
(14)(a). Use the phrase below to answer questions that follow. (05 marks)

**LOCAL DISC D: //BYANSI UMAN/MID TERM/CHEM/PAPER 2.pdf**

(i).State the suitable name for the above phrase:  
.....

(ii). File name:.....

(iii). File Extension:.....

(iv). File type:.....

(v). Folder in which the file is stored:  
.....

15(a).Define the term “**Green Computing**”. (01 marks)  
.....  
.....

(b). State **two** goals of Green Computing. (02 marks)  
.....  
.....

(c). Outline **four** green computing practices. (02 marks)  
.....  
.....

(16(a).Define the term software suite. (02 marks)  
.....  
.....

(i) Give one example of a **Software Suite**. (01 mark)  
.....  
.....

(ii) List any **two** components of your example in (b) (i) above. (02 marks)

(17)(a).The table below shows results from a school extracted from a database application. Use it to answer questions (a) to (c)

Field Name	Data Type	Description (Optional)
ID	AutoNumber	
NAME	Short Text	
POSITION	Number	
AMOUNT	Number	
TOTAL AMOUNT	Number	

Field Properties	
Field Size	Long Integer
Format	
Decimal Places	None
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	No
Indexed	No
Text Align	General

(a).Identify the software that can be used to open the above program. (01 mark)

(b).Name atleast three objects used in the program above. (02 mark)

(C).Outline four data types which was used in the table above. (02 mark)

18(a).Give **one** example on each of the following devices. (02 marks)

(i).Input devices.

(ii).Processing devices.

(b).state one major uses of a VGA cable on a computer. (01 marks)

19.(a) Give **two** advantages of using secondary storage to a computer user (2 marks)

(i).....

(ii).....

(b) State **two** devices that use solid- state storage technology. (2 marks)

(i).....

(ii).....

(b) Write **SATA** in full (1 mark)

20. Fill in the following spaces below using one of the terms below: (05 mark)

**Uninstall utility, Diagnostic utility, Debuggers, Merging utility, Sorting utility**

..... organizes files in any choose order..... combi  
different files in one..... compiles technical information about a computer's hardw  
and certain system software programs and then prepares a report outlining any identifi  
problems..... Helps the computer to find out the error and fi  
it..... enables the user to remove an application program and its associa  
attributes from the system.

**END**



**S850/2**

**Subsidiary Information**

**and Communications**

**Technology (ICT)**

**(PRACTICAL)**

**Paper 2**

**August 2024**

**2 Hours**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate of Education**

**MOCK EXAMINATIONS 2024**

**INFORMATION AND COMMUNICATION TECHNOLOGY**

**SUBSIDIARY ICT**

**(PRACTICAL)**

**Paper 2**

**2 Hours**

## **INSTRUCTIONS TO CANDIDATES**

- ✓ This paper is made up of **five** equally weighted questions.
  - ✓ Answer any **three** questions.
  - ✓ Any additional questions answered will **not** be marked.
  - ✓ Each candidate is provided with support files in the folder **MEBU Support Files** on the computer desktop. Use the support files where applicable to supplement the question.
  - ✓ Each candidate is provided with a **new blank Compact Disc (CD)**.
  - ✓ Use a **permanent marker** to write your name, random number and personal numbers on your CD.
  - ✓ Candidates should continuously **save** their work.
  - ✓ Each candidate **must** produce a **hard copy** for each of their work to accompany the **Compact Disc (CD)**.
1. Load a file saved as **home\_plane** and perform the following tasks. Make sure that you use an appropriate application program.
    - (a) Change paper size to A4 and orientation to portrait. (02 marks)
    - (b) Adjust margin settings to 1.5 cm for top, bottom, left and right. (02 marks)

- (c) Copy text in page 1 to page three of your document. (01mark)
- (d) Insert a watermark in page 2 to read: **PAGE LEFT BLANK**. (02 marks)
- (e) Change font style to Bookman Old Style and font size 13.5 points. (02 marks)
- (f) Justify align the text in page 3 of your document. (01 mark)
- (g) Drop cap the first letter in paragraph one to four (04) lines. (02 marks)
- (h) Insert a photo saved as **TeamProject.jpg** at the bottom of the page 3. (02 marks)
- (i) Convert your work into two columns with a line in between. (02 marks)
- (j) Add a footer of your name and personal number in your work. (02 marks)
- (k) Print a copy of your work in page 3 only. (01 mark)
- (l) Save your work as **teens plane**. (01 mark)

2. Using any database management system, load the file **soma.accdb** and use it to answer the questions that follow.

- (a) Change the name of the database from **soma.accdb** to **Learners.accdb**. (01 mark)
- (b) Rename the table school to **students**. (01 mark)
- (c) Apply suitable data types for the fields and assign an appropriate primary key to a suitable field. (04 marks)
- (d)(i) Create a form to display the following fields; **Students ID, Name, Gender** and **Status**. Save it as **Learners' form**. (03 marks)
- (ii) Insert your name and personal number in the form footer. (01 mark)
- (e) Create a query to extract all students born after the year 1995 before the year 2000. Name it **DOB query**. (03 marks)
- (f) Create a query displaying the following fields; **Students ID, Name, Class, Termly fees** and **Yearly fees** (Yearly fees equals Termly fees times three). Save it as **Fees per year query**. (03 marks)
- (g) Create a report displaying the following fields **Students ID, Name, Date of birth, Termly fees** and **Yearly fees**; sort it in ascending order of **Names**. Save it as **Yearly report**. (02 marks)
- (h) Insert your name and personal number in the report footer. (01 mark)
- (i) Print all your work. (01 mark)

3. Your ICT club is in charge of the school canteen at your school. The club uses spreadsheet application to manage cash sales of the canteen. Using a sample of items in the file saved as ICT club answer the following questions.

- (a) Copy the file saved as ICT club to your folder and rename it as your name and personal number. (01 mark)
- (b) Calculate the profits the club made on each item. (02 marks)
- (c) Calculate the percentage profit given that is the percentage ratio of the profit to Cost price. (02 marks)
- (d) Between Soda and Blue band insert a new row for face towels, enter the records as cost price = 1000 and selling price = 11000 and allow the table to recalculate automatically. (02 marks)
- (e) On a new sheet named **Duplicate**, copy the table in (d) above and use it to answer (f) to (i). (02 marks)
- (f) In cell A22 type the word “**PRE-TOTAL**” and calculate the sub-total for the columns of cost price, selling price and profit only. (02 marks)
- (g) In cell B21, use a suitable function to find the profit on items that start with letter “B”. (02 marks)
- (h) Add a new column between profit and %profit and name it **Decision**. Using suitable function, write **Buy More** for profit greater or equal to 5000, and **Buy Less** for profit below 5000. (03 marks)
- (i) Create a column chart for Item, cost price and selling Price (03 marks)
- (j) Save and print your all your work. (01 mark)

4(a) Using a Presentation Software design a five-slide presentation about corruption as follows;

- i) **Slide One:** A suitable title and your name (02 marks)
- ii) **Slide Two:** Definition of corruption (01 mark)
- iii) **Slide Three:** A bulleted list of forms of corruption. (03 marks)
- iv) **Slide Four:** Ways of regulating corruption presented in two columns. (03 marks)
- v) **Slide Five:** Conclusion. (01 mark)
- (b) Insert appropriate images from the **images** folder. (02 marks)
- (c) Insert your name and personal number as a footer to all slides. (01 mark)
- (d) Apply slide transitions and animations of your choice. (02 marks)
- (e) Apply a three colour background to all the slides (01 mark)
- (f) Set the slides to loop continuously after every 4 seconds until Esc. (01 mark)

- (g) Insert static date on all slides. (01 mark)
- (h) Save your presentation as your name and personal number. (01 mark)
- (i) Print your slides as a handout. (01 mark)

5. Use a desktop publishing software to prepare a brochure for **Kagombero Electronics** with following details:

**Company Name:** Kagombero Electronics

**Motto:** Computer Skills for the future

**Location:** Plot 52, Bombo

**Address:** P.O. Box 125, Kampala

**Telephone Contact:** 0709843314, 0761762094

**Email Address:** [kagomberoelectronics@ymail.com](mailto:kagomberoelectronics@ymail.com)

**Website:** <https://www.kagombero.com>

**Introduction:** Kagombero electronics is a home for all computer services and accessories. We are customer oriented. Please come and attest our exception services.

**Services offered:** Networking, Printing and Photocopying, Scanning, Mobile Money, Computer and phone repair, Report writing, Computer lessons.

- (a) Divide each page into three panels. (03 marks)
- (b) Enter the given details in suitable panels. (08 marks)
- (c) Use appropriate images, fonts and background in the brochure. (06 marks)
- (d) Add your names and personal number as a footer. (01 mark)
- (e) Save your brochure as your name and personal number. (01 mark)
- (f) Print your work. (01 mark)

**END**

P230/1

ENTREPRENEURSHIP

EDUCATION

PAPER 1

MOCK 2024

AUGUST

3 HRS



## MEBU EXAMINATIONS CONSULT

### UGANDA ADVANCED CERTIFICATE OF EDUCATION MOCK EXAMINATIONS 2024

ENTREPRENEURSHIP EDUCATION

PAPER 1

TIME: 3 HRS

#### INSTRUCTIONS TO CANDIDATES

This paper consists of **two** sections, **A** and **B**.

Answer **five** questions in **ALL**.

Section **A** is **compulsory**. Answers to this section should be **precise**.

Answer **four** questions from section **B**.

Any additional question(s) attempted will **not** be marked.

## SECTION A (20MRKS)

1. (a)(i).Define the term negotiation as it is used in entrepreneurship education. (1mrk)  
(ii).Mention three personal attributes of good negotiators. (3mrks)
- b (i).What is meant by the term tax invasion. (1mrk)  
(ii).State any three elements of tax compliance. (3mrk)
- (c).How are business ideas are protected in business? (4mrks)
- d).Given the following information.  
Fixed assets shs.475000  
Current liabilities shs.342000  
Current assets shs.288000  
(i).Calculate the value of capital employed. (4mrks)  
(ii).Distinguish between competitive cost advantage and sustainable competitive advantage. (2mrks)
- (iii).State any two factors to be considered in analysing competition in the business. (2mrks)

## SECTION B. (80MRKS)

**Choose any four questions.**

1. (a) What are the steps involved in becoming a social entrepreneur? (10mrks)  
(b) What are the importances of social entrepreneurship? (10mrks)
2. (a)Examine the factors that may bring change in an enterprise. (10mrks)  
(b)Explain the factors that limit entrepreneurs from adopting change in business. (10mrks)
3. (a)Describe the elements of human resource management. (10mrks)  
(b)Account for the differences in wages earned by workers in an enterprise. (10mrks)
4. (a) What are the advantages of formal businesses over informal business? (10mrks)  
(b)Explain the causes of failure of small and medium scale enterprises in Uganda. (10mrks)
5. (a) Explain the need for effective communication in business. (10mrks)  
(b)What are the barriers to effective communication in an enterprise? (10mrks)
6. (a) Explain the factors that may limit effective implementation of a business plan. (10mrks)  
(b) Describe the structure of a good business plan. (10mrks)

**END**

P230/2

ENTREPRENEURSHIP

EDUCATION

PAPER 2

MOCK 2024

AUGUST

3 HRS



## MEBU EXAMINATIONS CONSULT

### UGANDA ADVANCED CERTIFICATE OF EDUCATION MOCK EXAMINATIONS 2024

ENTREPRENEURSHIP EDUCATION

PAPER 2

TIME: 3 HRS

#### INSTRUCTIONS TO CANDIDATES

- Attempt only four question in this paper.
- All questions carry equal marks.
- Use of relevant diagrams and illustrations will lead to credit.
- Any additional questions answered will not be marked.

1. You are dealing in production and distribution of Beer.
  - a) Prepare a week's distribution schedule for the business products. (7 marks)
  - b) Design a delivery note to be used in the business. (5 marks)
  - c) Present a financial plan for the business. (7 marks)
  - d) Prepare a suitable advert for your business products. (6 marks)
2. You are managing a partnership business with your two brothers that deals in processing of paint.
  - a) Prepare a partnership deed for the business. (7 marks)
  - b) Formulate guidelines for developing effective marketing strategies. (7 marks)
  - c) Design a questionnaire to be used for establishing the level of creativity for the employees. (6 marks)
  - d) Develop a mission and vision statement for the business. (5 marks)
3. You are a Human Resource Manager of a plastics company.
  - a) Develop a job specification for an accountant in your company. (6 marks)
  - b) Design a form to be used while appraising the performance of workers. (6 marks)
  - c) Prepare a motivation policy for the company. (6 marks)
  - d) Prepare a program for training your employees. (7 marks)
4. You own a road construction company and you have been awarded a contract to construct Mbale-Budadiri road by the Ministry of works.
  - a) Prepare a company profile for the construction company. (6 marks)
  - b) Formulate terms and conditions to be included in the contract. (6 marks)
  - c) Prepare a contractor's information board. (7 marks)
  - d) Prepare a time sheet to be used in business. (6 marks)
5. MEBU investments company Ltd had the following information.
  - i) On 1<sup>st</sup> January 2022, the business commenced with cash balance Shs 7,000,000.
  - ii) The business expects to have monthly sales of shs 30,000,000 and 70% is recovered in the month of sale for all sales.
  - iii) Monthly salaries for over 30 workers are projected at shs 14,000 per worker.
  - iv) The business expects to get a loan of shs 12,000,000 in May.
  - v) The business expects donation in cash worth shs 2,500,000 per month and this is expected to reduce by 7% after three months.
  - vi) Monthly rent income is expected to be shs 4,000,000 but this is expected to increase by 4% after two months.
  - vii) The business expects to buy premises worth shs 28,000,000 and payment is to be done in a ratio of 3:2 for the months of June and July respectively.



- viii) Monthly cash purchases are shs 5,000,000 and are expected to increase by 7% on monthly basis.
- ix) Monthly interest on loan at a rate of 3% on monthly basis payable after one month's grace period.
- x) The business will finance any cash short fall with a debenture at the beginning of the next month.
- xi) The business is expected to pay a tax of shs 500,000 payable at the end of each quarter of the financial year.

**Required:**

- a) Prepare a cash flow statement for the second quarter of 2022. (18 marks)
- b) Comment on the net cash position of the business. (03 marks)
- c) Suggest measures to overcome any cash shortfall in case it arises. (04 marks)

**END**

P230/3

ENTREPRENEURSHIP

EDUCATION

PAPER 3

MOCK 2024

AUGUST

2 HRS:30 MIN



**MEBU EXAMINATIONS CONSULT**  
**UGANDA ADVANCED CERTIFICATE OF EDUCATION**  
**MOCK EXAMINATIONS 2024**  
**ENTREPRENEURSHIP EDUCATION**

**PAPER 3**

**TIME: 3 HRS**

**INSTRUCTIONS TO CANDIDATES**

- This paper consists of **THREE** sections: **A**, **B** and **C**.
- Answer only **FOUR** questions in all.
- **ALL** questions carry marks.
- Credit will be given for the use of relevant diagrams and illustrations.
- Any additional question(s) answered shall **NOT** be marked.
- Begin answers to each question on fresh page.

## SECTION A: CASE STUDY (25 MARKS)

### 1. Read the case study of Nkabahizi and answer the questions that follow.

Having graduated from Makerere University, Nkabahizi realized need for starting up her own income generating project. She analysed the environment around her home village and decided to establish a fish farming project.

Nkabahizi secured space in a nearby swamp where he set up a fish pond. She borrowed shs. 5000 from her grandfather which she used to acquire Tilapia and Nile perch fishing. Nkabahizi's project expanded, she supplies fish to restaurants and traders in the nearby markets.

Nkabahizi does not set fixed prices for her products but negotiates with customers to arrive to the selling price for her products.

Due to her busy schedule, she has decided to employ a project manager to whom she delegates many responsibilities.

Basing on the success of Nkabahizi's project, other people have established fish farms in the area. She has therefore embarked on advertising her products on a local radio station to attract more customers.

The project is greatly supported by existing natural resources like adequate water, availability of water support from the community members who provide advice and buy her products and technical skills obtained by Nkabahizi from various seminars on fish farming which she keeps attending. Nkabahizi is considered one of the most successful entrepreneurs in the area.

#### Questions.

- a) What shows that Nkabahizi's fish project is a good business opportunity? (4 marks)
- b) How does Nkabahizi benefit from delegating responsibility to the project manager? (3 marks)
- c) Which challenges is Nkabahizi likely to face while negotiating with customers. (5 marks)
- d) Advise Nkabahizi on methods she can use to set prices for his products. (6 marks)
- e) Apart from advertising, suggest other ways Nkabahizi can overcome competition. (4 marks)
- f) How has Nkabahizi benefited from starting up her own income generating project? (3 marks)

## SECTION B: SCHOOL BUSINESS CLUB

Answer at least one question from this section.

### 2. With reference to a business project operated by your entrepreneurship club:

- a) Describe the nature of the business project you carried out. (04 marks)
- b) How did you sustain your business project? (04 marks)
- c) Describe the production activities of your project. (06 marks)
- d) Explain the basis for setting prices of your product. (05 marks)
- e) State how you planned to dissolve the club project. (06 marks)

**3. Based on your school entrepreneurship club business project.**

- a). Present any four factors that favoured the establishment of your business project. (04 marks)
- b). state the criteria for becoming a member in the business project. (03 marks)
- c). Explain the measures under taken to ensure environmental friendliness of your project. (05 marks)
- d). Describe the entrepreneurial skills that were applied in the business project. (06 marks)
- e) i) What challenges were faced in the business project. (04 marks)
- ii) How were the challenges mentioned above managed? (03 marks)

**SECTION C: field attachment/ field trip**

**Answer at least one question from this section**

**4. For any business enterprise you were attached to:**

- a). Give the general description of the business. (04 marks)
- b). Describe the internal control systems the business uses for quality production. (06 marks)
- c). How is cash managed in the business that you were attached to. (05 marks)
- d). How does the community benefit from the enterprise you were attached to. (05 marks)
- e). Identify the marketing activities of the enterprise. (05 marks)

**5. For any business field trip you made as a group or an individual:**

- a) i) State any two objectives of the field trip. (02 marks)
- ii) Describe the business that you visited. (04 marks)
- b) Describe the physical layout of the business you visited. (05 marks)
- c). How does the business visited manage time so as to promote efficiency. (04 marks)
- Describe the ways in which the business you visited reduces staff turnover. (06 marks)
- e). Suggest measures under taken by the business to control flow of funds. (04 marks)

**END**

**TEL.0709843314/0761762094**

**P615/1**

**ART PAPER 1**

**(Drawing or Painting**

**From Still life and Nature)**

**MOCK 2024**

**AUGUST**

**Time: 3 Hours**



# **MEBU EXAMINATIONS CONSULT**

## **Uganda Advanced Certificate Of Education**

### **MOCK EXAMINATIONS 2024**

#### **ART AND DESIGN**

##### **PAPER 1**

##### **Drawing or Painting from Still Life and Nature**

**Time: 3 Hours**

#### **INSTRUCTIONS TO CANDIDATES**

**Note:** Candidates must be instructed that **ruling** by all means whatsoever is **forbidden** except when marking off space for name and other particulars.

This paper offers two major alternatives **A** and **B**. Candidates may attempt either **A** or **B** but not both.

#### **ALTERNATIVE A: Drawing or painting from Still life.**

Candidates must be instructed that ruling by any means whatsoever is strictly forbidden

#### **ALTERNATIVE B: Drawing or painting from Nature.**

Candidates are required to make a study or studies, using any side of the sheet of paper.

**Either**

**ALTERNATIVE A: STILL LIFE**

On a round or rectangular tray, place 3 quarters of bread on the left hand side of the tray, place a cups' flask next to the bread but on the right side. In between the bread and the flask, but on the tray place a 1kg of blue band tin. In front of the whole setting but on the left, place a sugar bowl and a cup with the spoon inside next to it but slightly on the right side of the sugar bowl, on the right side of the tray but in front, place a sauce with 3 loaves of bread clearly seen by the candidates.

**Or**

**ALTERNATIVE B: NATURE STUDY**

- i. Candidates draw or paint a landscape in which a building is at an angle on a raised ground with trees in the background.
- ii. Make a study or studies of a mature pineapple.
- iii. Make a study of a mature cockroach.

**END**

P510/3

PHYSICS

PAPER 3

MOCK 2024

AUGUST

3 HRS:15 MIN



## MEBU EXAMINATIONS CONSULT

### UGANDA ADVANCED CERTIFICATE OF EDUCATION MOCK EXAMINATIONS 2024

PHYSICS

PAPER 3

(PRACTICAL)

3 HRS:15 MIN

#### **INSTRUCTIONS TO CANDIDATES**

- Answer question **1** and **one** other question.
- Candidates are not allowed to use the apparatus for the first fifteen minutes.
- Graph papers are provided.
- Mathematical tables and non-programmable scientific calculators may be used.
- Write on **one** side of the paper only
- Candidates are expected to record on their scripts all their observations as these observations are made and to plan the presentation of the records so that it is not necessary to make a fair copy of them. The working of the answer is to be handed in.
- Details on the question paper should not be repeated in the answer nor is the theory of the experiment required unless specifically asked for. Candidates should however record any special precautions they have taken and any particular feature of their method of going about the experiment.
- Marks are given mainly for a clear record of the observations actually made, for their suitability and accuracy and for the use made of them.

## PART I

1. In this experiment, you will determine the force constant, **K**, of the spring provided.

- (a) Clamp the upper hook of the spring using the two pieces of wood provided, as in figure 1 (a). Make sure that the spring is vertical.

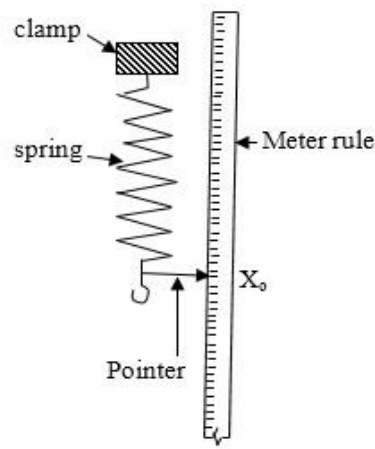


Fig. 1(a)

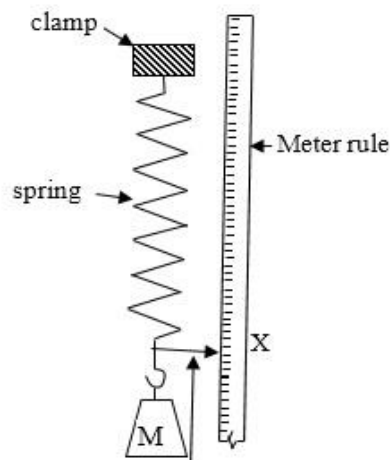


Fig. 1(b)

- (b) Attach a pointer to the free end of the spring. Read and record the position,  $x_0$ , (in metres) of the pointer on a vertical scale.
- (c) Suspend a mass, **M**, of **0.100 kg** from the lower end of the spring.
- (d) Read and record the new position,  $x$ , (in metres) of the pointer.
- (e) Repeat procedures (c) to (d) for values of **M = 0.200 , 0.300, 0.400, 0.500 and 0.600 kg**.
- (f) Record all your results in a suitable table, including values of  $(x - x_0)$ .
- (g) Plot a graph of  $(x - x_0)$  against  $M$ .
- (h) Find the slope, **S<sub>1</sub>**, of the graph.
- (i) Determine the force constant, **K** of the spring from  $K = \frac{g}{S_1}$ , where **g** is the acceleration due to gravity = **9.81 ms<sup>-2</sup>**.

## PART II

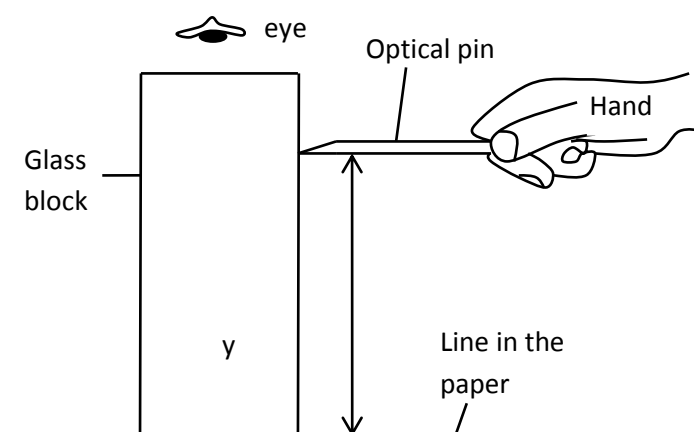


In this experiment, you will determine the effective mass,  $m_o$ , of the spring.

- (a) Suspend a mass,  $M$ , of 0.100kg from the spring as in part 1.
  - (b) Pull the mass vertically downwards through a small displacement and release it.
  - (c) Measure the time,  $t$ , for 20 oscillations of the mass.
  - (d) Determine period  $T$  of the oscillations.
  - (e) Repeat procedures (a) to (c) for  $M = 0.200, 0.300, 0.400, 0.500$  and  $0.600$  kg.
  - (f) Record your results in a suitable table, including values  $\frac{1}{f^2}$ , where  $f = \frac{1}{T}$
  - (g) Plot a graph of  $\frac{1}{f^2}$  against  $M$ ; find the slope  $S_2$  and intercept,  $C$ , of  $\frac{1}{f^2}$  axis.
  - (h) Calculate the effective mass,  $m_o$ , of the spring from  $m_o = \frac{C}{S_2}$ .
2. In this experiment you will determine the constant,  $S$ , of the glass block provided using two methods.

### Method 1

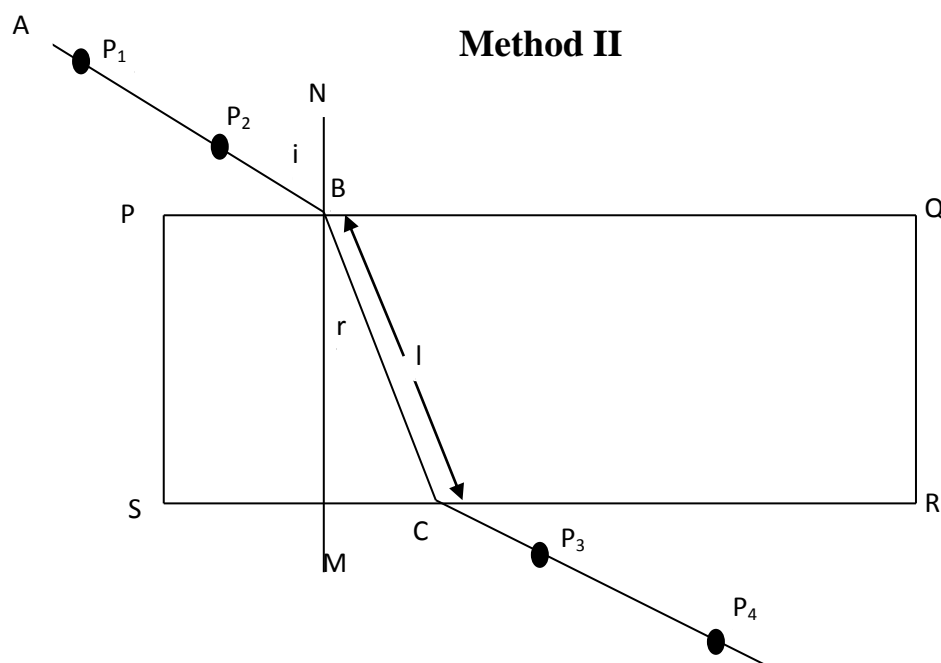
- (a) Measure and record the length,  $L$ , of the glass block.
- (b) Draw a line on the plain sheet of paper.
- (c) Place the glass block with the smallest area over the line.
- (d) Hold a pin horizontally so that its pointed end is adjacent to the glass block as shown in figure 2 below.



**Figure 2**

- (e) Adjust the position of the optical pin until it appears to coincide with the image of the line as seen through the glass block.
- (f) Measure and record the height,  $y$ , of the pin from the line on the sheet of paper

- (g) Calculate the constant,  $S$  of the glass block,  $S = L/(L-y)$ .



**Figure 3**

- (a) Place a glass block on a sheet of white paper.
- (b) Trace the outline of the block.
- (c) Remove the glass block and label its outline as PQRS.
- (d) Draw a normal NM at B about 3.0 cm from P.
- (e) Draw a line AB such that angle  $i = 10^\circ$  as shown in the figure 3.
- (f) Put back the glass block in its outline.
- (g) Fix pins vertically at  $P_1$  and  $P_2$  along AB.
- (h) While looking through the glass block from side SR, fix pins at  $P_3$  and  $P_4$  such that they appear to be in line with pins at  $P_1$  and  $P_2$ .
- (i) Remove the glass block and the pins.
- (j) Draw a line through  $P_3$  and  $P_4$  to meet SR at C.
- (k) Join B to C.
- (l) Measure and record angle,  $r$  and the distance,  $l$ .
- (m) Repeat procedures (e) to (l) for values of  $i = 20^\circ, 30^\circ, 40^\circ, 50^\circ$ , and  $60^\circ$ .
- (n) Tabulates your results including values of:  $\sin i$ ,  $\sin r$ ,  $\sin^2 i$  and  $l^2$ .
- (o) Plot a graph of  $l^2$  against  $\sin^2 i$ .
- (p) Find the slope,  $S_1$  of the graph.

- (q) Find the intercept,  $C$  on the  $I^{-2}$  – axis.
  - (r) Calculate the width,  $w$  of the glass block from the expression:  

$$w = \sqrt{(1/ C)}.$$
  - (s) Determine the refractive index,  $n$  , of the glass block from the expression:  $n = \sqrt{(C/-S_1)}$
  - (t) Plot a graph of  $\sin i$  against  $\sin r$ .
  - (u) Find the slope,  $S_2$  of the graph.
  - (v) Determine the ratio of  $n/S_2$  .
3. In this experiment, you will determine the resistance per metre,  $k$ , of the bare wire  $Q$  and the internal resistance,  $r$ , of the cell provided.

### PART 1

- (a) Fix the bare wire  $Q$  provided on the table using cello tape.
- (b) Connect the circuit as shown in fig. 4 below:

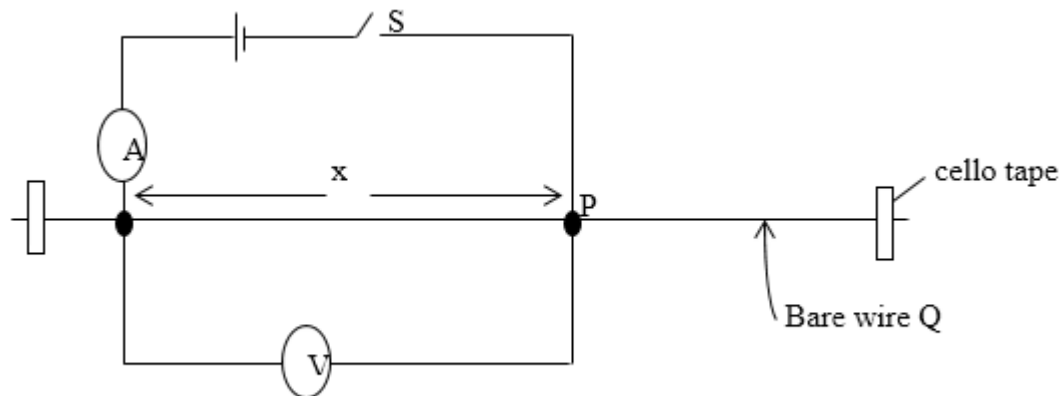


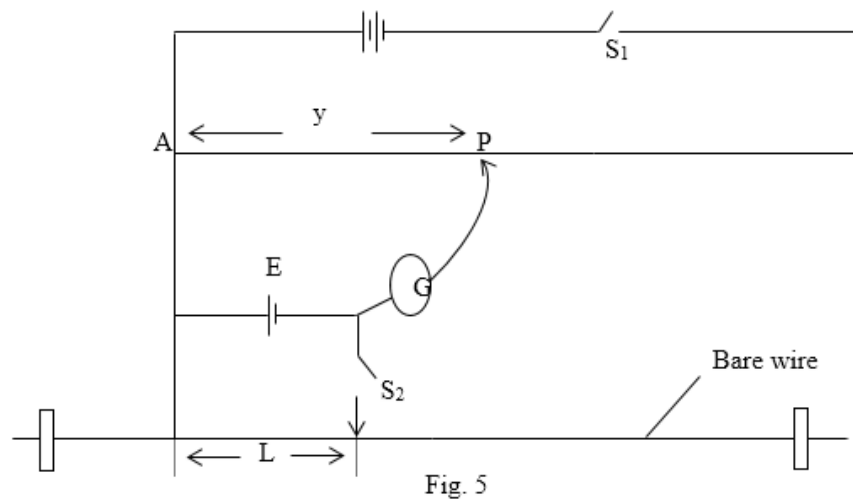
Fig. 4

- (c) Adjust the position of  $P$  such that  $x = 0.50\text{m}$ .
- (d) Record the voltmeter reading  $V_1$  and the ammeter reading  $I_1$ .
- (e) Adjust the position of  $P$  such that  $x = 0.75\text{m}$ .
- (f) Record the voltmeter reading  $V_2$  and the ammeter reading  $I_2$ .
- (g) Calculate the resistance per metre,  $K$  from the expression:

$$2K = 2R_1 + 4R_2, \text{ where } V_1 = I_1R_1 \text{ and } V_2 = I_2R_2.$$

### PART 2

- (a) Set up the circuit as shown in fig.5 below:



- (b) Starting with  $L = 0.20\text{m}$ , close the switches  $S_1$  and  $S_2$ .
- (c) Move the sliding contact, P along the potentiometer slide wire until a point is found for which G shows no deflection.
- (d) Measure and record the balance length,  $y$ , in metres.
- (e) Open switches  $S_1$  and  $S_2$ .
- (f) Repeat procedures (b) to (e) for values of  $L = 0.30, 0.40, 0.50, 0.60$ , and  $0.70\text{m}$ .
- (g) Tabulate your results including values of  $1/L$  and  $1/y$ .
- (h) Plot a graph of  $1/y$  against  $1/L$ .
- (i) Find the slope,  $S$ , of the graph.
- (j) Read and record the intercept,  $C$  on the  $1/y$  axis.
- (k) Calculate the internal resistance,  $r$  of cell,  $E$ , from  $r = SK/C$ .

**END**

P510/1

PHYSICS

PAPER 1

MOCK 2024

AUGUST

2 Hours 30 Minutes



## MEBU EXAMINATIONS CONSULT

### UGANDA ADVANCED CERTIFICATE OF EDUCATION MOCK EXAMINATIONS 2024

PHYSICS

PAPER 1

2 Hours 30 Minutes

#### INSTRUCTIONS TO CANDIDATES

Attempt not more than **five** questions including at least one but **not more than two** from each of the sections **A**, **B** and **C**.

Any additional question(s) answered will not be marked.

**Where necessary, assume the following constants:**

Acceleration due to gravity,  $g = 9.81 \text{ m s}^{-2}$

Electronic charge,  $e = 1.6 \times 10^{-19} \text{ C}$

Electronic mass =  $9.11 \times 10^{-31} \text{ kg}$

Avogadro's number,  $N_A = 6.02 \times 10^{23} \text{ mol}^{-1}$

Mass on earth =  $5.97 \times 10^{24} \text{ kg}$

Charge to mass ratio of an electron =  **$1.8 \times 10^{11} \text{ C kg}^{-1}$**

One electron volt,  $\text{eV} = 1.6 \times 10^{-19} \text{ J}$

Planck's constant,  $h = 6.6 \times 10^{-34} \text{ J s}$

Radius of the earth =  $6.4 \times 10^6 \text{ m}$

Specific heat capacity of water =  $4.2 \times 10^3 \text{ J kg}^{-1} \text{ K}^{-1}$

Specific latent heat of fusion of ice =  $3.36 \times 10^3 \text{ J kg}^{-1} \text{ K}^{-1}$

Stefan's – Boltzmann's constant,  $\delta = 5.67 \times 10^{-8} \text{ W m}^{-2} \text{ K}^{-4}$

Speed of light in Vacuum,  $c = 3.0 \times 10^8 \text{ m s}^{-1}$

Unified mass unit,  $U = 1.66 \times 10^{-27} \text{ kg}$

Universal gravitational constant,  $G = 6.67 \times 10^{-11} \text{ N m}^2 \text{ Kg}^{-2}$

Gas constant,  $R = 8.31 \text{ J mol}^{-1} \text{ K}^{-1}$

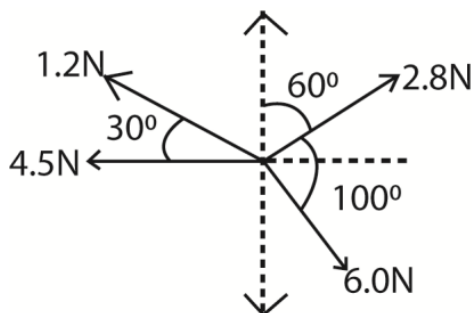
Permittivity of free space,  $\epsilon_0 = 8.85 \times 10^{-12} \text{ F m}^{-1}$

## SECTION A

1.(a)(i).Distinguish between **scalar** and **vector quantity**. (01 mark)

(ii).Give **two** examples of each type of quantity. (02marks)

(b).A body of mass **0.2 kg** at rest is acted on by four forces of **2.8 N**, **6.0 N**, **4.5 N** and **1.2 N** as shown in the figure below.



Calculate the;

(i).Resultant force on the body. (04marks)

(ii).Distance moved in 4 seconds. (02marks)

(c).State **Newton's laws of motion** and use them to derive the law of conservation of momentum. (06marks)

(d).A body of mass **800 kg** moving at **30 ms<sup>-1</sup>** collides with another of mass **400 kg** moving in the same direction at **25 ms<sup>-1</sup>**. The two bodies stick together after collision. Calculate the;

(i).Common velocity just after collision. (02marks)

(ii).Kinetic energy lost during collision. (03marks)

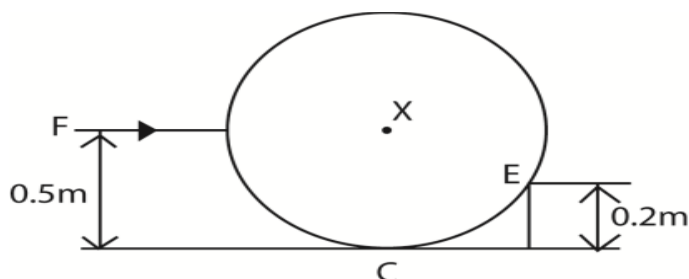
2.(a).Define **moment of force** and give its S.I units. (02marks)

(b).Explain briefly how to locate the Centre of gravity of an irregular sheet of cardboard.

(04marks)

(c).State the conditions necessary for equilibrium of a rigid body under action of a system of forces. (02marks)

(d) A wheel of radius **0.5 m** rests on a level surface at point **C** and makes contact with edge **E** of a block height **0.2 m** as shown in the figure below.



A force **F** is applied horizontally through the axle of the wheel at **X** to just move the wheel over the block. If the weight of the wheel is **180 N**, find the;

(i).Force exerted at point **E** (02marks)

(ii).Force **F**. (04marks)

(e)State the **laws of friction** and explain each of them. (06marks)

3.(a).Define the following as applied to circular motion:

(i).**Centripetal acceleration**. (01mark)

(ii).**Period**. (01mark)

(b)(i).Explain why a cyclist bends inwards while going around a curved path. (03marks)

(ii).Show that if  $\theta$  is the angle of inclination of the cyclist to the vertical and  $\mu$  is the coefficient of limiting friction between the ground and the bicycle tyres, then for safe riding  $\tan \theta \leq \mu$ . (04marks)

(iii).A body of mass **1.5 kg** moves once round a circular path to cover **44.0 cm** in **5 s**. Calculate the centripetal force acting on the body. (04marks)

(c).Define **simple harmonic motion**. (01mark)

(d).A body executes simple harmonic motion with amplitude **A** and angular velocity,  $\omega$ .

(i).Write down the equation for velocity of the body at a displacement **x** from the mean position. (01mark)

(ii) Sketch the velocity-displacement graph for the body in (d) (i) for  $\omega < 1$ . (02marks)

(iii) If the body moves with amplitude **14.142 cm**, at what distance from the mean position will its kinetic energy equal to potential energy? (03marks)

4.(a).State and illustrate **Archimedes' principle**. (05marks)

(b)(i).State the **law of floatation**. (01 marks)

(ii).Describe an experiment to verify the law in (b) (i) above. (05marks)

(c) (i).Write **Bernoulli's equation** and define each term in the equation. (02marks)

(ii).Explain the origin of lift force on the wings of a plane. (03marks)

(iii).Air flows over the upper surfaces of the wings of an aeroplane at a speed of **120 ms<sup>-1</sup>**, and past the lower surface of the wings at **110 ms<sup>-1</sup>**.Calculate the lift force on the aeroplane if it has a total wing area of **20 m<sup>2</sup>**. (**Density of air = 1.29 kgm<sup>-3</sup>**) (04 marks)

## SECTION B

5.(a)(i).State any **three** properties of ultraviolet radiations. (03marks)

(ii).What is a **black body**? (01mark)

(b).A cylindrical metal rod with a well- insulated curved surface has one end blackened and then exposed to thermal radiation from a body at a temperature of **500 K**. If the equilibrium temperature of the blackened end is **400 K** and the length of the rod is **10 cm**, calculate the temperature of the other end. [Thermal conductivity of the metal = **500 Wm<sup>-1</sup>K<sup>-1</sup>**] (04marks)

(c)(i).Describe the Electrical method of determining the specific heat capacity of a good conducting solid. (06marks)

(ii).Give **two** reasons why the value obtained using the method in (c) (i) above may not be accurate. (02marks)

(d).Explain why cloudy nights are warmer than cloudless ones. (04 marks)

6.(a)(i).What is meant by a **reversible process**? (02marks)

(ii).Distinguish between a **saturated vapour** and **unsaturated vapour**. (02marks)

(iii).Explain why evaporation causes cooling. (03marks)

(b).Describe an experiment to determine the temperature dependence of saturated vapour pressure of water. (07marks)

(c)(i).State **Dalton's law of partial pressures**. (07marks)

(ii).A sealed container has liquid water, water vapour and air all at **27°C**. The total pressure inside the container is **69 cmHg**. When the temperature is raised to **85°C**, the total pressure changes to **96 cmHg**. If the saturated vapour pressure of water at **27°C** is **5 cmHg** and water vapour remains saturated, calculate the saturated vapour pressure of water at **85°C**. (05marks)

7.(a).Define the following:

(i).**Thermal conductivity**. (01marks)

(ii).**Specific latent heat of vaporization**. (01mark)

(b).A boiler with a base made of rod steel **15 cm** thick, rests on a hot stove. The area of the bottom of the boiler is **1.5 x 10<sup>3</sup> cm<sup>2</sup>**. The water inside the boiler is at **100°C**. If **750 g** of water is evaporated every **5 minutes**, find the temperature of the surface of the boiler in contact with the stove.

[Thermal conductivity of steel = **50.2 Wm<sup>-1</sup>K<sup>-1</sup>**, specific latent heat of vaporization of water = **2.26 x 10<sup>6</sup> Jkg<sup>-1</sup>**] (04 marks)

(c) Hot water in a metal tank is kept constant at **65°C** by an immersion heater in the water. The tank has a lagging all around it of thickness **20 mm** and thermal conductivity **0.04 Wm<sup>-1</sup>K<sup>-1</sup>** and its surface area is **0.5 m<sup>2</sup>**. The heat lost per second by the lagging is **0.8 W per degree** excess above the



surroundings. Calculate the power of the immersion heater if the temperature of the surroundings is **15°C**.  
(05marks)

(d)(i).Define a **thermometric property**. (01mark)

(ii).Define how a liquid-in-glass thermometer can be used to measure temperature in degrees Celsius. (04marks)

(iii) A thermometer is constructed with a liquid which expands according to relation.  $V_t = V_0(1 + \alpha t + \beta t^2)$ , where  $V_t$  is the volume at  $t^\circ\text{C}$  and  $V_0$  is the volume at  $0^\circ\text{C}$  on the scale of the gas thermometer and  $\alpha$  and  $\beta$  are constants. Given that  $\alpha = 1000\beta$ , what will the liquid thermometer read when the gas thermometer reads **50°C**? (04 marks)

### SECTION C

8.(a)(i).What are **cathode rays**? (01marks)

(ii).State **two** properties of cathode rays. (01mark)

(iii).Explain **two** disadvantages of using the discharge tube in producing cathode rays. (02marks)

(b).With the aid of a diagram, describe Millikan's experiment to determine the charge on an oil drop (07marks)

(c).A beam of electrons is accelerated through a potential difference of **1.98 kV** and directed midway between two horizontal plates of length **4.8 cm** and separated by a distance of **2.0 cm**. The potential difference applied across the plates is **80.0 V**.

(i).Calculate the speed of the electrons as they enter the region between the plates. (03marks)

(ii).Explain the motion of the electrons between the plates. (02marks)

(iii).Find the speed of electrons as they emerge from the region between the plates.(04marks)

9.(a)(i).What is meant by **thermionic emission**? (01marks)

(ii).Describe how **full-wave rectification** of a.c can be achieved using four semiconductor diodes. (04marks)

(b)(i).Draw a labelled diagram to show the main parts of a Cathode Ray Oscilloscope. (C.R.O). (03marks)

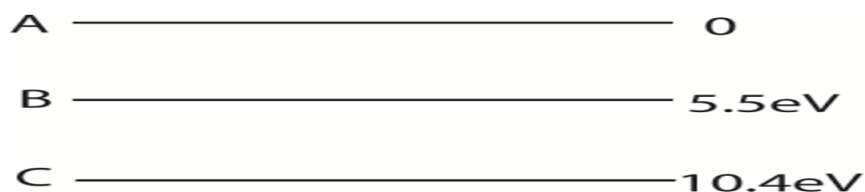
(ii).Describe how a C.R.O can be used as an a.c voltmeter. (02marks)

(c)(i)An electron of charge,  $-e$  and mass  $m$  moves in circular orbit round a central hydrogen nucleus of charge  $+e$ . Derive an expression for total energy of electron in an orbit of radius  $r$ . (05 marks)

(ii).Why is this energy always negative? (01marks)

(d)(i).What is meant by **excitation potential** of an atom? (01marks)

(ii).Some of the energy levels in mercury spectrum are shown in the figure below.



Calculate the wavelength of the radiation emitted when electron makes a transition from level **A** to level **C**. (03marks)

10.(a) What is meant by the following as applied to radioactivity?

(i).**Activity**. (01marks)

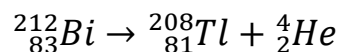
(ii).**Half-life** of a radioactive material. (01marks)

(b).Using the radioactive decay law  $N = N_0 e^{-\lambda t}$ , show that the half-life  $T_{\frac{1}{2}} = \frac{0.693}{\lambda}$ . (02marks)

(c).With the aid of a labelled diagram, describe the action of an **ionization chamber**. (05marks)

(d).What is meant by **unified atomic unit** and **electron volt**? (02marks)

(e).(i)The nucleus *Bi*-212 decays by alpha emission as follows:



Calculate the energy released by **2 g** of  ${}_{83}^{212}\text{Bi}$ . (05marks)

(ii).Explain **two** uses of radioactive isotopes. (04marks)

**END**

**P360/2**  
**LUGANDA PAPER 2**  
**Okukyusa, Okuwandiika**  
**Emboozi, Okusoma Bwino**  
**N’okufunza)**  
**MOCKS 2024**  
**AUGUST**  
**ESSAWA: SSATU**



**MEBU EXAMINATIONS CONSULT**  
**UGANDA ADVANCED CERTIFICATE OF EDUCATION**  
**MOCK EXAMINATIONS 2024**  
**LUGANDA**

**Olupapula Olw’okubiri**  
**(Okukyusa, Okuwandiika emboozi, Okusoma bwino n’okufunza)**  
**ESSAWA: SSATU**

**EBIGOBERERWA**

- Olupapula luno lugabanyiziddwamu ebitundu bina.
- Ekitundu A, C ne D bya buwaze
- Mu kitundu B oweereddwa eby’okulondako by’oyagala
- Ddamu nga bw’olagiddwa mu buli kitundu

## EKITUNDU A

### *Ddamu 1(a) ne 1(b)*

#### 1. (a) Kyusa ekitundu kino okizze mu Luganda

(Obubonero 15)

My fellow men work hard such that in your old age you have something for your pocket. Comrade, forget about the children and their mother. Mind you, you are the only stranger in the family you braggingly and proudly refer to as yours. That mansion is for your wife and the young ones. I remember one time when I was at a tender age, my grandfather told me that a married man is like a tractor that builds the road. It does it very perfectly and neatly, but when that particular road is completed, they bring a low-loader and the tractor is being carried away claiming it will dismantle the road and never allowed to step on the road it built.

Same case to a married man, you deny yourself everything, acquire super-imposed loans and at a time you wear torn clothes such that you see your children go through lucrative schools, because you believe that it is the only gift you can offer and sacrifice to your children. When these children hit teenage, now you the father you are dispensable! Worse still, most of the women poison children against their own father. They use provocative language like "If it wasn't me you would not have studied, your father was only interested in alcohol and women"

Now this is a tractor being carried away. Once children start working, the father is tired and less productive. So when the children come visiting the "poor Mzee", the father is given only twenty thousand in front of the mother, while the mother is pulled to the kitchen the father does not know what the mother has been given. Once these children drive off, the father is told to buy household items like sugar, rice, pay for medication and all other necessities. These are some of the reasons why men die early and leave widows behind suffering. So fellow men work hard because aging without property is like a death sentence!

*(Partial extract with minor modification from Voice for the Voiceless by Akampulira Arthur)*

#### b) Kyusa ekitundu kino okizze mu Lungereza

(obubonero 15)

### NTWALIBWA EWA JAJANGE MUKYALO

Twabeera ewa Jajja naye nga twaliwo lwa butaagaane anti azaala ekibi akiwongerera! Omukyala ono yali mukambwe okufa era ng'alina engombo egamba nti, "Abazzukulu nva ndiirwa." kumpi yakitulangiranga buli lunaku! Munnaffe Peace Maama we yamutwala oluvannyuma lwa Kitaffe okufa. Ennaku yatuyonka anti nga buli mbeera etunyiga bwaffe, twafuuka ebyerolebwa ku bantu ab'ekyalo ssaako n'abo abajjanga okulaba ku Jajja anti nga buli omu amulojjera nga bwe tuli bangalo bunani, bwe tutayina kye tusobola kukola okuggyako okusokomera emmere! Bwe twali tukyabeera ne bakadde baffe eby'okulya byajjulanga mu 'fridge' era nga buli kadde tuba mu kwegaaya kale twagendanga okutuuka ku ky'emisana nga wamma tuli bakkufu era emmere baagituliisanga ku mpaka. Laba bwe tutuuka ewa Jajja nga kyayi bamunywa ku ssaawa musanvu eky'emisana ku kkumi !!

Nnali muwala mugimu, nga ndi mweru era ng'omubiri gwange gugonda gukirako 'sponge'. Jajja yatandika okutukozesa emirimu egy'ewaka nga muno mwe mwali okwoza ebintu, ekintu kyennali sisobola kukola anti buli lwe nnabyozanga byasigalangako ssabbuuni ate nga bibeera binyerengeta, si byebyali ebya 'plastic' wamma n'ondabira embaga y'embaata! Ate nga bya kwoza ng'okutaamiridde wenna omugongo negukufuuyirira okufa! Muto wange Shamim ye yagezangako okubyoza engeri gye yebbiriranga n'ayambako ku Peace nga tukyabeera ewaffe, nze sirina kye nnagezangako kukola nga buli kimu bakinkolera. Jajja teyakoma ku kutwozesa bintu wabula yatutwala ne mu nnimiro mbu tulime kino nnakigambirawo jajja nti sijja kugenda mu nnimiro kuba nnali ssirimangako bukya nzaalibwa. Hooo bino olwagwa Jajja mu matu, omukazi yayomba n'atulangira obunyarwanda bwa Nnyaffe obwamugaana okutuyigiriza ekkubo ettuufu ng'akyali ku nsi. Nze eby'okulima nnabigaana era ne nsaba Jajja ampe 'transport' ngende ewa Auntie Joviah eyali mukwano gwa maama waffe nga siibisobole! Jajja yansekerera n'angamba nti, "Zikusanze mukazi wattu, ani anaakubudamya ggwe atasobola na kweyoleza ndoobe!" oba yali ategeezaaki! Wano weyatemera omulanga omunene nga bw'agamba nti, "Mwana wange wandibaddewo neweeyolera abaana bo". Yangamba nti bwe mba njagala ssente nfune gye mpakasa nzikolerere ebyobwelere byakoma! Nga wayise ennaku waliwo Ssenga eyajja okulaba ku Jajja, nnamusaba anfunire 'transport' ngende nkole nsobole okuyamba ku bagandabange. Ssenga yayogera ne Jajja ku nsonga ezo era bw'atyo yampa 'transport' okuva mu kyalo okuntuusa mu kibuga kampala. Nga ntuuse mu kibuga nagenda butereevu ewa Auntie Joviah, nnamubuulira embeera gye twali tuyitamu. **(Bisimbuddwa okuva mu" Obulungi SSidya")**

## EKITUNDU B

### Kola 2(a) oba 2(b)

#### **2. *Ku mitwe gino wammanga, londako gumu (1) owandiike emboozi ya bigambo (300 – 400)***

**(Obubonero 30)**

- i. Njongera okwonooneka
- ii. Okalya dda kadda dda!
- iii. Ogutategannya tegguza nvuma
- iv. Ofanga toganzizza muka musajja!

### Oba

#### **b) *Ku mitwe gino londako ebiri ku buli gumu owandiikeko nga bw'olagiddwa.***

- i) Wandika omuko mu muwalire ng'olaga ebisaanye okukolebwa okutangira ekibbabaana ekiriwo ensangi zino.
- ii) Weefuule omusasi w'amawulire owandiike eggulire erinaafulumira mu lupapula lwa Ddoozi nga likwata ku bubbi bwa Bbanka obwabaddewo ku ssaawa musanvu enz'omutuntu.
- iii) Gwe okulira abavubuka mu kiktundu osabiddwa ku lunnaku lwamwe olw'abavubuka okukirira abavubuka bano onnyonnyole ebizibu bye basanga ensangi zino. Wandika okwogera kwo.

iv) Gwe omu ku baanoonyereza ku ngeri obwegugungo bwabayizi gye busobola okumalibwawo mu masomero- wandiika bye mwazuula.

## EKITUNDU C

### 2. Soma ekitundu kino n'oluvannyuma oddemu ebibuuzo ku nkomerero yaakyo.(Obubonero 20)

Kino nakiraba ku mbaga ya Majanja. Eno enjogera gy'otera okuwulira abantu bwe babaako ekintu kye bakungiriza okulaga nti kibadde kya maanyi naddala nga gubadde mukolo okubadde nassisi w'omuntu ate nga gunyumye. Majanja ayogerwako ddala yaliwo era ekifo we baamuziika kye kimu ku bifo by'obulambuzi mu Wakiso. Okimanyi nti embaga eno, yali yaakumala balongo so si ya bugole nga abantu abasinga bwe balowooza!

Embaga eno ey'ebyafaayo yali mu ssaza lya Ssaabasajja ery'e Kyaddondo ku kyalo Kitukutwe ekisangibwa mu munisipaali y'e Kira nga yeetabwako abantu okuva mu masaza ga Buganda gonna. Wadde ng'emyaka **gyetoloodde** bukya ebaawo naye yagaana okuva ku mimwa gya bantu. Embaga eno yaliwo mu mirembe gya Ssekabaka Muteesa 1 mu myaka gya 1879 kati gye myaka 139 bukya ebaawo. Majanja Ssekirembe Bireseki, yali wa mutuba mu kika ky'Engeye kyokka Ssekabaka Muteesa I yali yamuwa obwami n'amuwa n'omutuba Mulamba ogw'ekyalo Kitukutwe. Kigambibwa nti Majanja yali muwulize eri Obwakabaka ekyasanyusa Ssekabaka Muteesa ne bafuuka baamukwano kumpi kubeera baaluganda.Nnaalongo Gidah Nakitende gwe baalekawo okulabirira ekiggya annyonnyola bwati ku bikwata ku Majanja n'embaga gye yakola wadde naye baamunyumiza nnyumize. Majanja yazaalibwa omugenzi Musujja, era ebiwandiiko ebiri ku kiggya kye kiraga nti yazaalibwa ku mulembe gwa Ssekabaka Jjunju eyaliwo wakati wa 1780 ne 1797 nga kitegeeza nti Ssekabaka Muteesa I we yatandikira okufuga mu 1856, Majanja yali wakati w'emyaka 50 ne 79.

Majanja yatandika okuweereza Obwakabaka ng'akyali muvubuka era kigambibwa nti yali muganzi mu Lubiri nga ye Kimbugwe. Kabaka bwe yazaala abalongo n'amenyera olukanda ku Majanja era ono ye yali avunaanyizibwa okukola emikolo gy'okumala abalongo. Olw'okuba Majanja yali mwami wa Kabaka ne **gujabagira** kuba yalina okukola entujjo esaana Kabaka okumumenyerako olukanda.

Kabaka yalagira basajja be okukunga obuganda bwonna okuleeta amakula agaayitirira ewa Majanja era entujjo n'ebeera **makeke**. Amasaza okuli Kyaddondo, Mawokota ne Butambala gaaleeta buli ekisobola okugabulwa ku ntujjo era nga bwe baabireeta bwe byagabulwa. Amasaza amalala amawulire baagafuna kikeerezi naye era tekyabalobera kugoba nte, kuleeta mmere, n'omwenge ne boolekera ewa Majanja.

Bwe baatuukanga nga baaniriza olwo nga bafumba buto n'okugabula wakati mu mbuutu ezaavuganga emisana n'ekiro. Eby'okulya ebyaleetebwanga essaza eri byabanga biggwaawo ng'Essaza eddala lireeta wamma entujjo n'ebeera ya **lugenderezo**, eyakowanga nga y'alaba eryamuleeta era kigambibwa nti ebikujjuko bino byamala emyezi ebiri.Okuva olwo embaga eno yagenda mu byafaayo bya Buganda

## **Ebibuuzo**

- a) Enjogera egamba nti kino nakiraba ku mbaga ya Majanja etegeza ki? (Obubonero 2)
- b) Bintu ki ebifuula embaga ya Majanja okuba ensukkulumu? (Obubonero 5)
- c) Nga weesigama ku kitundu ky'osomye, lambulula obuvunaanyizibwa bwa Majanja. (Obubonero 5).
- d) Menya amasaza ga Buganda agaali amasaale mu kuleeta amakula ku mukolo gw'okutegeka embaga y'abalongo ba Kabaka (Obubonero 4).
- e) Nyonyola amakulu g'ebigambo bino nga bwebikozeseddwa mu kitundu ky'osomye
- Gyetoolodde
  - Gujabagira
  - Makeke
  - Lugenderezo (Obubonero 4).

## **EKITUNDU D**

4. Funza ekitundu kino mu bigambo nga kikumi (100) (Obubonero 20)

## **NSALIBWA OGW'OKUFA**

Bwe nnassuuka ne ntwalibwa mu maaso g'omulamuzi okuwozesebwa oba kanhambe okusoyebwa kajjogijjogi w'ebibuuzo balyoke basinziire okwo bansalire ekibonerezo. Nasimbibwa mu maaso g'omulamuzi eyalina amaaso agajudde omuliro, ng'akommonta emmindi, ayambadde amatiribona n'amajolobera ku lugoye olwa kakobe era ngatikidde n'enkofiira enjeru ejjude obutuli. Emabega w'omulamuzi ng'eriyo omuntu oba kamuyite omuyambi we eyali amuwujjisa ekiwujjo eky'amatabi abiri olw'ebbugumu.

Yatukira ku kituuti nakkalira ng'akatiko era ng'amaze okutereera obulungi mu ntebe ye, abantu bonna - abajaasi, abaweereza n'abantu babulijjo olwamulaba ng'akkalidde mu ntebe ye ne beeyala nga bwe bakubiira emitwe erudda n'erudda.

Omuwolereza w'amateeka omukulu yayanja omusango bwati: "Ssebo Lugulumpaali, Wakamwano, Mattumpagwa, Maasomoogi n'ekitiibwa kyo kyonna awatali kuttira muntu ku liiso, osabibwa n'obukkakkamu obujjuza ennyanja owulirize era osalire omusibe oyo ajagaladde mu maaso go ekibonerezo eky'okufa ku buli gumu ku misango gino egimuvunaanibwa".

Yatandika okugimenya naye okugenda okugimalayo nga ne gyezatandikidde sikya jjukirayo. Mu bigambo enkumuliitu byeyafukumula mwe nawulirira ng'akoona ku bino; nga bwe natta omuntu weewawo nakikola mukwetaasa naye kyali tekinzigisaako musango!

Yayogeranga bino nga bweyekamwana, bwaboggola, bwabwatuka ate nga bwanyeenya olunwe okulaga nga asunguwadde nnyo. Mba nkyalowooza ku kyokuwoza ku ebyo ebinkonjeddwa, omulamuzi n'abuuza abali mu mbuga ekirowooza kyabwe ku musango ogwo nga bwe baali bamaze okuwulira empoza n'enkubira y'enjuyi zombi.

Nali sinnawoza, naye namanya luvannyuma nti mu nsi eyo (Njolinjo), omuwolereza w'amateeka okola ebiri nga walukuku. Awoza ogugwe n'ogwoyo gw,awabira. Amangu ddala, abantu abaali bajjudde mu mbuga eno babwatula engalo era omulamuzi n'aleekana nga bwakoona ku mmeeza akantu akaalina akatolima emirundi ng'esatu era abantu ne balyoka bakkakana era n'ebasirikirira.

Amangu ago eggi etwakaavu, emmundu, amafumu, obusaale, emiguwa okwali n'empuluttulizo byakkirira wakati waffe n'omulamuzi. Nnali nkyatangaaliridde nga neewuunya nnalaba bulabi ng'abajaasi bansikaasikanya, bankunguzza banzigya mu mbuga nninde kuttibwa anti nalinsaliddwa gwa kufa!

**(Bisimbuddwa okuva mu Nketa mu Bizinga aka E.N.Kawere nga mulimu ebikyusiddwamu)**

**Asika asike ffena tusike, ensika ziba bbiri.....**

**BIKOMYE**



**P310/2**

**LITERATURE IN ENGLISH**

**(Plays)**

**PAPER 2**

**MOCK 2024**

**AUGUST**

**TIME:3 HRS**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**LITERATURE IN ENGLISH**

**(PLAYS)**

**PAPER 2**

**TIME:3 HRS**

## **INSTRUCTIONS TO CANDIDATES.**

This paper consists of four sections, A, B, C and D.

Candidates must answer three questions in all. one question must be chosen from section A and two others from sections B, C and D.

Each of the essay questions carries 33 marks.

Not more than one question will be chosen from one section.

Any additional question or questions attempted will not be marked.

**SECTION A (33 Marks)**

### **William Shakespeare: Richard III**

1. "The tower is the blood stream of the plot of the play Richard III" Justify the statement with close reference to the play Richard III.

**OR**

2. Describe the character of Richard and show his dramatic significance in the play Richard III.

**OR**

### **William Shakespeare: King John.**

3. Justify Shakespeare's presentation of marriage between Luis and Blanche to the development of the plot of the play king john.

**OR**

4. How relevant is the play king john to the contemporary society. Discuss with relevant examples.

### **SECTION B**

#### **Henrick Ibsen: Adoll's House.**

5. Comment on the suitability of the title Adoll's House to the play.

**OR**

6. Adoll's House is a play that is not to pass time but narrated to educate: Discuss

**OR**

#### **Oedipus the King: Sophocles.**

7. Discuss the suitability of the title Oedipus the king.
8. How does the play wright educate in the play Oedipus The King.

### **SECTION C**

#### **George Bernard Shaw: saint Joan**

9. Justify the view that mankind will never accept its saints as deprecated in the play. Saint Joan?
10. How does saint Joan's portrayal lead to the development of the play, saint Joan?

**OR**

**William Congreve: The way of the world**

11. How does Congreve advocate for the freedom of women in marriage in the play. The way of the world?
12. The role of literature is to delight and instruct. Justify this assertion with reference to the play. The way of the world.

**OR**

**William Wycherley: The Country wife**

13. How does Wycherley achieve his purpose through the use of asides and nomenclature in the play? The country wife.
14. Examine the effectiveness of the writer's use of the honor in the play the country wife.

**SECTION D**

**Snake Farmers by Yusuf Sserunkuma**

**15. Opobo and Sekadde meet again, this time it is night and they are at Sekadde's home.**

Sekadde: Welcome to my home, after such a long time. Our elders have said: when a man takes too long to eat at a friend's house, something is surely not right.

Opobo: Thanks for hosting me: I have enjoyed your wife's cooking a lot. We're not old; I would have stolen her from you. (Laughter)

Sekadde: And now that you have acquired some wealth, you surely can move a mountain! (They laugh again). Will you not be frightened walking back to your home in darkness! Your bones have become so fearful, like those of a middle – aged woman. Teenagers are never afraid of darkness and neither are very old women!

Opobo: Not so much, and after acquiring those soldier – boots from our muzungu friends, I walk without fear.

Sekadde: Now, about our arrangements, I have moved rather quickly. I have visited the site where we should start the farm.

Opobo: Are your children all asleep?

Sekadde: Don't mind them; I know those, thing we are discussing are like hot stones; they can burn a mouth before they are swallowed. Just don't mind the children. I am in control.

Opobo: Snakes are poisonous things! We may die while running the farm.

Sekadde: Old man! My father was a snake hunter, why do you forget your friend's history? This is a practice he learned from his great grandfathers. Although I do not have the herbs he used to treat snake poison. I tame and release them at will.

Opobo: But our people!

Sekadde: I have told you those white men developed Nations are built on dead bodies, and so is prosperity. The rich men in the city are those who take risks. They take the hard decision. And here we have an assured stream. Why don't we drink to our fill?

Opobo: Hmm, ok. I will support you. But how do we start?

Sekadde: I know of an old woman, two villages away: she was coming to help when we were first struck by the epidemic. But when the white people came she abandoned the trip. But she knows all the medicines. With these medicines we can guard our families

Opobo: You mean we have the protective medicines?

Sekadde: That is done. But see my point: end of the snakes is the return of poverty! See, did you have any white friends before the snakes came?

Opobo: No.

Sekadde: You cannot even imagine how many you will have when the epidemic strikes again and without end. See, you are even in the papers!

**QUESTION.**

- a) Place the extract in the play (10 marks)
- b) Discuss the character portrayal in the extract. (8 marks)
- c) How is the extract significant to whole play plot (8 marks)
- d) Explain the themes depicted in the extract. (8 marks)

### 16. Wole Soyinka by kongi's harvest

Secretary: They would lay down their lives for you.

Kongis: I trust no one. They will be in attendance tomorrow?

Secretary: Need you ask that?

Kongis: They complement my sleepy Aweris here. These ones look after my intellectual needs, the brigade take of the occasional physical requirements.

Secretary: They will not be needed tomorrow.

Kongis: Just the same, let them stand by. Nothing must disturb the harmony of the occasion ...ah, I like that song.

Secretary: It is an invocation to the spirit of harvest to lend you strength.

Kongis: (violently.): I am the spirit of harvest. (The Aweris stir)

Secretary: S-Sh. They are waking up. (alarmed, looks round wildly): who? The people? (Recovers slowly, angrily begins to climb the steps leading to his cell. Secretary follows him, appeasing.)

Kongis: I am the spirit of harvest.

Secretary: Of course my leader, the matter is not in dispute.

Kongis: I am the spirit of harvest.

Secretary: Of course my leader, the matter is not in dispute.

Kongis: I am the spirit of haar-vest!

Secretary: Of course my leader. And a benevolent spirit of harvest. Everything shall date from it.

Kongi: (Stops suddenly): who thought that up?

Secretary: It is among the surprise gifts we have planned for our beloved leader. I shouldn't have let it slip out....

Kongi: (rapt in the idea,): you mean, things like 200k.h.

Secretary: A. H. My leader. After the harvest. In a thousand years, one thousand A.H. and last year shall be referred to as I.B.H. there will only be the one harvest worth remembering

Kongi: no, K.H. is less ambiguous. The year of kongi's harvest. Then for the purpose of back-dating. B. K. H. Before kongi's harvest. No reason why we should confirm to the habit of two initials only. You lack imagination.

Secretary: It shall be as you please my leader.

Kongi: Now you see why it is all the more important that everything goes forward tomorrow as I wish it? I want the entire nation to subscribe to it. Wake up those hogs!

Secretary: It's necessary my leader. I think the little problem of Danlola is nearly solved.

Kongi. Another year of ideas?

## QUESTIONS

a) Place the extract in the context. (10marks)

b) Describe the character of kongi and secretary in the extract. (10 marks)

c) Comment on the use of style in the extract. (14 marks)

### 17. The floods by John Ruganda.

Nankya: (calling from the back room) has he come back?

Kyeyune: (to himself) that is the question. (to the audience) Has he come back yet? Or to be less optimistic: Will he ever come back? In one piece?

Nankya: (enters... surprised) where is he?

Kyeyune: Wrong question. Calls for no answer.

Nankya: But I thought you were talking to....

Kyeyune: The patron of the lake, yes. Amazing personality. Remote control.

Nankya: Its ages since he left.

Kyeyune: First: His casual whistle... to attract and then the suspension of time. That's how he goes about it. Casually but effectively.

Nankya: He said he would be back soon.

Kyeyune: Then the irresistible beckon. Most crucial stage this. Beyond it, no turning back. The irreversible step.....

Nankya: I don't like it here. The whisperings of the waves on the shore, the rustling of the wind in the trees and dogs, dogs barking and literature retreating from their own shadows.

Kyeyune (to himself) the plague is catching on. (to the audience) That's how It starts. One gets squeamish and impatient. Then comes the itch and finally the gallop into the net.

Nankya (fretting) I wish I were at home.....

Kyeyune: The everlasting claim of the umbilical cord. That's it. Mother earth. She takes whatever she gives. it is easier for some of us. We make no claims and none is made on us. No mother, no father. No wife, no children. I carry my destiny in my own palms. Ready to dispose off it at a throwaway price and at my own building.

Nankya: She gave all she could, at her own bidding. Always slogging. Yes, I remember. Took me through an acute attack of measles at four and the earthquake of the forties. That's when she built a hut on her own. With Nankya tied on her back. Yes, she built it. dug the holes, kneaded the earth and plastered it on the flames. She would have thatched the roof had the catechist not offered to help. Talk of women being inferior. It's time she got a rest.

## Questions

a) Place the extract in the context.

(10marks)

b) Describe the character portrayal in the extract. (6 marks)

c) Describe the feelings of Nankya and Kyeyune as portrayed in the extract.

(8 marks)

d) Explain the themes depicted in the extract. (10 marks)

**END**



P530/3.

BIOLOGY

PAPER 3

PRACTICAL

MOCK 2024

AUGUST

3 HOURS: 15 MINUTES



# MEBU EXAMINATIONS CONSULT

## UGANDA ADVANCED CERTIFICATE OF EDUCATION

### MOCK EXAMINATIONS 2024

BIOLOGY

PAPER 3

3 HOURS: 15 MINUTES.

#### INSTRUCTIONS TO CANDIDATES

- ✓ This paper consists of **three** questions.
- ✓ Answer **all** questions.
- ✓ Write the answers in the spaces provided. **No** additional sheets of paper must be inserted in this booklet.
- ✓ You are **not** allowed to start working within the first **15 minutes** and ensure that you have all the apparatus, chemicals and specimens you may require.

FOR EXAMINERS' USE ONLY		
QUESTIONS	MARKS	Examiner's Initials
1		
2		
3		
TOTAL		

1. You are provided with freshly killed mammal labelled W.

(i). Draw and label the dorsal side of the head of specimen W to show the structures for sensitivity.

**(05½ marks)**

(ii).Examine the **otic pavilions** of specimen W and describe how they are adapted to perform their function hence describe their structure. **(05 marks)**

[illegible]

(b) .Dissect specimen W to expose the structures for ventilation and blood circulation in the regions anterior to the diaphragm with the heart and the left lung displaced to your left.

**(25 marks).**

(c).By further dissection, open the neck region of specimen **W**.Draw and label the superficial structures. **(07 marks)**

(d).Examine the entire body of specimen **W** and outline any two structural adaptations it has to overcome dessication. **(02 $\frac{1}{2}$ marks)**

.....

.....

.....

.....

.....

2. You are provided with solutions T and N that contain food nutrients and solutions G and R.

(a).Identify the food nutrients present in solutions T and N using the reagents provided. Record your procedure, observations and conclusions in the table below. **(21 marks)**

PROCEDURE	OBSERVATIONS		CONCLUSIONS	
	T	N	T	N

<b><u>BENEDICT'S TEST</u></b>				
<b><u>BUIRET'S TEST</u></b>				
<b><u>IODINE TEST</u></b>				

(b).Extract a piece of the stomach of specimen **W** measuring about 2.0cm. Open it and pour out the contents, wash and grind it using a pestle and a mortar. Add 8cm<sup>3</sup> of distilled water. Leave the solution to settle and then decant. Label the extracted solution as **Q**. Obtain four test tubes and label them **A,B,C** and **D** and add components to each test tube as shown below:

<b>TEST TUBE</b>	<b>PROCEDURE</b>
<b>A</b>	3cm <sup>3</sup> of <b>N</b> and 2cm <sup>3</sup> of <b>G</b>
<b>B</b>	3cm <sup>3</sup> of <b>N</b> and 2cm <sup>3</sup> of <b>R</b>
<b>C</b>	3cm <sup>3</sup> of <b>T</b> and 2cm <sup>3</sup> of <b>G</b>
<b>D</b>	3cm <sup>3</sup> of <b>T</b> and 2cm <sup>3</sup> of <b>R</b>

Divide the extracted solution Q into four equal parts and add each part into the test tubes A, B, C and D. Incubate the test tube contents at a temperature between 37<sup>0</sup>C 40<sup>0</sup>C for 3,000 seconds.

(i) .Observe test tubes A and B and record your observations and conclusions in the table below.

**(04 marks)**

TEST TUBE	OBSERVATIONS	CONCLUSIONS
A		
B		

(ii).Using the reagents provided, carry out the tests below on the food nutrients present in test tubes C and D. Record your observations and conclusions in the table below.

**(14 marks)**

TEST TUBE	TESTS	OBSERVATIONS	CONCLUSIONS
C	<u>IODINE TEST</u>		

	<u><b>BENEDICT'S TEST</b></u>		
	<u><b>BUIRET'S TEST</b></u>		
D	<u><b>IODINE TEST</b></u>		
	<u><b>BENEDICT'S TEST</b></u>		
	<u><b>BUIRET'S TEST</b></u>		

(iii). From your results, state any two properties of the active substance in solution **Q**.

**(02 marks)**

(c). Explain the results obtained in (b) (i) and (ii) above.

**(07 marks)**

3. You are provided with specimens E1, E2, E3, E4, and E5 which are flowers and inflorescences.

(a). Describe the androecium and gynoecium of each of the specimens, E4, E2 and E1 and of one flower from each specimens E5 and E3. **(15 marks)**

**(15 marks)**

Specimens	Characteristics Of Androecium	Characteristics Of Gynoecium
E4		



<b>E2</b>		
<b>E1</b>		

<b>Flower of E5</b>		
<b>Flower of E3</b>		

(b).Using the characteristics of the androecium and gynoecium, construct a dichotomous key to identify the specimens. **(04 marks)**

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(c).Draw and label the androecium of specimens E4 and E2. **(06 marks)**

(d).With a reason, state the mode of pollination for specimen E4. **(02 marks)**

.....

.....

.....

.....

(e).Explain how pollination is facilitated by the androecium of specimen E3. **(04 marks)**

.....

.....

.....

.....

.....

**END**

**P615/3  
GRAPHICS  
(CRAFTS A)  
PAPER 3  
MOCKS 2024  
AUGUST  
5 $\frac{1}{4}$  HOURS**



# **MEBU EXAMINATIONS CONSULT**

## **Uganda Advanced Certificate Of Education**

### **MOCK EXAMINATIONS 2024**

#### **ART AND DESIGN**

#### **GRAPHICS (CRAFTS A)**

#### **Paper 3**

**Planning Session: 2 $\frac{1}{4}$ Hours**

**Practical Examination: 3 Hours.**

#### **INSTRUCTIONS TO THE CANDIDATES**

- Drawing instruments, tracing paper, Letterset and similar aids are allowed.
- Answer one question, starting its number.

The Art teacher should supply the candidates with cards measuring 5cm wide by 12cm long with which the candidates will demarcate the area in the top right hand corner of the front surface of the Paper. In this area, the candidate's name, center and index number, in that order must be written clearly. This area **MUST NOT** be painted.

#### **Instructions to candidates for the PLANNING SESSION (2 $\frac{1}{4}$ Hours)**

You are required to spend 2 Hours 15 Minutes doing the following;

- i) Reading and selecting both tasks and materials.
- ii) Sketching.
- iii) Transfer if necessary.

On no account may you take out of the examination room, a copy of the texts or your plans /sketches and you **MUST** not bring in any other notes/sketches or any such specimens into the examination room on returning for the practical session.

Your plans/sketches must bear your index number, name and number of the task you have selected. All these should be handed to the supervisor at the end of the practical. Items candidates should move with are; scrap books, lettersets, newspapers, magazines.

#### **QUESTIONS**

1. In an area of 20cm x 18cm, design an emblem for **RHINO SPORTS CLUB**; with a motto, “The Power”. Use not more than three colors.
2. In an area of 25cm x 30cm, design a repeated pattern for Red Ross, for a company that deals in the making and arrangement of flower bouquets. Use not more than three colors.
3. Using dimensions of 20cm x 15cm x 2cm, design a book cover entitled **HORROR IN AFRICA**. Written by **DENK LUEL** and published by Century publications.  
Use not more than three colors.
4. Using an area of 25cm x 28cm, in a good calligraphic hand, design an appreciation card with the following words;  
**APPRECIATION**
5. The family of Mr and Mrs Ropiga Sokoma of Lambe Village, together with the family of Mr and Mrs Wembe Amuda of Gou village with pleasure wish to thank;  
.....  
For the moral and financial support extended or rendered to them during the preparation of their childrens’ wedding that took place on the 20<sup>th</sup> of June 2024. It was a real success and we pray that the almighty God rewards you abundantly always.  
Signed: Ropiga Sokoma.  
Use two colors only.

**END**

**P615/1**

**ART PAPER 1**

**(Drawing or Painting**

**From Still life and Nature)**

**MOCK 2024**

**AUGUST**

**Time: 3 Hours**



# **MEBU EXAMINATIONS CONSULT**

## **Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**ART AND DESIGN**

**PAPER 1**

**Drawing or Painting from Still Life and Nature**

**Time: 3 Hours**

### **INSTRUCTIONS TO CANDIDATES**

**Note:** Candidates must be instructed that **ruling** by all means whatsoever is **forbidden** except when marking off space for name and other particulars.

This paper offers two major alternatives **A** and **B**. Candidates may attempt either **A** or **B** but not both.

#### **ALTERNATIVE A: Drawing or painting from Still life.**

Candidates must be instructed that ruling by any means whatsoever is strictly forbidden

#### **ALTERNATIVE B: Drawing or painting from Nature.**

Candidates are required to make a study or studies, using any side of the sheet of paper.

**Either**

**ALTERNATIVE A: STILL LIFE**

On a round or rectangular tray, place 3 quarters of bread on the left hand side of the tray, place a six cups' flask next to the bread but on the right side. In between the bread and the flask, but on the tray, place a 1kg of blue band tin. In front of the whole setting but on the left, place a sugar bowl and a tea cup with the spoon inside next to it but slightly on the right side of the sugar bowl, on the right side of the tray but in front, place a sauce with 3 loaves of bread clearly seen by the candidates.

**Or**

**ALTERNATIVE B: NATURE STUDY**

- iv. Candidates draw or paint a landscape in which a building is at an angle on a raised ground with trees in the background.
- v. Make a study or studies of a mature pineapple.
- vi. Make a study of a mature cockroach.

**END**



*P515/2*

*Principles and practices of  
Agriculture.*

*PAPER 2*

*MOCKS 2024*

*AUGUST*

*3 hours.*



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**Principles & Practices of Agriculture.**

Paper 2

(Theory)

Time: 3 Hours

## **INSTRUCTIONS TO CANDIDATES**

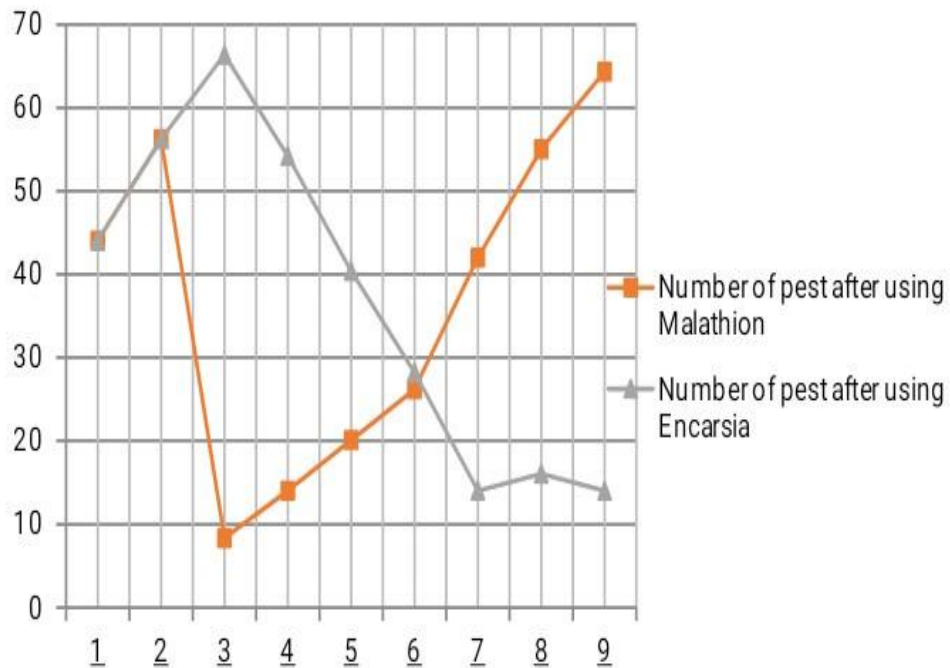
*Section A is compulsory.*

*Choose any **ONE** question from sections **B, C, D** and **E**.*

**SECTION A**  
**(COMPULSORY)**

1. The graph below shows a tomato grower using Malathion or Encarsia (predatory wasp) to reduce the number of white flies. Malathion was sprayed twice in the first week and fourth week (X-axis). Use the information to answer the questions that follow.

**Figure 1**



- (a). Compare the graphs plotted in (a) above. (06 marks)
- b) Suggest the method that should be used for long term success and give reasons. (04 marks)
- c) What term describes the use of Encarsia method to reduce the number of white flies? (01 mark)
- d) Give three advantages of using Encarsia method to reduce the pest population in tomatoes. (03 marks)
- e) Suggest the desired qualities of Encarsia method as a good control agent. (04 marks)
- f) Why is it not possible to use both methods together? (02 marks)

**SECTION B**  
**(CROP PRODUCTION)**

- 2a) *what are the characteristics of a good Agro forestry tree species?* (08 marks)
- (b).Describe how you would raise tree seedlings using polythene pots in the nursery beds. (08 marks)
- (c).What benefits do crops get when inter-planted with trees? (04 marks)
- 3a).Describe the practices that encourage soil aggregation and aggregate stability. (09 marks)
- How does a good soil structure contribute to crop production? (04 marks)
- In what ways do living organisms contribute to soil fertility? (05 marks)

**SECTION C**  
**(ANIMAL PRODUCTION)**

4. A farmer would like to make a ratio of 16% protein using the following feed stuffs, maize brand 8% protein, broken maize 12%protein and soya - bean meal 38%.
- a) In what proportion would he mix the feed stuffs to make 100 kilogram feeds if maize brand and broken maize are mixed in the ratio of 1:2? (Use the Pearson square method). (08 marks)
- (b).Why is it necessary to carry out processing of feeds before giving them to animals?(06 marks)
- (c).What safety measures should be taken when handling and serving feeds to animals? (06 marks)
- 5a) Describe the ways of measuring breeding efficiency in a flock? (05 marks)
- (b).Explain the causes of low breeding efficiency among cattle? (09 marks)
- (c).How can low breeding efficiency of a flock be improved? (06 marks)

**SECTION D**

**(AGRICULTURE MECHANIZATION)**

- 6a) *Explain the factors that influence farm lay out.* (09 marks)
- (b). Why is use of wood in construction more popular in Uganda? (06 marks)
- (c). Identify the features to consider when designing a good calf pen. (08 marks)
- 7a) *Explain the factors considered when selecting source of power to use for farm work?* (09 marks)
- (b). Describe the benefits of using working animals on the farm. (06 marks)
- (c). Identify the activities where mechanization can be applied on farms. (05 marks)

**SECTION E**  
**(AGRICULTURAL ECONOMICS AND FARM MANAGEMENT)**

- (a). Describe the effects of fluctuations in the prices of farm products. (08 marks)
- (b). What measures can be used to stabilize prices of farm products? (07 marks)
- (c). Suggest the methods of determining prices of farm products. (05 marks)
- 9a). *Describe the principles on which the cooperatives are governed.* (09 marks)
- (b). How can farmers benefit from being members of cooperatives? (06 marks)
- (c). What challenges are encountered by farmers during formation and management of cooperative organizations? (05 marks)

END

**S475/1**

**Subsidiary**

**Mathematics**

**Paper 1**

**August 2024**

**2Hrs: 40 Min**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**SUBSIDIARY MATHEMATICS**

**Duration: 2 Hours: 40 Minutes**

## **INSTRUCTIONS TO CANDIDATES**

- (i) Answer all eight questions in section A and four questions from section B selecting at least one question from each part.
- (ii) Any additional questions answered will not be marked
- (iii) All necessary working must be shown clearly
- (iv) Graph paper is provided
- (v) Silent, non-programmable scientific calculators and mathematical tables with a list of formulae may be used.

## SECTION A

Attempt all the questions in this section

1. The third term of an Arithmetic Progression (A.P) is 12 and the seventh term is 32. Find the sum of the first ten terms of the A.P (05 marks)
2. Given the matrices  $A = \begin{pmatrix} -1 & -3 \\ 1 & 1 \end{pmatrix}$  and  $B = \begin{pmatrix} 6 & 3 \\ 2 & 1 \end{pmatrix}$  determine:  
(i)  $AB$  (03 marks)  
(ii)  $2A - B$  (02 marks)
3. If  $a = 5\mathbf{i} - 2\mathbf{j}$  and  $b = -3\mathbf{i} + 7\mathbf{j}$ , find;  
(b)  $2a + b$  (03 marks)  
(c)  $a \cdot b$  (02 marks)
4. Use the matrix method to solve the simultaneous equations: (05 marks)  
$$\begin{aligned} 3x + y &= 5 \\ 3x - 2y &= -1 \end{aligned}$$
5. A committee of 3 boys and 4 girls is to be chosen from a group of 8 boys and 6 girls. How many different committees can be formed? (05 marks)
6. Three events  $A, B$  and  $C$  are such that  $P(B) = \frac{3}{5}$ ,  $P(C) = \frac{4}{5}$ ,  $P(C/B) = \frac{9}{20}$  and  $P(A \cap C) = \frac{7}{25}$ , find  
(b)  $P(B \cap C)$  (03 marks)  
(c)  $P(A/C)$  (02 marks)
7. Find the gradient of the curve  $y = 2x^3 - 4x^2 + 5x - 6$  at point  $(-2, 4)$ . (05 marks)
8. Given that  $\sim N(72, 225)$ , find  $P(30 < x \leq 60)$ . (05 marks)

## SECTION B

### PART I (Pure Mathematics)

9. (a) Without using tables or calculator, solve for  $x$  in;  
i.  $9^x \cdot 3^{(x+1)} = 81$  (04 marks)  
ii.  $2 + 3 \log x = \log 0.1$  (04 marks)  
b. The function  $f(x) = x^4 + ax^3 + bx^2 + 5x + 3$  has a remainder of  $(2x + 1)$  when divided by  $x^2 + 3x + 2$ . Find the values of  $a$  and  $b$ . (07 marks)

10. Given the curve  $y = (x - 2)(3 - x)$
- (a) (i) Determine the nature of its stationary points. **(07 marks)**  
 ii) Sketch the curve. **(04 marks)**
- (b) Find the area enclosed between the curve and the y-axis. **(04 marks)**
11. A circle passes through points (1, -4), (6, 1) and (9, -8). Find
- (i) The equation of the circle. **(09 marks)**  
 (ii) The centre and radius of the circle. **(06 marks)**
12. (a) Given that  $Z_1 = 2 + 3i$  and  $Z_2 = 3 + 4i$  find
- i.  $Z_1 Z_2$  **(03 marks)**  
 ii.  $\left| \frac{Z_1}{Z_2} \right|$  **(06 marks)**
- b.  $\int_0^1 x \sin x \, dx$  **(06 marks)**

## PART II

### (Applied Mathematics)

13. A continuous random variable X has the probability density function (p.d.f).
- $$f(x) = \begin{cases} k(4 - x^2); & -2 < x < 2 \\ 0; & \text{Elsewhere} \end{cases}$$
- Where  $k$  is a constant.  
 Determine the;
- (a) Value of  $k$  **(05 marks)**  
 (b) Expected value  $E(x)$  **(05 marks)**  
 (c) Variance of X **(05 marks)**
14. (a) A man's chance of hitting a target with each of his shots is  $\frac{1}{5}$ . If he has to fire 5 shots, calculate the probability that;
- i. Exactly 3 shots hit the target **(03 marks)**  
 ii. At least 2 shots hit the target **(04 marks)**
- b. In a football tournament, three teams Arsenal, Chelsea and Liverpool had the following results:
- Arsenal won two matches, drew once and lost one match.
  - Chelsea won two matches and lost two matches.
  - Liverpool won 1 match, drew twice and lost one match.
- The teams are awarded 3 points for a win, 1 point for a draw and no point for a loss.
- (i) Write a  $3 \times 3$  matrix for the results and a column matrix for the points. **(04 marks)**  
 (ii) By matrix multiplication, determine the winner of the tournament. **(04 marks)**

15. The lengths in millimeters (mm) of 40 leaves in an agricultural survey are shown in the table below.

Length (mm)	18.0 – 19.0	19.0 – 20.0	20.0 – 21.0	21.0 – 22.0	22.0 – 23.0	23.0 – 24.0
Number of leaves	3	12	7	11	4	3

- (a) Display the data on a histogram hence estimate the modal number of leaves. **(09 marks)**

- (b) Calculate;
- i. The mean length. (03 marks)
  - ii. The Standard Deviation. (03 marks)

16. The sales (in thousands of shillings) of a Computer Accessories Company for the period 2002 to 2004 are given in the table below:

	QUARTER			
Year	1	2	3	4
2002	1235	1242	1410	1400
2003	1275	1270	1450	1480
2004	1302	1280	1510	1500

- a) Calculate the four-point moving averages.
- b) On same axes plot graphs of the sales and the moving averages against time. Comment on the general trend of the sales for the three years period.
- c) Use your graph to estimate the sales for the 1<sup>st</sup> quarter of 2005. **(15 marks)**

**END**



CANDIDATE'S NAME:.....

SIGNATURE.....

P525/ 3

CHEMISTRY PAPER 3

(PRACTICAL)

MOCK 2024

AUGUST

TIME: 3Hrs  $\frac{1}{4}$  Min



**MEBU EXAMINATIONS CONSULT**  
**UGANDA ADVANCED CERTIFICATE OF EDUCATION**  
**MOCK EXAMINATIONS 2024**

**CHEMISTRY**  
**(PRACTICAL)**  
**PAPER 3**

**Time: 3 Hours 15 Minutes**

**INSTRUCTIONS TO CANDIDATES**

Answer **ALL** questions.

Record your answers on this question paper in the spaces provided.

Mathematical tables, slide rules and silent-programmable calculators may be used.

Reference books (i.e. text books, books on qualitative analysis, etc. Should not be used.

**Candidates are not allowed to start working with the apparatus for the first 15 minutes.**

This time is to enable candidate to read the question paper and make sure they have all the apparatus and chemicals that they may need.

For Examiner's Use Only			
Q.1	Q.2	Q.3	Total

1. You are provided with the following;

FA1, which is potassium manganate (VII) solution of unknown concentration.

FA2, which is a 0.05M solution of Ammonium ferrous sulphate,  $(\text{NH}_4)_2\text{SO}_4 \cdot \text{FeSO}_4 \cdot 6\text{H}_2\text{O}$ .  
Solid A which is an oxalate with the formula  $\text{X}_2(\text{CO}_2)_2$ .

You are required to standardize FA1 and to use it to determine the relative atomic mass of X.

In acid medium, manganate (VII) ions oxidize iron (II) to iron (III) and ethanedioate (oxalate) ions to carbon dioxide.

### Procedure I

Weigh accurately about **0.9g** of **A** and dissolve it in about  $100\text{cm}^3$  of distilled water in a  $250\text{cm}^3$  volumetric flask. Make the solution to the mark by adding distilled water. Label this solution as **FA3**.

### Results:

Mass of A + weighing bottle = .....g

Mass of weighing bottle = .....g

Mass of A = .....g ( $1\frac{1}{2}$  marks)

### Procedure II

Pipette  $25.0\text{ cm}^3$  (or  $20.0\text{cm}^3$ ) into a conical flask and add equal volume of 2M of sulphuric acid.  
Titrate the mixture with FA1.

Repeat the titration until you obtain consistent results.

Record your results in **table 1**

### Results

Volume of the pipette used = ..... $\text{cm}^3$  ( $\frac{1}{2}$  mark)

Burette readings	1	2	3
Final Burette reading ( $\text{cm}^3$ )			

Initial Burette reading (cm <sup>3</sup> )			
Volume of FA2 used (cm <sup>3</sup> )			

**Table 1**

**(4  $\frac{1}{2}$  marks)**

Values used to calculate average volume of FA2 used are;

**( $\frac{1}{2}$  mark)**

.....  
 .....  
 .....

Average volume of FA2 used.

**(2  $\frac{1}{2}$  marks)**

.....  
 .....  
 .....

**Procedure III**

Pipette 20.0 cm<sup>3</sup> or 25.0cm<sup>3</sup> of FA3 into a conical flask and an equal volume of 2M sulphuric acid. Warm the mixture to about 60°C and titrate the warm solution with FA1

Repeat the titration to obtain consistent results.

Record your results in table 2

Volume of the pipette used = .....cm<sup>3</sup>

**( $\frac{1}{2}$  marks)**

**Table 2**

Burette readings	1	2	3
Final burette reading (cm <sup>3</sup> )			
Initial burette reading (cm <sup>3</sup> )			
Volume of FA1 used (cm <sup>3</sup> )			

Values used to calculate average volume of FA1 used.

( $\frac{1}{2}$  marks)

.....

.....

Average volume of FA1.

( $2\frac{1}{2}$  marks )

.....

.....

.....

**Questions.**

(a) Write the overall ionic equation of reaction between manganate(VII) ions and

(i) Iron (II) ions.

( $1\frac{1}{2}$  marks )

.....

.....

(ii) Ethanedioate ions.

( $1\frac{1}{2}$  marks )

.....

.....

.....

.....

(b).Determine the:

(i).The number of moles of manganate (VII) ions that reacted with iron (II) ions. (2 marks)

.....

.....

.....

.....

.....

.....

.....

.....

(i) Molar concentration of FA1.

( 2 marks)

.....

.....

.....

.....

.....

.....

.....

.....

(b) Calculate the:

Test	Observation	Deduction
a) Heat a spatula end full of Y in a clean, dry test-tube until no further change.		
b) To two spatula ends full of K in a clean test-tube add about 6cm <sup>3</sup> of distilled water, shake vigorously and filter. Keep both the filtrate and residue for further tests.		
Divide the filtrate into six portions		
(i) To the first portion add aqueous sodium hydroxide dropwise until in excess and heat.		
(ii) To the second portion add aqueous ammonia drop wise until in excess.		
(iii) To the third portion add a little ammonium oxalate solution		
(iv) To the fourth portion add a little solid ammonium chloride and shake, followed by disodium hydrogen phosphate and then add aqueous ammonia.		
(v) To fourth portion add lead (II) acetate solution and heat		
(vi) To the fifth portion carry out a test of your choice to confirm one of the anions. ..... ..... ..... .....		
c) Wash the residue with		

distilled water and dissolve it in a little dilute nitric acid. Divide the resultant solution into two portions.		
(i) To the first portion add dilute sodium hydroxide dropwise until in excess. Heat the mixture.		
(ii) To the second portion add aqueous ammonia dropwise until in excess.		
(iii) To the third portion add excess potassium iodide solution. Then add sodium thiosuphate solution dropwise (with occasional shaking ) until in excess.		

(i) The concentration of oxalate ions in FA3 in moles per dm<sup>3</sup>.

( 3 marks )

.....

.....

.....

.....

.....

.....

.....

.....

(ii) Molar Mass of A.

(2 marks)

.....

.....

.....

.....

.....

.....

.....

.....

(iii).Relative Atomic Mass of X.

(2 marks)

.....

.....

.....

.....

.....

.....

.....

2. You are provided with substance Y that contains **two** Cations and **two** anions. You are required to carry out the following tests to identify the ions. (30 marks)

Cations present in Y are; ..... and .....

Anions present in Y are; ..... and .....

3. You are provided with substance R which is an organic compound. You are required to determine the nature of R (20 marks)

Test	Observation	Conclusion
a) Burn a little sample of R on a spatula or crucible.		
b) To 1cm <sup>3</sup> of R add 2cm <sup>3</sup> of distilled water and shake, Test the mixture with litmus paper.		
c) To 1cm <sup>3</sup> of R add a little sodium carbonate solution.		
d) To 1cm <sup>3</sup> of R add 2-3 drops of neutral iron (III) chloride solution.		
e) To 1cm <sup>3</sup> of R add a little Brady's reagent, warm and dilute with water dropwise.		

f) To 1cm <sup>3</sup> of R add acidified potassium dichromate and heat.		
g) To 2cm <sup>3</sup> of R add a 1cm <sup>3</sup> of ethanoic acid followed by a few drops of concentrated sulphuric acid. Heat the mixture and pour in a beaker of cold water.		
h) To 2cm <sup>3</sup> of R in a test tube add 1cm <sup>3</sup> Lucas' reagent, stopper with a cork and shake vigorously <b>but carefully</b> (to avoid any spill). Then leave to stand.		

Describe the nature of R;

.....

.....

.....

.....

**END**



P510/2

PHYSICS

PAPER 2

MOCK 2024

AUGUST

2 Hours 30 Minutes



## MEBU EXAMINATIONS CONSULT

### UGANDA ADVANCED CERTIFICATE OF EDUCATION MOCK EXAMINATIONS 2024

PHYSICS

PAPER 2

2 Hours 30 Minutes

#### INSTRUCTIONS TO CANDIDATES

Answer **five** questions, taking at least **one** from each of the sections **A**, **B**, **C** and **D** but **not** more than **One** question should be chosen from **either** section **A** or **B**.

Any additional question(s) answered will **not** be marked.

Non – programmable scientific calculators may be used.

Assume where necessary:

Acceleration due to gravity,  $g = 9.81 \text{ ms}^{-2}$ .

Speed of light in a vacuum,  $c = 3.0 \times 10^8 \text{ ms}^{-1}$ .

Electron charge,  $e = 1.6 \times 10^{-19} \text{ C}$ .

Electron mass =  $9.11 \times 10^{-31} \text{ kg}$ .

Plank's constant,  $h = 6.6 \times 10^{-34} \text{ Js}$ .

Permeability of free space =  $4.0\pi \times 10^{-7} \text{ Hm}^{-1}$ .

Permittivity of free space =  $8.85 \times 10^{-12} \text{ Fm}^{-1}$ .

The coil  $\frac{1}{4\pi\epsilon_0} = 9.0 \times 10^9 \text{ F}^{-1} \text{ m}$ .

One electron volt, (eV) =  $1.6 \times 10^{-19} \text{ J}$ .

Avogadro's number,  $N_A = 6.02 \times 10^{23} \text{mol}^{-1}$ .

Resistivity of Nichrome wire at  $25^\circ\text{C} = 1.2 \times 10^{-6} \Omega\text{m}$ .

Specific heat capacity of water  $= 4.2 \times 10^3 \text{Jkg}^{-1}\text{K}^{-1}$ .

## SECTION A

1. (a) (i) Derive the relationship,  $\frac{1}{f} = \frac{1}{u} + \frac{1}{v}$  for a convex lens, where  $u$  is the object distance,  $v$  is the image distance and  $f$  is the focal length of the lens. (04marks)
- (ii) State three possible reasons under which an image of a real object may not be formed by a convex lens on the screen. (03marks)
- (b) Describe an experiment to determine the focal length of a convex lens fixed inside a short cylindrical tube. (05marks)
- (c) A convex lens of focal length 10cm is arranged coaxially with a concave lens of focal length 18cm. The lens system is used to focus an object placed 24cm from the convex lens on the side remote from the concave lens. The final image is formed on a screen placed 18.6cm from the concave lens. Calculate the;
- (i) Separation between the lenses. (05marks)
- (ii) Magnification. (03marks)
2. (a) (i) State the laws of refraction of light. (02marks)
- (ii) A small object is placed at a distance of 30.0cm from a converging lens of focal length 10.0cm. Calculate the distance from the first lens where a second converging lens of focal length 40.0cm must be placed in order to produce an erect image of the same size as the object. (05marks)
- (b) (i) Draw a diagram to show the formation of an image by a compound microscope in normal adjustment and use it to derive an expression for the magnifying power. (06marks)
- (ii) A microscope has an objective lens of focal length 10.0cm and eye piece of focal length 20.0cm. If the distance between the objective lens and eye piece is 20cm, calculate the magnifying power of the microscope. (03marks)
- (c) What is meant by the following?
- (i) Total internal reflection (01mark)
- (ii) Critical angle. (01mark)
- (d) Briefly explain why an observer sees a spectrum of colors through rain drops when it is raining on a sunny day. (02marks)

## SECTION B

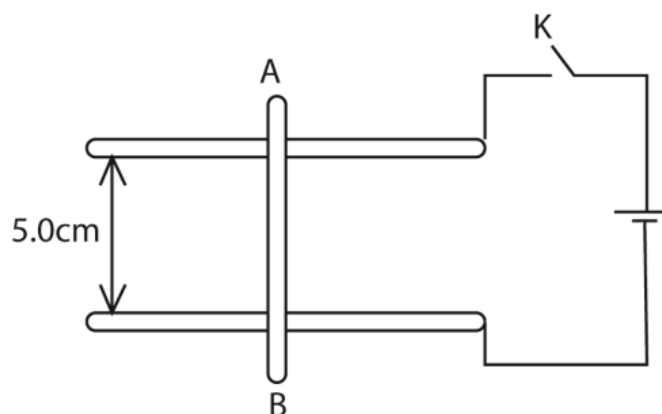
3. (a) What is meant by interference pattern as applied to waves? (03marks)
- (b) Explain why it is necessary to use a common source when demonstrating interference in light. (03marks)
- (c) In an experiment to determine wavelength of light using Young's method, two slits with a separation of 1.2mm were used. When the screen was placed 18.0cm from the slits, 30 bright fringes occupying a distance 2.5mm were obtained.
- (i) Find the wavelength of light used. (04marks)
- (ii) List the changes that would be observed if the distance of the screen from the slits was increased. (02marks)
- (d)(i) Derive the expression for angular position of nth order principal maximum produced by transmission diffraction grating. (03 marks)
- (ii) Light of two wavelengths,  $5.4 \times 10^{-7}\text{m}$  and  $5.7 \times 10^{-7}\text{m}$  incident normally on transmission grating with a spacing  $2.00 \times 10^{-6}\text{m}$ . Find the angular separation of second order principal maxima. (04 marks)
- (iii) Suppose white light is used in (d)(ii) above, describe the positions of the red and violet lights in the order principal maximum relative to central maxima. (01mark)
4. (a) Define the following:
- (i) Transverse waves. (01 marks)
- (ii) Longitudinal waves. (01 marks)
- (b) When a plane wave traverses through a medium, the displacement of the particle is given by  $y = 0.01\sin 2\pi(2t - 0.01x)$ , where y and x are in meters and t in seconds.
- Calculate the:
- (i) Frequency of the wave. (02marks)
- (ii) Wave velocity. (03marks)
- (iii) Phase difference at a given instant of time between two particles 50m apart. (02marks)
- (c) Describe an experiment to determine the velocity of sound in air by an interference method. (06marks)
- (d) (i) State two applications of Doppler effect. (02marks)
- (ii) Derive an expression for frequency, f, of sound as heard by a stationary observer when the source of sound of frequency, f, approaches with uniform speed,  $p \text{ ms}^{-1}$ . (03marks)

## SECTION C

5. (a)(i) Write down an expression for the force on a charge,  $q$  coulombs moving with velocity,  $u$ , at an angle,  $\alpha$ , to a uniform magnetic field of flux density  $B$ . (01mark)

(ii) Use the expression in (a)(i) above, to deduce the force on a conductor carrying a current in the magnetic field. (03marks)

(b) Figure below shows an aluminium bar AB resting on two horizontal aluminium rails connected to a battery through switch K. A magnetic field of flux density  $0.10\text{T}$  acts perpendicularly to the paper.



(i) Explain what happens to AB when switch K is closed. (03marks)

(ii) Calculate the angle to the horizontal to which the rail must be tilted to keep AB stationary if its mass is  $5.0\text{g}$ , current in it is  $4.0\text{A}$  and the direction of the field remains unchanged. (04marks)

(c)(i) With the aid of a labeled diagram, describe the structure and mode of operation of a moving coil galvanometer. (06marks)

(ii) Discuss the factors which affect the current sensitivity of a moving coil galvanometer. (03marks)

6. (a) State the laws of electromagnetic induction. (02marks)

(b)(i) With the aid of a diagram, describe how a simple a.c. generator works. (04marks)

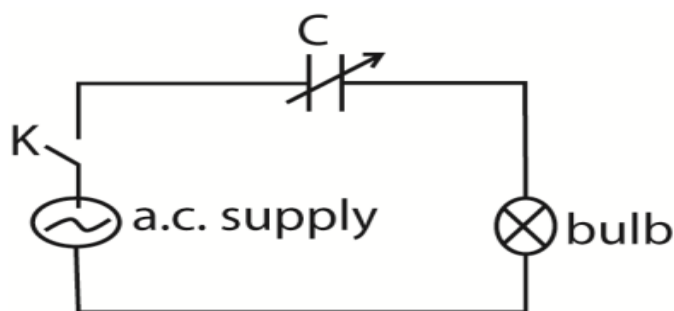
(ii) What are the main energy losses in a practical a.c. generator and how are they minimized? (02marks)

(c) A circular coil having 20 turns each of radius  $8.0\text{cm}$  is rotated about its vertical diameter with angular speed of 50 radians per second in a uniform horizontal magnetic field of magnitude  $30\text{mT}$ .

(i) Calculate the r.m.s value of the e.m.f. induced in the coil. (03marks)

(ii) If the coil forms a closed loop of resistance  $10\Omega$ , how much power is dissipated as heat in it? (02marks)

(d) The figure below shows a capacitor and a bulb connected to a.c supply.

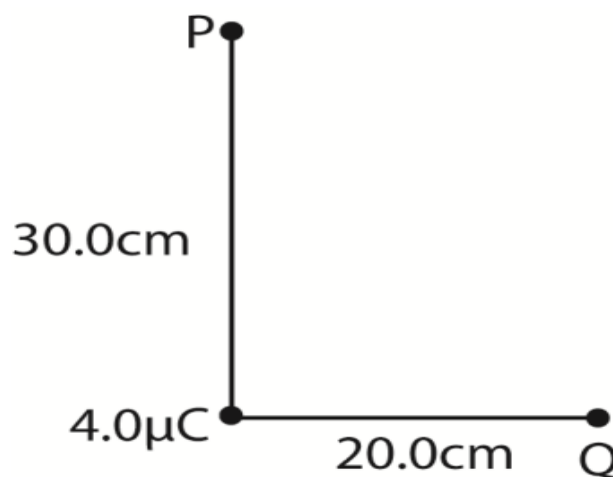


Explain

- (i) Why the bulb lights when switch K is closed. (01marks)
- (ii) What would happen if the capacitance was reduced? (02marks)
- (e) Explain the following observations:
  - (i) A spark is seen at the switch when the circuit of a current carrying coil is broken. (02marks)
  - (ii) A magnetized iron bar dropped vertically through a hollow region of a thick cylindrical shell made of copper experiences a retarding force. (02marks)
- 7. (a) Define the following:
  - (i) Peak value. (01mark)
  - (ii) Root mean square (r.m.s) value of alternating current. (01mark)
- (b) Derive an equation relating peak value and r.m.s value of alternating current. (03marks)
- (c) An electric current flows through a coil of  $4\Omega$  immersed in 200kg of water placed in a container. If the temperature of the water rises by 1K per minute, calculate the peak value of current supplied. (03marks)
- (d) What is meant by resonance in a circuit? (01mark)
- (e) A lamp of resistance  $10\Omega$ , a capacitor of capacitance  $0.4\mu\text{F}$  and an inductor of inductance  $0.4\text{H}$  are connected in series to an alternating voltage source of  $0.01\text{V}$  (r.m.s). The frequency,  $f$ , is varied from low to high value while maintaining the amplitude of the applied voltage constant.
  - (i) Explain how the brightness of the lamp rises. (03marks)
  - (ii) Calculate the resonance frequency. (03marks)
  - (iii) Find the voltage across the capacitor. (03marks)
- (f) Explain why in an R-C circuit, power is only absorbed by the resistive part of the circuit. (02marks)

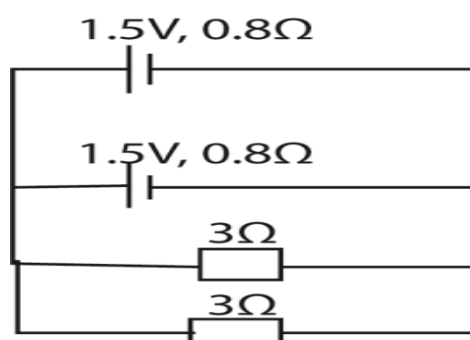
## SECTION D

- 8. (a) State Coulomb's law of electrostatics. (01marks)
- (b) (i) Describe how a conductor may be positively charged but remains at zero potential (03marks)
- (ii) Explain how the presence of a neutral conductor near a charged conducting sphere may reduce the potential of the sphere. (03 marks)
- (c) In the figure below, points P and Q are at distances 30.0cm and 20.0cm from a point charge of  $4.0\mu\text{C}$  respectively.

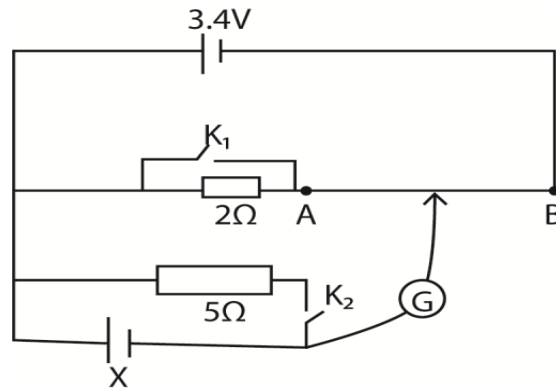


Calculate

- (i) Electric potential difference between P and Q. (05marks)
  - (ii) Energy required to bring a charge of  $+1.0\mu\text{C}$  from infinity to Q. (03marks)
  - (d) Describe with the aid of a diagram, an experiment to show that excess charge resides only on outside of a hollow conductor. (05 marks)
9. (a)(i) Define e.m.f of a battery. (01marks)
- (ii) Explain why e.m.f of a battery left standing in a room for long decreases. (02marks)
- (b) The figure below shows a network of resistors connected to show identical cells of e.m.f 1.5V and internal resistance  $0.8\Omega$ .



- Calculate the current supplied by the cells. (04marks)
- (c) Describe an experiment which can be carried out to determine the resistance of a wire using a potentiometer. (06marks)
- (d) The figure below shows a uniform resistance wire AB, 100cm long and resistance  $4.0\Omega$  connected with a  $2.0\Omega$  resistor through switch K2. When K1 is closed and K2 open, the balance length is 53cm.



Find the

- (i) Balance length when  $K_1$  and  $K_2$  are both open. (04marks)
- (ii) Internal resistance of cell X if the balance length is 44.1cm when both  $K_1$  and  $K_2$  are closed. (03marks)

10. (a)(i) Define a farad. (01mark)
- (ii) Describe briefly the energy transformations that take place when charging a capacitor using a dry cell. (02marks)
- (b)(i) What is meant by dielectric constant? (02marks)
- (ii) A parallel plane capacitor is connected to 100V and then isolated. When a sheet of a dielectric is inserted between the plates, the p.d. decreased to 30V. Calculate the dielectric constant of the dielectric. (03marks)
- (c) A  $60\mu\text{F}$  is charged from a 120V supply. It is then connected across the terminals of a  $20\mu\text{F}$  capacitor. Calculate the:
- (i) Final p.d across the combination. (03marks)
  - (ii) Difference in the initial and final energies stored in the capacitor and comment on the difference. (05marks)
- (d) Explain the principles of operation of a lightning conductor. (04marks)

**END**

**P360/2**

**LUGANDA PAPER 2**

**(Okukyusa, Okuwandiika**

**Emboozi, Okusoma Bwino**

**N'okufunza)**

**MOCKS 2024**

**AUGUST**

**ESSAWA: SSATU**



# **MEBU EXAMINATIONS CONSULT**

**UGANDA ADVANCED CERTIFICATE OF EDUCATION**

**MOCK EXAMINATIONS 2024**

**LUGANDA**

**Olupapula Olw'okubiri**

**(Okukyusa, Okuwandiika emboozi, Okusoma bwino n'okufunza)**

**ESSAWA: SSATU**

## **EBIGOBERERWA**

- Olupapula luno lugabanyiziddwamu ebitundu bina.
- Ekitundu A, C ne D bya buwaze
- Mu kitundu B oweereddwa eby'okulondako by'oyagala
- Ddamu nga bw'olagiddwa mu buli kitundu

**EKITUNDU A**



3. (a) **Kyusa ekitundu kino okizze mu Luganda**

**(Obubonero15)**

My fellow men work hard such that in your old age you have something for your pocket. Comrade, forget about the children and their mother. Mind you, you are the only stranger in the family you braggingly and proudly refer to as yours. That mansion is for your wife and the young ones. I remember one time when I was at a tender age, my grandfather told me that a married man is like a tractor that builds the road. It does it very perfectly and neatly, but when that particular road is completed, they bring a low-loader and the tractor is being carried away claiming it will dismantle the road and never allowed to step on the road it built.

Same case to a married man, you deny yourself everything, acquire super-imposed loans and at a time you wear torn clothes such that you see your children go through lucrative schools, because you believe that it is the only gift you can offer and sacrifice to your children. When these children hit teenage, now you the father you are dispensable! Worse still, most of the women poison children against their own father. They use provocative language like "If it wasn't me you would not have studied, your father was only interested in alcohol and women"

Now this is a tractor being carried away. Once children start working, the father is tired and less productive. So when the children come visiting the "poor Mzee", the father is given only twenty thousand in front of the mother, while the mother is pulled to the kitchen the father does not know what the mother has been given. Once these children drive off, the father is told to buy household items like sugar, rice, pay for medication and all other necessities. These are some of the reasons why men die early and leave widows behind suffering. So fellow men work hard because aging without property is like a death sentence!

*(Partial extract with minor modification from Voice for the Voiceless by Akampulira Arthur)*

b) **Kyusa ekitundu kino okizze mu Lungereza**  
**15)**

**(obubonero**

**NTWALIBWA EWA JAJANGE MUKYALO**

Twabeera ewa Jajja naye nga twaliwo lwa butaagaane anti azaala ekibi akiwongerera! Omukyala ono yali mukambwe okufa era ng'alina engombo egamba nti, "Abazzukulu nva ndiirwa." kumpi yakitulangiranga buli lunaku! Munnaffe Peace Maama we yamutwala oluvannyuma lwa Kitaffe okufa. Ennaku yatuyonka anti nga buli mbeera etunyiga bwaffe, twafuuka ebyerolebwa ku bantu ab'ekyalo ssaako n'abo abajjanga okulaba ku Jajja anti nga buli omu amulojjera nga bwe tuli bangalo bunani, bwe tutayina kye tusobola kukola okuggyako okusokomera emmere! Bwe twali tukyabeera ne bakadde baffe eby'okulya byajjulanga mu 'fridge' era nga buli kadde tuba mu kwegaaya kale twagendanga okutuuka ku ky'emisana nga wamma tuli bakkufu era emmere

baagituliisanga ku mpaka. Laba bwe tutuuka ewa Jajja nga kyayi bamunywa ku ssaawa musanvu eky'emisana ku kkumi !!

Nnali muwala mugimu, nga ndi mweru era ng'omubiri gwange gugonda gukirako 'sponge'. Jajja yatandika okutukozesa emirimu egy'ewaka nga muno mwe mwali okwoza ebintu, ekintu kyennali sisobola kukola anti buli lwe nnabyozanga byasigalangako ssabbuuni ate nga bibeera binyerengeta, si byebyali ebya 'plastic' wamma n'ondabira embaga y'embaata! Ate nga bya kwoza ng'okutaamiridde wenna omugongo negukufuuyirira okufa! Muto wange Shamim ye yagezangako okubyoza engeri gye yebbiranga n'ayambako ku Peace nga tukyabeera ewaffe, nze sirina kye nnagezangako kukola nga buli kimu bakinkolera. Jajja teyakoma ku kutwozesa bintu wabula yatutwala ne mu nnimiro mbu tulime kino nnakigambirawo jajja nti sija kugenda mu nnimiro kuba nnali ssirimangako bukya nzaalibwa. Hooo bino olwagwa Jajja mu matu, omukazi yayomba n'atulangira obunyarwanda bwa Nnyaffe obwamugaana okutuyigiriza ekkubo ettuu fu ng'akyali ku nsi. Nze eby'okulima nnabigaana era ne nsaba Jajja ampe 'transport' ngende ewa Aunty Joviah eyali mukwano gwa maama waffe nga siibisobole! Jajja yansekerera n'angamba nti, "Zikusanze mukazi wattu, ani anaakubudamya ggwe atasobola na kweyoleza ndoobe!" oba yali ateggeezaaki! Wano weyatemera omulanga omunene nga bw'agamba nti, "Mwana wange wandibaddewo neweeyolera abaana bo". Yangamba nti bwe mba njagala ssente nfune gye mpakasa nzikolerere ebyobwelere byakoma! Nga wayise ennaku waliwo Ssenga eyajja okulaba ku Jajja, nnamusaba anfunire 'transport' ngende nkole nsobole okuyamba ku bagandabange. Ssenga yayogera ne Jajja ku nsonga ezo era bw'atyo yampa 'transport' okuva mu kyalo okuntuusa mu kibuga kampala. Nga ntuuse mu kibuga nagenda butereevu ewa Auntie Joviah, nnamubuulira embeera gye twali tuyitamu. **(Bisimbuddwa okuva mu” Obulungi SSidya”)**

## **EKITUNDU B**

### **Kola 2(a) oba 2(b)**

**2. *Ku mitwe gino wammanga, londako gumu (1) owandiike emboozi ya bigambo (300 – 400)***

**(Obubonero 30)**

- v. Njongera okwonooneka
- i. Okalya dda kadda dda!
- i. Ogutategannya tegguza nvuma
- i. Ofanga toganizizza muka musajja!

**Oba**

**b) *Ku mitwe gino londako ebiri ku buli gumu owandiikeko nga bw’olagiddwa.***

- v) Wandika omuko mu muwalire ng'olaga ebisaanye okukolebwa okutangira ekibbabaana ekiriwo ensangi zino.
- vi) Weefuule omusasi w'amawulire owandike eggulire erinaafulumira mu lupapula lwa Ddoozi nga likwata ku bubbi bwa Bbanka obwabaddewo ku ssaawa musanvu enz'omutuntu.
- vii) Gwe okulira abavubuka mu kiktundu osabiddwa ku lunnaku lwamwe olw'abavubuka okukirira abavubuka bano onnyonnyole ebizibu bye basanga ensangi zino. Wandika okwogera kwo.
- viii) Gwe omu ku baanoonyereza ku ngeri obwegugungo bwabayizi gye busobola okumalibwawo mu masomero- wandika bye mwazuula.

## EKITUNDU C

### 4. Soma ekitundu kino n'oluvannyuma oddemu ebibuuzo ku nkomerero yaakyo.(Obubonero 20)

Kino nakiraba ku mbaga ya Majanja. Eno enjogera gy'otera okuwulira abantu bwe babaako ekintu kye bakungiriza okulaga nti kibadde kya maanyi naddala nga gubadde mukolo okubadde nassisi w'omuntu ate nga gunyumye. Majanja ayogerwako ddala yaliwo era ekifo we baamuziika kye kimu ku bifo by'obulambuzi mu Wakiso. Okimanyi nti embaga eno, yali yaakumala balongo so si ya bugole nga abantu abasinga bwe balowooza!

Embaga eno ey'ebyaaya yali mu ssaza lya Ssaabasajja ery'e Kyaddondo ku kyalo Kitukutwe ekisangibwa mu munisipaali y'e Kira nga yeetabwako abantu okuva mu masaza ga Buganda gonna. Wadde ng'emyaka **gyetoloodde** bukya ebaawo naye yagaana okuva ku mimwa gya bantu. Embaga eno yaliwo mu mirembe gya Ssekabaka Muteesa I mu myaka gya 1879 kati gye myaka 139 bukya ebaawo. Majanja Ssekirembe Bireseki, yali wa mutuba mu kika ky'Engeye kyokka Ssekabaka Muteesa I yali yamuwa obwami n'amuwa n'omutuba Mulamba ogw'ekyalo Kitukutwe.

Kigambibwa nti Majanja yali muwulize eri Obwakabaka ekyasanyusa Ssekabaka Muteesa ne bafuuka baamukwano kumpi kubeera baaluganda. Nnaalongo Gidah Nakitende gwe baalekawo okulabirira ekiggya annyonyola bwati ku bikwata ku Majanja n'embaga gye yakola wadde naye baamunyumiza nnyumize. Majanja yazaalibwa omugenzi Musujja, era ebiwandiko ebiri ku kiggya kye kiraga nti yazaalibwa ku mulembe gwa Ssekabaka Jjunju eyaliwo wakati wa 1780 ne 1797 nga kitegeeza nti Ssekabaka Muteesa I we yatandikira okufuga mu 1856, Majanja yali wakati w'emyaka 50 ne 79.

Majanja yatandika okuweereza Obwakabaka ng'akyali muvubuka era kigambibwa nti yali muganzi mu Lubiri nga ye Kimbugwe. Kabaka bwe yazaala abalongo n'amenyera olukanda ku Majanja era ono ye yali avunaanyizibwa okukola emikolo gy'okumala abalongo. Olw'okuba Majanja yali mwami wa Kabaka ne **gujabagira** kuba yalina okukola entujjo esaana Kabaka okumumenyerako olukanda.

Kabaka yalagira basajja be okukunga obuganda bwonna okuleeta amakula agaayitirira ewa Majanja era entujjo n'ebeera **makeke**. Amasaza okuli Kyaddondo, Mawokota ne Butambala gaaleeta buli ekisobola okugabulwa ku ntujjo era nga bwe baabireeta bwe byagabulwa. Amasaza amalala amawulire baagafuna kikeerezi naye era tekyabalobera kugoba nte, kuleeta mmere, n'omwenge ne boolekera ewa Majanja.

Bwe baatuukanga nga baaniriza olwo nga bafumba buto n'okugabula wakati mu mbuutu ezaavuganga emisana n'ekiro. Eby'okulya ebyaleetebwanga essaza eri byabanga biggwaawo ng'Essaza eddala lireeta wamma entujjo n'ebeera ya **lugenderezo**, eyakowanga nga y'alaba eryamuleeta era kigambibwa nti ebikujjuko bino byamala emyezi ebiri. Okuva olwo embaga eno yagenda mu byafaayo bya Buganda

### **Ebibuuzo**

- f) Enjogera egamba nti kino nakiraba ku mbaga ya Majanja etegeza ki? (Obubonero 2)
- g) Bintu ki ebifuula embaga ya Majanja okuba ensukkulumu? (Obubonero 5)
- h) Nga weesigama ku kitundu ky'osomye, lambulula obuvunaanyizibwa bwa Majanja. (Obubonero 5).
- i) Menya amasaza ga Buganda agaali amasaale mu kuleeta amakula ku mukolo gw'okutegeka embaga y'abalongo ba Kabaka (Obubonero 4).
- j) Nyonyola amakulu g'ebigambo bino nga bwebikozeseddwa mu kitundu ky'osomye
  - Gyetoolodde
  - Gujabagira
  - Makeke
  - Lugenderezo (Obubonero 4).

### **EKITUNDU D**

4. Funza ekitundu kino mu bigambo nga kikumi (100) (Obubonero 20)

### **NSALIBWA OGW'OKUFA**

Bwe nnassuuka ne ntwalibwa mu maaso g'omulamuzi okuwozesebwa oba kanhambe okusoyebwa kajjogijjogi w'ebibuuzo balyoke basinziire okwo bansalire ekibonerezo. Nasimbibwa mu maaso g'omulamuzi eyalina amaaso agajudde omuliro, ng'akommonta emmindi, ayambadde amatiribona n'amajolobera ku lugoye olwa kakobe era ngatikidde n'enkofiira enjeru ejjude obutuli. Emabega w'omulamuzi ng'eriyo omuntu oba kamuyite omuyambi we eyali amuwujjisa ekiwujjo eky'amatabi abiri olw'ebbugumu.

Yatukira ku kituuti nakkalira ng'akatiko era ng'amaze okutereera obulungi mu ntebe ye, abantu bonna - abajaasi, abaweereza n'abantu babulijjo olwamulaba ng'akkalidde mu ntebe ye ne beeyala nga bwe bakubiira emitwe erudda n'erudda.

Omuwolereza w'amateeka omukulu yayanja omusango bwati: "Ssebo Lugulumpaali, Wakamwano, Mattumpagwa, Maasomoogi n'ekitiibwa kyo kyonna awatali kuttira muntu ku liiso, osabibwa n'obukkakkamu obujjuza ennyanja owulirize era osalire omusibe oyo ajagaladde mu maaso go ekibonerezo eky'okufa ku buli gumu ku misango gino egimuvunaanibwa".

Yatandika okugimenya naye okugenda okugimalayo nga ne gyeyatandikidde sikya jjukirayo. Mu bigambo enkumuliitu byeyafukumula mwe nawulirira ng'akoona ku bino; nga bwe natta omuntu weewawo nakikola mukwetaasa naye kyali tekinzigisaako musango!

Yayogeranga bino nga bweyekamwana, bwaboggola, bwabwatuka ate nga bwanyeenya olunwe okulaga nga asunguwadde nnyo. Mba nkyalowooza ku kyokuwoza ku ebyo ebinkonjeddwa, omulamuzi n'abuuza abali mu mbuga ekirowooza kyabwe ku musango ogwo nga bwe baali bamaze okuwulira empoza n'enkubira y'enjuyi zombi.

Nali sinnawoza, naye namanya luvannyuma nti mu nsi eyo (Njolinjo), omuwolereza w'amateeka okola ebiri nga walukuku. Awoza ogugwe n'ogwoyo gw,awabira. Amangu ddala, abantu abaali bajjudde mu mbuga eno babwatula engalo era omulamuzi n'aleekana nga bwakoona ku mmeeza akantu akaalina akatolima emirundi ng'esatu era abantu ne balyoka bakkakana era n'ebasirikirira.

Amangu ago eggi etwakaavu, emmundu, amafumu, obusaale, emiguwa okwali n'empuluttulizo byakkirira wakati waffe n'omulamuzi. Nnali nkyatangaaliridde nga neewuunya nnalaba bulabi ng'abajaasi bansikaasikanya, bankunguzza banzigya mu mbuga nninde kuttibwa anti nalinsaliddwa gwa kufa!

**(Bisimbuddwa okuva mu Nketa mu Bizinga aka E.N.Kawere nga mulimu ebikyusiddwamu)**

**Asika asike ffena tusike, ensika ziba bbiri.....**

**BIKOMYE**

**P310/3**

**LITERATURE IN ENGLISH**

**(NOVELS)**

**PAPER 3**

**MOCK 2024**

**AUGUST**

**TIME:3 HRS**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**LITERATURE IN ENGLISH**

**(NOVELS)**

**PAPER 3**

**TIME:3 HRS**

## **INSTRUCTIONS TO CANDIDATES**

This paper consists of four sections, A, B, C and D.

Candidates must answer three questions in all. one question must be chosen from section A and two others from sections B, C and D.

Each of the essay questions carries 33 marks.

Not more than one question will be chosen from one section.

Any additional question or questions attempted will not be marked.

## **SECTION A**

### **Great Expectations by Charles Dickens.**

#### **1. Read the following passage and answer the questions that follow.**

It was a chilly morning, and very damp lying on the outside of my little window, as if some goblin had been crying there all night, and using the window for a pocket handkerchief. Now, I saw the damp lying on the bare hedges and spare grass, like a coarser sort of spider's webs; hanging itself from twig and blade to blade. On every road and gate, wet lay clammy; and the marsh mist was so thick, that the wooden finger on the post directing people to our village – a direction which they never accepted for they never came there was invisible to me until I was quite close under it. Then, as I looked up at, while it dripped, it seemed to my oppressed conscience like a phantom devoting me to the hulks.

The mist was heavier yet when I got out upon the marshes, so that instead of my running at everything, everything seemed to run at me. This was very disagreeable to a guilty mind. The gates and dykes and banks came bursting at me through the mist, as if they cried as plainly as could be" A boy with somebody – else's pork pie! Stop him!" The cattle came upon me with like suddenness, staring out of their eyes, and steaming out their nostrils, "Hello, young thief!" One black ox, with a white cravat on – who even had to my awakened conscience something of a **clerical** air – fixed me so obstinately with his blunt head round in such an **accusatory** manner as I moved round, that I blubbered out to him, "I couldn't help it, sir! It wasn't for myself I took it!" upon which he put down his head, blew a cloud of smoke out of his nose, and vanished with a kick up of his hind legs and a flourish of his tail.

All this time, I was getting on towards the river, but however fast I went, I couldn't warm my feet, to which the damp cold seemed riveted, as the iron was riveted to the leg of the man I was running to meet. I knew my way to the Battery, pretty straight, for I had been down there on a Sunday with Joe, and Joe sitting on an old gun, had told me that when I was apprentice to him regularly bound, we would have such larks there! However in the confusion of the mist, I found myself at last too far to the north and consequently had to try back along the river – side, on the bank of loose stone above the mud and the staked the tide out. Making my way along here with all dispatch, I had just crossed

a ditch, which I knew to be very near the Battery, and had just scrambled up the mound beyond the ditch, when I saw the man setting before me, his back was toward me, and h had his arms folded, and was nodding forward, heavy with sleep.

### **QUESTIONS:**

- a) What is the context of the extract? **(10 marks)**
- b) Comment on the themes in the extract. **(5 marks)**
- c) Examine the writer's use of style in the extract. **(13 marks)**
- d) Describe the characters as portrayed in the extract. **(5 marks)**

### **LOSS OF THE DURBERVILLES': THOMAS HARDY.**

#### **2. Read the following extract and answer the questions below.**

.....But the moment that she moved again he recognized her. The effect upon her old love was electric, far stronger than the effect of his presence upon her. Her fire, the tumultuous ring of his eloquence, seemed to go out of him, His lip struggled and trembled under the words that lay upon it; but deliver them it could not as long as she faced him His eyes, after their glance upon her face, hung confusedly in very other direction but hers, but come back in a desperate leap every few seconds. The paralysis lasted, however, but a short time, for Tess's energies returned with the atrophy of his, and she walked as fast as she was able past the barn and on word.

As soon as she could reflect, it appalled her, this change in their relative platforms. He who had wrought her undoing was now on the side of the spirit, while she remained unregenerate. And, as in the legend it had resulted that her Cyprian image had suddenly appeared upon his alters, whereby the fire of the priest had been well-nigh extinguished.

She went on without turning her head. Her back seemed to be endowed with sensitiveness to owl beams... even her clothing..... So alive was she to a fancied gaze which might be resting upon her from the outside of that barn. All the way along to this point her heart had been heavy with an inactive sorrow; now there was for that time displaced by an almost physical sense of an implacable past which still engirdled her. It intensified her consciousness of error to a practical despair; the



break of continuity between her earlier and present existence, which she had hoped for, had not, after all, taken place. Bygones would never be complete bygones till she was a bygone herself.

Thus absorbed she recrossed the northern part of long Ash lane at right angles, and presently saw before her the road ascending whitely to the upland along whose margin the remainder of her journey lay. Its dry pale surface stretched severely on ward, unbroken by a single figure, vehicle, or mark, save some occasional brown horse droppings which doffed its cold aridity here and there.

While slowly breasting this ascent Tess became conscious of foot steps behind her, and turning she saw approaching that well known form so strangely accoutered as the Methodist the one personage in all the world she wished not to encounter alone on this side of the grave.

### **QUESTIONS:**

- a) Place the extract in its context. **(10 marks)**
- b) Explain briefly Tess's character in the passage **(8 marks)**
- c) What feelings does this passage arouse in you? **(5 marks)**
- d) Discuss the relationship between this extract and the rest of the novel. **(10 marks)**

### **PRIDE AND PREJUDICE: JANE AUSTEN**

#### **3. Read the extract and answer the question below it.**

The astonishment of the ladies was just what he wished; that of Mrs. Bennet perhaps surprising the rest; though when the first tumult of joy was over she began to declare that it was what she had expected all the while

“How good it was in you my dear Mr. Bennet? But I knew I should persuade you at last. I was sure you loved your girls too well to neglect such an acquaintance. Well how pleased I am! And it is such a good joke, too, that you should have gone this morning, and never said a word about it till now”

“Now, kitty, you may cough as much as you chuse,” said Mr. Bennet; and, as he spoke, he left the room, fatigued with the raptures of his wife.

“What an excellent Father you have, girls, “said she, when the door was shut. “I do not know how you will ever make him am ends for his kindness; or me either, for that matter. At our time of life, it is not so pleasant I can tell you, to be making new acquaintance every day: but for your sakes, we would do anything. Lydia, my love, though you are the youngest, I dare say Mr. Bingley will dance with you at the next ball”

“Oh!” said Lydia stoutly, “I am not afraid; for though I am the youngest, I am the tallest”

The rest of the evening was spent in conjecturing how soon he would return Mr. Bennet’s visit, and determining when they should as him to dinner.

- a. What (i) Proceeds (5 marks)  
(ii) Precedes the extract in the novel. (5 marks)
- b. Describe the character portrayal in the passage. (8 marks)
- c. Examine the writer’s use of style in the passage. (10 marks)
- d. Examine the major concerns portrayed in the passage. (5 marks)

## SECTION B

### The Poor Christ of Bomba: Mongo Betti

- 4. Examine the writer’s use of setting in the novel, the poor Christ of Bomba.
- 5. How is Christianity a tool for colonialism in the novel? The Poor Christ of Bomba.

OR

### Devil on the Cross: Ngugi Wa Thiongo

- 6. How does Ngugi use the Devil on the cross to propel the plot of the novel? Devil on the cross.
- 7. Examine the role played by the women characterism in the novel, Devil on the cross.

OR

## SECTION C

**A walk in the Night.**

8. Examine the different conflicts presented in the novel. A walk in the Night.
9. To what extent is A walk in the Night about transfer of aggression?

**OR**

**The Voter: Chinua Achebe**

10. Examine the evils Achebe satirizes in the short story the voter.
11. Justify the view that the short story, the voter is a replica of the African political system.

**OR**

**SECTION D**

**Footprints of the Outsider: Julius Ocwinyo**

12. 'Political turmoil and moral decay dominate the plot of the novel, foot prints of the outsider'
13. How does **Ocwinyo** convey his messages to the reader of the novel. Footprints of the out sider.

**OR**

**Varnishing Herds: Henry Ole kulet.**

14. How is Norpsia Portrayed in the novel. Varnishing Herds.
15. Discuss environmental degradation and consequences in the novel, vanishing Herds.

**OR**

**The Moon also sets: Osi Ogbu.**

16. How does Oby's life at University reflect both resistance and maturity in her as a character, in the novel The Moon also sets?
17. Describe the relationship between Oby Hike and show how it affects the plot of the Novel.
18. How justifiable is the ending of the novel. The moon also sets?

**END**

P310/1

LITERATURE IN ENGLISH

(Prose and Poetry)

PAPER 1

MOCK 2024

AUGUST

TIME:3 HRS



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

MOCK EXAMINATIONS 2024

LITERATURE IN ENGLISH

(Prose and Poetry)

PAPER 1

3HRS

## INSTRUCTIONS TO CANDIDATES

Attempt **ALL** questions.

All answers should be written in the answer booklet each beginning on afresh page.

You are advised to spend **70 minutes** on section **I** and **55 minutes** on each of the sections **II** and **III**.

## SECTION I

### QUESTION 1

**Read the following extract and answer the questions that follow.**

On Monday, I was dressing with a group of journalists on whether there was any Ugandan, be it President Yoweri, Cardinal Emmanuel Wamala, Archbishop Livingstone Nkoyoyo, Milton Obote and so forth-who would evoke the peculiar deep sense of grief among Ugandans that Princess Diana, has done if they died. No. We agreed with my known contribution being that the potential successor would instead be too busy to fight for the chair vacated by the dead to allow the people mourn in peace.

Without doubt, Princess Diana was a very beautiful and graceful woman. In the early years of her marriage to the brooding scholarly and (as it turned out later cheating) Prince Charles, the cynics thought she didn't measure up intellectually and was thin on substance but in later years particularly after her separation then divorce in 1998 she blossomed marvelously. The difference between Diana, the tragic and stunning actress Marilyn Monroe, and Museveni for example, is that even Ugandans could love the princess without paying a price for it. For Museveni, for his good deeds, we must pay high taxes and foreign multiparty politics. For the cardinal, we have to pay endobolo (tithe) and endure the scandals of his priests. Marilyn Monroe was an actress whose films people watched to pay and whose posters are still sold for a couple of bucks today.

In other words, Diana did well and was beautiful, yet didn't profit from it. It is a task to which most other people so gifted would have been unequal. For these and other reasons, everyone wanted the Diana story. There was only one vehicle to pursue this interest-the media particularly the tabloids.

And in this visual age, it needed photos. And for that paparazzi (the aggressive and intrusive freelance photo-journalist) offered the service. The paparazzi and the press in general are being blamed for Diana's death. The world seems to have been in agreement that they murdered her by pursuing her and her boyfriend Dodi Fayed in the Paris night, thus causing their limousine to crash. Now revelation that the couple's driver was drunk and racing even possibly at 190kph is beginning to put a new face on the story.

I feel that the culrage and outpouring emotion over Diana's death is the result of guilt and shame. The point has been made that the tabloids and paparazzi hounded Diana because the readers lapped it up. This can't be denied. Diana's seductions with Dodi were selling 4million copies of newspaper. While the newspaper which cover the things that meant to move us than Diana's romances of the volatile stock market, the environment etc., were managing only a miserable 250,000 copies. Diana's death makes us un happy because everyone has paid the ultimate price for the loss. The public loses an object for their obsession and the press the money they made out of her. And would there be no paparazzi if people bought serious newspapers in good quantities, and would Diana be alive today?

No, they would still be there. It has got something to do with the peculiarities of our age. There is a new paganism and a universal moral crisis. The times have become so difficult, and humans have failed so much, that we often get the sense that people want a superwoman or superman to keep their faith in themselves. God has not installed a telephone line for us to call, and He doesn't appear on TV. To many people, the omnipotent and His goodness often are so remote. We need to find someone to sit in for him. But such people hardly exist in real life. We have to create them. And the media, the newspapers, the magazines, television, Films manufacture the illusion, over dramatize and virtue, perpetuate myths and destroy the pretender.

Diana was just one of the types – the glittering, beautiful, compass ronate and love troubled one. We have the pious type in mother Theresa. The blessed and virtuous, politician in Nelson Mandela. The magical and spiritual sportsman in basketball great Magic Johnson. The list is long. And precisely because of that, perhaps we need them to die early when we are still observed by them. In that sense, reggae musician Bob Marley died at the right time too. Who would stand a pathetic Marley, his music sense lost and living in poverty?

Elvis Presley is so a revered party because he died when he did. So did Jimi Herdrix. In that sense, Diana didn't pass away prematurely. May be an 85 – year old Diana, having made a thousand mistakes and disappointed us, wrinkled; and hard of hearing would have been too much to bear.

**(By Charles Onyango Obbo from the Monitor Newspaper)**

## **QUESTIONS.**

a).Provide a suitable title for the passage?

**(02 marks)**

- b).Which arguments does the writer raise in the passage? **(10 marks)**
- c).According to the passage, who is responsible to Diana’s death and why? **(06 marks)**
- d).“To many people, the omnipotent and His goodness often are so remote. We need him”. Explain what the writer means by this. **(04 marks)**
- e).Explain the meaning of the following words and expressions as used in the passage **(10marks)**
- i). Lynics **(1 mark each)**
  - ii) .Thin on Substance
  - iii) Blossomed
  - iv). Hounded
  - v). Lapped it up
  - vi). Volatile
  - vii). Ultimate
  - viii). Peculiarities
  - ix). illusion
  - x) .Hand of hearing

## **SECTION II**

**Read the following passage and answer the questions that follow.**

This government is very thoughtful! Ever so caring! I can't imagine a Uganda without it. It is indeed God sent. Every time I close my eyes during prayer, I can't help but weep a little at the thought of how wonderful and awesome our government is.

This wonderful government that the good Lord has blessed us with decided this week that our TVs and radios should not be riddled with any forum for Democratic defiance campaigns and activities! Wait a minute, simple minds have newly been jumping up and down **WHINING** about how the government is **GAGGING** the media and doing **HAVOC** to free press and free expression. They are **HOWLING** that this is **UNCONSTITUTIONAL**. They are also **YEEPING** that this is also ironic, given the fact that we have just celebrated world press freedom Day!

But a sound and highly intelligent mind would see that the government is only but trying to protect our fragile vulnerable minds from watching graphic scenes of people being tear gassed and being whipped like cows by police and unknown hounded goons who just rain from heaven and then after dispensing cares ascend to heaven and can therefore not be found even after intensive police investigations. Treating a traumatized population will be hard and expensive on the tax payer's purse.

By banning the media from covering and airing defiance campaign activities, the government is only looking out for our wellness of mind. Why expose our little sweet minds to violence being mated on bad people? Life is too short to expose ourselves to the truth that our democracy has huge cracks in it.

I know you have watched those movies where a man leads a double life. One as a loving father and husband; so gentle and the other, as a drug dealer who sometimes has to do very dark deeds to get a head in business. Such a businessman is very loving, he shields his family from his not – sweet side. He has his family's interest at heart.

So think of this ban on covery of defiance activities as a sign of love. Stop being ungrateful. Instead, show the government, our dear parent, all the love that you can in all the ways that you know. One way is by watching the jets that have been **HOVERING** this week with glee and hug soldiers on the streets. Since soldiers came to the streets, all of us feel very secure.



I thank God for this parent, who is lovingly blind folding us and whispering sweet political nothings in our ears shielding us from the big bad WOLF called reality.

(By: Janet Napio in by the way: Sunday Monitor)

## QUESTIONS

- a) What is the subject matter of this passage? (04 marks)
- b) Give the effectiveness of the elements of satire used in this passage. (8 marks)
- c) Discuss the effectiveness of any other four devices used in the passage. (8 marks)
- d) Explain the attitude of the speaker towards the government. (8 marks)
- e) What feelings does the passage evoke in you? (6 marks)

## SECTION III (POETRY)

**Read the following poem and answer the questions that follow.**

### **Piano and Drum**

When at break of day at a riverside  
I hear jungle drums telegraphing  
The mystic rhythm, urgent, raw  
Like bleeding flesh, speaking of  
Primal youth and the beginning  
I see the panther ready to pounce,  
The leopard snarling about to leap  
And the hunters crouch with spear poisoned

And my blood ripples, turns torrent

Topple the years and at once I am  
In my mothers lap a-suckling  
At once I am walking simple  
Paths with no innovations,  
Rugged, fashioned with the naked  
Warmth of hurrying feet and groping hearts  
In green leaves and wild flowers pulsing

Then I hear a wailing piano  
Sole speaking of complex ways  
In tear – furrowed concerto  
Of faraway lands  
And new horizons with  
Coaxing diminuendo, counter point  
Crescendo – but lost in the labyrinth  
Of its complexities it ends in the middle of a phrase at a dagger point.

And i lost in the morning mist  
Of an age at a riverside keep wondering in the mystic rhythm of  
Jungle drums and the concerto.

### Questions;

- a) What is the poem about? (04 marks)
- b) Critically appreciate the poem by bringing out the;  
Symbolism (04 marks)  
Imagery (04 marks)  
Diction (04 marks)
- c) What other aspects do you find striking in the poem? (18 marks)

**END**

**P235/3**

**ISLAMIC RELIGIOUS EDUCATION**

**(HISTORY OF ISLAM)**

**PAPER 3**

**MOCK 2024**

**AUGUST**

**TIME:2 HRS:30 MIN**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**ISLAMIC RELIGIOUS EDUCATION**

**(HISTORY OF ISLAM)**

**PAPER 3**

**TIME:2 HRS:30 MIN**

## **INSTRUCTIONS TO CANDIDATES**

Attempt any four questions.

All questions carry equal marks.

Any additional question(s) answered will not be marked.

1. Examine the way Islam reacted to the oppressive tendencies against women and slaves during the period of darkness. (25 marks)
2. a) Account for the instability during the caliphate period of Caliph Ali. (12 marks)  
b) How did the caliph attempt to restore peace and stability? (13 marks)
3. How did the following people help Prophet Muhammad PBUH in his mission?
  - a) Khadija. (13 marks)
  - b) Abu Baker. (12 marks)
4. To what extent did the character of Yazid I Bin Muawiya undermine the survival of the Umayyad dynasty? (25 marks)
5. Analyse the contradictions between the Orthodox caliph and Ummayad caliphs. (25 marks)
6. How true is the claim that Haruna Al Rashid marked the golden age of the Abbaside era? (25 marks)
7. Examine the political, cultural and intellectual life of the Abbaside era. (25 marks)
8. To what extent did the vastness of the Abbaside dynasty act as a pulling factor to downfall of the empire? (25 marks)
9. "Weak leaders of the Abbaside dynasty greatly contributed to the rise of the Fatimid dynasty" Discuss. (25 marks)
10. Assess how the golden age of Al-Azizz strengthened the Fatimid dynasty. (25 marks)
11. (a) Examine the factors that led to the launching of the crusade movements. (13 marks)  
(b).What were the effects of the crusade movements? (12 marks)
12. Examine the factors for the downfall of the Ottoman Empire. (25 marks)

**END**

**P245/4**

**CHRISTIANRELIGIOUS EDUCATION**

**(Christian Approaches**

**To Social and Ethical Issues)**

**PAPER 4**

**MOCKS 2024**

**AUGUST**

**2hours 30minutes**



# **MEBU EXAMINATIONS CONSULT**

## **Uganda Advanced Certificate Of Education**

### **MOCK EXAMINATIONS 2024**

#### **CHRISTIANRELIGIOUS EDUCATION**

##### **PAPER 4.**

**(Christian Approaches to Social and Ethical Issues)**

**2 Hours: 30 Minutes**

#### **INSTRUCTIONS TO CANDIDATES**

This paper consists of **THREE** sections **A**, **B** and **C**.

Answer **FOUR** questions taking at least **ONE** from each section.

**ALL** questions carry equal marks.

Any additional question (s) answered will **NOT** be marked.

**SECTION A**  
**SEX, MARRIAGE AND THE FAMILY**

- 1 (a) Examine the reasons why there were no cases of prostitution in A.T.S. (13marks)  
(b) Explain the cases of prostitution in the Bible. (12marks)
- 2(a) Discuss how the courts of law have accelerated the occurrence of rape and defilement in Uganda (13marks).  
(b) What is the biblical attitude towards abstinence? (12marks)
3. The government of Uganda through the cabinet and the Legislative assembly would like to scrap off the payment of bride price as a custom. To what extent is this Justifiable? (25marks).
- 4 (a) Discuss the ways how modern understanding of family disagrees with that of African Traditional Society. (13marks)  
(b).Examine the biblical teachings on responsible parenthood. (13marks)

**SECTION B**  
**WORK, LEISURE AND MONEY**

- 5(a).Discuss the conflict between Karlmax and Christianity. (13marks)  
(b).Examine the relevance of Karlmax view to modern Christians. (12marks)
- 6 (a).Discuss the centrality of work in African Traditional Society. (13marks)  
(b).What guidance does the New Testament teachings give to the youth who roam around towns claiming to be unemployed? (12marks)
- 7 .Discuss the differences between traditional and Christian attitude towards leisure. (25marks)
- 8 (a) Account for the phenomenon of household's poverty in Uganda today. (13marks)  
(b) What is the Biblical teaching on wealth? (12marks)

**SECTION C**  
**(LAW AND ORDER)**

- 9(a) "The current kidnap and killing of people calls for death penalty on the perpetrator of these crimes ". As a Christian, discuss the validity of this statement. (13marks)  
(b) How was justice maintained in African traditional society? (12marks)
- 10 " Politics is a dirty game " .How far should a committed Christian get Involved in political affairs of his country? (25marks)
- 11 (a)"Christians should submit to secular government. As a Christian student, justify the Statement. (13marks)  
(b) Comment on the consequences of war as a solution to political conflict. (12marks)
- 12 (a) Examine the conditions for a just war. (12marks)  
(b) What role can church play in promoting peace and Justice in the world today? (13marks)

**END**

P615/4

ART AND DESIGN

STUDIO TECHNOLOGY (CRAFT B)

PAPER 4

AUGUST 2024

2 Hours 30 Minutes



# **MEBU EXAMINATIONS CONSULT**

## **Uganda Advanced Certificate Of Education**

### **MOCK EXAMINATIONS 2024**

#### **ART AND DESIGN**

##### **STUDIO TECHNOLOGY (CRAFTS B THEORY))**

**Paper 4**

**2 Hours 30 Minutes**

#### **INSTRUCTIONS TO CANDIDATES**

This paper consists of **ten Questions**.

Answer **all** the questions.

Drawings and diagrams may be used where necessary.

1. (a) Define the term **basketry**. (02 marks)  
 (b) List **five** materials and **five** tools used in basketry. (05 marks)  
 (c) Mention **five** uses of baskets in your community. (05 marks)
  
2. (a) With the help of illustrations, describe four types of chisels used in wood Carving. (08 marks)  
 (b) State three disadvantages of using wood in carving. (03 marks)
  
3. Outline **six** different types of paper used in graphic art. (03 marks)
  
4. Using illustrations differentiate between two-dimensional and three-dimensional art works. (06 marks)
  
5. Describe **four** techniques used in firing clay wares (08 marks)
  
6. Explain **six** steps that a finished ceramic ware undergoes to ensure even drying. (06 marks)
  
7. Define the following terms:
  - (a) Slip (01 marks)
  - (b) Green Ware (01 marks)
  - (c) Terracotta (01 marks)
  - (d) Inlaying (01 marks)
  
8. Make an illustration of a sculpture in the round and show the following:
  - (a) Plane (01 marks)
  - (b) Line (01 marks)
  - (c) Contour (01 marks)
  - (d) Void (01 marks)
  - (e) Solid (01 marks)
  
9. (a) What is Craft? (02 marks)  
 (b). Outline six materials and six tools used in making crafts. (06 marks)  
 (c) Give the advantages of using local materials in the production of crafts in Uganda today. (04 marks)
  
10. What is the meaning of the following properties of colour?
  - (a) Hue. (01 marks)
  - (b) Intensity. (01 marks)
  - (c) Value. (01 marks)

**END**



**P615/2**

**ART AND DESIGN**

**Paper 2**

**Imaginative Composition &**

**Human Figure**

**MOCK 2024**

**AUGUST**

**Time: 5 Hours**



# **MEBU EXAMINATIONS CONSULT**

## **Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**ART AND DESIGN**

**Imaginative Composition & Human Figure**

**Paper 2**

ALT A: 3 Hours

ALT B: 5 Hours

**Planning Session : 2 Hours**

**Practical Examination: 5 Hours**

### **INSTRUCTIONS TO THE CANDIDATES**

Demarcate a space 5cm wide by 12cm long on the top right corner, in which you indicate your name, class, question number

Answer only **one** question stating its number.

Students are allowed to enter the examination room with all the materials which can be useful while answering the question i.e. newspapers, magazines, scrap books etc.

All questions carry the same marks.

## **SECTION A: (LIVING PERSON) Full Figure**

1. A male model fully dressed in a long shirt unbuttoned and long trousers folded down, the model is dressed on his head with a craft of a hut made from papyrus. The model is set to stand tall making the right leg step forward and holds a walking stick (ekoni) in the right hand and the stick sits near the right foot, the left hand rests in the left hand pocket. The model is set to look straight but making his head slightly to the right hand side. Here learners draw a full figure.

### **Or TORSO**

2. A model dressed in a sweater with input shirt and a pair of trousers or skirt is seated on an office chair and in front of her/him is an office table. The models right palm holds the right cheek and the left hand rests comfortably on the biceps of the right hand. The head position of the model seems to be taken up by thoughts. Candidates should draw starting from the waist line up wards.

## **SECTION B:**

### **(IMAGINATIVE COMPOSITION IN COLOUR)**

1. A boda cyclist struggles with thugs who tried rob his motorcycle.
2. Drunkards at one of the local drinking place in the nearby slum.
3. Police beats up the city rioters who had set up a demonstration in town.
4. Students fight for water at the only tap in the school
5. Activities in the slums.
6. Busy hawker at the local drinking place.
7. Domestic violence.
8. Helping an elderly person to push an overloaded bicycle.

**END**



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

MOCK EXAMINATIONS 2024

Principles & Practices of Agriculture.

PAPER 3

(PRACTICAL)

Time: 2 Hours

**INSTRUCTIONS TO CANDIDATES**

*This paper consists of five questions.*

*Answer all questions.*

*The answers are to be written in the spaces provided.*

FOR EXAMINER'S USE ONLY	
QUESTIONS	MARKS
1	
2	
3	
4	
5	
TOTAL	

1. You are provided with specimens K1 to K6.

(a).Name the operation where they are used. (1 mark)

.....

.....

(b).Mention three reasons for having the above named structure on the farm. (3 marks)

.....

.....

.....

(c).Describe the procedure of using the specimens to carry out the named operation. (3 marks)

.....

.....

.....

(d).Describe the adaptations of the following specimens to their functions. (3 marks)

K1.....

.....

K2.....

.....

K3.....

2. You are provided with specimens P and Q which are a common animal product. Measure 60cm<sup>3</sup> of specimen P in a cylinder.

b) Immerse the lactometer into the specimen with the bulb end at the bottom. Repeat the procedure to obtain the readings for specimen Q and record your observations. (2 marks)

Specimen P

.....

.....

Specimen Q:

.....

.....

(b).To 60cm<sup>3</sup> of specimen P in a cylinder, add one spatula endful of Specimen R. Stir to mix uniformly and leave the mixture to stand for 2 minutes. Pour the mixture into a funnel lined with a filter paper, placed onto the measuring cylinder. Allow the set up to stand for 5 minutes and record your observations in the table below.

Follow the steps above to obtain results for specimen Q. (3 marks)

Specimen	Volume of filtrate	Volume of solid
P		
Q		

c).i) State the effect of adding specimen R to the milk samples. (1 mark)

.....  
.....

ii) Explain your results obtained for both specimens. (2 marks)

.....  
.....

(iii). State four factors that affect milk composition. (2 marks)

.....  
.....

3. You are provided with specimens T1 to T4.

(a). Name the product prepared from the specimens. (1 marks)

.....  
.....

(b). Describe the procedure of using the specimens to obtain the above named product. (4 marks)

.....  
.....  
.....

(c). State four factors that influence quality of the product obtained from the specimens. (2 marks)

.....  
.....  
(d). Give three advantages of using the above mentioned product in crop fields. (3 marks)  
.....  
.....

4. Obtain 5 mls of each solution of S1, S2 and S3 respectively in separate 10mls funnels. Use a cork borer to cut out 3 cylinders of 3cm long from specimen Z and immerse them into the three respective solutions. Allow the set up to stand for 20 minutes. Remove the tissues and measure their length again.

a) Record your results below. Length of tissue from; (3 marks)  
S1.....  
S2.....  
S3.....

(b). Explain your results. (3 marks)  
.....  
.....  
.....

(c). Identify the field conditions which can cause similar conditions as observed in each tissue from respective solutions. (2 marks)  
S1.....  
S3.....

d). i) Name the physiological process demonstrated in the experiment. (1 marks)  
.....

ii) State three importance of the above named physiological process in plant growth. (3 marks)  
.....  
.....

5. You are provided with specimens L1 and L2. Measure 50cm<sup>3</sup> of specimen L1 and put it into a funnel lined with a filter paper which has been placed onto a measuring cylinder. Add 60cm<sup>3</sup> of water and start the

stop clock. Record your observations in the table below.Repeat the steps to obtain results for soil sample L2. (3 marks)

Specimen	Volume of water collected after every 30 seconds			
	30	60	90	120
L1				
L2				

*Present your information on a graph. (3 marks)*

*Explain your results. (3 marks)*

.....

.....

*State two ways of modifying drainage for soil sample L1. (1 mark)*

.....

.....

END

**P245/3**  
**CRE**  
**(Christianity in the East**  
**African Environment)**  
**MOCK 2024**  
**AUGUST**  
**2HR: 30MINS**



**MEBU EXAMINATIONS CONSULT**  
**UGANDA ADVANCED CERTIFICATE OF EDUCATION**  
**MOCK EXAMINATIONS 2024**

**CHRISTIAN RELIGIOUS EDUCATION**  
**(Christianity in the East African Environment)**

**PAPER 3**

**TIME: 2HRS: 30MINS**

**INSTRUCTIONS TO CANDIDATES:**

This paper consists of **THREE** sections, **A**, **B** and **C**.

Attempt **FOUR** questions, taking **ONE** from section **A**, *two* from section **B** and **ONE** from section **C**.

**ALL** questions carry equal marks.

**NO** additional marks shall be awarded to any extra question(s).



## SECTION A

### AFRICAN RELIGIOUS EXPERIENCE AROUND 1844

1. "Africans did not have religion". Assess the validity of this statement in relation to missionary understanding. (25marks)
2. (a) Justify the practice of bride wealth in African traditional society. (13marks)
- b). Account for the changing marriage and family trends today. (12marks)
- 3(a).Examine the causes of death according to African traditional understanding. (13marks)
- b).How did the Africans guard themselves against bad spirits? (12marks)

## SECTION B

### CHRISTIANITY, IMPACT AND INTERACTIONS

- 4a).Examine the factors responsible for the spread of Christianity in East Africa between 1844 and 1890. (13 marks)
- b). Discuss the problems encountered by the missionaries in East Africa by 1890. (12 marks)
- 5a). Explain the causes and effects of the persecution of the first eye witness in East Africa. (15 marks)
- b). Explain the role of African missionaries in the spread and consolidation of Christianity in Buganda. (10 marks)
6. To what extent was the MAU- MAU rebellion as a result of religious persecution among the Kenyans in East Africa? (25 marks)
- 7(a).Explain the steps taken by Africans towards the Africanization of the church. (13 marks)
- b).Account for the problems encountered during the Africanization process. (12 marks)
8. Assess the role of the church in the rapid expansion of the church. (25 marks)

## SECTION C

### CHRISTIANITY IN THE CONTEMPORARY WORLD

- 9(a).Account for the decline of African traditional institutions in the transmission of African values today. (13 marks)
- b). How is the church transmitting the Christian values? (12 marks)
- 10a). Explain the Islamic understanding of God. (12 marks)
- b). How has Islamic faith impacted on the lives of the East Africans? (13 marks)
- 11a). Explain the causes of religious conflicts in the present church. (13 marks)
- b). How can the religious leaders resolve such conflicts. (12 marks)
12. Justify the growth and development of the new movements within the already established church. (25 marks)

**END**

**P360/3**

**LUGANDA PAPER 3**

**Litulica Mu Luganda**

**MOCK 2024**

**AUGUST**

**ESSAWA: SSATU**



# **MEBU EXAMINATIONS CONSULT**

**UGANDA ADVANCED CERTIFICATE OF EDUCATION**

**MOCK EXAMINATIONS 2024**

**LUGANDA**

**P360/3 (PAPER 3)**

**LITULICA MU LUGANDA**

**ESSAWA: SSATU (3)**

## **EBIGOBERERWA**

- Olupapula luno lugabanyiziddwamu ebitundu bisatu A, B, C.
- Ddamu ebibuuzo bina.(4)
- Mu kitundu A ne C kolamu ekibuzo kimu
- Mu kitundu B Ddamu ekibuuzo kya puloozi nekirala kimu okuva mu bitontome.

## **EKITUNDU A: ENGERO ENJIYE**

**Kola ekibuuzo kimu kyokka mu kitundu kino.**

### **SSEMWANGA KIVUMBI BANTUBALAMU: GWOLULAMBUZA**

1. “Omusajja teyakoma awo, nga buli lwajja ewange abampaanira bulala gyoli nti nze siri mukazi.....Muli ne mpulira nga nfa ekituyu.....kwe kusalawo mmutte ffenna tumufiirwe”.

(i) Ani ayogera ebigambo ebyo era bisimbuddwa wa mu lugero? **(Obubonero 4)**

(ii) Nsonga ki ezeenkukunala eziviirako omwegezi oyo okufa ekituyu **(Obubonero 8)**

(iii) Biki ebiddirira awo okutusiza ddala ng’omulambo gwoyo gwe yatta guzuuliddwa? **(Obubonero 13)**

2. Bw’osoma olugero Gwolulambuza okakasiza ku ki nti ddala ebigendererwa bya litulica omulungi bivuddeyo bulungi? **(Obubonero 25)**

### **NKATA MUSA MUTYABA: AGAMYUKA OMUTEZI**

3. “Abaami mu Yuganda ya leero basaanye beeyisize ddala ng’abaami abamu abali mu lugero Agamyuka Omutezi tusobole okubeegomba” kakasa kino n’ebyokulabirako okuva mu lugero. **(Obubonero 25)**

4. Obukugu bw’omuwandiisi yenna tubulabira mu byawandiika. Omuwandiisi w’olugero Agamyuka Omutezi kino akituukirizza atya? **(Obubonero 25)**

## **EKITUNDU B:**

### **PPULOOZI N’EBITONTOME**

**Kola ekibuuzo nnamba 5 n’ekirala kimu okuva mu bitontome.**

5. Soma ppuloozi eno n’oluvannyuma oddemu ebibuuzo ebikuweereddwa ku nkomerero yaakyo.

Okuva omukyala lw’abeera olubuto, omuntu oyo gw’alina munda, ayiga era ayita mu mbeera zonna ezoobulamu bwa kamuzaala oyo kennyini, era ddala wamma akakerenda, kava ku lubaya.

Omwana ayiga okusanyuka, okwogera, okuzannya, okwawula abantu, okuwulira, n’ebikolwa ebirala byabo b’abeera nabo naddala maamawe. Abamu batuuka n’okukolera ddala nnyina ky’akola. Gwe tolaba maama w’omwana bw’amusiibula naye omwana n’asiibula, bw’aseka n’omuto n’abwatuka enseko kyokka nga n’ekimusese oluusi takitegedde bulungi.

Lumu nalwala ne ηηenda mu ddwaliro lyaffe e Mulago anti ng’omukemba gw’amalwaliro g’obwannanyini sigulaba. Mu lunyiriri mwe twali tutudde nga bwe tulinda abasawo mwe mwali omukyala eyali alabika obulungi anti yalina akayindo akalaalo, amaasoge, nga mu kiwanga galigita buligisi, emimwa yalina gya nsumbi era nga bw’amwenya olaba amannyo ameeru ng’omuzira nga galimu n’akazigo akatono akalungi ennyo.

Omukyala ono yalina kawalake nga nako kaamufaanana nnyo ne katuukiriza olugero olugamba nti, Agaasaka ge gattula. Akaana kano kaalina emyaka ng’esatu naye ng’ebigambo ebikavaamu temuli yadde kawoowo. N’ebikolwa byako byatuleka twebuza kikyamu ki ekiri mu baana baaluno?

Akaana kaayogeranga ebigambo ebitayisika mu kamwa buli omu nga bw'akagambako kamwanukula na kigambo kya buwemu kirala.

Nnyina waako yalaba kafuuse kagumba weegoge n'akabwatukira obutaleekaanira bantu. Akaana kaamuviira mu luyi ku ttama n'endusu ne zimuyiika. Amangu ago asituse akasabudde oluyi ku kabina naye nga kakaaba bwe kamuvuma, kamusambasamba kwegamba ne kafuuka obuzibu!

Abazadde twegadde nnyo abaana ne tukatagga ne twerabira n'okubayigiriza ku mpisa. Teebereza okuswala omukyala kwe yayitamu olw'omwana! Omwana ono yanzijukiza olunaku lumu lwe twali mu takisi nga ninaanye omusaabaze eyalina akaana ka myaka ng'ebiri akaamuvuma mbu "Aga!" nga bwe kagaseeko okumukubira obubegaabega ng'akagambyeko obutalinnya musaabaze munne omuvubuka eyali ayambadde engatto enjeru, empale enjeru n'essatu enjeru. Musajja wattu yeeseesanga bw'esesa naye nga alabika munda afa ekiniga.

Bangi bwe babanenzezaako ku baana eyo gye babeera naddala mu masomero poliisi yeeramula. Neewuunya omuzadde omukyala omu eyalumba esomero ngaliko n'obumansuka olw'okukuba muwalawe owa siniya eyookubiri eyalina omulenzi bwe baali batandise ebintu by'okweganza. Omulenzi nno naye yakubwa era n'aweabwa n'ekibonerezo ekyokugobwa mu ssomero okumala ssabiiti bbiri era n'alagirwa adde ne bazadde be. Maama womuwala yasensebula abakulu b'essomero n'abasomesa olw'okkuba muwalawe. Naye ddala wa gye tugenda?

Edda ng'omwana aganjulwa kyalo kyonna naye leero koono ku mwana w'omuntu obeera olamuza kkomera! Awo nno tusigadde kutunuulira butunuulizi baana ba ggwanga g'ennyanya ebamira naye nga ddala obulumi obutuli ku mitima buyitirivu. Asirise teyejjusa!

Abaana tubaagale naye nga tetwerabidde kubayigiriza mpisa za mu ban-----tu, Lumu nawulira essanyu ku mutima muwala wa mwannyinaze bwe yamuddamu obubi bwe yali amunenyako ku nnyambalaye. Omuwala ono yasabula akateeteyi nga kakoma eri waggulu wamavivi nayagala afulume enju bwa'tyo. Mwannyinaze yamuyiririza mu lukubo namulagira addeyo mu kisenge kye ayambale olugoye olw'ekiitibwa era olwo alumuwe kuba yali tamanyi na gye yaluggya.

Omuwala yali awalila nnyina n'alumusikako ku mubiri n'amulagira afulume enju bwaba yeeyita mukazi. Omwana yafukamira ne yeetondera nnyina era n'amusaba ekisonyiwo. Eby'omunju tebitottolwa naye ako mbadde sirina bwe nkalekayo.

### **Ebibuuzo**

- (i) Ekitundu kino ky'osomye kizimbiddwa ku mulamwa ki omukulu? **(Obubonero 2)**
- (ii) Omunyumya w'embooji eno amanyi bulungi okukozesa olulimi. Laga obutuufu bw'endowooza eno nga wesigama ku biri mu mbooji eyo. **(Obubonero 5)**
- (iii) Bubaka ki omunyumya bw'asibiridde abo banyumize embooji eno? **(Obubonero 3)**
- (iv) Laga embeera ezenjawulo omunyumya w'embooji eno z'awulira **(Obubonero 4)**
- (v) Menya ebifaananyi ebyenjawulo bisatu ebisiigiddwa mu kitundu ekyo **(Obubonero 6)**
- (vi) Nyonnyola amakulu g'ebigambo bino nga bwe bikozezeddwa mu mbooji eyo **(Obubonero 05)**
  - tukatagga
  - omukemba
  - ekiniga
  - kagumba weegoge

## EBITONTOME

### HUGO.E.SEMATIMBA BARLOW: ABOOLUGANDA ABENDA EMU

6. Soma ekitome kino oluvannyuma oddemu ebibuzo

#### ETTAKA LINO ERINDYA

1. Bwe nkeera enkya mu maliiri  
Ne mpulira amaanyi ag'obuzaale  
Ne ndyoka nsituka ne nenyweza ne ndaliira  
Omukono gwange omugumu nga gwegolodde  
Ne zintwala butesagga ku nsiko eyakula  
Amaaso ne ngasimba eri ettaka omulabe.
2. Ettaka eryo nkeretanyi lya lugezi!  
Lya tta omukago ne liganza ebisaka n'ebisubi  
Ne lyekweka wansi w'omuddo  
Ne lyemulula mu nsiko enjeemu  
Ne lyesogga wansi w'ebikolo  
Ne liyungula amafumu ag'amatutu  
Ne likolawo emitwgo n'ebikonge  
Okumenya omukono gwange ogw'omuyini  
N'okuntega amayinja aga wansi nfune amalibu!
3. Muziruke mmwe ebisagazi ebiwanvu n'ebimpi kambateme!  
Ndayidda nnyabo Najja nze kidima sirimba munaakiraba!  
Mbakyawa mmwe olumbugu n'olusenke  
Mukweka mutya essajja ery'effitina!  
Mutta mutya omukago n'ettaka omulabe!
4. Olusenke lwonna olunninnanye  
Nze nja kulubuza olwanyo  
Olaba enkyakya y'ebigere  
Y'erugoya n'ameenvu  
Ne lufuuka ekikamulo ekidibye  
Entebe y'olububu obutobye!  
  
Ekisagazi ekyakula ekkolo sikitya  
Nze nja kukikaza emimuli  
Bakifumbye kiggweewo
5. Ago amatovu n'amatutu  
Aga tabaala n'amafulumu  
Amaanyi gagawedde  
Ka nje ngaganzike awazibu!  
Ebyo ebisaka n'ensiko ekutte tebiriimu  
Mazima okuwera omukaaga  
Byonna mba mbisulise ennenge!
6. Ennanda ne ssere bisaana kufa  
Nja kubiwala olw'enkya  
Babisuule mu nkoomi  
Okubimala akacca!

Ne guno omuddo gw'olusuku  
Ogwegwanyiza awalime  
Bwe ngulabako ngusse!

7. Bwe ndayira nnyabo najja  
Ndaaze ne ttaka erikaze!  
Bwe nditemako empangi  
Ne ndiyuzaayuzza obulere  
Ndireka lisansagala  
Nga likola nfuufu  
N'amafunfugu agalamye  
Ngaleka ga woowolya!
8. Ndi nkumbi kudima sirema!  
Nkumbira ku ttaka eriwoze  
Wona we mpita olabawo  
Lwe lubimbi lw'owulira  
Ntema mpala nziika ate ne ntaliza  
Nsaawa nsala nsogga ate ne mpalula  
Nsimba nsiga nkoola ate ne nkabala!  
Mazima omuddo ne nsiko sibitya  
Wazira ettaka lino erindya  
Nze eyali enkumbi ne mpitwa akasimu!

**Ebibuuzo**

- (i)Kkoppololayo akanyiriri akalaga omutontomi w'ekitontome kino. (Obobonero 2)  
(ii)Amaloboozi gazimbiddwa gaty'a mu kitonyome kino? (Obubonero 5)  
(iii)Omutontomi mukugu mu kukoze olulimi. kino akikoze atya? (Obubonero 6)  
(iv)Menyayo ebifaananyi mukaaga ebiri mu kitontome kino. (Obubonero 6)  
(v)Omutontomi atuuse atya ku lunyirir olugamba nti "Nze eyali enkumbi ne mpitwa akasimu. (Obubonero 6)

7. "Sematimba asoosowaza ebyobuwangwa mu bitontome bye ebyenjwulo." kakasa obutuufu bwa kino nga weesigama ku bitontome ebiri mu katabo Abooluganda abenda emu.

(Obubonero 25)

**KIZZA MUKASA: OMULYA MMERE KKOYI**

8. Soma ekitontome kino n'oluvannyuma oddemu ebibuuzo.

**MPOLA EMBUZI NDIKUWA ENTE II**

1. Baali balyammere bali abaatusookawo.

Nga we tubyogerera bino beesomokera.

Wadde zifumba ezaabwe zaavuunikwa.

Baatulekera ensonge mwe twegiriisiza

2. Olumu kw'ezo enkumu ze baatulekera,  
Lwe luulwo akusuubiza akira akumma.  
Lwaki weerabira nnyo nti nakusuubiza  
Kukulojjera Bampol'embuzi b'ewaffe?
- 3 Omulembe gwa vanilla we gwatintira.  
Nga bakaga Balyammere b'e kyaggwe.  
Edinaali lupiiya ennunsu nga zaabayitaba.  
Lwa kirime ekya vanilla ekisimbibwa.
4. Saagala weebuze nnyo ggw'asoma bino  
Nti bye biki bimpol'embuzi ndikuwente?  
Ggwe weetuilire okkalire ndukuseetulire.  
Okakase nti kye nqamba muzinzi mweguli.
5. Okusoma nakugamba ntya asoma bino?  
Nakusunirako ku ebya Bampol'embuzi.  
Ekyokukola ebitajjansa kyaneesisiwaza,  
Kwe kkusuubiza okulukuwa era luuluno
6. Awo olwatuuka munnange nga lutinta,  
Olw'ekirime kya vanilla ekisimbibwa,  
Abaana ba taata ba maama nga beetala,  
Nga bakolongola misiri gy'ekisimbibwa
7. Balimi bangi tebaalindanga na kutundula,  
Ng'anti beeyuna ba busimooni kubawola.  
Ab'obusimooni nnabatya mwattu babaza,  
Bo baaweweezanga n'akalimi nga bazize:  
'Ku bunene bw'essamba osaana kidduka;
8. Abalyammere olwawuliranga nti kakubye,  
Nga bakulukuuta ndagaano anti beewaga;  
Nze ntalo ziryawulawo abeera e Debete,  
Kiro za vanilla zonna ziriv'awo e Debete'  
Mu musiri gwa vanilla ogw'awo e Debete  
Za mugagga kaabagambe owoku Debete  
Lwa kunguza loole ye ekol'awo e Debete.  
Naye gye byakkira, gyali miranga misa!
9. Mbyogera mbibuukira byali nkumu biri,  
Bikwata ku vanilla kirime ekisimbibwa.  
Nga sinnakubuulira bali bampol'embuzi.  
Basawo b'ekinnansi ogamba kyabataliza?  
Nga bekolakola nkugambye bukodyo buli,  
Bunoga ennusu ku balimi b'ekisimbibwa.
10. Beetematema engalike nga beewagawaga,  
Nti ffe abo ababbi b'ekirime ekisimbibwa,  
Tetubalabamu n'akatono kati akababbisa,  
Tujja kubawunzawunza abo balemeremu,

Mu nnimiro eza vanilla zino ze mulaba,  
Ne bwe bamunojjola amatumbi obudde,  
Obudde bubakeerereko muli nga beetala,  
Bukadde buli kkumi buli mubbi akwatwa.

11. Basawo b'ekinnansi abo oba bagezi kufa?  
Baafunayo bannaabwe ne bakkiriziganya,  
Okugendangayo mu nnimiro balemeremu,  
Bajje babakooneko obuti bali nga balaba,  
Olwaddanga ebbali ng'ensimbi bagabana!

12. Ka tuddeyo gye byakkira ku vanilla oyo!  
Budde bwakyuka lumu, bwa vanilla oyo!  
Katale keerooba ggwe, aka vanilla oyo!  
Ssente nga za munyoto, eza vanilla oyo!  
Nga ntono ku zaavanga, mu vanilla oyo!

Ne nkulabira akeetalo aka vanilla oyo!

Balyammere baakaaba lwa vanilla oyo!

Abalala ne bawooba, olwa vanilla oyo!

Ndagaano zaawanulwa, eza vanilla oyo!

B'endagaano beezooza ku vanilla oyo!

Bangi beewunzanga, olwa vanilla oyo!

Abalyake baabomba olwa vanilla oyo!

Ntoko baawewuukirira, olwa vanilla oyo!

Bintu ne biboyembwa, olwa vanilla oyo!

Ne gye buli eno, beevuma vanilla oyo!

Nga nno nkulabira, tewetemanga engalike!



## **Ebibuuzo**

- (a) Menya ebika by'olulimi bya ena omuwandiisi bye yeeyambisizza mu kitontome ekyo. (Obubonero 4)
- (b) Amalobozi gazimbiddwa gaty'a mu kitontome ekyo. (Obubonero 5)
- (c) Bw'osoma ekitontome kino, kikussa mu mbeera ezenjawulo. Nyonyola embeera za mirundi ena. (Obubonero 8)
- d) Ekitontome ekyo kisengekeddwa kitya? (Obubonero 8)
9. Abantu balina embeera n'enneeyisa ezenjawulo. Weeyambise ebitontome ebyenjawulo okuva mu katabo OMULYA MMERE KKOYI okakase endowooza eyo. (Obubonero 25)

## **EKITUNDU C**

### **EMIZANNYO**

Kola ekibuuzo limu kyoka mu kitundu kino.

### **MERCY MIREMBE NTANGAARE: SSEMITEGO OMUYIZZI KKUNGWA**

10. Soma akatundu kano wammanga n'oluvannyuma oddemu ebibuuzo ku nkomerero yaako.

Ssemitego: Yii bannange Nnata, ntaasa ntaasa bambi(asirikirimuko katono, amulumiriza) A!a! laba ggwe kanaaluzala, ggwe wandeetera ekikwa kino.

Nnantabonekaboneka: Ani? Nze? Nnantabonekaboneka nga ntandikiira wa, ntya era lwaki?

### **EBIBUZO**

- (a) Mu bimpimpi nyonyola ssemitego bye yayanukula Nnantabonekaboneka oluvanyuma lw'okumwegaara mu kaseera ako. (Obubonero 5)
- (b) Omusajja yenna bw'asoma akatundu ako waggulu afuna byakuyiga ki okusinziira ku bigenda mu maaso mu muzannyo? (Obubonero 10)
- (c) Okusinziira ku katundu ako waggulu, nyonyola embeera za mirundi etaano (5) ssemitego z'awulira (Obubonero 10)
11. Omuzannyo ssemitego gujjudde obukuubagano obwenjawulo. Nyonyola obukuubagano buno. (Obubonero 14)
- (b) Obukuubagano buno bulimu bubaka ki eri abasomi n'abalabi b'omuzannyo. (Obubonero 11)
12. Magoba alafubanye okutuggyirayo ekifaananyi ky'omukazi owa kacokano. Matiza n'ebiyokurabirako ku nsonga eno nga osinzira ku bye turaba mu lugero. (Obubonero 25)

13. Omwogezi 1:”....ogwokulya gwasuula Wammese mu kita. Nnange ogwokufuna tegulinsuula mu migandu.

Omwogezi 2: Bwe kakujjira tosumagiranga, olina kukwata be vvu.

**Ebibuuzo**

(a)Menya omwogezi asooka n’owookubiri. **(Obubonero 04)**

(b)Omwandiisi w’omuzannyo ogwa olowooza mu kitundu ekyo ayolese kifaananyi ki kyatubagulizaako ku boogezi abo b’omenye waggulu. **(Obubonero 10)**

(c) Nyonnyola obukulupyakulupya obweyolekera mu kitundu ekyo eky’omuzannyo omusimbuddwa ebigambo ebyo. **(Obubonero 11)**

**BIKOMYE WANO**

P425/2

MATHEMATICS

APPLIED MATHEMATICS

PAPER 2

MOCK 2024

AUGUST

TIME:3HRS



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

MOCK EXAMINATIONS 2024

MATHEMATICS PAPER 2

(APPLIED MATHEMATICS)

TIME:3HRS

## INSTRUCTIONS TO CANDIDATES

- ✓ Answer **all** the **eight** questions in **section A** and any **five** questions from **section B**.
- ✓ Any additional question(s) answered will not be marked.
- ✓ All working must be shown clearly.
- ✓ Begin each question on a fresh page.
- ✓ Silent, non-programmable scientific calculators and mathematical tables with a list of formulae may be used.
- ✓ For numerical work, take  $g=9.8\text{ms}^{-2}$ .

## SECTION A (40 MARKS)

- 40 percent of the students in a certain school own personal computers. If 24 students are selected at random, find the probability that between 8 and 15 students own personal computers. (5 marks)
- Forces of  $(ai + bj)$  N and  $(6i - 4j)$  N act at points having position vectors  $(-2i - 2j)$  m and  $(3i - j)$  m respectively. If the forces reduce to a couple, find;  
a).  $a$  and  $b$   
b). the moments of the couple (05 marks)
- Two examiners Y and Z each marked the scripts of ten candidates who sat a mathematics examination. The table below shows the examiners' ranking of the candidates.

Examiners	1	2	3	4	5	6	7	8	9	10
Y	D	G	B	E	A	C	F	I	J	H
Z	G	D	B	F	E	A	C	J	I	H

Calculate the spearman's rank correlation coefficient for the two examiners and show whether the examiners were in agreement at 1% level of significance. (05marks)

- Two particles are travelling along a straight line AB of length 20m. At the same instance, one particle starts from rest at A and travels towards B with a constant acceleration of  $2\text{ms}^{-2}$  and the other particle starts from rest at B and travels towards A with a constant acceleration of  $5\text{ms}^{-2}$ . Find how far from A the particles will collide. (5 marks)

- The table below shows the velocity of a particle during the course of its motion.

Time (s)	5	9	12
Velocity ( $\text{ms}^{-1}$ )	10	13	17

Use linear interpolation or extrapolation to estimate the:

i). Velocity when  $T=7\text{s}$ .

ii). Time when the velocity  $=19\text{ms}^{-1}$

(05 marks)

6. Use the trapezium rule with 5 stripes to find an approximate value for  $\int_1^2 xe^{-2x} dx$  correct to 3 significant figures. (05 marks)
7. An object performs Simple Harmonic Motion (SHM) at a rate of 20 oscillations per second between two points A and B which are 12cm. If C is the midpoint of AB, calculate the time taken to travel directly from C to the midpoint of CB. (05 marks)
8. The price index of an article in 2020 based on 2018 was 130. The price index for the article in 2022 based on 2020 was 80. Calculate the;
- Price index of the article in 2022 based on 2018. (03 marks)
  - Price of the article in 2018 if the price of the article was 45,000 in 2022. (02 marks)

### SECTION B: (60 MARKS)

Answer only **FIVE** questions from this section. All questions carry equal marks.

9. A school took a survey of the ages of its employees. The results are shown in the frequency table below:

Ages (yrs)	18-	20-	30-	40-	50-
Frequency	8	22	15	7	2

- Calculate the:
    - Mean age (03 marks)
    - Modal age (03 marks)
    - Standard deviation (02 marks)
  - Draw a cumulative frequency curve and use it to estimate the middle 60% age range. (04 marks)
10. At 10:00am, ship A and ship B are 16km apart. Ship A is on a bearing  $N35^{\circ}E$  from ship B. Ship A is travelling at  $14\text{kmh}^{-1}$  on a bearing  $S29^{\circ}E$ . Ship B is travelling at  $17\text{kmh}^{-1}$  on a bearing  $N50^{\circ}E$ . Determine the;
- Velocity of ship B relative to ship A. (05 marks)
  - Closest distance between the two ships and the time when it occurs. (07 marks)
11. (a). Two sides of a triangle PQR are p and q such that  $\angle PRQ = \alpha$
- Find the maximum possible error in the area of this triangle. (02 marks)
  - Hence, find the percentage error made in the area if  $p=4.5\text{cm}$ ,  $q=8.4\text{cm}$  and  $\alpha = 30^{\circ}$ .

(06 marks)

(b). Find the range within which  $\frac{3.679}{2} - \frac{7.0}{5.48}$  lies. (04 marks)

12. The continuous random variable  $x$  is distributed between the values  $x=0$  and  $x=2$  and has a probability density function  $mx^2 + nx$  with the mean of 1.25. Find;

(i). The value of  $m$  and  $n$  and hence  $f(x)$ . (08 marks)

(ii). The mode of  $x$ . (04 marks)

13(a). At time,  $t$ , the position vector of a particle of mass 2kg is  $(\cos t \underline{i} + t^2 \underline{j})$  m. Show that the force acting on the particle when  $t=\pi$  seconds is of magnitude  $2\sqrt{5}$  N. (07 marks)

(b) A particle is moving such that at any instant, its velocity vector  $\underline{v}$ , is given by  $\underline{v} = (3t \underline{i} + 4 \underline{j} + t^2 \underline{k})$  ms<sup>-1</sup>. When  $t=0$ , it is at the point (1, 0, 1). Show that the magnitude of its acceleration at  $t=2$  seconds is 5ms<sup>-2</sup>. (05 marks)

14(a). Show that the Newton Raphson formula for approximating the root of the equation

$$e^x - 2x - 1 = 0 \text{ is given by } X_{n+1} = \frac{e^{x_n}(x_n - 1) + 1}{e^{x_n} - 2} \quad (03 \text{ marks})$$

(b)(i). Show that root of the equation  $e^x - 2x - 1 = 0$  lies between 1 and 1.5. (04 marks)

(ii). Use linear interpolation to find the first approximation and hence find the root of the equation, correct to 3 s.f. (05 marks)

15. The weights of goats sold at a certain market are normally distributed with a mean of 26kg. Given that 8 of every 12 goats picked at random weighed more than 20kg.

(a). Calculate the standard deviation of the masses of the goats, correct to the nearest whole number. (06 marks)

(b). A random sample of 25 goats is picked, calculate the probability that their mean weight exceeds 15kg. (06 marks)

16(a). A particle is projected from a point on a horizontal plane and has an initial speed of 42ms<sup>-1</sup>. If the particle passes through a point above the plane, 70m vertically and 60m horizontally from the point of projection.

(a). Find the possible angles of projection. (06 marks)

(b). A particle is projected at an angle of 30° to the horizontal with a speed of 21ms<sup>-1</sup>. If the point of projection is 5m above the horizontal ground, find the horizontal distance that the particle travels before hitting the ground. (06 marks)

**END**

**P235/2**

**ISLAMIC RELIGIOUS EDUCATION**

**(HADITH AND FIQH)**

**PAPER 2**

**MOCK 2024**

**AUGUST**

**TIME:2 HRS:30 MIN**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**ISLAMIC RELIGIOUSEDUCATION**

**(HADITH AND FIQH)**

**PAPER 2**

**TIME:2 HRS:30 MIN**

## **INSTRUCTIONS TO CANDIDATES**

This paper consist of two sections, A and Attempt any four (4) questions choosing from each section.

All questions carry equal marks

Any additional question(s) answered will not be marked

**SECTION A**  
**(TRADITIONS OF THE PROPHET)**

- 1a). what were the stages of Hadith development? (15 marks)
- b). what were the limitations to Hadith discrimination during the Prophet's time? (10 marks)
2. "Though the prophet PBUH discouraged writing it was done inevitably" Justify? (25 marks)
- 3a). Examine the Biography of Imaam Al Zuhri as one of the early compilers of Hadith.(12 marks)
- b). Examine the contribution of Imaam Al Zuhri to the development of Science of Hadith. (13 marks)
- 4a). Examine Bukhari's method of collection and compilation of Hadiths. (15 marks)
- b). Discuss the characteristics of Bukhari's works? (10 marks)
5. Examine the methods used by the following in the collection and compilation of Hadith
- (a) Imam Muslim (12 marks)
- (b) Nasair (13 marks)
6. Assess the factors considered by the six sound compilers in selecting hadiths. (25 marks)

**SECTION B**  
**(FIQH) PRACTICES/ JURISPRUDENCE**

7. Discuss the circumstances of factors that led to development of Islamic law. (25 marks)
8. Examine the different sources of Islamic law. (25 marks)
- 9a). Discuss the factors that limit the application of Islamic law in Uganda? (13 marks)
- b). what solutions can be provided to the above? (12 marks)
10. Discuss the characteristics of the following acts
- a) Haram (07 marks)
- b) Faradha (07 marks)
- c) Mubah act (06 marks)
- d) Makruh (05 marks)
- 11a).Discuss the causes of human sacrifice in Uganda (13 marks)
- (b) Explain the teachings of Islam against the above evil practice. (12 marks)
12. Examine the causes of crimes of your society today. (25 marks)

**END**



**P250/2**

**GEOGRAPHY**

**PAPER 2**

**(WORLD PROBLEMS AND**

**DEVELOPMENT)**

**MOCK 2024**

**AUGUST**

**TIME: 3 HOURS**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**GEOGRAPHY**

**PAPER 2**

**WORLD PROBLEMS AND DEVELOPMENT**

**TIME: 3 HOURS**

## **INSTRUCTIONS.**

- ✓ ANSWER FOUR questions in ALL
- ✓ Section A is compulsory
- ✓ The other **Three** questions must be answered from section B
- ✓ Any additional questions will not be marked.

## **SECTION A**

1. The table below shows merchandise trade for selected African countries in 2021, answer the questions that follow.

<b>COUNTRY</b>	<b>Export in Billion Us Dollars</b>	<b>Import in Billion Us Dollars</b>
Rep. Of south Africa	89.9	98.4
D R C	29.6	15.3
Ghana	6.7	13 .5
Zambia	7.3	7.2

**Adapted: African export-Import Bank, African Trade Report 2022 Pg 72.**

- (a). Draw a comparative bar graph to represent the information in the table above. (11 marks)
- (b). Discuss the demerits of using the above method to represent the information. (04 marks)
- (c) Explain the merits of economic integration to the economic development of Eastern Africa or Western Africa. (10 marks)
2. Explain the challenges facing commercial livestock farming in either Botswana or Argentina. (25 marks)

## **SECTION B**

3. To what extent have physical factors influenced population distribution in either India or Egypt? (25 marks)
4. For either Zambia or China, Assess the contribution of mining sector. (25 marks)
5. Differentiate between the following fishing methods
- (i). Drifting
- (ii) Purse-Seining. (05 marks)
- (b) Account for the development of fishing in either North West pacific or North East Atlantic. (20 marks)
6. To what extent have mineral resources encouraged industrial development in either republic of South Africa or Germany? (25 marks)
7. Account for the occurrence of famine in the Sahel region. (25 marks)
8. For either Kenya or Egypt, Discuss the problems facing the tourist industry. (25 marks)

**END**

P22/2

ECONOMICS PAPER 2

MOCK 2024

AUGUST

TIME:3HRS



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

MOCK EXAMINATIONS 2024

ECONOMICS

PAPER TWO

TIME 3HOURS

## INSTRUCTIONS TO CANDIDATES:

*Attempt **five** questions.*

*Section **A** is **compulsory** and answers to this Section should be **precise and concise**.*

*Choose any **four** questions from section **B**.*

*All questions in section **B** carry **equal** marks.*

*Use of relevant diagrams and neatness will earn you credit.*

## SECTION A (20 MARKS)

Answer **all** parts of this question.

1. (a). Mention any four merits of economic system in Uganda. (04 marks)
- (b)(i). Differentiate between direct economic dependence and external resource dependence. (02 marks)
- (ii). Give two costs of economic dependence in Uganda. (02 marks)
- (c) (i). Differentiate between technology transfer and technology development. (02marks)
- (ii) Outline three factors that hinder technology development in Uganda. (02marks)
- (d) (i). What is meant by a Corporation tax? (01 mark)
- (ii). JPK Telecommunications Limited's gross income for the year 2022 was UGX90,000,000 and his allowable expenses amounted to UGX65,000,000. Calculate his chargeable income and determine the amount of tax payable. (03 marks)
- (e) (i). Distinguish between free trade and protectionism. (02 marks)
- (ii). Give two ways of adopting protectionism policy in Uganda. (02 marks)

## SECTION B (80 MARKS)

Answer **only FOUR** questions from this section.

2. (a). Discuss the role of price mechanism in a free enterprise economy. (10marks)
- (b). Why should Ugandan government intervene the workings of price mechanism? (10 marks)
3. (a). Distinguish between balanced growth and unbalanced growth. (04 marks)
- (b). Explain factors limiting balanced growth strategy in Uganda. (16 marks)
4. (a). Describe the salient features of the agricultural sector in Uganda. (06marks)
- (b) Explain the steps that are being taken to improve the performance of the agricultural sector in Uganda. (14 marks)
5. (a). What are the motives of giving foreign aid by donors to Uganda? (06marks)
- (b). Why is there need for Uganda to reduce reliance on foreign aid? (14 marks)
6. (a) (i). Giving examples, distinguish between assets and liabilities of commercial banks. (04 marks)
- (ii). Explain the functions of banking financial intermediaries in Uganda? (06 marks)
- (b). Assess the factors that affect the level of credit creation in banking financial institutions. (10 marks)
7. (a). Distinguish between balance of payments and balance of trade. (04 marks)
- (b). Suggest measures that can be taken to minimize balance of payment deficits in Uganda. (16 marks)

**END**

P425/1

MATHEMATICS

PAPER 1(PURE MATHEMATICS)

MOCK 2024

AUGUST

TIME:3 HRS



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

MOCK EXAMINATIONS 2024

MATHEMATICS

**PAPER 1 (PURE)**

3 HOURS

## INSTRUCTIONS TO CANDIDATES

Answer all the **eight** questions in section **A** and any **five** from section **B**

Any additional question(s) answered will **NOT** be marked.

All working must be shown clearly.

Begin each answer on a fresh sheet of paper.

A graph paper is provided.

Silent non programmable scientific calculators and mathematical tables with a list of formulae may be used.

## SECTION A: (40 MARKS)

Answer **ALL** questions in this section

1. Evaluate  $\int_2^4 \frac{x^3 - 1}{x^2} dx$  (5 marks)
2. Solve the equation  $5 \cos \theta + 2 \sin \theta = 3$  for  $0^\circ \leq \theta \leq 360^\circ$  (5 marks)
3. The roots of a quadratic equation  $x^2 + 8x + 4 = 0$  are  $\left(\alpha + \frac{1}{\beta}\right)$  and  $\left(\beta + \frac{1}{\alpha}\right)$ . Find the equation whose roots are  $\alpha$  and  $\beta$ . (5 marks)
4. Find the acute angle between the lines  $2x - y = 6$  and  $x = 0$ . (5 marks)
5. The sum of the first  $n$  terms of the progression is  $S_n = n(n - 2)$ . Find the
  - (i) Sum of the first twenty terms (2 marks)
  - (ii) Twentieth term of the Progression. (3 marks)
6. Differentiate  $\sqrt{(1 + x^2)^3}$  with respect to  $x$ . (5 marks)
7. Prove that the points A, B and C whose position vectors are  $2a$ ,  $4b$  and  $3a - 2b$  respectively are collinear. (5 marks)
8. The height of the cylinder increases by 2%, find the percentage change in the radius if the volume of the cylinder is to remain constant. (5 marks)

## SECTION B (60 MARKS)

Answer only **five** questions from this section

9. (a) Use the substitution  $y = x - \frac{1}{x}$  to express  $x^2 + \frac{1}{x^2}$  in terms of  $y$ .  
Hence solve the equation  $2x^4 - 3x^3 - 4x^2 + 3x + 2 = 0$  (6 marks)
- (b) Expand  $(1 - x)^{\frac{1}{3}}$  using binomial theorem in ascending powers of  $x$  up to and involving  $x^3$ , hence deduce the value of  $\sqrt[3]{7}$  correct to three decimal places. (6 marks)

10 (a) Given that  $z_1 = (4 + 5i)(7 + 2i)$  and that  $z_2 = (4 - 5i)(7 - 2i)$ . Write down the complex numbers  $z_1$  and  $z_2$  in the form  $x + yi$ . Hence express  $18^2 + 43^2$  as a product of two prime factors. (5 marks)

(b) The point P representing a complex number  $z$  is such that

$$\arg(z + 5 - 12i) = \frac{\pi}{4}$$

(i) Find the Cartesian equation of the locus of the point P. (4 marks)

(ii). Describe briefly the geometrical interpretation of the locus. (1 marks)

(iii) Compute the minimum value of  $|z|$  (2 marks)

11. For the curve  $y = \frac{(x-2)^2}{x+2}$

i. Determine the nature turning points of the curve (7 marks)

ii. State the asymptotes of the curve. (3 marks)

iii. Sketch the curve. (2 marks)

12. The line  $l$  is drawn from A to B. B is the foot of the perpendicular drawn from the point A (7,2,1) to the line  $r = (1 + \lambda)i + 2\lambda j + 3k$ . Find the;

(a) Coordinates of the point B (8 marks)

(b) Cartesian equation of the line  $l$  (4 marks)

13 (a) Prove that  $\frac{\cos 3\theta + \cos \theta}{\cos \theta + \sin \theta} = 1 + \cos 2\theta - \sin 2\theta$

Hence deduce  $\frac{\cos 67\frac{1}{2}^\circ + \cos 22\frac{1}{2}^\circ}{\cos 22\frac{1}{2}^\circ + \sin 22\frac{1}{2}^\circ}$  (7marks)

(b) Solve the equation:  $2\cos^2 \theta + \sin \theta = 1$  for  $-180^\circ \leq \theta \leq 180^\circ$  (5 marks)

14 (a) Evaluate  $\int_0^{\frac{\pi}{4}} x \tan^2 x dx$  (6 marks)

(b) Differentiate  $x^2 + e^{2x} + x^x$  with respect to  $x$ . (6 marks)

**15(a).** The points  $P\left(\frac{p}{3}, \frac{9}{p}\right)$  and  $Q\left(\frac{q}{3}, \frac{9}{q}\right)$  lie on a rectangular hyperbola. Determine the equation of the chord  $PQ$  and deduce the equation of the tangent at a point whose parameter is ' $t$ '. (6 marks)

**(b).** Given that the chord  $PQ$  is parallel to the line  $6x + 2y = 3$ , Show that the locus of  $M$  the midpoint of  $PQ$  is a straight line. (6 marks)

16. An Antelope runs from point  $A$  towards  $B$ , 100m apart at a rate proportional to the square root of the distance yet to be covered. If the speed of the Antelope at a point  $A$  is  $20ms^{-1}$ . Find the;

(i) Time it takes for the Antelope to reach point  $B$ . (7 marks)

(ii) Distance covered from point  $A$  by the Antelope in 8 seconds and the speed of the Antelope at this instant. (5 marks)

**END**



**P250/3**

**GEOGRAPHY**

**PAPER 3**

**MOCK 2024**

**AUGUST**

**TIME: 3 HOURS**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**GEOGRAPHY**

**PAPER 3**

**TIME: 3 HOURS**

## **INSTRUCTIONS TO CANDIDATES.**

This paper consists of two sections, A and B.

Answer any four questions in **ALL** choosing ONE question from section **A** and **three** questions from section **B**.

Credit will be given for the use of relevant sketch maps, diagrams and local examples.

No mark will be given to extra questions attempted.

## SECTION A: FIELD WORK.

1. For any field work study you have carried out on a trading Centre.

(a) (i) State the topic of study (02 marks)

(ii).Outline the objectives of the study. (04 marks)

(b) Draw an annotated landscape sketch of the area studied on it mark and name.

- i. Physical
- ii. Trading center
- iii. Land uses (08 marks)

(c).Explain the activities you carried out before going for a field work study. (06 marks)

(d).Outline the impact of the trading center to the surrounding environment. (05 marks)

2(a). For any field work study you have carried out as a group or an individual.

- i. State the topic of the study. (02 marks)
- ii. Outline the objectives of the study. (04 marks)

b).Describe how you used any three of the following methods to collect information during the field work study.

- i. Measurements.
- ii. Map orientation.
- iii. Questionnaire.
- iv. Sampling. (09 marks)

C) Outline the skills you gained during the field work study. (05 marks)

To what extent was your field work geographical? (06 marks)

## SECTION B; UGANDA;

- 3a) Account for the formation of either Lake Albert or Lake Kyoga. (10 marks)
- b) Explain the importance of the lake to the economic development of Uganda (15 marks)
- 4) Account for the recent development in the agricultural sector in Uganda (25 marks)
- 5).Assess the implications of power and energy sector to the development of Uganda. (15 marks)
- b) Outline the steps that are being taken to develop power and energy sector in Uganda (10 marks)

6 Study the table below showing the mineral production in Uganda in ‘’000’’ metric tonnes between 2015 and 2020

MINERALS	2015	2020
Gypsum	442	375
Beryllium	284	215
Limestone	510	432
Iron ore	166	123
Gold	98	55

**SOURCE; UBOS QUARTERLY REPORT 2022**

- a).Draw proportional pie chart to portray the about information (09 marks)
- b).Account for the trend of mineral production in Uganda between 2015 and 2020. (05 marks)
- c).Explain the impact of the mining sector to the environment in Uganda. (11 marks)
- 7).Assess the effect of rapid industrial development in Uganda. (25 marks)
- 8).Examine the causes of pollution in Uganda. (15 marks)
- b).Outline the effect of pollution in Uganda. (10 marks)

**END**

P525/2

CHEMISTRY PAPER 2

MOCK 2024

AUGUST

TIME:2 HRS:30 MIN



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

MOCK EXAMINATIONS 2024

CHEMISTRY

PAPER 2

TIME:2 HRS:30 MINS

## INSTRUCTIONS TO CANDIDATES.

This paper consists of **TWO** sections, **A** and **B**.

Answer any **FIVE** questions including **THREE** questions in section **A** and two questions in section **B**.

Write your answers in answer booklets provided.

Mathematical tables and graph papers may be used.

Begin each question on afresh page.

Non-programmable scientific calculators may be used.

Illustrate your answers with equations where applicable.

Where necessary, use the following values:

(H=1,N=14,O=16)

## SECTION A (60 MARKS)

Attempt **THREE** questions from this section

- 1(a). State what is meant by the term boiling point constant of a substance? (01 mark)
- b) Describe an experiment that can be used to determine the molecular mass of a compound using the method of elevation of boiling point. (Diagram not required). (07 marks)
- c) Explain why the method you have described in (b) above is not suitable for determining the molecular mass of:
- Starch in aqueous solution. (02 marks)
  - Aluminium chloride dissolved in benzene. (02 marks)
- d) The osmotic pressure of various concentrations of solute X in methylbenzene at room temperature is given below.

Concentration ( $\text{g/dm}^3$ )	1.0	2.0	3.0	4.0	5.0	6.0
Osmotic pressure ( $\text{N/m}^2$ )	23	37	53	75	92	109

- Plot a graph of osmotic pressure against concentration. (03 marks)
- Use the graph in (d) (i) above to determine the molecular mass of X. (Universal gas constant,  $R = 8.314 \text{ J/K/mol}$ ) (04 marks)

2(a). Describe an experiment that can be carried out to determine enthalpy of solution of sodium hydroxide. (09 marks)

- b) State what is observed and write equation(s) for the reaction(s) that occur(s) when aqueous sodium hydroxide is added to each of the following solutions drop wise until in excess.
- Copper (II) nitrate. (02½ marks)
  - Aluminium sulphate. (04½ marks)

(c). You are given standard electrode potentials for half-cell reactions at 25°C.

Half-cell reactions:	$E^{\theta}$ (Volts)
$\text{Ca}_{(s)} \longrightarrow \text{Ca}^{2+}_{(aq)} + 2e^{-}$	+2.41
$\text{Na}^{+}_{(aq)} + e^{-} \longrightarrow \text{Na}_{(s)}$	-1.55

- Write cell notation for the cell reaction formed when the half-cells are connected. (01 mark)
- Write equation for the reaction at each electrode. (03 marks)

3(a). An organic compound, Y with a molecular mass of 106 contains 79.25% carbon, 5.66% hydrogen and the rest being oxygen.

Determine the:

- Empirical formula of an organic compound, Y. (03 marks)
  - Molecular formula of an organic compound, Y. (01 mark)
- a) Compound, Y burns with a sooty flame and forms a yellow precipitate with 2, 4-dinitrophenylhydrazine. Write the name and structural formula of an organic compound, Y. (02 marks)
- b) Write equation for the reaction between an organic compound, Y and 2, 4-dinitrophenylhydrazine under acidic condition and outline a mechanism for the reaction. (05 marks)
- c) Using equations only, show how an organic compound, Y can be:
- Obtained from 1, 2-dibromoethane. (04 marks)
  - Converted to nitrobenzene. (03 marks)
  - Converted to benzoyl chloride. (03 marks)

4(a) State what is meant by the following terms?

- Hydration energy. (01 mark)
  - Heat of combustion. (01 mark)
- b) Describe an experiment that can be used to determine the enthalpy of combustion of graphite by a method of Bomb calorimeter. (Diagram is not required) (05 marks)
- c) When 30g of graphite was burnt completely in oxygen gas, the heat liberated raised the temperature of 2.67kg of water from 44.7°C to 37.6°C. Calculate the molar heat of combustions of graphite. ( $\rho_{\text{H}_2\text{O}} = 1\text{g/cm}^3$ , SHC of water = 4.2J/g/K)

- d) Explain why the value of the molar heat of combustion of graphite is less than that of theoretical value. (01 mark)
- e) Some thermo chemical data of copper, copper (II) chloride and chlorine are given below.

Process	Enthalpy Change (KJ/Mol)
Enthalpy of formation of copper (II) chloride	-420.0
Enthalpy of sublimation of copper	+358.3
First ionization energy of copper	+795.0
Second ionization energy of copper	+1,948
First electron affinity of chlorine	-374.0
Bond dissociation energy of chlorine	+121.1

- f) Use the values above to draw an energy level diagram which can be used to determine the lattice energy of copper (II) chloride. (04 marks)
- g) The hydration energy of copper (II) chloride is -2,883.9 kJ/mol. determine the enthalpy of solution of copper (II) chloride. (02 marks)
- h) Comment on the effect of temperature on the solubility of copper (II) chloride. (01 mark)

### SECTION B : ( 40 MARKS)

Answer any **TWO** questions from this section.

- 5(a). What is meant by the term ideal solution? (03 marks)
- b) The boiling points of pure water and hydrogen chloride are 100°C and -85°C respectively. A mixture of water and hydrogen chloride boils at 108.5°C when the mixture is 20% hydrochloric acid.
- Sketch a boiling point-composition diagram for water and hydrochloric acid. (03½ marks)
  - Describe what happens when a solution containing less than 20.2% hydrochloric acid is fractionally distilled. (04 marks)
  - Explain why the mixture shows this deviation from ideal behavior. (03 marks)

(c).The vapour pressure of ethanol at 20°C is 43.6mmHg while that of benzene at the same temperature is 75.2mmHg. The mole fraction of benzene is 0.09 for a mixture of benzene and ethanol at 20°C. Calculate the:

- i. Vapour pressure of the mixture. (04½ marks)
- ii. Mole fraction of ethanol in the vapour phase. (02 marks)

6. Some of the elements in the Period 3 of the Periodic Table are sodium, Aluminium, silicon, phosphorus and chlorine.

- a) Write the formulae of the oxide(s) of the each of the elements given above.(04 marks)
- b) Describe the reaction(s) of the oxides of sodium, Aluminium and phosphorus with water. In each case comment on the pH of the resultant solution. (05½ marks)

c) Write equation:

(i) For the reaction between the oxides of Aluminium and silicon with aqueous sodium hydroxide. (02 marks)

(ii) To show how the anhydrous chlorides of silicon and Aluminium can be prepared. In each case state the condition(s). (04 marks)

d) Aluminium chloride was dissolved in water and to the resultant solution was added concentrated potassium hydrogen carbonate solution. State what was observed and explain your answer. (04½ marks)

7(a).A compound Q contains carbon, hydrogen and nitrogen only and burns with a sooty flame. On complete combustion, 2.325g of Q yields 3.36 liters at of carbon dioxide at s.t.p and 295.5 cm<sup>3</sup> of nitrogen gas measured at 15°C and 1 atmosphere.

a) Calculate the empirical formula of compound, Q. (06 marks)

b) When Q was steam distilled at 98° and 760mmHg, the distillate contained 45.49 % by mass of Q (the saturated vapour pressure of water at this temperature is 655mmHg).

(i) Determine the molecular formula of compound, Q. (03 marks)

(ii) Write the structural formula of compound, Q. (01 mark)

c) When Compound Q was treated with sodium nitrite solution and concentrated hydrochloric acid in a boiling tube kept at 0°, compound R was formed to which hydroxy benzene was added in presence of sodium hydroxide solution.



- (i) Write the equation for the reaction leading to formation of compound R. (02 marks)
- (ii) State what is observed when hydroxy benzene was added to compound R in presence of sodium hydroxide and write the equation for the reaction.(02 marks)

d) Without equations describe how:

- (i) Compound Q can be converted to nitrobenzene. (03 marks)
- (ii) Compound Q can be synthesized from benzene sulphonic acid. (03 marks)

8(a).Using suitable examples explain what is meant by the terms:

- (i) Salt hydrolysis. (02 marks)
- (ii) Acidic buffer solution. (02 marks)

b) Explain why it's not advisable to use soap solutions to wash Aluminium utensils.

(03 marks)

c) The pH reading below refers to the titration of sodium hydroxide solution against 25cm<sup>3</sup> of 0.1M ethanoic acid.

Volume of $NaOH$ (cm <sup>3</sup> )	0	4	8	12	16	20	22	22.5	23	24	28
pH of the mixture	2.8	3.5	4.0	4.5	5.1	5.8	7.0	9.0	10.5	11.4	12.3

- (i) Plot a graph of pH against volume of sodium hydroxide. (03 marks)
- (ii) Explain the shape of the curve. (03 marks)
- (iii) Determine the PH at end point. (01 mark)
- (iv) Calculate the morality of sodium hydroxide solution. (02 marks)
- (v) Determine the dissociation constant,  $K_a$  of ethanoic acid used. (04 marks)

**END**

**P245/2**

**CRE**

**(THE OLD TESTAMENT)**

**PAPER 2**

**MOCK 2024**

**AUGUST**

**TIME:2 HRS:30 MIN**



## **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**CHRISTIAN RELIGIOUS EDUCATION**

**(THE NEW TESTAMENT)**

**Paper 2**

**2 Hours 30 Minutes**

### **INSTRUCTIONS TO CANDIDATES:**

1. This paper is made up of **three** sections, A, B and C
2. Attempt any **four** questions, by picking them from the three sections.
3. A candidate must pick **2** questions from section **B**, **ONE** of which must be either 5 or 6.

**SECTION A:  
THE PERIOD OF THE EARLY CHURCH**

1. a) Discuss the major teaching of the early church. (15marks)
- b). Explain the relevance of the kerygma to the modern Christians. (10marks)
2. a) How Far Extent Did Persecution Lead To The End Of The Oral Period?. (15marks)
- b).How should the gospel preachers today respond to persecution? (10marks)

**SECTION B:  
THE GOSPELS**

- 3.a) Comment on the significance of Jesus of cursing the fig tree ( 13marks)
- b). Analyze the Lessons Modern Christians learn from the above event. (12marks)
4. “Mark’s gospel only presents Jesus as a human being”. Discuss the validity of this statement. (25 marks)
5. a) Analyze the use of symbolism in the gospel of John. (13marks)
- B).Discuss the various symbols used by the church today. (12marks)
6. Compare the gospel of Mark and John on the feeding of the five thousand. (25marks)
7. To what extent is gospel of john a manifestation of perfect love? (25marks)
- 8a) Examine the importance of Jesus’ washing of the disciples’ feet in John’s gospel (13marks)
- b) Show the significance of the above Jesus’ example to the church leaders in Uganda today. (12marks)

**SECTION C:  
LETTERS**

9. a) what compelled St. Paul to write his first letter to the Corinthians? (13marks)
- b).Examine Paul’s reaction to the problem of law suits in the Corinthian church. (12marks)
- 10).Examine James teaching on the tongue and its application to modern Christians. (13marks)
11. How Far Is Paul’s teaching on Incest in the Corinthian Church relevant to Modern Christians? (25marks)
- 12.a) Discuss peter’s teaching on Christian’s submission to their civil authorities ( 13marks)
- b).What lessons do modern Christians learn from the first letter of Peter? (12marks)

**END**

P220/1

ECONOMICS PAPER 1

MOCK 2024

AUGUST

TIME:3HRS



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

MOCK EXAMINATIONS 2024

ECONOMICS

PAPER ONE

TIME 3HOURS

## INSTRUCTIONS TO CANDIDATES

Attempt **five** questions.

Section **A** is compulsory .

Answers to this section should be precise.

In section **B** ,Attempt **four** questions.

## SECTION A (20MARKS)

- 1(a)(i). Define the term resale price maintenance. (01 mark)
- ii). Give any three merits of resale price maintenance. (03 marks)
- (b)(i). Distinguish between conglomerate merging and vertical merging of firms. (02 marks)
- ii). State any two merits of merging of firms. (02 marks)
- (c)(i). Differentiate between liquidity preference and cash ratio. (02 marks)
- ii). State any two causes of high liquidity preference in an economy. (02 marks)
- (d). Give any four causes of cost push inflation in an economy. (04 marks)
- (e)(i). Distinguish between comprehensive planning and perspective planning. (02 marks)
- ii). Mention two demerits of partial planning in an economy. (02 marks)

## SECTION B (80 MARKS)

- 2(a). Distinguish between change in supply and change in quantity supplied. (04 marks)
- (b). Examine the factors that lead to a change in supply of a commodity. (16 marks)
3. (a). Describe the basis of monopoly power in an economy. (10 marks)
- (b). Explain the measures being taken to control monopoly in developing countries. (10 marks)
- 4(a). Explain the Keynesian theory of unemployment. (06 marks)
- (b). Examine the limitations of the Keynesian theory of unemployment in developing countries. (14 marks)
- 5(a). Distinguish between over-population and optimum population. (04marks)
- (b). Assess the implications of over-population in an economy. (16 marks)
- 6(a). Differentiate between Import substitution and Export promotion industrial strategies. (04 marks)
- (b). Explain the reasons for pursuing export promotion industrial strategy in developing countries. (16 marks)
- 7(a). Why do countries draw their national budgets? (10 marks)
- (b). Account for the persistent budgetary deficits in developing countries. (10 marks)

**END**

**P250/1**

**GEOGRAPHY**

**(Physical Geography)**

**Paper 1**

**MOCK 2024**

**AUGUST**

**TIME: 3 HOURS**



# **MEBU EXAMINATIONS CONSULT**

## **Uganda ADVANCED CERTIFICATE OF EDUCATION**

### **MOCK EXAMINATIONS 2024**

**GEOGRAPHY**

**(Physical Geography)**

**PAPER 1**

**3HOURS**

#### **INSTRUCTIONS TO CANDIDATES:**

- This paper consists of **three** sections **A**, **B** and **C**.
- Answer any **four** questions.
- Section **A** is compulsory
- Answer **one** question from section **B** and **one** question from section **C**.
- Any additional question(s) answered will not be marked.
- Credit will be given to use of relevant sketch-maps, diagrams and specific examples studied in the field.

#### **SECTION A**

**Question 1 and 2 are compulsory**

## COMPULSORY MAP QUESTION

1. Study the East Africa 1:50,000 (UGANDA) BUDADIRI map Extract, part of the sheet 54/4, series Y732, Edition 2-U.S.D and answer the questions that follow.

a)(i). State the grid reference of the borehole at Budadiri town. (01mark)

ii). Calculate the area covered by Mount Elgon forest reserve south of northing 20. (02 marks).

b)(i). Draw a reduced map by 50% of the area shown on the map extract and on it marks and name

- Two physiographic features
- Forest vegetation cover
- River manafwa and its tributaries
- Water shed

• Mbale- Budadiri loose surface road. (09 marks)

ii). Calculate new scale of the reduced map (01 mark)

c). Describe the relief of area shown on the map extracts (04 marks)

d). Explain the values of Mount Elgon reserve to the people living in the surrounding areas. (04 marks)

. e). Outline the problems facing the people living in the area shown on the map extract. (04 marks).



**2. Study the photograph provided below and answer the questions which follow**



- a) Draw a landscape sketch map of the area shown in the photograph and on it mark and name;
- i) Communication
  - ii) Water falls
  - iii) Plunge pool
  - iv) Cliff
  - v) Vegetation types
- (09 marks)
- b).Discuss the processes which contributed to the formation of the land form features in the photograph above.
- (06 marks)
- c) Outline the importance of the features in the photograph to the surrounding.(04 marks)
- d) i) Explain the influence of the drainage features on land uses seen in the photograph.
- (4 marks)



- ii) Giving reasons to your answer, suggest any **one** area in East Africa where the photograph could have been taken from. (2 marks)

### **SECTION B**

3. Examine the relevance of Wegner's theory of continental drift in explaining the present day position of continents. (25 marks)
4. Examine the influence of extrusive vulcanicity on the development of relief landforms in East Africa? (25 marks)
5. Account for the dominance of physical weathering in the semi-arid areas of East Africa. (25 marks)

### **SECTION C**

6. a). Distinguish between absolute humidity and relative humidity (06 marks)
- b). Account for the variation in humidity in East Africa. (19 marks)
7. a). Describe the characteristics of dry savannah vegetation (10 marks)
- b). Account for the growth of dry savannah vegetation in east Africa (15 marks)
8. To what extent has relief influenced the process of soil formation in east Africa? (25 marks)

**END**

P210/2

## HISTORY PAPER 2

(SOCIAL AND ECONOMIC HISTORY OF

EAST AFRICA)

MOCK 2024

AUGUST

TIME:3 HRS



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

MOCK EXAMINATIONS 2024

HISTORY PAPER 2

(SOCIAL AND ECONOMIC HISTORY OF EAST AFRICA)

3 HOURS

### INSTRUCTIONS TO CANDIDATES.

This paper consists of three sections, A, B and C.

Answer any **FOUR** questions, taking atleast **ONE** from each section.

All questions carry equal marks.

Any additional question(s) answered will not be marked.

## **SECTION A**

1. Examine the significance of traditional education to social, economic organization during the early 19<sup>th</sup> century. (25 marks)
2. Describe the socio-economic organization of kikuyu society in the early 19<sup>th</sup> century. (25 marks)
3. Assess the impact of long distance trade on the social and economic development of East Africa during the early 19<sup>th</sup> century. (25 marks)

## **SECTION B**

4. Discuss the role of Africans in the development of white settler's economy in Kenya during the colonial era. (25 marks)
5. Account for the outbreak of Abushir uprising in Tanganyika in 1885. (25 marks)
6. Examine the socio-economic consequences of the Uganda railway to social and economic development of East Africa. (25 marks)
7. "Economic factors were primarily responsible for scramble and partition of East Africa". Discuss. (25 marks)

## **SECTION C**

8. How successful was the 1972 economic war in Uganda? (25 marks)
9. Economic factors led to the collapse of the East African community in 1977. Discuss. (25 marks)
10. Explain the effects of neo-colonialism on the social and economic development of East Africa since independence. (25 marks)

**END**

Name:.....

School:.....

Signature:.....Index Number: .....

P525/1

CHEMISTRY PAPER 1

MOCK 2024

AUGUST

TIME:2 HRS:45 MIN



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**CHEMISTRY**

**PAPER 1**

2 Hours 45 Minutes

## **INSTRUCTIONS TO CANDIDATES:**

- Answer all questions in section A and six questions in section B.
- All questions must be answered in the space provided.
- Illustrate your answers with equation(s) where applicable.

Where necessary, use the following:

Molar gas constant,  $R = 8.31 \text{ JK}^{-1}\text{mol}^{-1}$

Molar volume of a gas at s.t.p is 22.4 litres

Standard temperature = 273K

Standard pressure =  $101325 \text{ NM}^{-2}$

- Periodic table and a graph paper are well attached at the end of the question paper.

**FOR EXAMINER'S USE ONLY**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL

**SECTION A (46 MARKS)**

Answer all questions in this section.

1. (a) Define the term partial pressure of a gas. ( 1 mark)

.....

.....

.....

.....

(b) A  $5.00 \text{ dm}^3$  container holds a mixture of oxygen and nitrogen gases at a total pressure of  $3.00 \text{ atm}$  and a temperature of  $298 \text{ K}$ . the partial pressure of oxygen is  $1.20 \text{ atm}$ . Calculate,

- i) The partial pressure of nitrogen. (1 mark)

.....

.....

.....

.....

i) The number of moles of each gas present in the mixture. (2 marks)

.....  
.....  
.....

c) State three major assumptions made in the above calculation. (1½ marks)

.....  
.....  
.....  
.....

2. Manganese is one of the transition element in the periodic table which forms stable compounds in oxidation states +2, +4 and +7.

(a) Define the term Oxidation State. ( 01 mark)

.....  
.....  
.....

(b) Write the formula of the Oxide of manganese in the oxidation states.

( ½ mark each)

(i) +2: .....

(ii) +4:.....

(iii) +7:.....

(c) Write an equation for the reaction that took place between

(i) The oxide in +7 and dilute solution of potassium hydroxide.

.....  
.....

(ii) Hot concentrated solution of hydrochloric acid and the oxide in +4

( 1½ marks)

.....  
.....

3. Briefly describe how each of the following factors affects the stability of a nuclide.

(a) Neutron- proton ratio. ( 1½ marks)

.....  
.....  
.....  
.....

b) Half -life (1½ marks)

.....  
.....  
.....  
.....  
.....

(c) Binding energy ( 1½ marks)

.....  
.....  
.....  
.....

4. 10.0g of a mixture containing Potassium chlorate (v),  $\text{KClO}_3$  and Potassium chloride,  $\text{KCl}$  was strongly heated to a constant mass of 8.0g.

(a) Write an equation for the reaction that took place. (1½ marks)

.....

.....

(b) Calculate the percentage of each of the salts in the mixture. (3½ marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

5. (a) Define the term colligative property. (1 mark)

.....

.....

(b) Name the four colligative properties. (2 marks)

.....

.....

.....

.....

(c) (i) The vapour pressure of pure water at 20°C is  $2.34 \times 10^4 \text{ Nm}^{-2}$ . Calculate the vapour pressure of a solution containing 34.2g of sucrose ( $\text{C}_{12}\text{H}_{22}\text{O}_{11}$ ) in 500g of water. (2 marks)

.....

.....

.....

.....



.....

.....

.....

.....

.....

.....

[illegible]

(Kf of the solvent =  $1.63^{\circ}\text{CKg}^{-1}\text{mol}^{-1}$ ).

.....

.....

.....

.....

.....

.....

.....

.....

.....  
.....  
(c) Write the structural formula and the name of compound M. (01mark)  
.....  
.....

8. Tin and Carbon belong to group IV of the periodic table.

(a) Write the,

(i) Formulae of stable chlorides of Tin and Carbon. (01 mark)  
.....  
.....

(ii) Equation for the reaction of the chlorides in (a)(i) above with water. (2 marks)  
.....  
.....

b) Excess acidified Tin (ii) sulphate was added to potassium dichromate solution.

i) State what was observed. (1 mark)  
.....  
.....

ii) Write the equation for the reaction that took place. (1½ marks)  
.....  
.....

9(a) State what would be observed if benzene was added to water (1 mark)  
.....  
.....

(b) An organic compound R is soluble in both water and benzene. 0.5 moles of R was shaken with a mixture containing  $45 \text{ cm}^3$  of water and  $15 \text{ cm}^3$  of benzene and the mixture allowed to stand until equilibrium was attained. (KD for R between benzene and water at  $25^\circ\text{C}$  is 5 ). Calculate the number of moles of R in benzene (3 marks)

.....

.....

.....

.....

.....

.....

.....

**SECTION B (54 MARKS)**

Answer **SIX** questions from this section

10. (a) State what is meant by each of the terms,

i) First electron affinity (1 mark)

.....

.....

ii) Electronegativity (1 mark)

.....

.....

.....

(b)State one similarity and one difference between electron affinity and electronegativity

i).Similarity (1 mark)

.....

.....

(ii) Difference (1 mark)

.....

.....

c) State the correlation between the value of electron affinity and electronegativity. (1 mark)

.....  
.....  
d) Explain how each of the following factors affect the value of the first electron affinity.

i) Nuclear charge (2 marks)

.....  
.....  
.....  
.....

(ii) Screening effect (2 marks)

.....  
.....  
.....

11. Name one functional group that can be identified using each of the following reagents. In each case state what would be observed and write equation for the reaction that would take place

(a) Bromine water:

Functional group. (01 mark)

.....

Observation. (01 mark)

.....

Equation. (01 mark)

.....

(b) 2, 4-dinitrophenyl hydrazine:

Functional group. (01 mark)

.....  
.....

Observation. (01 mark)

.....  
.....

Equation (01 mark)

.....  
.....

(c) Sodium carbonate:

Functional group. (01 mark)

.....

Observation. (01 mark)

.....  
.....

Equation. (01 mark)

.....  
.....

12(a) Explain the term partition coefficient. (02mks)

.....  
.....  
.....

(b) State two conditions under which partition coefficient is valid.(02 marks)

.....  
.....  
.....

(c) A solute Q is three times as soluble in ethoxyethane as in water. An aqueous Solution containing 4.5g of Q per litre of a solution was shaken by ethoxyethane in a separating funnel. Calculate the mass of Q that was extracted when the solution was shaken:

(i) With  $100\text{cm}^3$  of ethoxyethane.

(02 marks)

.....

.....

.....

.....

.....

(ii) Twice with  $50\text{cm}^3$  of ethoxyethane.

(03marks)

.....

.....

.....

.....

.....

.....

.....

13. Sodium, aluminium, silicon and phosphorous are the elements in period 3 of the Periodic Table.

(a) For each element, Write the formula and name the structure of the oxide

Element	Formula of the Oxide	Structure
Sodium		
Aluminium		
Silicon		
Phosphorus		

(4 marks)

(b) Write equation for the reaction between aluminium oxide and

(i) Dilute hydrochloric acid.

(01½mks)

.....

.....

(ii) Excess sodium hydroxide.

(01½mks)

.....

.....

(c) State the condition and write an equation of a reaction between the oxide of silicon and sodium hydroxide. (02 marks)

.....  
.....

14. State what is meant by the following (1 mark each)

(i) Radioactivity

.....  
.....

(ii) Half-life

.....

(iii) Law of alpha decay

.....  
.....

b) The table below shows data for the radioactive decay of element P.

Time(Hrs)	0.0	5.0	10.0	15.0	20.0	25.0	30.0
Activity ( Counts/hr)	25.0	23.0	21.25	19.50	18.00	16.50	15.25

i) Plot a graph of activity against time. (03 marks)

ii) Determine the value of the half life of element P. (01 mark)

.....

(iv) Calculate the decay constant and state its units. ( 2 marks)

.....  
.....  
.....

15.  $50\text{cm}^3$  of solution G containing sodium hydroxide and sodium carbonate was diluted to  $250\text{cm}^3$  with distilled water.  $25\text{cm}^3$  of the diluted solution required  $15\text{cm}^3$  of 0.2M sulphuric acid using phenolphthalein indicator, another  $25\text{cm}^3$  of the diluted

solution of the mixture required  $27.5 \text{ cm}^3$  of 0.2M sulphuric acid using methyl orange indicator.

(a) Write the equations for the reactions taking place when using,

(i) Phenolphthalein indicator. (2 marks)

.....

.....

.....

(ii) Methyl orange indicator (3 marks)

.....

.....

(b) Calculate the concentration in moles per litre of sodium carbonate in the solution of G. (4 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

16. Write equations to show how the following conversion can be effected.

(a) 1,2-dichloropropane to propanone (02½ marks)

.....

.....

.....

.....

.....



.....  
.....  
(b)  $(\text{CH}_3\text{CH}_2)_2\text{O}$  from Ethene. (02 marks)  
.....  
.....  
.....  
.....  
.....

(c) Propanoic acid to ethylamine. (02 marks)  
.....  
.....  
.....  
.....

(d)  $\text{CH}_3\text{CH}_2\text{Br}$  to  $\text{CH}_3\text{CH}_2\text{CHO}$  ( 2½ marks)  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

17. (a) Draw the structure and name the shape of the species given in the table below. (06 marks)

Species	Structure	Shape
$\text{NO}_2^-$		
$\text{NO}_3^-$		

$\text{NO}_2^+$		
-----------------	--	--

(a) Arrange the above given species in order of increasing bond angle.

(1 ½ marks)

.....

(b) (i) Name the reagent that can be used to distinguish between  $\text{NO}_2^-$  and  $\text{NO}_3^-$

(1 mark)

.....  
 .....

(iii) State the observation made in each case

(2 marks)

.....  
 .....  
 .....  
 .....  
 .....

**END**

Periodic Table

1	2											3	4	5	6	7	8
1.0 H 1																1.0 H 1	4.0 He 2
6.9 Li 3	9.0 Be 4											10.8 B 5	12.0 C 6	14.0 N 7	16.0 O 8	19.0 F 9	20.2 Ne 10
23.0 Na 11	24.3 Mg 12											27.0 Al 13	28.1 Si 14	31.0 P 15	32.1 S 16	35.4 Cl 17	40.0 Ar 18
39.1 K 19	40.1 Ca 20	45.0 Sc 21	47.9 Ti 22	50.9 V 23	52.0 Cr 24	54.9 Mn 25	55.8 Fe 26	58.9 Co 27	58.7 Ni 28	63.5 Cu 29	65.7 Zn 30	69.7 Ga 31	72.6 Ge 32	74.9 As 33	79.0 Se 34	79.9 Br 35	83.8 Kr 36
85.5 Rb 37	87.6 Sr 38	88.9 Y 39	91.2 Zr 40	92.9 Nb 41	95.9 Mo 42	98.9 Tc 43	101 Ru 44	103 Rh 45	106 Pd 46	108 Ag 47	112 Cd 48	115 In 49	119 Sn 50	122 Sb 51	128 Te 52	127 I 53	131 Xe 54
133 Cs 55	137 Ba 56	139 La 57	178 Hf 72	181 Ta 73	184 W 74	186 Re 75	190 Os 76	192 Ir 77	195 Pt 78	197 Au 79	201 Hg 80	204 Tl 81	207 Pb 82	209 Bi 83	209 Po 84	210 At 85	222 Rn 86
223 Fr 87	226 Ra 88	227 Ac 89															
			139 La 57	140 Ce 58	141 Pr 59	144 Nd 60	147 Pm 61	150 Sm 62	152 Eu 63	157 Gd 64	159 Tb 65	162 Dy 66	165 Ho 67	167 Er 68	169 Tm 69	173 Yb 70	175 Lu 71
			227 Ac 89	232 Th 90	231 Pa 91	238 U 92	237 Np 93	244 Pu 94	243 Am 95	247 Cm 96	247 Bk 97	251 Cf 98	254 Es 99	257 Fm 100	256 Md 101	254 No 102	260 Lw 103

**P235/1**

**(THE GLORIOUS QURAN)**

**PAPER 1**

**MOCK 2024**

**AUGUST**

**TIME:2 HRS:30 MIN**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**ISLAMIC RELIGIOUS EDUCATION**

**(THE GLORIOUS QURAN)**

**PAPER 1**

**TIME:2 HRS:30 MIN**

## **INSTRUCTIONS TO CANDIDATES**

Answer any four questions from this paper.

Any additional questions answered will not be marked.

All questions carry equal marks.

1. (a) "The holy Quran was revealed in piece Mills". Justify. (13 marks)
- b) Account for the revelation of the holy Quran in this unique manner. (12 marks)
2. Abu-Bakr said,"....You were also a scribe, writing down the revelations for the messenger of Allah. So attend to the Quran and compile it."
- a) Account for the delay. (13 marks)
- b) What were the hardships faced during this process? (12 marks)
3. Discuss the Quranic teaching on Polytheism (Shirk). (25 marks)
4. "The day they will hear a mighty blast in every truth, that will be the day of resurrection." (50:42) .Basing on this verse and many other verses, explain the events of this day. (25 marks)
5. "Oh prophet! Say to your wives, your daughters that they should let down upon themselves their jalabib." (33:59)
- a) In light of the above verse, examine the features of an Islamic dress. (12 marks)
- b) Of what relevance is the above dress to the Muslim society? (13 marks)
6. Discuss Quranic teachings on inheritance of the property. (25 marks)
7. Explain the guidelines of Islam in making a lawful business. (25 marks)
8. "An Islamic state should fairly administer Justice for peace and stability in society". Explain pellucidly how the Quran guides administration of Justice. (25 marks)
9. Discuss the international relations as provided by the Holy Quran. (25 marks)
10. Discuss the rights and obligations of a Muslim leader. (25 marks)
11. a) Discuss the background for the revelation of Surat Lahab (Chapter 111) . (13 marks)
- b) Explain the contents of the above verse. (12 marks)
12. a) Explain the circumstances under which Surat Al-fil (105) was revealed. (13 marks)
- b) What lessons does a Muslim draw from the teachings of the surah? (12 marks)

**END**

P210/3

HISTORY

(EUROPEAN HISTORY)

MOCK 2024

AUGUST

TIME:3HRS



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

MOCK EXAMINATIONS 2024

HISTORY

PAPER 3.

(EUROPEAN HISTORY 1789-1970)

3 HOURS

## INSTRUCTIONS TO CANDIDATES

- Answer **four** questions only.
- All questions carry equal marks.
- Any additional question(s) answered will not be marked.
- Proper use of Historical vocabulary carries a credit.

1. Account for the French Revolution of 1789. (25 marks)
2. “The diplomatic meeting of European powers of the 1814-1815 was more of a failure than a success” .Discuss. (25 marks)
3. To what extent was nationalism responsible for the turmoil in the Balkans between 1821 and 1832. (25 marks).
4. Account for short life span of the 1848 revolutions in Europe. (25 marks).
5. Assess the role of Victor Emmanuel II in the unification of Italy between 1848 and 1870. (25 marks).
6. “The League of Nations was bound to fail”. Discuss. (25 marks)
7. Examine the methods used by Adolf Hitler to consolidate his power in Germany. (25 marks)
8. How was the world economic Depression and its problems solved? (25 marks)
9. Assess the impacts of the cold wars on the world up to 1970. (25 marks)
10. Account for the failure of United Nations Organization (U.N.O) to fulfill the objectives of the founders by 1970. (25 marks)

**END**

**P210/1**

**HISTORY PAPER 1**

**(AFRICAN NATIONALISM AND**

**NEW STATES IN AFRICA)**

**MOCK 2024**

**AUGUST**

**TIME:3 HRS**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**HISTORY PAPER 1**

**(AFRICAN NATIONALISM AND NEWSTATES IN AFRICA)**

**3 HOURS.**

## **INSTRUCTION TO CANDIDATES.**

- ✓ Attempt four questions only.
- ✓ All questions carry equal marks.
- ✓ Proper use of vocabulary carries a credit.
- ✓ Any additional question(s) attempted will not be marked.



1. To what extent did the 1941 Atlantic charters lead to the growth of African Nationalism? (25 marks)
2. Account for the Soweto uprising of 1976 in South Africa? (25marks)
3. How did King Farouq lead to the collapse of Egyptian Monarchy? (25 marks)
4. To what extent did the 1971 military coup in Uganda lead to the collapse of the East African community in 1977? (25 marks).
5. Examine the contribution of De-Clerk to the collapse of Apartheid in South Africa. (25marks)
6. Assess the impact of foreign aid in any post independent African State. (25marks)
7. Account for the survival of the military regime in Uganda between 1971-1978. (25 marks)
8. “The defeat of MAU-MAU by 1955 was inevitable” Discuss. (25 marks)
9. Examine the causes and effects of the 1981 military coup in Ghana. (25 marks)
10. Explain the role of the army in the politics of the post independent African states. (25 marks).

**END**

NAME:..... INDEX NO: 

--	--	--	--	--	--	--	--

SCHOOL:.....

SIGNATURE:.....

S101/1

GENERAL PAPER

MOCK 2024

AUGUST

TIME:2 HRS:40 MIN



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

MOCK EXAMINATIONS 2024

GENERAL PAPER

TIME:2HRS:40MINS

## INSTRUCTIONS TO CANDIDATES.

- This paper consists of **two** sections, **A** and **B**.
- A candidate is supposed to attempt **two** questions in all. **ONE** question from section A and **ONE** question from section **B**.
- Answers of each question must strictly begin in a fresh answer booklet which should be fastened together.
- You are advised to spend your time equally on **two** questions.
- All questions carry **equal** marks.

- Extra questions attempted will not be marked.
- 

## **SECTION A**

Choose **ONE** question from this section.

Answers should be between **500** words to **800** words in length.

1. Account for the rampant cases of international terrorism and suggest remedies to curb them. (50 marks)
2. Discuss the effects and causes of corruption. (50 marks)
3. To what extent is environmental degradation as a result of poor farming methods? (50 marks)
4. Alcohol is the primary cause of juvenile delinquency. Discuss. (50 marks)

## **SECTION B**

Choose **ONE** question from this section.

5. Study the information below carefully and answer the questions that follow.

In a village called Nyamhuuku, there lived five younger women and men eligible for marriage.

Controversy has risen due to failure by the youth to choose partners from amongst themselves.

A council of elders has been convened to resolve this matter using the following criteria.

- All the eligible men and women must be married.
- Any youth eligible for marriage is free to join the group at any stage in search of partners. This may lead to the displacement of an individual from the group.
- The outcome of the criteria laid down by the elders is considered final.
- The young man with the best attributes is paired with a young woman ranked highest on the list. This ranking of merit is followed until the final pair has been matched.
- The attributes agreed upon by the elders for the young men and the corresponding weights are showed below;

Attribute	Weights
Willingness to pay bride price	04
Bravery	01
HIV/AIDS test (negative)	06
Wealth	03
Education (minimum level)	05
Physical appearance	02

Zelpha is an ugly wealthy businessman but he is a miser and illiterate. He has vowed to fight bride price. He is HIV positive.

Xavier is a very handsome university graduate but he is a coward and lazy. He is yet to take an HIV/AIDS test.

Vicent has a farm of 15 Friesian cows. He has attained an O' level certificate. He lost an eye while off a lion that had attacked his cows. He is HIV negative.

Willy has twenty-five cows of local breed. He is illiterate but handsome, hardworking and a good hunter. He has refused to take an HIV/AIDS test.

Yoash comes from a wealthy family and has completed senior six. He is HIV negative.

All the young men unless otherwise stated are willing to pay bride price if it is affordable.

The elders in descending order as follows have ranked the young women;

- Grace
- Esther
- Beatrice
- Allen
- Precious

### **QUESTIONS;**

- Following the elder's criteria, determine which young man will marry which young lady in the village. (15 marks)
- If a sixth young man Quinto showed up with the following attributes; handsome, newly, a teacher and HIV negative. How would he affect the pairing in the group? (5 marks )
- Why should HIV/AIDS testing be a priority during marriage arrangement? (10marks)
- Examine the relevance of bride price payment in your community. (10 marks)

### **6. Read the passage below and answer questions that follow**

The catholic bishops of America issued a statement in which they said that the chaotic and bewildered state of the modern world is due to man's loss of faith and his abandonment of God and religion. For my part, I believe in no religion at all yet I entirely agree with bishops. It is no doubt over simplification to speak of any cause of the so complex state of affairs as the tortured condition of the world today. It causes that the bishops' assertion is substantially true.

Mr. Jean Paul Sartre, a French existentialist philosopher, labels himself as an atheist. Yet his views seem to be plainly to support the statement of the bishop. So long as there was believed to be a God in the skies, he says, men could regard him as source of their moral ideas. The universe created and governed by a fatherly habitation for man. We could be sure of that however great the evil could be routed. With the disappearance of God from the skies, all has changed! Since the world is not ruled

by spiritual being but rather by blind forces, there cannot be any ideas, morals or otherwise the universe outside us. Our environment, which surrounds us, is nothing but immense spiritual emptiness. It is a dead universe. We do not live in a universe, which is on the side of our values. It is completely in different to them. Years ago, Mr. Bertrand Russell in his essay, a free man's workshop, said much the same thing "such in outline but even more purposeless, more void meaning, is the world which science presents for our believe. If anywhere ,our ideals are present, one would move forward and it would be a must for them to find a home.....blind to good and evil, reckless of destruction, omnipotent matter rolls on its relentless way for man condemned today to lose his dearest , it remains only to cherish, where yet the blow falls , the lofty thoughts that unable his little day to worship at the shrine his own hands have built , a weary but unyielding atlas , the world that his own ideas have fashioned despite the trampling march of unconscious power.

It is true that Mr. Russell's personal attitude to the disappearance of religion is quite different from that of Mr. Sartre or the bishops. The bishops think it is a calamity. So do I .Mr. Sartre finds it "very distressing" and he berates as shallow the attitude of those who think that without God the world can go on just the same as before as if nothing had happened. This creates for mankind, what he thinks is a terrible crisis. In addition, I agree with him. Mr. Russell on the other hand seems to believe that religion has done more harm than good in the world and that its disappearance will be a blessing.

Mr. Russell notes that it is science, which has produced this situation. There is no doubt that this is correct. However, the way in which it has come about is not generally understood. There is a popular belief that some particular scientific discoveries or theories such as Darwin's Theory of evolution or the views of geologists about the age of the earth or a series of such discoveries have done the damage. It would be foolish to deny that these discoveries have had a great effect in undermining religious dogmas. However, this account does not all go to the root of the matter. Religion can probably out leave any scientific discoveries, which could be made. It can accommodate itself to them .The root cause of the decay of faith has not been as a result of any particular discovery of science but rather the general spirit of science and certain basic assumptions upon which modern science from the 17<sup>th</sup> century onwards has proceeded.

## **QUESTIONS**

- a) Suggest a suitable title for the passage. (05 marks)
- b) What does the author mean by"...an over simplifications to speak of the cause of so complex a state of affairs as a tortured conditions of the world today" (04 marks)
- c) What has caused this state of the modern world according to Mr. Jean Paul Sartre? (07 marks)
- d) What is the difference between Russell's opinion about religion and that of the others? (08 marks)
- e) Explain in not more than 100 words the problems of the modern world. (10 marks)
- f) Explain the meaning of the following words and phrases as used in the passage
  - i. Bewildered (02 marks)
  - ii. Substantially true (02 marks)
  - iii. Existentialist (02 marks)

- |       |                     |            |
|-------|---------------------|------------|
| iv.   | An atheist          | (02 marks) |
| v.    | Friendly habitation | (02 marks) |
| vi.   | Omnipotent          | (02 marks) |
| vii.  | Berates             | (02 marks) |
| viii. | Dogmas              | (02 marks) |

**END**

**P245/1**

**CRE**

**(THE OLD TESTAMENT)**

**PAPER 1**

**MOCK 2024**

**AUGUST**

**TIME:2 HRS:30 MIN**



# **MEBU EXAMINATIONS CONSULT**

**Uganda Advanced Certificate Of Education**

**MOCK EXAMINATIONS 2024**

**CHRISTIAN RELIGIOUS EDUCATION**

**THE OLD TESTAMENT**

**Paper 1**

**2 Hours 30 Minutes.**

## **INSTRUCTIONS TO CANDIDATES**

This paper consists of three sections A, B, and C

Answer your questions taking one from Section A,

Choose One from Section B and two from Section C.

One of the questions must be either number 11 or 12.

All questions carry equal marks.

Any additional question (s) answered will not be marked

## SECTION A (LAW BOOKS)

1. (a ).Analyze the teachings of Genesis 1 and 2 about marriage. (13 marks)
- (b).How relevant is the above teachings to Christians today. (12 marks)
2. (a) Account for God's call of Moses in the burning bush incident. (13 marks)
- (b)What lessons do modern Christians learn from the call of Moses? (12 marks)
3. (a).Discuss the aims God had in commanding man to multiply, fill the earth and subdue it in Genesis 1:28. (13 marks)
- (b)Show the ways man today has shown lack of understanding of God's aims in Genesis 1:28 (12 marks).
- 4 (a) Justify the elevated position Israel's great Patriarch held in the history of Israel.(12 marks)
- (b)How can Christians today elevate their positions in the communities they live in(13 marks?)

## SECTION B (HISTORICAL BOOKS)

- 5.(a) To what extent was the Israel's demand for the king due to the philistines threat.(13 marks)
- (b) What factors may prompt people to demand for new leaders in their various organizations. (12 marks)
6. "David was a model king in Israel" Discuss. (25 marks)
- 7 (a) Examine the reasons for Ahab to be regarded as the worst king Of Israel. (13marks)
- (b).Under what circumstances may religious leaders criticize political leaders today(12 marks).

## SECTION C (PROPHETIC AND WISDOM BOOKS)

- 8 (a) Account for Amos' defense of the poor in Israel. (13 marks)
- (b) Give the usefulness of Amos' oracles to the rich to modern Christians. (12 marks)
- 9 (a) Justify Hosea's condemnation of the priests and prophets during his time. (13marks)
- (b)What is the relevance of Hosea's conflict with the priests to religious leaders today? (12 marks).
- 10 (a) Comment on the view that the conflict between prophet Isaiah and King Ahaz was inevitable (13 marks)
- (b) What advise did prophet Isaiah give to king Ahaz to improve on his religious image (12marks)
- 11 (a) Account for Job's bitterness with his friends in his moment of dilemma. (13 marks)
- (b) What is the relevance of the above bitterness to Christians today. (12 marks)



12 (a) Comment on the message in Psalm 2.

(13marks)

(b) How significant is this psalm to Christians today

(12marks).

**END**

P530/2

BIOLOGY (THEORY)

PAPER 2

AUGUST 2024

2 $\frac{1}{2}$  HRS



# MEBU EXAMINATIONS CONSULT

Uganda Advanced Certificate Of Education

## MOCK EXAMINATIONS 2024

BIOLOGY (THEORY)

PAPER 2

2 HOURS 30 MINUTES

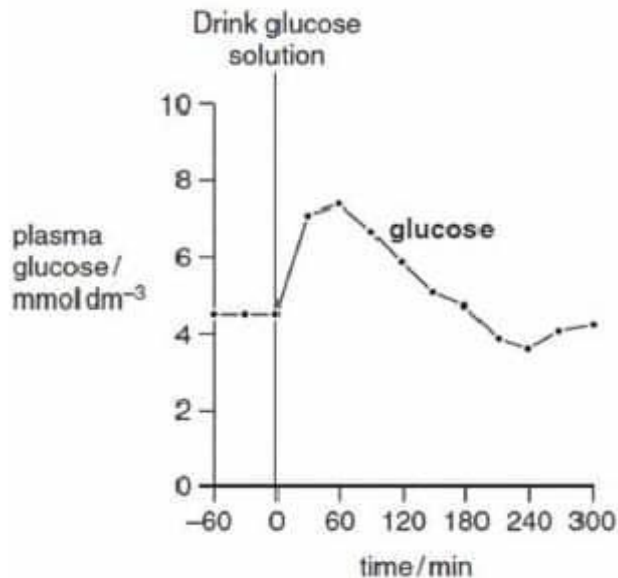
### INSTRUCTIONS TO CANDIDATES

- This paper consists of **six** questions
- Answer question **one** in section **A** plus **three** other questions from section **B**.
- Candidates are advised to read carefully, organize their answers and present them precisely and logically, illustrating with well labelled diagrams where necessary.

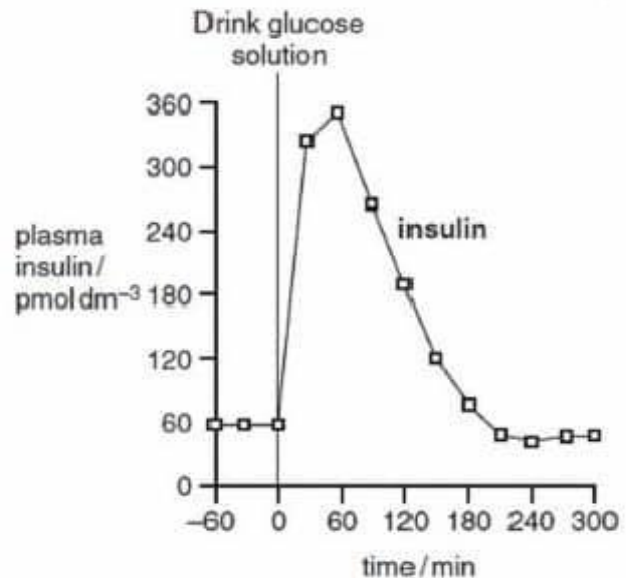


## SECTION A (40 MARKS)

1. The figures **2.1** and **2.2** below show the concentration of both glucose and insulin in the blood plasma before and after a glucose drink. Study them carefully and answer the questions that follow.



**Fig 2.1**



**Fig 2.2**

- (a). Describe the changes in the blood -glucose concentration after a glucose drink. (07 $\frac{1}{2}$ marks)
- (b) From the figures above, explain how changes in blood-glucose concentration cause;
- (i). an increase in concentration of insulin in blood plasma. (07 marks)
- (ii). a subsequent fall in concentration of insulin in blood plasma. (05 marks)
- (c). Describe the role of the hormone, glucagon in maintaining the concentration of blood glucose levels constant. (06 $\frac{1}{2}$ marks)
- (d). Of what significance is it to maintain blood- glucose levels constant? (09marks)
- (e) Apart from the concentration of glucose in blood, state any other factors which must be regulated in the internal environment of a living organism. (05 marks)

## SECTION B (60 MARKS)

**Answer three questions from this section.**

2. (a) Define the term inhibiting genes. (01 mark)
- (b).Differentiate between chromosomal aberration and hybrid sterility. (02 marks)
- (c) A woman had a total of only four sons. On thorough examination of the medical doctors, it was found out that three of the sons were normal and one was a hemophiliac. The husband to this woman wants the doctors to help him know the nature of the possible genotypes their couple is most likely to have. As one of the medical doctors, help them to address their query. (12 marks)
- (d)Phenylketonuria (PKU) is a disease that has been evident both in the young and adults. Outline the effects of this disease in patients (05 marks).
- 3(a) Define the following terms:
- (i).Azoospermia. (01 mark)
- (ii).Contraception. (01 mark)
- (iii) .Capacitation. (01 mark)
- (b). Describe the milk ejection reflex in a female mother. (06 marks)
- (c) .Define the term micro propagation. (01 mark)
- (ii). Explain the pros of micro propagation. (10 marks)
- 4(a). Explain the steps involved in the production of energy in the Tri-carboxylic Acid cycle. (10 marks).
- (b).Describe the structure and the roles of Adenosine Triphosphate in cells. (10 marks).
- 5(a) (i).Differentiate between facilitation and summation as applied to coordination in animals. (02 marks)

- (ii).Outline the three possible ways of removing neurotransmitters from the synaptic cleft. (03 marks)
- (b).Describe the structure of the retina. (09 marks)
- (c)(i).Define the term vernalisation. (01 mark)
- (ii).Outline the importances of photo morphogenesis in plants. (05 marks)
- 6(a).Explain the meaning of the term amoeboid movement. (01 mark)
- (b).Outline the importance of amoeboid movement. (01 mark)
- (c) Describe the sol-gel-sol transformation of the cytoplasm of any named unicellular organism as outlined by Mast (1925). ( $14\frac{1}{2}$  marks)
- (d) Define the term tetany as applied to muscles. (02 marks)

**END**

**A GOOD HEART WINS GOOD PEOPLE**

**THANK YOU FOR SUPPORTING**

**MEBU EXAMINATIONS CONSULT**

**CONTACT: 0709843314/0761762094**