

**535/3**

**PHYSICS  
PRACTICAL  
Paper 3  
Nov./Dec. 2020**

2 $\frac{1}{4}$  hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**PHYSICS PRACTICAL**

**Paper 3**

**2 hours 15minutes**

**INSTRUCTIONS TO CANDIDATES:**

*Answer Question 1 and one other question.*

*Any additional question answered will **not** be marked*

*For each question candidates will be required to select suitable apparatus from the equipment provided*

*You will **not** be allowed to start working with the apparatus for the **first quarter** of an hour.*

*Marks are given mainly for a clear record of the observation actually made, for their suitability and accuracy, and the use made of them.*

*Candidates are reminded to record their observations as soon as they are made*

*Where possible, candidates should put their observations and calculations in a suitable table drawn in advance*

*An account of the method of carrying out the experiment is not required.*

*Squared paper is provided.*

*Mathematical tables and silent non-programmable calculator may be used.*

1. In this experiment, you will determine the constant,  $k$  of the spiral spring provided. (30marks)

- Suspend the spring with a pointer fixed at its free end from a clamp.
- Support one end of the metre rule against the wooden block and suspend the other end from the spring using a piece of thread as shown in figure 1

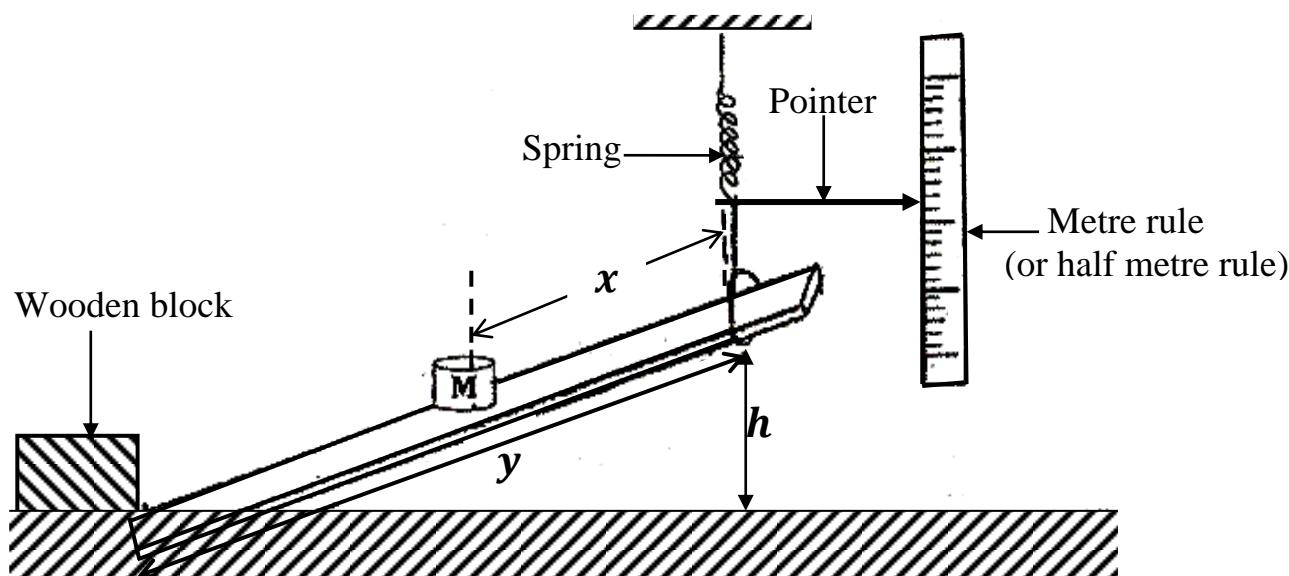


Fig.1

- Adjust the height,  $h$  above the table surface to 30cm.
- Measure and record the distance,  $y$  between the end of the rule pressing against the wooden block and the point of suspension of the meter rule.
- Clamp the half meter rule vertically with its scale against the end of the pointer.
- Read and record the position,  $P_0$  of the pointer.
- Place a mass,  $M$  at a distance,  $x = 20.0\text{cm}$  from the point of suspension of the metre rule.
- Read and record the new position,  $P$  of the pointer.
- Find the extension,  $e$  of the spring.
- Repeat procedures (g) to (i) for values of  $x = 30.0, 40.0, 50.0, 60.0$  and  $70.0\text{cm}$ .
- Tabulate your results including values of  $(y - x)$ .
- Plot a graph of  $e$  against  $(y - x)$ .
- Find the slope,  $S$  of the graph.
- Calculate,  $k$  from: 
$$k = \frac{0.98}{Sy}$$

**DISMANTLE THE SET UP OF THE APPARATUS**

2. In this experiment, you will determine the refractive index,  $\cap$  of a glass block provided.

(30marks)

- (a) Fix a fresh plain sheet of paper on the soft board using drawing pins.

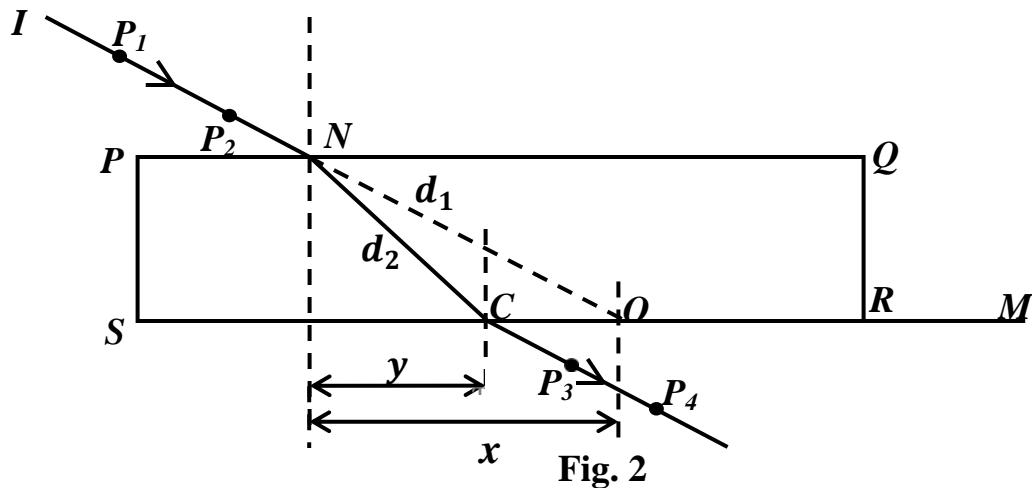


Fig. 2

- (b) Place the glass block on the sheet of paper provided with the largest face top most.  
(c) Trace its outline  $PQRS$ .  
(d) Remove the glass.  
(e) Mark point  $N$  on  $PQ$  such that the distance  $PN = 2.0\text{cm}$ .  
(f) Draw a normal to  $PQ$  at  $N$ . Extend  $SR$  to  $M$  such that the distance  $RM = 8.0\text{cm}$   
(g) Mark another  $O$  on  $SR$  such that  $x = 2.0\text{cm}$ .  
(h) Join  $O$  to  $N$  and extend to I as shown in figure 2.  
(i) Stick two optical pins  $P_1$  and  $P_2$  on  $IN$ . Put the glass block on its outline.  
(j) While looking through the glass block from side  $SR$ , stick two pins  $P_3$  and  $P_4$  such that they appear to be in line with the images of  $P_1$  and  $P_2$ .  
(k) Remove the glass block and the pins  
(l) Draw a line through  $P_3$  and  $P_4$  to meet  $SR$  at  $C$ . Join  $C$  to  $N$ .  
(m) Measures and record distances  $d_1$ ,  $d_2$  and  $y$ .  
(n) Repeat procedures (g) to (m) for values of  $x = 4.0, 6.0, 9.0, 10.0$  and  $13.0\text{cm}$ .  
(o) Tabulate your results including values of  $\frac{d_1}{d_2}$  and  $\frac{x}{y}$ .  
(p) Plot a graph of  $\frac{d_1}{d_2}$  against  $\frac{x}{y}$ .  
(q) Determine the slope,  $S$ , of the graph.  
(r) Calculate  $\cap$  from the expression:  $\cap = \frac{1}{S}$ .

**N.B Hand in the tracing papers used in the experiment together with your results.**

**DISMANTLE THE SET UP OF THE APPARATUS**

3. In this experiment, you will determine the potential difference per metre,  $K$  of the wire  $W$  provided. (30marks)

(a) Connect the circuit shown in figure 3.

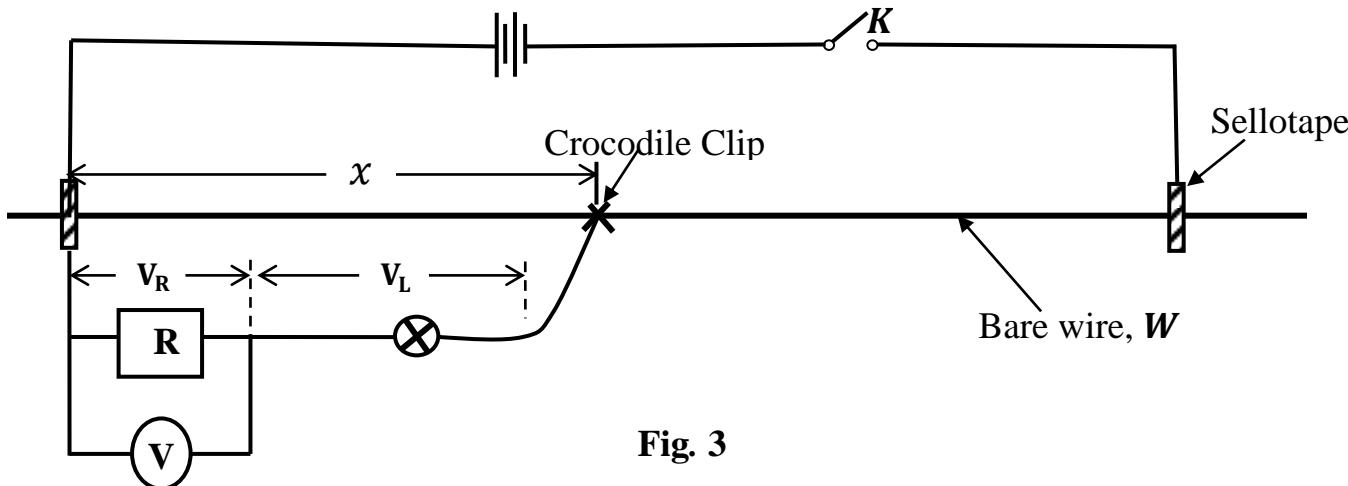


Fig. 3

(b) Record the value of the resistor  $R$  Provided.

(c) With  $x = 0.10\text{m}$ , close the switch,  $K$ .

(d) Read and record the voltmeter reading  $V_R$ .

(e) Open switch  $K$ .

(f) Disconnect the voltmeter and connect it across the bulb,  $L$ .

(g) Close switch,  $K$ .

(h) Read and record the voltmeter reading,  $V_L$ .

(i) Repeat procedures (c) to (h) for values of  $x = 0.20, 0.30, 0.40, 0.50, 0.60, 0.70$  and  $0.80$ .

(j) Tabulate your results in a suitable table.

(k) Plot a graph of  $V_L$  against  $V_R$ .

(l) Locate the point,  $V_0$  on the graph for which  $V_R = V_L$ .

(m) Plot a graph of  $V_L$  against  $x$ .

(n) From your graph find values of  $x = x_0$  for which  $V_R = V_L$  is  $V_0$ .

(o) Calculate the potential difference per metre  $K$ , of the wire,  $W$  from the expression:

$$K = \frac{V_0}{x_0}.$$

**DISCONNECT THE CIRCUIT**

**END**

**456/1**

**MATHEMATICS**

**Paper 1**

**Nov./Dec. 2020**

**2½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**MATHEMATICS**

**Paper 1**

**2 hours 30minutes**

**INSTRUCTIONS TO CANDIDATES:**

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

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

**All necessary calculations must be done in the answer booklet provided; therefore, no paper should be given for rough work.**

*Squared paper is provided.*

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

*Neat work is a must!!*

## SECTION A: (40 MARKS)

*Answer all questions in this section.*

1. Factorize  $1 - xy - x^2 - y$  completely. (04 marks)
2. Solve for  $x$  in the equation  $\frac{x-3}{4} - \frac{x-5}{6} = 2$  (04 marks)
3. Given that matrix  $A = \begin{pmatrix} 5 & 4 \\ 2 & 3 \end{pmatrix}$ . Find the inverse of  $A^2$ . (04 marks)
4. The table below shows the ages of army recruits.

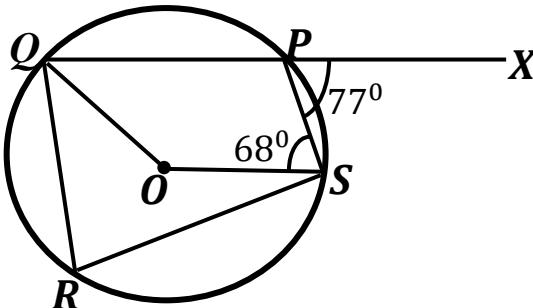
<b>Age (years)</b>	20 – 22	23 – 25	26 – 28	29 – 31	32 – 34
<b>Number of recruits</b>	3	$x$	12	9	2

Given that the mode is 27.5 and modal class is 26 – 28 ; find the value of  $x$ . (04 marks)

5. Make  $x$  the subject of the formula.

$$t = \sqrt{\frac{2(x-ut)}{a}} \quad (04 \text{ marks})$$

6. Given that  $x * y = x(x + 1) - y(y + 1)$ . Find the value of  $(-4 * 2) * 3$  (04 marks)
7. The figure below shows points  $PQRS$  on a circle centre  $O$ .  $QP$  is produced to  $X$ . Angle  $XPS = 77^\circ$  and angle  $PSO = 68^\circ$ .



Find the size of angle  $PQO$ . (04 marks)

8. The area of an image is four times the area of the object under a transformation whose matrix is  $\begin{pmatrix} p & p-4 \\ p+8 & p \end{pmatrix}$ . Find the value of  $p$ . (04 marks)
9. Catherine is  $(x + 3)$  years old now; her sister Grace is 5 years younger but her brother John is twice as old as Catherine. The sum of the two girls is 29. Find John's age. (04 marks)
10. A metallic pipe 12m long is leaning against a vertical wall, with its foot 3m from the wall. Calculate the;
  - (a) height of the wall where the pipe reaches. (02 marks)
  - (b) angle of declination of the pipe to the wall. (02 marks)

## SECTION B: (60 MARKS)

*Answer any five questions from this section. All questions carry equal marks.*

11. (a) The table below shows the number of children in 40 randomly chosen families.

Number of children(x)	0	1	2	3	4	5	Over 5	Total
Number of families(f)	6	8	12	5	3	6	0	40

State the probability that a family chosen at random has;

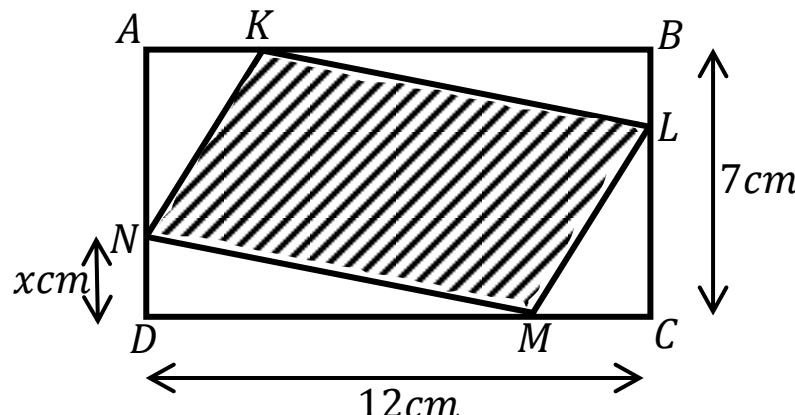
- (i) more than 2 children                      (ii)  $P(2 \leq x < 4)$                       (05 marks)

- (b) Two tetrahedral dice, with faces labelled 1, 2, 3 and 4, are thrown and the number on which each lands is noted. The ‘score’ is the sum of these two numbers. Find the probability that:

- (i) atleast one die lands on a 3.                      (ii) the score is even.                      (07 marks)

12. (a) Simplify as far as possible.  $\frac{x}{x-y} + \frac{y}{y+x} - \frac{2xy}{x^2-y^2}$                       (04 marks)

- (b) In the figure below,  $ABCD$  is a rectangle with  $AB = 12\text{cm}$  and  $BC = 7\text{cm}$ .  $AK = CM = DN = x\text{cm}$ . The area of the shaded part is  $54\text{cm}^2$ .



- (i) Show that the area of the unshaded part is  $x(19 - x)\text{ cm}^2$ .  
 (ii) Find the possible values of  $x$ .                      (08 marks)

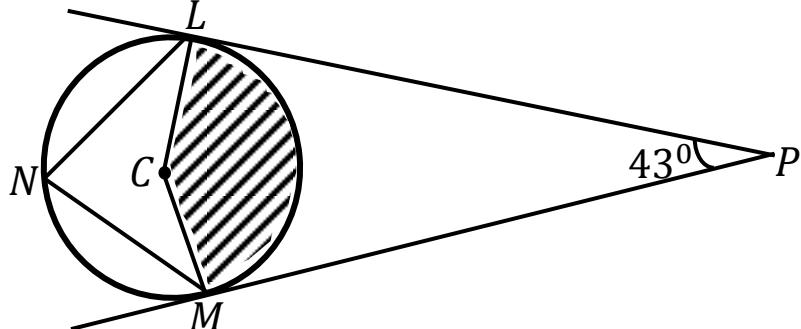
13. A business man who deals in an agricultural produce business visited four markets in a certain week. He bought 3 bags of beans, 5 bags of maize, 10 bags of potatoes and 3 bags of millet from Nakasero market, then 1 bag of beans, 4 bags of potatoes and 2 bags of millet from Nakawa market while 5 bags of beans and 1 bag of maize from Kalerwe market and lastly 4 bags of beans, 3 bags of maize, 6 bags of potatoes and 1 bag of millet from Busega market. He bought each bag of beans at sh. 45,000, a bag of maize at sh. 30,000, a bag of potatoes at sh. 15,000 and a bag of millet at sh. 50,000.

He later sold all the produce he had bought at sh. 50,000 per bag of beans, sh. 35,000 per bag of maize, sh. 18,000 per bag of potatoes sh. 55,000 per bag of millet.

- (a) Write down a:                      (i)  $4 \times 4$  matrix for the quantity of items bought.  
     (ii)  $4 \times 1$  matrix for the price of the produce                      (02 marks)
- (b) By matrix multiplication, calculate the total amount of money spent on the produce in all the markets.                              (04 marks)
- (c) Find the profit made by the business man after the sale of the produce. (06 marks)

14. (a) Draw a graph of  $y = (x - 1)(x + 5)$  for  $-6 \leq x \leq 2$ . Use a scale of 1cm : 1unit on both axes. (07 marks)
- (b) Use your graph to solve the equations  
(i)  $x^2 - 6x - 5 = 0$                                   (ii)  $x^2 - x - 6 = 0$  (05 marks)

15. In the figure below,  $PL$  and  $PM$  are tangents from  $P$  to the circle with centre,  $C$  and radius 5cm.



Calculate:

- (a) (i) angle  $LCM$     (ii) length  $CP$  (06 marks)
- (b) the area of the shaded part, correct to 2sf. (03 marks)
- (c) the area of the quadrilateral  $LCMN$  to the nearest  $\text{cm}^2$ . (03 marks)

16. A triangle  $ABC$  with vertices  $A(2, 1)$ ,  $B(4, 1)$  and  $C(3, 4)$  is mapped onto triangle  $A'B'C'$  by an enlargement with centre  $(0, 0)$  and scale factor 2. When  $ABC$  is enlarged by scale factor  $-2$ , centre  $(0, 0)$ , it is mapped onto triangle  $A''B''C''$ .

- (a) Use a scale of 1cm to represent 1unit on both axes to plot triangle  $ABC$  and its images on the same axes. (10 marks)
- (b) Determine the coordinates of the vertices:  
(i)  $A'$ ,  $B'$  and  $C'$     (ii)  $A''$ ,  $B''$  and  $C''$  (02 marks)

17. According to the Ministry of Disaster Preparedness, a depot for vulnerable poor relief should have at most 20 bags of beans and 35 bags of flour. The mass, volume and number of meal ratios per bag are as shown in the table below.

Bag of:	Mass (kg)	Volume ( $\text{m}^3$ )	Number of meals
Beans	25	0.05	800
Flour	10	0.05	160

A delivery van is to carry the largest possible number of bags. It can carry a mass of up to 600kg occupying  $2\text{m}^3$ .

- (a) If a load is made up of  $x$  bags of beans and  $y$  bags of flour, write down six inequalities for the given information. (05 marks)
- (b) Represent the inequalities on a graph paper by shading the unwanted regions.  
*(Use a scale of 2cm to represent 5 units on both axes)* (04 marks)
- (c) Determine the number of bags of beans and flour that should be delivered to make the total number of meal ratios the largest. (03 marks)

**END**

**456/2**

**MATHEMATICS**

**Paper 2**

**Nov./Dec. 2020**

**2½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**MATHEMATICS**

**Paper 2**

**2 hours 30 minutes**

**INSTRUCTIONS TO CANDIDATES:**

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

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

*All necessary calculations must be done in the answer booklet provided; therefore, no paper should be given for rough work.*

*Squared paper is provided.*

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

*Neat work is a must!!*

**SECTION A: (40 MARKS)***Answer all questions in this section.*

1. Without using mathematical tables or calculators, simplify

$$\left(\frac{1}{8}\right)^{-1/3} + \left(\frac{1}{16}\right)^{-1/2} \quad (04 \text{ marks})$$

2. Find the equation of the line which passes through the point  $(1, 2)$  and is parallel to the line whose equation is  $2x + 3y + 4 = 0$ .  $(04 \text{ marks})$

3. The marked price of a gas cooker is sh. 450,000. A dealer charges 20% more under hire purchase. If the deposit is sh. 40,000, calculate the amount of monthly installments if there are 10 equal installments.  $(04 \text{ marks})$

4. Three points  $A$ ,  $B$  and  $C$  have position vectors  $\begin{pmatrix} 1 \\ 2 \end{pmatrix}$ ,  $\begin{pmatrix} x \\ y \end{pmatrix}$  and  $\begin{pmatrix} 6 \\ 7 \end{pmatrix}$  respectively. Given that  $\mathbf{AB} : \mathbf{BC} = 1 : 4$ ; find the values of  $x$  and  $y$ .  $(04 \text{ marks})$

5. Given that  $x = 2 + \sqrt{3}$ ; find the value of  $\left(x + \frac{1}{x}\right)$   $(04 \text{ marks})$

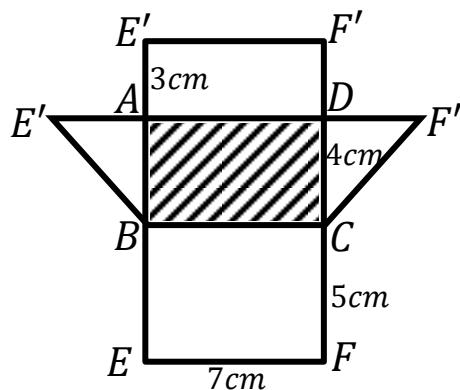
6. If  $f(x) = x^2 - 3x + 2$ , show that  $f(x + 2) = x(x + 1)$ .  $(04 \text{ marks})$

7. In a class of 30 girls, 18 play Netball ( $N$ ) and 14 play Hockey ( $H$ ) while 5 play neither. Find the number who play both Netball and Hockey.  $(04 \text{ marks})$

8. A birthday cake is in the shape of a cuboid 10cm long, 6cm wide and 4cm high. The cake is packed in a similar box 24cm wide. Calculate the surface area of the box.  $(04 \text{ marks})$

9.  $ABCD$  is a rhombus with  $A(2, 3)$ ,  $B(11, 8)$  and  $C(-4, -5)$ . Find the coordinates of vertex  $D$ .  $(04 \text{ marks})$

10. The net of a triangular prism is shown in the figure below.



- (a) Copy and complete the prism  $(01 \text{ mark})$
- (b) Calculate the total surface area of the prism.  $(03 \text{ marks})$

## SECTION B: (60 MARKS)

*Answer any five questions from this section. All questions carry equal marks*

- 11.** (a) If 45% of the population of Covid -19 Quarantine centre are males and 30% of the males and 40% of the females are under 18 years of age; what percentage are adults? (04 marks)
- (b) Without using tables, find the value of  $\log_2\left(\frac{5}{2}\right) + \log_2\left(\frac{6}{7}\right) - \log_2\left(\frac{5}{28}\right)$  (04 marks)
- (c) A cattle farm is located on a rectangular piece of land measuring 7.5km by 6.0km. On a certain map, its area is 7.2cm<sup>2</sup>. Find the scale of the map. (04 marks)
- 12.** The functions  $f(x)$ ,  $g(x)$  and  $h(x)$  are defined as  $f(x) = 2x$ ,  $g(x) = x - 3$  and  $h(x) = x^2$
- (a) Find: (i)  $hgf(x)$   
(ii)  $\sqrt{hgf(-2)}$   
(iii)  $h^{-1}g^{-1}(1)$  (08 marks)
- (b) Determine the value of  $x$  for which  $hg(x) = gh(x)$  (04 marks)
- 13.** In a survey carried out by the Ministry of Health at Entebbe International Airport on 150 travelers, it was discovered that 40 had visited Dubai (D), 35 had visited Wuhan (W) and 60 had visited New York (N). 7 had visited D and W, 10 had visited W and N and 4 had visited D and N while 34 had visited other cities other than the above three.
- (a) Represent the given information on a Venn diagram. (06 marks)
- (b) Determine the number of travelers who had visited:  
(i) all the three cities  
(ii) only one city  
(iii) Dubai and Wuhan only. (04 marks)
- (c) If a traveler is selected at random from the Airport, find the probability that the traveler had visited two cities only. (02 marks)
- 14.** An ambulance travels from Mulago to Hoima, a distance of 156km at a certain average speed of  $V$  km/hr. On the return journey, it increased the average speed by 4 and takes 15 minutes less.
- (a) Find the average speed,  $V$  from Mulago to Hoima. (06marks)
- (b) Calculate the time taken by the ambulance to travel from Mulago to Hoima. (02marks)
- (c) If the Ambulance left Mulago at exactly 7:30am and rested for 15 minutes at Hoima before travelling back, at what time did it reach Mulago? (04marks)
- 15.** The table below shows the income tax rates of government employees. This is applied after the allowances have been already deducted.

Taxable Monthly Income (Shs)	Tax rate (%)
0 – 100,000	0
100,001 – 200,000	5
200,001 – 300,000	10
300,001 – 450,000	20
450,001 – 550,000	30
550,001 and above	50

An employee has a gross monthly income of sh. 600,000 and is entitled to the following allowances.

- Marriage allowances : Sh. 120,000 per annum.
- Housing and transport : 10% of the gross monthly income
- Medical care : sh. 240,000 per annum

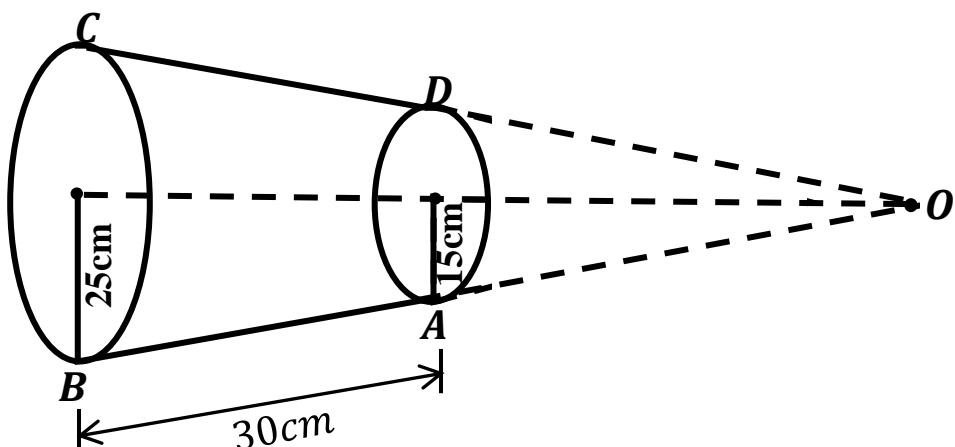
Calculate the:

- (a) amount an employee pays as monthly income tax (10 marks)
- (b) net monthly income (02marks)

- 16.** In a parallelogram  $OABC$ ,  $M$  is the mid-point of  $OA$ .  $X$  is a point on diagonal  $AC$  such that  $\overline{AX} = \frac{2}{7}\overline{AC}$  and  $Y$  is a point on  $AB$  such that  $\overline{AY} = p\overline{AB}$ .  $X$  is also the point of intersection of  $AC$  and  $MY$ .  $\overline{MY} = q\overline{MX}$ ,  $\overline{OA} = \underline{\underline{a}}$  and  $\overline{OC} = \underline{\underline{c}}$ .

- (a) Express in terms of  $\underline{\underline{a}}$  and  $\underline{\underline{c}}$  the vectors
  - (i)  $\overline{MA}$
  - (ii)  $\overline{AB}$
  - (iii)  $\overline{AX}$  (05marks)
- (b) Find the values of  $p$  and  $q$  hence show that the ratio  $\overline{AY} : \overline{YB} = 1 : 1$ . (07marks)

- 17.** In the figure below,  $ABCD$  is a lamp shed bounded by circles of radii 15cm and 25cm. The lamp shed was cut from a cone  $OABCD$ .



If  $AB = 30\text{cm}$ , Calculate the;

- (a) (i) length  $OA$
- (ii) angle formed by producing  $CD$  and  $BA$  to  $O$ . (07marks)
- (b) volume of the lamp shed. (05marks)

**112/1**

**ENGLISH LANGUAGE**

**Paper 1**

**Nov./Dec. 2020**

**2 hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**ENGLISH LANGUAGE**

**Paper 1**

**COMPOSITION**

**2 hours**

**INSTRUCTIONS TO CANDIDATES:**

*This paper has **two** sections: section **A** and **B***

*Answer **two** questions in all*

*Answer question **1** in section **A** and **one** other question in section **B**.*

*Section **A**: You are advised to spend about 10 minutes preparing, 30 minutes writing and 5 minutes checking and correcting your work.*

*Section **B**: You are advised to select only **one** question from this section and spend about 10 minutes preparing, 1 hour writing and 5 minutes checking and correcting your work.*

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

*Compositions should be original and relevant to the topics.*

## **SECTION A**

**Question 1 is compulsory.**

(20 marks)

1. The minister of education and sports has requested all secondary schools to carry out activities under the theme “living positively with HIV/AIDS” on the world AIDS day. The whole school and the community around it will be invited and the Minister will be the guest of honour.

You have been nominated to make a speech on that day about the activities your school has done. Write the speech focusing on the following:

- Music and drama
- Forming an HIV/AIDS Club.
- Visiting people living with HIV/AIDS.

## **SECTION B**

*Choose one number and write a composition of about 500 – 600 words.*

(20 marks)

2. Write a story where you narrowly missed being expelled from school due to a mistake by a friend.
3. Sports betting is one of the major causes of idleness amongst the youth today. Do you agree? Give reasons for your answer.
4. Write a story ending “..... I regretted having escaped from school that night”.
5. Write a story to illustrate the saying “Do not count your chicks before they hatch”.
6. Describe a road traffic accident you once witnessed.
7. What is your view about abstaining from sex until marriage?

Candidate's Name:

.....

Random No.						Personal No.	

Signature:.....

(Do not write your School/Centre Name or Number anywhere on this booklet)

**112/2**

**ENGLISH LANGUAGE**

**Paper 2**

**Nov./Dec. 2020**

**2 hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**ENGLISH LANGUAGE**

**Paper 2**

**2 hours**

**INSTRUCTIONS TO CANDIDATES:**

**All questions are to be attempted.**

**All your answers must be written on this question paper.**

**For Official Use Only**

Question	1	2A	2B	3A	3B	Total
Marks						

**1.** Read the following passage carefully and answer the question that follows.

Have you ever wondered what drives women to scald their faces with chemicals, which leave them with Mirinda faces and Pepsi legs?

“it’s not fashionable to have a two colour combination any more; it’s a sign of poverty when you have money. There’s no reason why you should not apply the chemical in your entire body,” says Phiona Mirembe a twenty four old hair dresser in Wandegeya.

Some body parts though are stubborn; it takes much longer to have the chemical to work on them if ever. So as the other parts are looking brown and brighter, these parts stay as dark as coal. These parts include: the knees, the knuckles, toe heads and lips. When you look at these parts you can easily tell if a woman is naturally brown or bleached, as they tend to be darker than other parts of the body.

Since not everybody can afford the less aggressive bleach chemicals, which are expensive, some women have devised local ways of coming up with a magic formula. They mix Jik, Omo and various other reagents, which they apply to the face. But since these chemicals are not meant for this purpose they end up corroding the skin so severely. The skin dries up and starts looking like the scale of a fish or snake. These scales later fall off leaving the inner pink skin exposed. With continuous use, other women start getting patches locally known as Namakula. These come about because the skin under the eye is very sensitive, so with continued use of these harsh chemicals, the effects start showing.

Bleached women tend to age and get wrinkles faster than their counter parts. This is because bleaching the skin involves stripping the skin of the outer layer, which contains melanin, a chemical, which protects you from the harmful rays of the sun. Thus your skin loses its shield making you seem like have more days than you actually have.

When you bleach your skin, make sure you don’t become an accident victim of giving birth through a caesarian section or have a medical operation. This is because after bleaching, the skin loses its elasticity and thus the ability to stretch. Because of this, it takes much longer than usual to heal after it has been cut or bruised.

The chemicals in bleaching creams known as mercury and hydroquinone have been identified as cancer causing agents. When they get on your skin and leak into your blood, you can get skin cancer and various other ailments. In most developed countries, those chemicals have been banned, although they are still used in products for export which find their way on the African market. In spite of all these risks, women and some men incidentally go ahead to apply these chemicals on their skins. Here are the reasons why people are happily committing slow suicide.

Years of watching foreign television have showed us that all people who star in soaps, music shows, name it are of fair skin. So we take this as a measure of beauty and success and we aim to be just like them forgetting that such people from another race.

Majority of people in this country believe that to be beautiful is to be light skinned, so many women aim to meet those standards.

Some women and men often end up using skin lightening creams in their bid to fight pimples. These creams work effectively against pimples ironically and even when someone discovers that they bleach he or she will not mind for as long they are to give them some complexion.

The reason Masaka has the highest incidence of bleached faces is peer pressure. Women are easy to influence; if one sees other women on her block of single roomed houses bleached, she will want to bleach too, to compete favorably or for fear of them thinking she is too broke to afford ‘styling up’. It is called the bandwagon effect. It starts with one and ends up spreading like the deadly Ebola virus.

If a woman has been badly taunted, since her childhood about her bad looks or simply feels she is not as good looking as her counterparts, she will bleach herself because she figures that is the missing link in her elusive looks. This kind of woman will not hesitate to bleach her body as well as to get rid of her embarrassing dark colour. At times, you find that woman who is already light skinned adding chemicals to make her even lighter. This is an insecure woman who can’t accept herself the way she is.

There are also some jobs which require women to be light skinned. Many women will bleach their skins with the belief that this will attract more customers to them.

In **not** more than 110 words, summarize the causes and effects of using bleaching creams  
*(20marks)*

**SUMMARY**  
**ROUGH COPY**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**SUMMARY  
FAIR COPY**

**Marks for Q.1**

**2A.** *Read the passage below carefully and attempt the questions that follow;*

The morning we had to fly back to civilization we went to look once more at Major Temple – Boreham's pest. It was not long before we found a big, dark-manned lion sitting regally under a bush on the crest of small knoll whence he could command a wide view of the surrounding country side. A herd of tummies tail wagged unconcernedly within fifty yards. Topi and zebra cropped the turf, the newly-risen sun was mild as honey in the heavens, dew glistened on the grass. Through binoculars we observed two other lions strolling in our direction across the plain.

The pack of wild dogs gathered round; many creatures with a mean, cringing appearance, spotted all over like plum duff and evidently lousy, for they frequently sat down and scratched. It seemed unfortunate that man's chosen companion should have descendend from such curs, or the silver-backed jackals that trotted gracefully across the turf. As for the little bat eared foxes we had just seen darting down their holes and then popping up again with eyes bright as berries. Theirs was a charm of quite a special order, how better had they been the ancstors of mankind's favourite pet!

Bored with the unresponsive land Rover, the pack went off to taunt the lion under the bush. He paid attention. A lioness advanced and they ran off to prance round her, making short rushes, getting up close and then darting away. She lay down on the crest of the knoll about tawny, walking with a swift deliberation, silently and with a purpose of their own.

The wild dogs began to hunch together, rather taken a back. At some unseen signal, two of the lionesses suddenly bounded with tails lashing towards the dogs, who turned and fled. Halting a little way off they wheeled and made several short, yelping charges at the lioness, like street urchins taunting a policeman.

This game went on for some time until the dogs, evidently feeling that matters had gone far enough, loped off and disappeared. The lionesses lay down and yawned.

We watched longer, for it began to seem that something was in the wind. I could not say what gave us that impression; perhaps it was a suspicion of nervousness among the tummies and topi grazing nearby. They did not move away, but they were restless; they did not settle down. Then over the horizon came more lions. They walked towards us with their slow deliberate padding steps as if answering some summons, and that indeed is probably what they were doing.

The dark-manned lion, still under this bush, let out a sudden roar and several of the approaching beats answered him. Then he and one of the lionesses struck up a duet. The lion's roar is one of the most impressive sounds in the wild; not unduly loud, although it carries far, it has in it all the menace, majesty and might of the wild, tremendous power of suggestive distance, when a dance is on.

The lion sat one on each side of our Land-rover and roared across it, paying no more attention to us than to a clump of bush. I expected the tummies and the topi to get out while the going was good warmed by these fearful guts of sound, but they merely went on grazing and walking about, though with the same restlessness as before.

We could now count seventeen lions, all lying down, all facing in the same direction and strung out in a wide arc across a hillside, with a bush-clad gulley at the bottom.

That they were acting in concert, to a plan, was undeniable. Who had framed the plan? The dark manned lion who had first roared? Or had it formed itself like a web from the strands of hunger in the lions, was it rhymes arose in them as it must in birds when they wheel in the air, or in ants when they stream across the countryside? The hunt was up, some zebra or topi would soon satisfy their need.

It was extraordinary to see the unconcerned of the animals toward the lions and unconcern of the lions towards our Land-rover, which sat in the middle of the arc, full of humans, completely superfluous and ignored. He we been able to stop, hunt would have unfolded before our eyes on this sunlit morning, amid the green grass and the sweet rolling pastures under a china blue sky. But, with that idiotic slavery of humans to their self-invented scale of time, we had to go; appointments awaited us like a sentence in Nairobi, an hour's flight and many centuries away.

Here and now the lions were masters and ignored as irrelevant the squatting humans in their metal box but one day, not far distant, the tide of humans will like an army of soldier ants to strip the bush and slaughter all the animals, and the last hungry lion will slink away or **die with lead in his guts** to provide for the man who pressed the trigger of his efficient mechanism an **ego-flattering saga** and a rug for his sitting room floor.

*Answer questions from 2.1 to 2.5 on the question paper.*

- 2.1** “Bored with the unresponsive Land-Rover, the pack went off to taunt the lion under the bush”  
Here **the pack** refers to
- .....

- 2.2** In the fourth paragraph, the wild dogs are described as “street urchins taunting a policeman”  
Why?
- .....

- 2.3** According to the author, what is the roar of the like?
- .....

- 2.4** Why did the author think that Tommies and the topi would leave?
- .....

- 2.5** Give the meaning of the following words or phrases as used in the passage.

(i) **Regally**

.....

(ii) **Something was in the wind**

.....

(iii) **Die with lead in his guts**

(iv) **Ego-flattering saga**

(v) **Rug**

(10marks)

**Marks for Q.2A**

**2B. Read the following passage carefully and then answer the questions following it:**

We found her crushing millet for the evening meal. My father stood along while watching the pestle rising and falling into the motar. He hardly knew where to begin. He knew that that the decision he had to make could hurt my mother and he himself had a heavy heart. He stood there watching the pestle and saying nothing and I dared not lift my eyes. But my mother did not take long to guess what was in the wind. She only had to look at us understand everything or almost everything.

“What do you want?” She said “Can’t you see I’m busy?” And she began pounding faster and faster.

“Don’t do so fast,” father said. “You’ll wear yourself out.”

Are you trying to teach me how to pound millet? She said. And then all of a sudden she went on angrily, If you want to discuss our son’s departure for France, you can save your breath. He’s not going.”

“That’s just it,” said father “You don’t realize what such an opportunity means to him.”

“I do not want to know,” she said.

Suddenly she dropped the pestle and took a few steps towards us.

“Shall I never have peace of mind? She cried. “Yesterday it was the school at Conakry. Today it’s the school in France. Tomorrow ... What will be next? Everyday there’s some mad scheme to take my son away from me! Have you forgotten already how sick he was at Conakry? But that’s not enough for you. Now you want to send him to France! Are you crazy...? and as for as for you” she cried turning towards me, “you are nothing but an ungrateful son. Any excuse is good enough to you to run away from your mother-But this time it won’t be, as you want. You’ll stop right here. Your place is here. What are they thinking about at the school? Do they imagine I’m going to live my whole life apart from my son? Die with him far away? Have they no mothers, these people? But they can’t have mothers, of course. They would not have gone far away from home if they had mothers”

And she lifted up her eyes to the sky and addressed the heavens. “He’s been away from me so many years already”, she said “and now they want to take him away tho their own land.....!”

*Answer questions from 2.6 to 2.10 by putting a ring on the letter of the correct answer.  
(01 mark each)*

- 2.6** In the first paragraph, what was in the wind implies?
- A. What had been kept secret from her
  - B. What she had known all this time
  - C. What she could sense from the surrounding
  - D. What she had little knowledge of
- 2.7** “What do you want?” She said “Can’t you see I’m busy?” And she began pounding faster and faster. The implication of the sentence is.....
- A. that the writer’s mother did not take interest in any matter except household work
  - B. that the writer’s mother lacked good manners
  - C. that the writer’s mother did not know why her husband and son visited her
  - D. that the writer’s mother did not want to be told the reality
- 2.8** “I don’t want to know”, she said. This shows:
- A. that the mother was not at all concerned about her son
  - B. that the mother was not ready to discuss a plan, which would send her son away from her
  - C. that the mother did not want her son to make progress in life
  - D. that the mother was only interested in dropping the pestle and walking towards us
- 2.9** From the passage we can’t tell that the mother was.....
- A. a stubborn woman never ready to listen to reason
  - B. a hot tempered woman always looking for a quarrel
  - C. a loving protective woman out to have son in her care
  - D. a domineering woman always bullying her son and husband
- 2.10** In the last paragraph, the mother.....
- A. makes an impassioned appeal for her son to be with her
  - B. makes a tempered woman always looking for a quarrel.
  - C. takes her husband to task for being a cruel father.
  - D. loudly addressed those to take her son and abuses them

*(10 marks)*

<b>Marks for Q.2B</b>	
<b>Total marks for Q.2</b>	

**3A.** Re-write each item in **3.1 to 3.10** according to the instructions without changing the meaning of the original sentence.

**3.1** Cows are fond of salt. They will lick it up from the grass. (Rewrite using...so....)

**3.2** My mother insists that I swear a coat even when it is warm.  
(Begin: **My mother insists on.....**)

**3.3** People say that the female mosquitoes spread malaria. (Begin: **Malaria.....**)

**3.4** They may be innocent but they will be sent to prison. (Rewrite beginning: **No matter.....**)

**3.5** John entered the house noisily. His mother ordered him to get out. (Begin: **Having.....**)

**3.6** “What shall I call you?” she asked. “My name is poverty,” I answered. (Begin: **When.....**)

**3.7** If he had not been stupid, he would not have made all those mistakes. (Begin: **But for.....**)

**3.8** James would rather go to London than France. (Use prefer)

**3.9** Musa has never had good reports. He came top in the entrance examination.  
(Join the sentences using.....in spite.....)

**3.10** I have never been more frightened than now. (Begin: **At no time.....**)

<b>Marks for Q.3A</b>	
-----------------------	--

**3. B** Complete the sentences **3.11 to 3.20** with the most suitable answer among the given alternatives. Put a ring around your best choice. (01 mark each)

- 3.11** After the drink he spoke.....  
A. far more quicker                                   B. much more quicker  
C. far much quicker                                   D. very much quickly
- 3.12** I wish..... the advice she gave me.  
A. followed   B. had been followed  
C. had followed                                       D. have followed
- 3.13** Chose the correctly punctuated sentence  
A. “good,” said the teacher, “you can now go home”  
B. good said the teacher, you can now go home.  
C. “good, said the teacher, you can now go home.”  
D. good, said the teacher, “you can now go home.”
- 3.14** If Kaweesa got more votes, he..... the post of headboy.  
A. would win   B. would have won  
C. will   D. won
- 3.15** She is **hands on** when it comes to her children. The underlined expression means.  
A. Generous   B. Possessive  
C. Strict   D. Selfish
- 3.16** Let us go for a walk.....  
A. shan’t we   B. won’t we  
C. shall we   D. do we
- 3.17** They put up a ..... performance to the chagrin of crowd.  
A. enchanting    B. smashing  
C. crashing    D. terrible
- 3.18** The thief was whisked ..... by the police immediately he was caught.  
A. out   B. up  
B. away    D. over
- 3.19** She dodges examination and got dismissed. What a kick in the .....  
A. head   B. teeth  
C. foot   D. hands
- 3.20** Mzee Lunkuse is a .....woman  
A. old, kind, light-skinned Ugandan               B. Ugandan, old, kind, light-skinned  
C. kind, old, light-skinned, Ugandan               D. light-skinned, Ugandan, old

Marks for Q.3B	
----------------	--

END

Candidate's Name:

.....

Random No.	Personal No.

Signature:.....

(Do not write your School Name anywhere on this booklet)

**545/1  
CHEMISTRY  
Paper 1  
Nov./Dec. 2020**

1½ hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**CHEMISTRY**

**Paper 1**

1 hour 30 minutes

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of 50 objective – type questions*

*Attempt all questions*

*You are required to write the correct answer, **A**, **B**, **C** or **D** in the box provided on the right side of each question.*

*Do not use pencils.*

For Examiners' Use Only		

1. Which **one** of the following mixtures is best separated by using a separating funnel?

- A. Cooking oil and water
- B. Sugar and water
- C. Sand and water
- D. Ethanol and water

2. Ethene can react to form a solid whose molecular mass is more than 9000.

Such a reaction is known as?

- A. Cracking
- B. Hydrogenation
- C. Vulcanization
- D. Polymerization

3. When an electric current is passed through molten magnesium chloride, the

- A. magnesium chloride will glow brightly
- B. magnesium chloride will conduct current and sublime
- C. magnesium ions will gain electrons from the current
- D. chloride ions will travel to the anode

4. Which **one** of the following alloys can be used for making space satellites?

- A. Duralumin
- B. Solder
- C. Bronze
- D. Brass

5. Which **one** of the following sulphates is insoluble?

- A. Iron II Sulphate
- B. Copper III Sulphate
- C. Barium Sulphate
- D. Zinc Sulphate

6. Which **one** of the following nitrates will decompose to form a metal when heated strongly?

- A.  $NaNO_3$
- B.  $AgNO_3$
- C.  $Cu(NO_3)_2$
- D.  $Pb(NO_3)_2$

7. Increase in temperature will greatly increase the solubility of ?

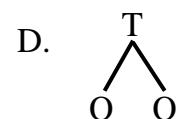
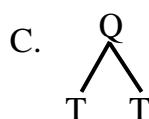
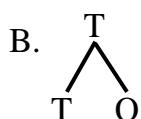
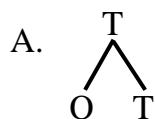
- A. Sodium chloride
- B. Potassium nitrate
- C. Potassium chloride
- D. Sodium nitrate

8. Which **one** of the following processes adds Sulphur dioxide into the atmosphere?

- A. Fractional distillation of liquid air
- B. Burning of coal and oil
- C. Decaying organic matter
- D. Heating lime stone in a kiln.

9. The molecular formula of a compound formed when element Q combines with T is  $Q_2T$ .

Which **one** of the following is the structural formula of the compound?



10. Which **one** of the following processes increases the concentration of oxygen in the atmosphere?  
 A. Fermentation                            B. Photosynthesis  
 C. Decaying of organic matter           D. Combustion
11. Which **one** of the following substances are normally formed when a metal is reacted with dilute mineral acid?  
 A. A salt of the metal and hydrogen gas      B. A salt of the metal and water  
 C. Oxide of the metal and hydrogen gas      D. Oxide of the metal and water
12. The reaction between dilute Hydrochloric acid and magnesium ribbon is fast at the beginning and gradually slows down thereafter. This observed gradual decrease in the rate of reaction is due to the:  
 A. endothermic reaction between magnesium ions and chloride ions.  
 B. gradual decrease in number of Hydrogen ions during the reaction.  
 C. insolubility of magnesium chloride being produced.  
 D. increase in the pressure above the reaction vessel brought about by the Hydrogen gas being produced
13. The table below shows melting points and boiling points of substances ABC and D.  
 Which of the substances is a gas at room temperature ( $25^{\circ}\text{C}$ )  

Substance	Melting Point ( $^{\circ}\text{C}$ )	Boiling Point ( $^{\circ}\text{C}$ )
A	650	1000
B	-115	-9
C	-20	142
D	18	119
14. The atomic number of element Z is 15. In which group of the periodic table is Z?  
 A. Group I                                    B. Group II  
 C. Group V                                   D. Group VII
15. The products of the reaction between concentrated sulphuric acid and copper are  
 A. Sulphur dioxide and copper (II) sulphate  
 B. Water, copper (II) sulphate and hydrogen  
 C. Water, Sulphur dioxide and copper (II) sulphate  
 D. Water and copper II sulphate
16. Which **one** of the following reactions shows the oxidizing property of nitric acid?  
 A.  $\text{NaOH(aq)} + \text{HNO}_3\text{(aq)} \longrightarrow \text{NaNO}_3\text{(s)} + \text{H}_2\text{O(l)}$   
 B.  $\text{Cu(s)} + 4\text{HNO}_3\text{(aq)} \longrightarrow \text{Ca}(\text{NO}_3)_2\text{(aq)} + 2\text{NO}_2\text{(g)} + 2\text{H}_2\text{O(l)}$                     
 C.  $\text{CaCO}_3\text{(s)} + 2\text{HNO}_3\text{(aq)} \longrightarrow \text{Ca}(\text{NO}_3)_2\text{(aq)} + \text{CO}_2\text{(g)} + \text{H}_2\text{O(l)}$   
 D.  $\text{PbO(s)} + 2\text{HNO}_3\text{(aq)} \longrightarrow \text{Pb}(\text{NO}_3)_2\text{(aq)} + \text{H}_2\text{O(l)}$
17. When aqueous ammonia was added to solution **R** a white precipitate was formed which dissolved in excess ammonia solution. **R** contained  
 A.  $\text{Ca}^{2+}$                                     B.  $\text{Mg}^{2+}$                                     C.  $\text{Pb}^{2+}$                                     D.  $\text{Zn}^{2+}$

18. One advantage of hard water is that
- A. it forms lather more readily with soap
  - B. it does not contain Corona virus
  - C. it contains calcium compounds which help to form healthy bones
  - D. it forms scales in boilers which prevent the boilers from leaking

19. The valency of Y in  $Y_2(CO_3)_3$  is
- A. 5
  - B. 4
  - C. 3
  - D. 2

20. Sulphur dioxide reacts with oxygen to form sulphur trioxide according to the equation
- $$2SO_2(g) + O_2(g) \rightleftharpoons 2SO_3(g) + \text{heat}$$

Which one of the following conditions favours the formation of sulphur trioxide?

- A. High pressure and low temperature
- B. Low pressure and high temperature
- C. High pressure and high temperature
- D. Low pressure and low temperature

21. Which one of the following nitrogen compounds contains the least amount of nitrogen?  
( $H = 1; C = 12; N = 14; O = 16$ )

- A.  $NH_2OH$
- B.  $NH_3$
- C.  $NH_2NH_2$
- D.  $NH_3NH_2$

22. Which of the following will decompose to give a metal when strongly heated?

- A.  $AgNO_3$
- B.  $Ca(NO_3)_2$
- C.  $Zn(NO_3)_2$
- D.  $NaNO_3$

23. Which of the following is not a property of hydrogen chloride?

- A. It forms a white precipitate with silver nitrate
- B. It turns moist blue litmus paper red
- C. It forms white fumes with ammonia gas
- D. It bleaches coloured flowers

24. Propane burns in air according to the following equation.



Which one of the following is the volume of air required for complete combustion of  $300\text{cm}^3$  of propane. (*Percentage of oxygen in air is 21% by volume*)

- A.  $\left(\frac{5 \times 100}{21}\right) \text{cm}^3$
- B.  $\left(\frac{100 \times 30}{5 \times 21}\right) \text{cm}^3$
- C.  $\left(\frac{21 \times 5 \times 30}{100}\right) \text{cm}^3$
- D.  $\left(\frac{5 \times 30 \times 100}{21}\right) \text{cm}^3$

25. 20g of methanol, ( $CH_3OH$ ), burns in air to liberate 226 kJ of heat. The amount of heat liberated when 1 mole of methanol is burnt in air is? ( $H = 1; C = 12; O = 16$ )

- A.  $\left(\frac{20}{32 \times 226}\right) \text{kJ}$
- B.  $\left(\frac{32 \times 226}{20}\right) \text{kJ}$
- C.  $\left(\frac{20 \times 32}{226}\right) \text{kJ}$
- D.  $\left(\frac{20 \times 32}{226}\right) \text{kJ}$

26. The electronic configuration of elements  $X$  and  $Y$  are  $2 : 8 : 3$  and  $2 : 6$  respectively.

The formula of the compound formed between  $X$  and  $Y$  is?

A.  $XY_3$

B.  $X_2Y$

C.  $X_3Y_2$

D.  $X_2Y_3$

27. An oxide of metal  $W$  can be reduced by metal  $X$  but not by metal  $Y$ . The correct order of the reactivity of  $W$ ,  $X$  and  $Y$  starting with the least reactive is?

A.  $YWX$

B.  $WYX$

C.  $XWY$

D.  $YWX$

28. Lead nitrate decomposes according to the equation:



The mass of lead monoxide that is produced when 4.5g of lead nitrate is completely decomposed is? ( $N = 14$ ;  $O = 16$ ;  $\text{Pb} = 207$ )

A.  $\left(\frac{4.5 \times 223}{331}\right) \text{ g}$

B.  $\left(\frac{4.5 \times 331}{223}\right) \text{ g}$

C.  $\left(\frac{331 \times 223}{4.5}\right) \text{ g}$

D.  $(4.5 \times 223 \times 331) \text{ g}$

29. Which of the following properties is not shown by carbon monoxide?

A. It is an acidic oxide

B. It is a reducing agent

C. It is insoluble in water

D. It pollutes the atmosphere

30. The cation which when reacted with aqueous sodium hydroxide will form a precipitate that is soluble in excess sodium hydroxide solution is

A.  $\text{Fe}^{3+}(aq)$

B.  $\text{Al}^{3+}(aq)$

C.  $\text{Cu}^{2+}(aq)$

D.  $\text{Fe}^{2+}(aq)$

31. The compound which does not form an electrolyte when dissolved in water is

A. potassium chloride

B. ethanoic acid

C. ethanol

D. hydrogen chloride

32. Which one of the following pairs of hydrocarbons can be represented by the same general formula?

A. Propane and Propene

B. Butyne and Propyne

C. Butane and Propene

D. Butane and Butyne

33. Which one of the following hydro carbons can undergo polymerization reaction?

A.  $\text{C}_3\text{H}_8$

B.  $\text{C}_4\text{H}_{10}$

C.  $\text{C}_2\text{H}_4$

D.  $\text{CH}_4$

34. Which one of the following gases is removed when air is passed through sodium hydroxide solution during the manufacture of oxygen?

A. Water vapour

B. Carbon dioxide

C. Rare gases

D. Nitrogen

35. Hydrogen peroxide decomposes according to the following equation.



Which **one** of the following is the volume of oxygen produced when 34g of hydrogen peroxide is completely decomposed at s.t.p.? ( $H = 1$ ;  $O = 16$ ) One mole of a gas occupies  $22.4\text{dm}^3$  at s.t.p)

A.  $\left(\frac{68 \times 22.4}{34}\right) \text{dm}^3$

B.  $\left(\frac{68 \times 22.4}{68}\right) \text{dm}^3$

C.  $\left(\frac{22.4 \times 34}{68}\right) \text{dm}^3$

D.  $\left(\frac{22.4 \times 34}{34}\right) \text{dm}^3$

36. Which **one** of the following is observed when hydrogen is passed over heated lead (II) oxide?

A. A brown solid

B. A grey solid

C. A black solid

D. A yellow solid

37. Aluminium reacts with copper (II) ions according to the following equation.



Which **one** of the following is the mass of copper obtained when 50g of Aluminium reacted?

A.  $\left(\frac{50 \times 2 \times 63.5}{27 \times 3}\right) \text{g}$

B.  $\left(\frac{50 \times 3 \times 27}{63.5 \times 2}\right) \text{g}$

C.  $\left(\frac{50 \times 2 \times 27}{63.5 \times 3}\right) \text{g}$

D.  $\left(\frac{50 \times 3 \times 63.5}{27 \times 3}\right) \text{g}$

38. Which **one** of the following pairs of cations when in solution can be distinguished using Potassium iodide solution?

A.  $\text{Pb}^{2+}$  and  $\text{Al}^{3+}$

B.  $\text{Zn}^{2+}$  and  $\text{Al}^{3+}$

C.  $\text{Zn}^{2+}$  and  $\text{Fe}^{3+}$

D.  $\text{Fe}^{2+}$  and  $\text{Fe}^{3+}$

39. The graph **P** in figure 1 shows the variation in mass with time when 100g of calcium carbonate powder was reacted with excess 1M  $\text{HCl}$  at  $25^\circ\text{C}$ .

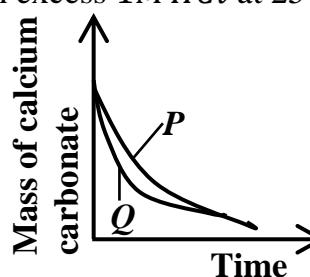


Fig. 1

To obtain graph **Q** for the same reaction, one would keep all other conditions of the reaction the same but

A. reduce the temperature by half way.

B. use 50g of calcium carbonate powder

C. use 2M hydrochloric acid

D. use 100g of calcium carbonate lumps

40. Which **one** of the following hydroxide will react with both dilute hydrochloric acid and aqueous sodium hydroxide?

A.  $\text{Fe(OH)}_3$

B.  $\text{Mg(OH)}_2$

C.  $\text{Cu(OH)}_2$

D.  $\text{Al(OH)}_3$

*Each of the questions 41 – 45 consists of an assertion (statement) on the left hand side and a reason on the right – hand side.*

- A. If both the assertion and the reason are **true** statements and the reason is a **correct** explanation of the assertion.
- B. If both the assertion and the reason are **true** statements but the reason is **not a correct** explanation of the assertion.
- C. If the assertion is **true** but the reason is **not a correct** statement.
- D. If the assertion is **not correct** but the reason is a **correct** statement.

### INSTRUCTIONS SUMMARISED.

	<b>Assertion</b>		<b>Reason</b>	
A.	True		True (reason is a correct explanation)	
B.	True		True (reason is not a correct explanation)	
C.	True		Incorrect	
D.	Incorrect		Correct	
41.	Graphite is a soft substance	<b>because</b>	it has weak intermolecular forces	<input type="checkbox"/>
42.	Ammonium chloride and sodium chloride can be separated by sublimation	<b>because</b>	sodium chloride has lower melting point than ammonium chloride	<input type="checkbox"/> <input type="checkbox"/>
43.	Lithium, sodium and potassium are in the same group of the periodic table	<b>because</b>	they are all metals	<input type="checkbox"/>
44.	The pH of a 1M hydrochloric acid is equal to the pH of a 1M sulphuric acid	<b>because</b>	Both hydrochloric acid and sulphuric acid are strong acids	<input type="checkbox"/>
45.	Rubber is more elastic than polythene	<b>because</b>	Rubber is a natural polymer	<input type="checkbox"/>

*In each of the questions 46 to 50, one or more of the answers given may be correct.*

*Read each question carefully and indicate the correct answer according to the following:*

- A. If **1, 2 and 3**, only are correct
  - B. If **1 and 3** only are correct
  - C. If **2 and 4** only are correct
  - D. If **4** only is correct
46. The slag formed in the blast furnace during the extraction of iron is used for
1. surfacing roads
  2. making steel
  3. manufacturing cement
  4. electroplating
- |

**47.** Element X burns with a yellow flame and reacts vigorously with water producing an alkaline solution and a gas that gives a pop sound with a lighted splint.  
Which of the following statement is / are correct?

1. X could be a group 1 element
2. The gas given off is hydrogen
3. X burns in air forming a basic oxide
4. X will most likely form a covalent chloride.

**48.** Which of the following conditions does **NOT** affect the rate of reaction between lumps of calcium carbonate and dilute Hydrochloric acid?

1. Grinding the calcium carbonate
2. Adding iron powder to the mixture
3. Warming the reaction mixture
4. Exposing the reaction mixture to light

**49.** Which of the following compound(s) has / have a multiple bond?

1.  $C_4H_{10}$
2.  $C_2H_6$
3.  $C_5H_{12}$
4.  $C_2H_2$

**50.** In which of the following reactions is a catalyst required?

1.  $S(s) + O_2(g) \longrightarrow SO_2(g)$
2.  $2SO_2(g) + O_2(g) \longrightarrow 2SO_3(g)$
3.  $2NO(g) + O_2(g) \longrightarrow 2NO_2(g)$
4.  $N_2(g) + 3H_2(g) \longrightarrow 2NH_3(g)$

**END**

Candidates' Name

.....

Signature:.....

Random No.	Personal No.

(Do not write your School/Centre Name or Number anywhere on this booklet)

545/2

**CHEMISTRY**

**Paper 2**

**Nov./Dec. 2020**

2 hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**CHEMISTRY**

**Paper 2**

2 hours

### **INSTRUCTIONS TO CANDIDATES:**

*Section A consists of 10 structured questions. Answer all questions in this section.*

*Answers to these questions must be written in the spaces provided.*

*Section B consists of 4 semi – structured questions. Attempt any two questions from this section. Any additional question(s) answered will not be marked.*

*Answers to the questions must be written on the answer sheets provided.*

*In both sections all working must be clearly shown.*

*Where necessary use;*

$$[H = 1; C = 12; N = 14; O = 16; Na = 23; S = 32; Cl = 35.5; Fe = 56]$$

1 mole of gas occupies  $24l$  at room temperature.

1 mole of gas occupies  $22.4l$  at s.t.p.

**For Examiner's Use Only**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total

## SECTION A (50 MARKS)

*Attempt all questions in this section in the spaces provided only.*

1. (a) State **one** property which shows that air is a mixture. (01mark)

- (b) Name any **two** gases, other than oxygen, that are constituents of air and give their approximate percentages by volume in air. (02marks)

- (c) A piece of burning Sulphur is lowered into a jar of oxygen.

- (i) State what was observed. (01mark)

- (ii) State **one** use of the gaseous product formed. (01mark)

2. Table 1 shows the number of protons, electrons and neutrons of atoms **P**, **Q**, **R**, **S** and **U**. Study the table and answer the questions that follow.

**Table 1**

Atom	Number of protons	Number of electrons	Number of neutrons
<b>P</b>	11	11	12
<b>Q</b>	17	17	18
<b>R</b>	18	18	22
<b>S</b>	19	19	20
<b>U</b>	17	17	20

- (a) Which of the above atoms are Isotopes? (01mark)

- (b) Write the electronic configuration of the ion that can be formed by the atom of:

- (i) **P** (01mark)

- (ii) **S** (01mark)

- (c) Identify the group in the Periodic Table to which element of atom **R** belongs. (01mark)

- (d) If atom **P** belongs to element **P** and atom **U** belongs to element **U**, write the formula of the compound formed between element **P** and **U**. (01mark)

**3.** (a) Sulphuric acid easily ionizes in water.

(i) State the valency of the anion formed when sulphuric acid completely ionizes in water  
*(1½marks)*

(ii) Write an equation for the complete ionization of sulphuric acid in water. *(1½marks)*

(b) 20cm<sup>3</sup> of 0.5M sulphuric acid reacted completely with excess Potassium hydrogen carbonate. Calculate the volume of carbon dioxide produced at s.t.p. *(03marks)*

**4.** (a) A piece of burning calcium was introduced into a jar of nitrogen.

(i) State what was observed. *(01mark)*

(ii) Write an equation for the reaction that took place. *(1½marks)*

(b) Water was added to the product of the reaction in (a) and the resultant mixture tested with litmus.

(i) State what was observed *(01mark)*

(ii) Write an equation for the reaction if the resultant mixture is warmed. *(02marks)*

(c) Name **one** other metal that reacts with nitrogen in similar way to calcium. *(½mark)*

**5.** Potassium carbonate dissolves in water according to the following equation.



(a) Predict the pH of the resultant solution. *(½mark)*

(b) Briefly explain your answer in (a)

(3½marks)

- .....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....
6. The setup of the apparatus in figure 1 was used to investigate the effect of heat on zinc carbonate.

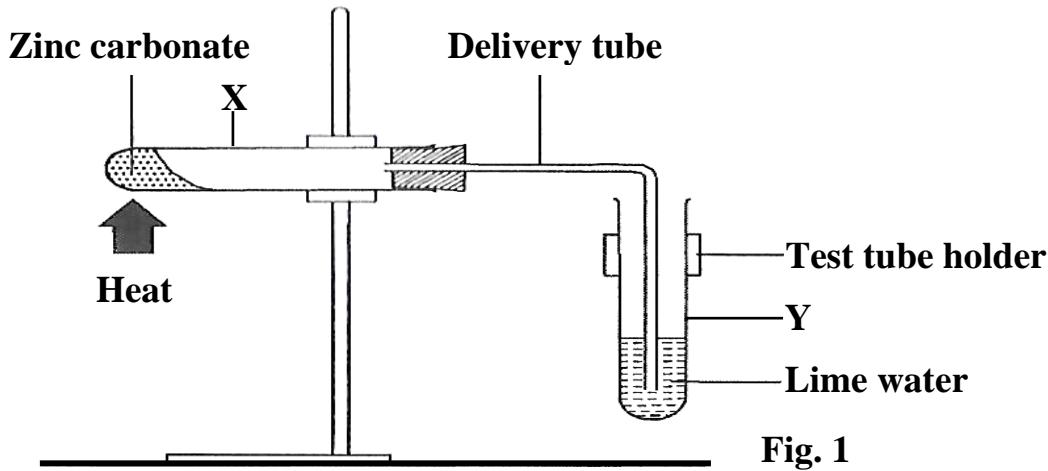


Fig. 1

- (a) State what was observed in:

(i) Test tube X (01mark)

(ii) Test tube Y (01mark)

- (b) Write an equation for the change that occurs in

(i) Test tube X (1½marks)

(ii) Test tube Y (1½marks)

- (c) State one use of the solid product in b(ii). (01mark)

**7.** Copper (II) sulphate solution was electrolyzed using carbon electrodes.

(a) State what was observed at the:

(i) Cathode (01mark)

(ii) Anode (01mark)

(b) Explain your observation at the cathode. (1½marks)

(c) Write equation (s) for the reaction (s) that took place at the anode. (1½marks)

**8.** A substance T reacts with solid sodium chloride to produce hydrogen chloride gas.

(a) Identify T. (½mark)

(b) Write an equation for the reaction leading to the formation of hydrogen chloride gas. (1½marks)

(c) Hydrogen chloride gas was bubbled into water.

(i) Name the substance formed. (½mark)

(ii) Explain why an aqueous solution of hydrogen chloride is an electrolyte whereas the solution of the gas in methylbenzene is a non – electrolyte. (1½marks)

**(Equations not required)**

**9.** A certain mass of Zinc powder was reacted with hydrochloric acid at room temperature.

- (a) Sketch a graph to show how the volume of the gaseous product varies with time. (02marks)

- (b) State what would happen if copper (II) sulphate solution is added to the reaction mixture at room temperature. (01mark)

- (c) Explain what would happen if zinc granules were used instead of zinc powder. (02marks)

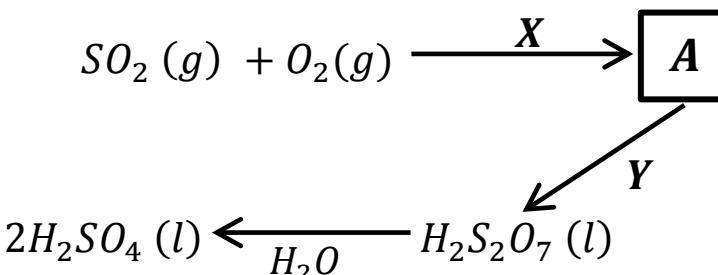
**10.** (a) Write an equation for the complete combustion of methane. (1½marks)

- (b) A litre of methane gas costs **UGX. 9500**. Calculate the cost of methane required to produce 445000J of heat energy at room temperature. (03marks)  
*(The enthalpy of combustion of Methane is – 890kJmol<sup>-1</sup>)*

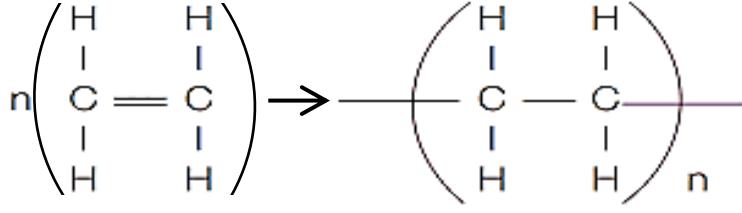
- (c) State **one** constituent of natural gas other than methane. (½mark)

## SECTION B (30 MARKS)

*Answer any two questions from this section.*

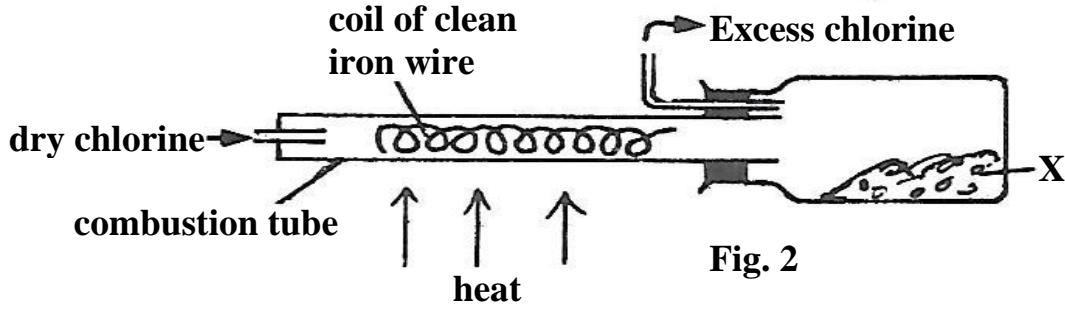
11. (a) The atomic numbers of the elements **P**, **Q** and **R** are 14, 19 and 17 respectively.
- (i) What is **atomic number**? (01mark)
- (ii) Write the electronic structures of **P**, **Q** and **R**. (03marks)
- (b) **P** and **R** can each combine with **Q** to form compounds.
- (i) Use valency electrons to explain briefly how the atoms **P** and **Q**, **R** and **Q** form compounds. (06marks)
- (ii) Write the structural formula of the compound formed when **R** combines with **Q**. (01mark)
- (c) State **two** properties of the compounds formed between:
- (i) **P** and **Q** (02marks)
- (ii) **R** and **Q** (02marks)
12. (a) Sulphur dioxide can be prepared in the laboratory using sodium sulphite and sulphuric acid.
- (i) Outline how a pure dry sample of Sulphur dioxide can be prepared in the laboratory from the above reaction. (**Diagram not required**). (06marks)
- (ii) Name **one** other suitable substance that reacts with sodium sulphite to produce sulphur dioxide in the laboratory. (01mark)
- (b) Write an equation for the reaction in a(ii). (1½marks)
- (c) The flow diagram below shows a series of chemical reactions in order to prepare sulphuric acid from Sulphur dioxide.
-   
$$SO_2(g) + O_2(g) \xrightarrow{X} A$$
  
$$A \xrightarrow{Y} H_2S_2O_7(l)$$
  
$$H_2S_2O_7(l) \xleftarrow{H_2O} 2H_2SO_4(l)$$
- (i) Name the chemical reagents **X** and **Y**. (01mark)
- (ii) State the condition leading to the formation of substance **A** other than addition of **X**. (01mark)
- (d) Explain the reaction of Sulphur dioxide with acidified potassium dichromate. (3½marks)
- (e) State **one** use of Sulphur dioxide gas in the paper industry. (01mark)

13. (a) The equation below shows formation of a synthetic polymer.



- (i) Name the polymer formed. (01mark)
- (ii) State **one** use of the above polymer. (01mark)
- (iii) Give **two** examples of synthetic polymers other than the one you have named in (a)(i). (02marks)
- (b) State what would be observed if concentrated sulphuric acid was added to:
- (i) ethanol at  $180^\circ$ . (01mark)
- (ii) sugar. (01mark)
- (c) (i) Write an equation for the reaction in b(i) (01mark)
- (ii) Explain your observation in b(ii) and illustrate your answer with an equation. (03marks)
- (d) Alcohols are globally used in the manufacture of sanitizers. Briefly describe how concentrated ethanol can be obtained from millet flour. (05marks)

14. The diagram in figure 2 shows a setup of the apparatus that can be used to prepare a salt X.



- (a) (i) Identify salt X. (01mark)
- (ii) Briefly describe how salt X is formed from the apparatus above. (03marks)
- (iii) Write an equation leading to the formation of salt X. (1½marks)
- (b) (i) State what happens when X is dissolved in water. (01mark)
- (ii) State what would be observed if aqueous ammonia was added to the solution in b(i) until in excess. (01mark)
- (iii) Write an ionic equation for the reaction in (b)(ii). (1½marks)
- (c) Hydrogen gas was used to reduce 65g of X. Calculate the minimum volume of hydrogen required to react completely with X at room temperature. (06marks)

**END**

Candidate's Name:

Random No.	Personal No.

Signature:.....

(Do not write your School Name anywhere on this booklet)

553/1

BIOLOGY

(Theory)s

Paper 1

Nov./Dec. 2020

2½ hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda certificate of Education**

**BIOLOGY**

**(THEORY)**

**Paper 1**

2hours 30minutes

**INSTRUCTIONS TO CANDIDATES:**

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

*Answer all questions in section A and B, plus two questions in section C.*

*Write answers to section A in the boxes provided, answers to section B in the spaces provided, and answers to section C in the answer booklets provided.*

For Examiners' Use Only		
Section	Marks	Examiner's signature & No.
A		
B	No. 31	
	No. 32	
	No. 33	
C	No.	
	No.	
<b>TOTAL</b>		

## SECTION A (30 MARKS)

Answer all questions in this section. Write the letter representing the most correct answer to each question in the box provided

1. A farmer usually retains a bull in his herd whose ancestors have good qualities.

This is an example of:

- A. Natural selection      B. Artificial selection  
C. In breeding      D. Out breeding

2. Meiosis normally results in:

- (i) halving the chromosome number.      (ii) producing identical cells  
(iii) maintaining the number of chromosomes.      (iv) propagation of new organism

Which of the following is correct?

- A. (i) and (iv)      B. (ii) and (iv)  
C. (ii) and (iii)      D. (i) and (iii)

2. A student complained of seeing blurred images of nearby objects, what was the eye defect and what is its remedy?

- A. short sight, concave lens      B. short sight, concave lens  
C. long sight, convex lens      D. long sight, concave lens

4. Which of the following muscles causes the arm to straighten when it contracts?

- A. Triceps      B. Biceps  
C. Erector pili      D. Flexor

5. Plants convert glucose to starch after synthesis during photosynthesis because it is:

- A. Not as sweet as other sugars formed.  
B. source of vitamins as well as energy  
C. Better source of energy than other sugars.  
D. Insoluble hence can be conveniently stored.

6. Figure 1 below shows the structure of a sperm cell.



Fig. 1

Which one of the following pairs consists of parts which contain the genetic material and provide energy for the cell during propulsion respectively?

- A. (iv) and (i)      B. (v) and (ii)  
C. (iii) and (i)      D. (iv) and (iii)

7. Arachnids can easily be identified by:

- A. three pairs of legs      B. two body parts.  
C. two main body parts      D. a pair of antennae.

8. The figure 2 below shows a pyramid of numbers for a food chain.

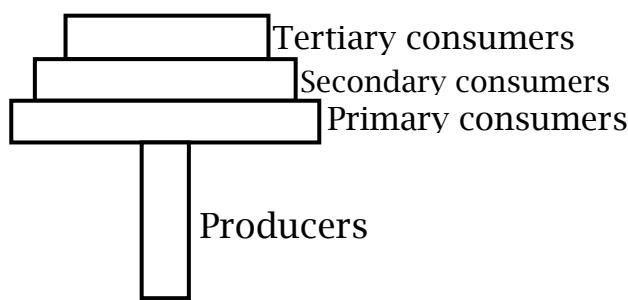


Fig. 2

Which of the following correctly represents the information in diagram?

- A. a herd of antelopes in an African plain
- B. a locust swarm in a maize field
- C. a plague of caterpillars on a tree
- D. round worms in a child's gut

9. What is the possible reason for the fall in the volume of oxygen gas released during photosynthesis after 40°C?

- A. there was no more oxygen in the atmosphere.
- B. there was no more carbon dioxide in the atmosphere.
- C. there was too much light intensity.
- D. enzymes were denatured.

10. Leguminous plants are characterized by:

- A. production of seeds in a capsule pod
- B. production of seeds in a follicle pod
- C. presence of nodes in shoots
- D. presence of nodules in roots

11. The following events occur in seeds during germination:

- (i) Seed coat splits
- (ii) Hypocotyls grows fast
- (iii) Epicotyls grows fast
- (iv) Cotyledons appear above the ground
- (v) Cotyledons remain below the ground

Which of the following occur during epigeal germination?

- A. (i), (ii), (iii)
- B. (i), (iii), (iv)
- C. (i), (ii), (iv)
- D. (ii) and (iv) only

12. The structure in figure 3 shows the side view of a human tooth. Study and identify it.

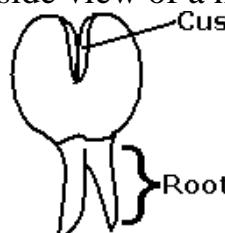


Fig. 3

- A. Molar
- B. Premolar
- C. Canine
- D. Incisor

13. A student performed an experiment to determine the percentage of humus in a soil sample. The following results were obtained.

- mass of empty dish = 50g
- mass of dish + soil = 200g
- mass of dish + soil after heating to constant mass = 170g

What is the percentage of humus in the soil?

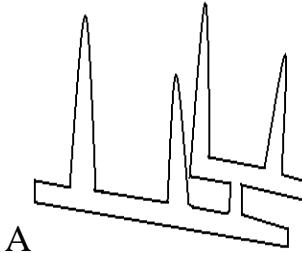
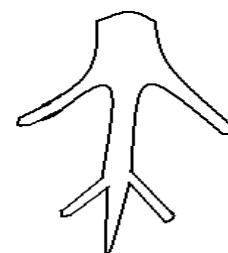
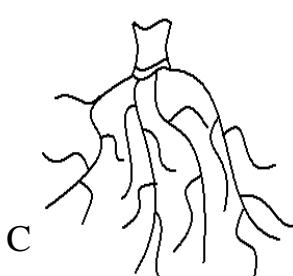
- A. 15%
- B. 30%
- C. 20%
- D. 90%

14. Mostly an enzyme is a ..... in nature.

- A. protein
- B. carbohydrate
- C. lipid
- D. vitamin

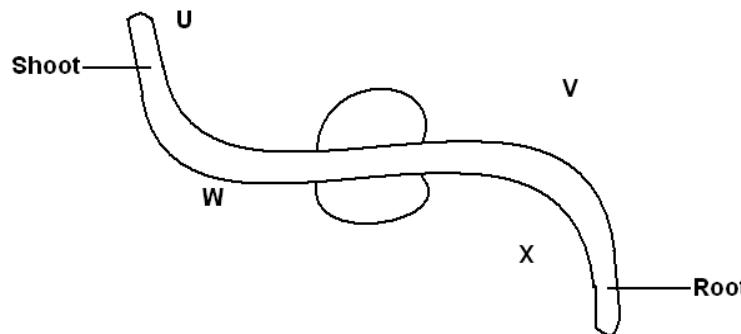
15. Blood rich in the products of digestion enters the liver through:

- A. hepatic vein
- B. hepatic artery
- C. hepatic portal vein
- D. renal portal vein

16. Birds pass out nitrogenous waste in the form of:  
A. Uric acid                                  B. urea  
C. Ammonia                                    D. trimethylamine oxide
17. Which of the following represents the correct order of taxonomic ranks starting with the largest?  
A. kingdom, phylum, class, order, family, genus and species  
B. kingdom, phylum, class, family, order, genus and species  
C. species, genus, family, order, class, phylum, kingdom  
D. species, genus, order, family, class, phylum, kingdom
18. The basic unit of chlorophyll is?  
A. Nitrogen                                    B. Magnesium  
C. iron                                        D. potassium
19. Biological control is preferred to use instead of insecticides in pest control management. This is because insecticides:  
A. are quite expensive                      B. are indiscriminative in their action  
C. require skill to use                      D. make the soil infertile
20. Which one of the following fruits represents a capsule?  
A. Bean pod                                    B. cassia  
C. Dutch man's fruit                        D. coconut
21. Which of the following root systems of plants is specialized for gaseous exchange?  
  
  
  

22. The rate of flow of blood through the renal artery was found to be  $1200\text{cm}^3/\text{min}$ ; the urea concentration in the renal artery was  $32\text{mg}/100\text{cm}^3$  and in the renal vein  $24\text{mg}/100\text{cm}^3$ . If the flow rate of the blood remained constant, determine the quantity of urea removed from the kidney in one hour.  
A. 480mg  
B. 96mg  
C. 11520mg  
D. 5760mg
23. Which one of the following insects undergoes complete metamorphosis?  
A. locust  
B. bee  
C. grass hopper  
D. cockroach

24. A seedling was grown on a horizontal board and the shoot grew towards light while the root grew downwards as shown in the diagram.



This was due to:

- A. more auxin on side U and less auxin on side V
- B. less auxin on side W and more auxin on side V
- C. less auxin on side W and more auxin on side X
- D. more auxin on side W and less auxin on side V

25. By which process does oxygen move from the leaf cells to the air spaces.

- A. diffusion
- B. osmosis
- C. active transport
- D. capillarity

26. Below are some of the characteristics of vertebrae:

Vertebral canals, short neural spine, cervical ribs.

Which vertebra do these characteristics represent?

- A. lumbar
- B. cervical
- C. thoracic
- D. caudal

27. A couple produced four children who are of different blood groups with the following genotypes, AO, BO, AB and OO. Identify the genotypes of the blood groups of the couple.

- A. AA and BO
- B. AO and BO
- C. BB and BO
- D. AB and OO

28. Study the dichotomous key below.

1(a) Has 8 legs ----- P  
(b) Has 6 legs ----- 2

2(a) Has long antenna ----- Q  
(b) Has short antenna ----- 3

3(a) Has proboscis ----- R  
(b) Has mandibles ----- S  
Which of the organisms is a housefly?

- A. P
- B. Q
- C. R
- D. S

29. Which one of the following organisms reproduce by budding?

- A. mushroom
- B. amoeba
- C. spirogyra
- D. hydra

30. Which one of the following parts is most important in promoting insect pollination?

- A. calyx
- B. stamens
- C. corolla
- D. pistil

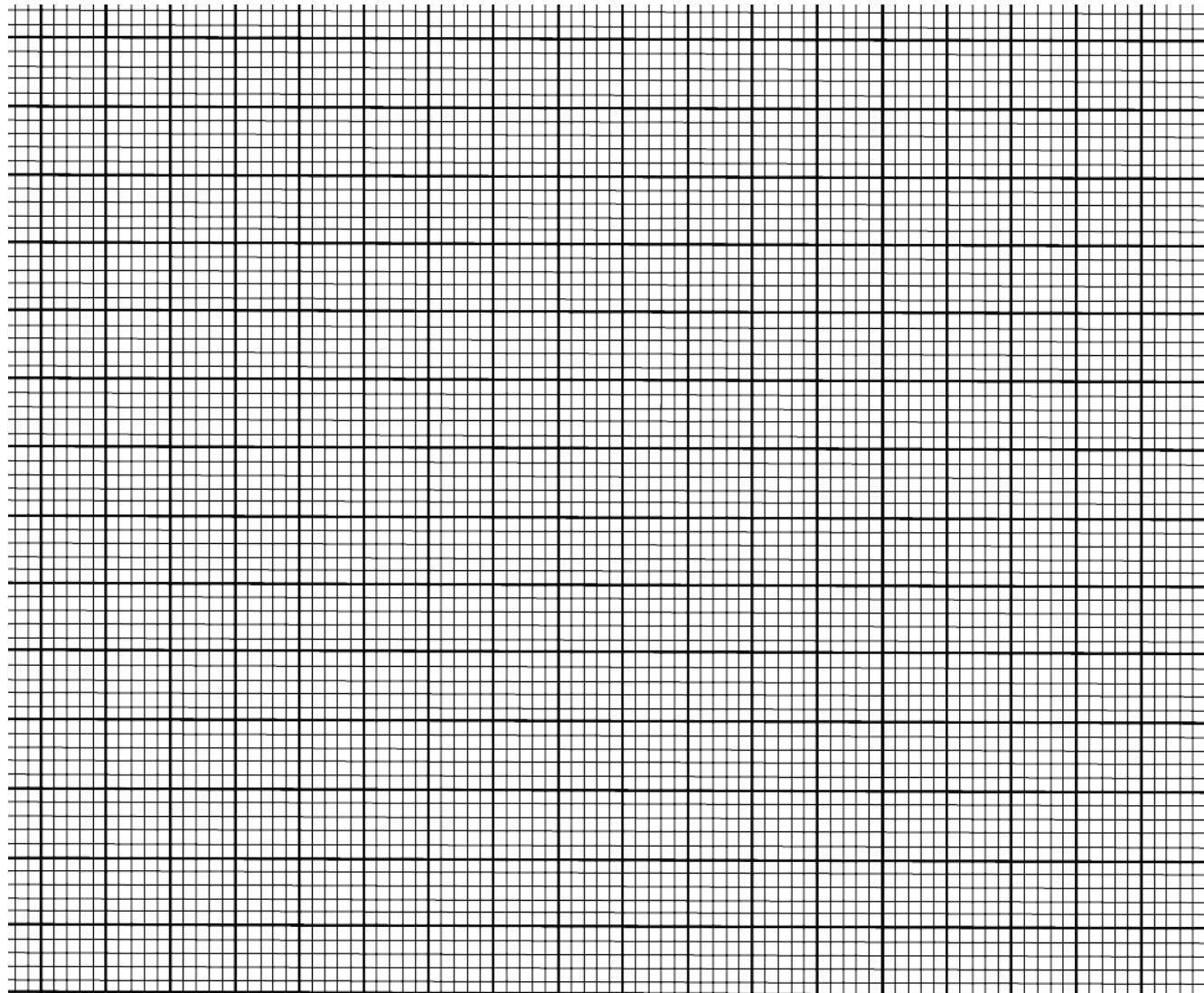
**SECTION: B (40 MARKS)***Attempt all questions in this section in the spaces provided*

31. Under normal health conditions, the amount of waste products released by NTUBIIRU were observed and recorded over time as the temperature of his surroundings were altered. The results obtained were recorded in the table below;

Temperature (°C)	0	5	10	15	20	25	30	35	40	45	
Volume of wastes (cm <sup>3</sup> )	Urine	87.6	72	63	55.1	47	32.5	25	20.4	16	8.2
	Sweat	0	6	11	13.9	18.3	30	52	64.8	75	88.7

- (a) Represent the above information on a suitable graph using the graph paper provided on page 6 (12marks)
- (b) Explain the shape(s) of your graph(s). (04marks)
- .....
- .....
- .....

- (c) Explain the relevance of excreting urine from the body. (02marks)
- .....
- .....



(d) Estimate from your graph, the amount of urine that would be produced by NTUBIIRU at 43°C (02marks)

.....  
.....  
**32.** (a) State the significance of the following hormones in reproduction: (03marks)  
(i) LH

.....  
.....  
.....  
(ii) Oestrogen

.....  
.....  
.....  
(iii) Prolactin

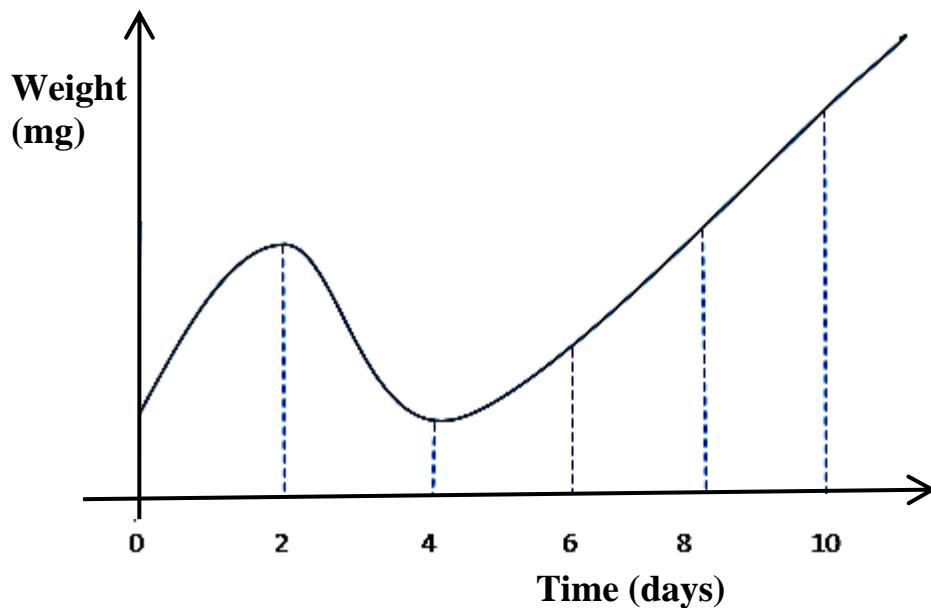
(b) What do you understand by the following terms? (03marks)  
(i) Implantation

.....  
.....  
.....  
(ii) Parturition

.....  
.....  
.....  
(iii) Spermatogenesis

(c) Describe any **four** roles of the placenta to the fetus (04marks)

33. The graph below shows the variation of weight of the seed during germination:



(a) Explain the shape of the graph

(03marks)

(b) Describe any **three** conditions necessary for germination

(03marks)

(c) State any **three** causes of seed dormancy

(03marks)

(d) Define the term **ecdysis**

(01mark)

## SECTION: C (30 MARKS)

Attempt any 2 questions from this section. Answers to this section must be written on the answer sheets provided

34. (a) Stating one example in each case, describe the various types of skeleton in animals (09marks)  
(b) Describe six adaptations of a duck for locomotion. (06marks)
35. (a) With one example in each case, describe the types of genetic variation in organisms. (06marks)  
(b) In an experiment at a poultry farm, using pure breeds, a short legged cock was crossed with a long legged hen. All off springs in **F1** generation had long legs  
(i) using appropriate symbols, show the possible genotypes and phenotypes of **F1** and **F2** generation. (07marks)  
(ii) If there were a total of 80 off springs in **F2** generation, calculate the number of long legged chicks in **F2** generation. (02marks)
36. (a) Describe how the mammalian eye is able to carry out the following processes:  
(i) Visibility. (04marks)  
(ii) Adaptation. (05marks)  
(b) Long sightedness is an eye defect.  
(i) What do you understand by the term long sightedness? (01mark)  
(ii) State the causes of long sightedness (01mark)  
(iii) With illustrations, describe how long sightedness can be rectified. (04marks)
37. (a) The following results were obtained from an experiment done about soil in a secondary school.  
Volume of water ..... 30cm<sup>3</sup>  
Volume of water + soil ..... 70cm<sup>3</sup>  
Volume of water + soil after stirring ..... 66cm<sup>3</sup>  
From the above results calculate the:  
(i) Volume of soil used  
(ii) Volume of air in the soil  
(iii) Percentage of air in soil (06marks)
- (b) In another experiment about soil, the following results were obtained.  
Mass of crucible alone ..... 10g  
Mass of crucible + soil before heating ..... 30g  
Mass of crucible + soil after heating ..... 25g  
From the above results, calculate;  
(i) How much water was lost from the soil?  
(ii) Mass of the soil used.  
(iii) Percentage of water lost from the soil. (06marks)

(c) Explain the role of living organisms in the soil.

(03marks)

**END**

Candidates' Name

.....

Signature:.....

Random No.	Personal No.

(Do not write your School/Centre Name or Number anywhere on this booklet)

553/2  
**BIOLOGY**  
**PRACTICAL**  
**Paper 2**  
Nov./Dec. 2020  
2 hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**BIOLOGY**

**Paper 2**

2 hours

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of three questions.*

*Answer all questions.*

*Drawings should be made in spaces provided.*

*Use sharp pencils for your drawings.*

*Coloured pencils or crayons should not be used*

*No additional sheets of writing paper are to be inserted in this booklet*

*Work on additional sheets will not be marked*

For Examiners' Use Only		
Question	Marks	Examiner's Signature and No.
1		
2		
3		
<b>Total</b>		

1. You are provided with solutions **R**, **S**, **T**, and **U**. **S**, **T** and **U** are same solutions but of different concentrations. You are required to determine the food substances in solution **R** and investigate the action of solutions **S**, **T** and **U** on solution **R**.

(a) Using the reagents provided, carry out the following tests and record your observations and deductions in the table provided.

(06marks)

	<b>Tests</b>	<b>Observations</b>	<b>Deductions</b>
(i)	To 1cm <sup>3</sup> of solution <b>R</b> in a test tube, add 2 drops of iodine solution		
(ii)	To 1cm <sup>3</sup> of solution <b>R</b> in a test tube, add 1cm <sup>3</sup> of dilute sodium hydroxide solution followed by 3 drops of copper(ii) sulphate solution		
(iii)	To 1cm <sup>3</sup> of solution <b>R</b> in a test tube, add 1cm <sup>3</sup> of Benedict's solution and boil		

(b) Label three tubes **1**, **2**, and **3** and put 1cm<sup>3</sup> of solution **R** into each of them. Add 1cm<sup>3</sup> of **S** to test tube **1**, 1cm<sup>3</sup> of **T** to test tube **2** and 1cm<sup>3</sup> of **U** to test tube **3**. Incubate the test tubes in water bath maintained at 37 – 40<sup>0</sup>C for 15minutes. After 15 minutes, carry out a Benedict's test on the contents of each test tube. Record your observations and deductions in the table on page **3**.

(06marks)

Test tube	Observations	Deductions
1		
2		
3		

(c) Explain your results in each test tube in (b) above. (06marks)

(i) In test tube 1

.....

.....

.....

(ii) In test tube 2

.....

.....

.....

(iii) In test tube 3

.....

.....

.....

(d) State

(i) the identity of solutions S, T and U.

(01mark)

.....

.....

(ii) one property of the active substance in solutions S, T, U which was being investigated in the experiment (01mark)

**2.** You are provided with specimens **H**, **I**, **J**, and **K** which are plant parts.

- (a) What plant parts are the specimens? Give a reason for your answer. (02marks)

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

- (b) Using a hand lens where necessary, examine the specimens and describe the structural features on each of them.

- (i) **H** (02marks)

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

- (ii) **I** (02marks)

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

- (iii) **J** (02marks)

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

- (iv) **K** (02marks)

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

(c) Describe how the structural features observed on each specimen aid in its dispersal.

(i) **H**

(02marks)

(ii) **I**

(02marks)

(iii) **J**

(02marks)

(v) **K**

(02marks)

(d) Draw specimen **H** in the space below. Do not label but state your magnification.

(04marks)

3. You are provided with specimens **M** and **N** which are animal parts.

(a) Identify each specimen.

(02marks)

(i) **M**.....

(ii) **N**.....

(b) State **three** structural differences between the specimens.

(03marks)

**Specimen M**

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

**Specimen N**

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

(c) State **two** adaptations of each specimen to its function.

(i) Specimen M

(02marks)

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

(ii) Specimen N

(02marks)

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

(d) State **two** functions of the mammalian skeleton which are shown by the structure of the specimens.

(02marks)

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

(e) Draw the anterior view of specimen M in the space below.

(07marks)

**END**

**800/1**

**COMMERCE**

**Paper 1**

**Nov./Dec. 2020**

**2½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**COMMERCE**

**Paper 1**

**2 hours 30minutes**

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of two sections; A and B*

*Answer all questions in section A and any four questions from section B*

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

*Answers to all questions must be written in the answer booklet provided.*

*All questions in section B carry equal marks*

*You may lose marks for untidy work*

## **SECTION A: (20 MARKS)**

*Write the letter corresponding to the correct answer for each question in this section, in the answer booklet provided.*

1. A type of integration where there's pooling of efforts on complex and costly tasks for one firm is known as
  - A. Cartel
  - B. Absorption
  - C. Lateral merger
  - D. Consortium
2. The following are objectives of business organization except;
  - A. Dismiss lazy and careless workers
  - B. To maximize profits
  - C. To allocate resources and maximize profits
  - D. To protect interests of customers through charging fair prices and sell quality products
3. Which of the following taxes are levied on the consumption of goods and services considered to be harmful to the society?
  - A. Octoroi
  - B. Sumptuary
  - C. Corporate tax
  - D. Excise duty
4. Gross profit expressed as a percentage of Turn over is termed as
  - A. Mark-up
  - B. Gross profit ratio
  - C. Rate of return on capital
  - D. Expense ratio
5. A school canteen determines its gross profit on a basis 20% mark up. Calculate its gross profit on goods that were bought at Shs. 84,000
  - A. Shs. 1,680,000
  - B. Shs. 100,800
  - C. Shs. 16,800
  - D. None
6. The government may directly carry out trading activities by;
  - A. Setting up co-operatives and marketing boards.
  - B. Controlling activities of private sector
  - C. Setting up parastatals and public cooperations
  - D. Arresting smugglers and those working along streets
7. Which of the following methods should be done to reduce on the amount of excess produce on the market?
  - A. Use of quota system
  - B. Stabilization fund
  - C. Dumping system
  - D. Buffer stock system
8. Cost sharing privatization simply means,
  - A. The government completely sells an enterprise to foreigners
  - B. The government sells some of the shares to private investors
  - C. The beneficiaries contribute towards the cost of providing a particular service
  - D. The government makes contracts with a private firm to manage the enterprise for a time Specified.

9. Extra days given to the drawee of a bill of exchange to make arrangement for payment are known as?
- A. Due days
  - B. Maturity days
  - C. Accomodating days
  - D. Days of grace
10. Which of the following is where small poundage is paid when sending money?
- A. Telegraphic money
  - B. Money order
  - C. Postal order
  - D. Mobile money
11. Accumulative preference share holder has missed dividends for the last 3 years due to lack of profits. If he holds 50 shares each at Shs. 1000 at a rate of 6%, how much dividends will he get this profitable year?
- A. Shs. 90,000
  - B. Shs. 30,000
  - C. Shs. 50,000
  - D. Shs. 18,000
12. A business man insured his supermarket against fire for Shs. 4,000,000. The supermarket caught fire but before the incidence the value of the business was Shs. 12,000,000. Half of the stock was burnt and destroyed, how much was he compensated
- A. Shs. 12,000,000
  - B. Shs. 4,000,000
  - C. Shs. 2,000,000
  - D. Shs. 8,000,000
13. ..... is a cheque against which payment can be made only when presented through the bank account of the payee.
- A. Crossed cheque
  - B. Open cheque
  - C. Order cheque
  - D. Stale cheque
14. Invisible trade is
- A. trade in goods
  - B. trade conducted in broad day light
  - C. trade in services
  - D. trade in both goods and services
15. Which of the following combinations of wants best explains man's basic needs
- A. A car, food, shelter
  - B. Food, shelter, medical care
  - C. Education, medical care, shelter
  - D. Clothes, Education, medical
16. A trader bought a dozen of books at Shs. 6000. His markup is 25%. What is his selling price per book?
- A. Shs. 500
  - B. Shs. 625
  - C. Shs. 7500
  - D. Shs. 1500
17. Which one of the following means of sending a letter the post office under takes to compensate the sender if the letter is lost?
- A. Registered mail
  - B. Recorded delivery
  - C. Express post
  - D. First class mail
18. A situation where a region concentrates on its best basing on available resources is called.....
- A. specialization by process
  - B. specialization by area
  - C. specialization by skill
  - D. international specialization

- 19.** The coordinator and supervisor of the production process is.....
- an entrepreneur
  - an organizer
  - labour
  - capital
- 20.** The law of comparative advantage encourages countries to .....
- specialize in the production of expensive goods
  - remove trade barriers among fellow states
  - dump in each other's country
  - specialize in the production of goods suitable for their resources
- SECTION B (80 MARKS)**
- Answer any four questions from this Section.*
- 21.** (a) Explain the factors considered when choosing a bank account to open up. (10marks)
- (b) Describe any **five** reasons why most business men prefer current account over other types of bank accounts (10marks)
- 22.** (a) With illustrations, explain the law of demand and supply (08marks)
- (b) What influences a supplier to put more of a certain commodity on the market? (12marks)
- 23.** (a) Distinguish between **Advertising appeal** and **advertising media** (04marks)
- (b) Give **six** reasons why traders advertise (06marks)
- (c) What are the factors considered when making a choice for an advertising medium (10marks)
- 24.** (a) Why is there an increasing number of street traders in Uganda today? (10marks)
- (b) Explain the problems itinerant traders face today (10marks)
- 25.** (a) Write short notes on the following terms as used in insurance
  - Cash in transit policy (02marks)
  - Aviation policy (02marks)
  - Ship owner's liability (02marks)
  - Assurance (02marks)
  - Renewal advice (02marks)
 (b) Describe any **five** doctrines of insurance (10marks)
- 26.** (a) Describe the documents involved in the formation of a public liability company (12marks)
- (b) Under what circumstance may a company voluntarily winds-up (08marks)
- 27.** (a) Define the following terms
  - Prompt cash (02marks)
  - Cash with order (02marks)
  - Cash on delivery (02marks)
  - Spot Cash (02marks)
 (b) Nabatanzi is a business lady in Gulu district, she would like to receive goods for her whole sale shop from Ssegirinya in Kikuubo kampala. Explain the documents she would involve (12marks)

28. (a) Distinguish between **Carriage outwards** and **Returns outwards** (02marks)
- (b) Nabunnya's books of accounts revealed the following information on 31<sup>st</sup> Dec 2019
- |                       |                 |
|-----------------------|-----------------|
| Opening stock         | shs. 3,500,000  |
| Closing stock         | shs. 2,800,000  |
| Net sales             | shs. 35,000,000 |
| Rate of stock turn    | 8 times         |
| Fixed Assets          | shs. 5,500,000  |
| Current assets        | shs. 2,500,000  |
| Long term Liabilities | shs. 1,500,000  |
| Un-paid rent          | shs. 300,000    |
| Creditors             | shs. 900,000    |

Calculate;

- (i) Cost of sales (03marks)
- (ii) Net purchases (03marks)
- (iii) Gross profit (03marks)
- (iv) Goods available for sale (03marks)
- (v) Capital owned (03marks)
- (vi) Capital employed (03marks)

**END**



**612/2**

**ART**

**Paper 2**

**Drawing or Painting  
from Still life or**

**Nature**

**Nov./Dec. 2020**

**2 ½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**Drawing or Painting From Still - Life**

**Paper 2**

**2 hours 30 minutes**

*This paper offers two major alternatives still life and nature*

*Candidates may attempt either still or nature but not both*

### **DRAWING OR PAINTING FROM STILL LIFE.**

*The setter of the groups of objects in this alternative must interpret the sides mentioned in the question set below (i.e. left or right) according to the position of the candidates facing the objects.*

### **DRAWING OR PAINTING FROM NATURE.**

*Candidates are required to make a study or studies using any one side of the sheet of approved paper provided. Candidates must be instructed that ruling by any means whatsoever is forbidden.*

#### **For both alternatives**

**I.** *The supervisor should ensure that the teacher in charge of preparing specimens do not substitute specimens in the early instructions with other specimens of their choice, otherwise the candidates` will be considered irrelevant and hence will not be marked or graded.*

**II.** *Supervisors should ensure that candidates demarcate the area at the top right-hand corner (5cm wide by 12 cm long) of the front surface of the paper.*

*In this area, the candidate`s name and personal number in that order must be written clearly. This area **must** not be shaded.*

## **EITHER: STILL LIFE**

### **Alternative A.**

On a low platform place a saucepan around 25 cm in diameter with 3 cassava tubers inside but leaning towards the left. In front of the saucepan but slightly to the right, place a shallow plate of 18 cm in diameter with a fresh fish approximately 25 cm long facing the right. In front of the plate but slightly to the left randomly place 2 big tomatoes and a big onion. A knife leans against the saucepan slightly to the left with its handle.

### **Alternative B.**

On a low platform place a bucket approximately 35 cm in height with a checked cloth draping from the inside on the left hand side. On the right of the bucket but slightly in front, place a heap of folded bed sheet of different colours making a height of not less than 10 cm. in front of the bucket and the bed sheets, place a brick with a local flat iron against its left but opened.

## **OR: NATURE**

### **Alternative C.**

Make a study or studies of a guava branch of about 13 cm long with some leaves and a bud inclusive.

### **Alternative D.**

Make a study or studies of a head and neck of a mature cock/ hen.

### **Alternative E.**

Draw or paint a landscape showing a building under construction plus some vegetation.

**END**

**273/1**

**GEOGRAPHY**

**Paper 1**

**Nov./Dec. 2020**

**2½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**GEOGRAPHY**

**Paper 1**

**2 hours 30minutes**

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of parts **I** and **II***

*Part **I** and section **A** of part **II** are compulsory.*

*Answer only one question from section **B** of part **II***

*Answers to all questions must be written in the answer booklet provided.*

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

## PART I

### **OBJECTIVE – TYPE QUESTIONS (30 MARKS)**

*There are 30 compulsory questions. Each question carries one mark.  
Answers to this part must be written in the answer booklet provided.*

1. Kenya's population is unevenly distributed mainly due to the difference in.....
  - A. soil fertility
  - B. economic activities
  - C. transport network
  - D. climatic conditions
2. A river regime means
  - A. a river which has lost ability to carry its total load
  - B. the whole area drained by a river and its tributaries
  - C. the seasonal variation of the volume of water in a river
  - D. Occassional flooding of the river valley
3. Which one of the following is the most important contribution of the fishing industry to East Africa
  - A. development of fish processing industries
  - B. foreign exchange earnings
  - C. improved transport network
  - D. development of ports
4. The Campbell stoke recorder in a weather station is used for measuring
  - A. Sunshine
  - B. Relative humidity
  - C. temperature
  - D. atmospheric pressure
5. The development of electricity power station on river pangai was mainly favoured by the presence of
  - A. hard basement rock
  - B. narrow gorge
  - C. water fall
  - D. a large volume of water
6. The second largest national park in Uganda is .....
  - A. Murchison falls
  - B. Bwindi
  - C. Queen Elizabeth
  - D. Kidepo
7. The major factor influencing the location of industries in East Africa is.....
  - A. efficient transport
  - B. power supply
  - C. skilled labour
  - D. raw materials
8. Which of the following groups of crops need to be grown near urban centres
  - A. Tomatoes, Pineapples, Cabbage
  - B. Tomatoes, Onions, Carrots
  - C. Sugarcane, Onions, Carrots
  - D. Pineapples, Millet, Cabbage
9. Which of the following minerals are found in Tororo
  - A. limestone and beryl
  - B. iron ore and phosphate
  - C. iron ore and beryl
  - D. phosphate and limestone

- 10.** Which one of the following commodities is exported through Jomo Kenyatta air port  
A. Flowers                          B. Cotton  
C. Coffee                          D. Tea
- 11.** The following ports are not entre ports except  
A. Tanga                          C. Mombasa  
B. Mwanza                          D. Mtwara
- 12.** Which one of the following is not a characteristic of tropical rain forest vegetation  
A. Trees are ever green              B. Very heavy annual rainfall is experienced  
C. Trees are very tall                D. Trees have buttress roots
- 13.** Which one of the following fish landing sites is found on lake Kyoga  
A. Butiaba                          C. Katungulu  
B. Kasenyi                          D. Kagwara
- 14.** Which one of the following game reserves is found in Tanzania  
A. Mkomazi                          C. Katonga  
B. South kitui                          D. Losai
- 15.** The method used in the mining of oil in the Albertine region of Uganda is  
A. Adit                                  C. Open cast  
B. Drilling                                  D. Shaft
- 16.** Kampala has recently developed into a great industrial centre because of  
1. ready market                          3. improved infrastructure  
2. raw materials                          4. cheap hydro electric power  
A. 1 and 2                                  C. 1 and 3  
B. 3 and 4                                  D. 1 and 4
- 17.** Cashew nuts in East Africa are grown in the  
A. highlands                                  C. coastal areas  
B. rift valley areas                          D. lake Victoria shores
- 18.** Which of the following commodities does Uganda export to Kenya  
A. wheat                                  C. cement  
B. maize                                  D. shoes
- 19.** Which of the following ports in East Africa is an inland port  
A. Mombasa                                  C. Malindi  
B. Mwanza                                  D. Tanga
- 20.** The mean annual rainfall for a station that received annual rainfall of 1231 is  
A. 102mm                                  C. 1243mm  
B. 1219mm                                  D. 1231mm
- 21.** Population distribution in East Africa is mainly influenced by  
A. Relief                                  B. Rain fall                                  C. Vegetation cover                          D. Temperature

- 22.** The major factor responsible for the spread of secondary vegetation in East Africa is  
A. Altitude C. Latitudes  
B. Man's activities D. Topography
- 23.** The seven forks dam project in East Africa is located on river  
A. Rufiji C. Pangani  
B. Tana D. Nile
- 24.** The term Transhumance means  
A. Seasonal movement of animal from place to place  
B. Grazing of animals from time to time  
C. Movement of animals from place to place  
D. Keeping of cattle on large scale
- 25.** Which one of the following is a sedimentary rock  
A. Sand stone C. Marble  
B. Granite D. Basalt
- 26.** The different size of particles making up soil is referred to as soil  
A. Catena C. Profile  
B. Texture D. Composition
- 27.** Large deforestation is going on in East Africa mainly due to  
A. Charcoal burning C. Lumbering  
B. Agriculture D. Bush burning
- 28.** A steep sided feature formed between two adjacent cirques is called  
A. A pyramidal peak C. glacial trough  
B. Hanging valley D. an arete
- 29.** The highland areas of East Africa are agriculturally productive because they have  
1. fertile soils 3. reliable rainfall  
2. efficient transport 4. abundant labour  
A. 1 and 2 C. 1 and 3  
B. 2 and 3 D. 3 and 4
- 30.** The major purpose for the development of the standard gauge railway network in East Africa is to  
A. Ease movement of bulky commodities  
B. Create political togetherness among countries  
C. Widen the revenue collections in the region  
D. Attract investments and job creation in the region

## PART II

### MAPWORK, PHOTOGRAPH INTERPRETATION, FEILDWORK AND EAST AFRICA

*Answer four questions from part II including questions 1, 2 and 3 which are compulsory*

#### SECTION A

##### 1. COMPULSORY QUESTION: MAPWORK (20 MARKS)

*Answer all parts of this question.*

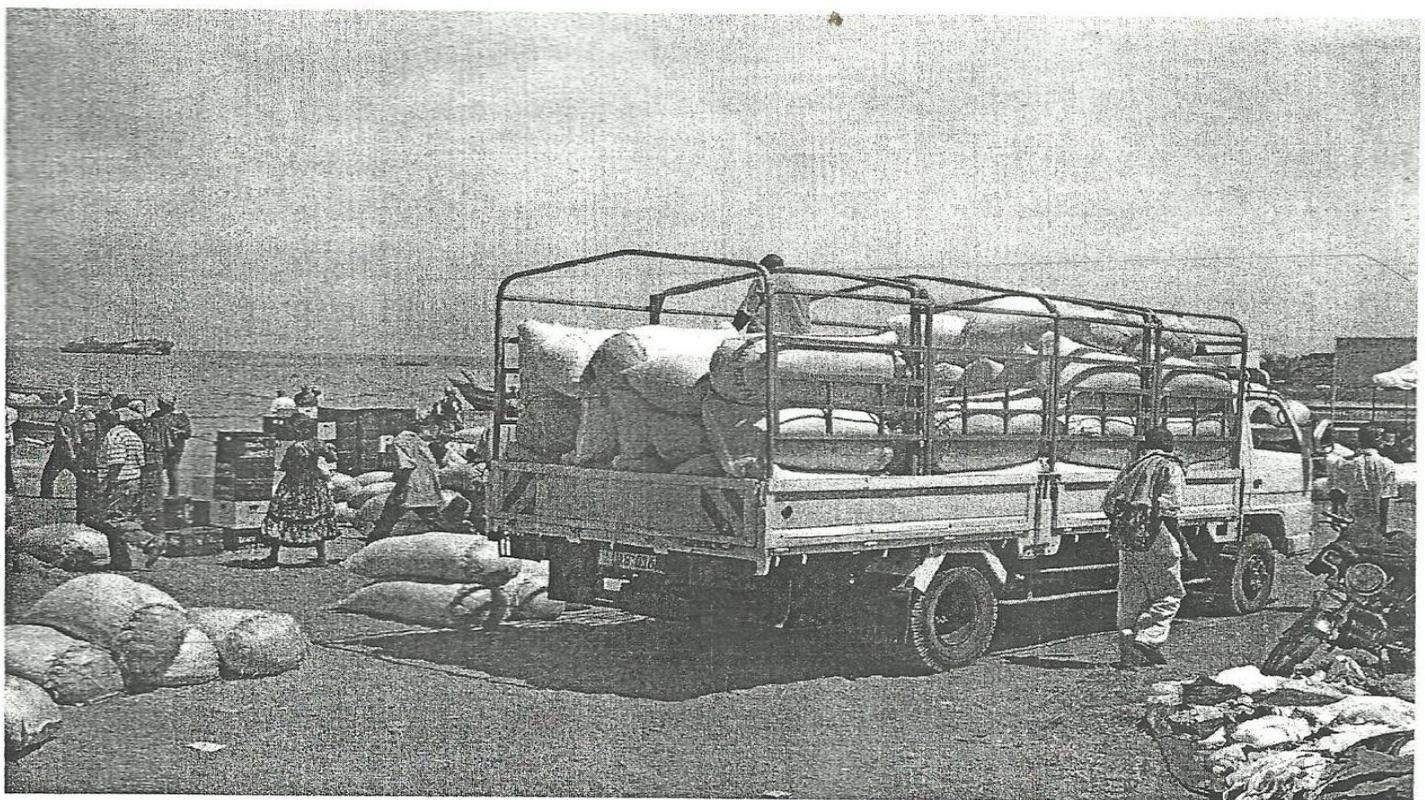
Study the **1:50,000 (UGANDA): MASAKA** Map extract, part of sheet 79/3 series Y732; Edition 3- U.S.D and answer the questions that follow:

- (a) (i) State the grid reference of the church found at Butale. (01mark)
- (ii) Name the man-made feature found at grid reference 569 589. (01mark)
- (b) (i) State the direction of Tagga church from Gayaza Ginnery. (02marks)
- (ii) Measure the distance in kilometres of the dry weather road from Buyoga function junction (grid reference 475 714) to Kyanja coffee factory (grid reference 563 632) (02marks)
- (c) Draw a sketch map of the area along nothing 60 between Easting 46 to 60 and on it mark and name the following features.
  - (i) highlands.
  - (ii) Papyrus swamp.
  - (iii) areas under plantation farming.
  - (iv) all weather roads.(07marks)
- (d) (i) Name any **two** economic activities carried out in the area shown on the map. (02marks)
- (ii) Giving evidence from the map, explain the factors that influence on economic activity mentioned in d(i) above. (02marks)

## **2. COMPULSORY PHOTOGRAPH INTERPRETATION.**

**(15 MARKS)**

Study the photograph provided and answer the questions that follow;



- (a) With clear evidence from the photograph:
- (i) What type of photograph is shown. (02marks)
  - (ii) Identify any **two** economic activities likely to be taking place in the photograph. (02marks)
- (b) What problems are likely to be faced by the people living in the area shown in the photograph. (05marks)
- (c) Suggest possible remedies to the problems identified in (b) above. (04marks)
- (d) Giving reasons for your answer, where could the photograph have been taken. (02marks)

## **3. COMPULSORY QUESTION: FIELDWORK (15 MARKS)**

For any **one** fieldwork study you have carried out **either** an individual **or** a class:

- (a) State the:
  - (i) Topic of the study. (02marks)
  - (ii) Objectives of the study. (03marks)
- (b) Explain the pre field activities carried out. (02marks)
- (c) Draw a sketch map of the area studied and on it mark and name:
  - (i) Physical features.
  - (ii) Man made features. (05marks)
- (d) Explain the relationship between the physical environment and land use in the area studied. (03marks)

## **SECTION B: EAST AFRICA (20 MARKS)**

*Answer only one question from this section.*

4. (a) Draw a sketch map of East Africa and on it mark and name:
- (i) Lakes: Kyoga and Tanganyika.
  - (ii) Any one block mountain.
  - (iii) Rivers: Athi and Rufiji. (06marks)
- (b) Describe the process that led to the formation of Lake Kyoga. (05marks)
- (c) Explain the importance of lakes to the people of East Africa. (06marks)
- (d) Outline the problems faced by the people living around lakes. (03marks)

5. Study the table below showing Uganda's population between 1982 and 2024 (projected) and answer the questions that follow

Year	1982	1992	2002	2014	2024(projected)
Population (‘000,000)	9	16	26	34	46

**Source:** *own compilation*

- (a) Draw a line graph to represent the information in the table above. (07marks)
  - (b) Describe the trend of the population shown in the table and the graph above. (02marks)
  - (c) Explain the factors that influenced the trend described in (b) above. (06marks)
  - (d) Outline the advantages of a large population size. (05marks)
6. (a) (i) Name any **two** types of coral reefs found along the coast of East Africa. (02marks)  
(ii) Describe the characteristics of the coral reefs named in (a) (i) above. (04marks)
- (b) Describe the factors which have been responsible for the growth of coral reefs on the East African coast. (05marks)
- (c) Explain the value of coral reefs to the people of East Africa. (05marks)
- (d) Outline the problems which have resulted from the presence of coral reefs on the East African coast. (04marks)
7. (a) Draw a sketch map of East Africa and on it mark and name;
  - (i) National parks: Kidepo, Tsavo and Serengeti.
  - (ii) Game reserves: Selous and Pian-upi.
  - (iii) Towns: Masindi, Dar-es-salam and Kasese. (02marks)

- (b) State any **two** tourist attractions in East Africa other than wildlife. (08marks)
- (c) Describe the conditions that favour tourism in East Africa. (05marks)
- (d) Outline the problems faced by tourist industry in any **one** country in East Africa. (05marks)

**END**

**273/2**

**GEOGRAPHY**

**Paper 2**

**Nov./Dec. 2020**

**2½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**GEOGRAPHY**

**Paper 2**

**2 hours 30minutes**

**INSTRUCTIONS TO CANDIDATES:**

*Answer **four** questions only.*

*Choose **two** questions from Part I and **two** from part II*

*In part II, only **one** question should be chosen from any **one** region.*

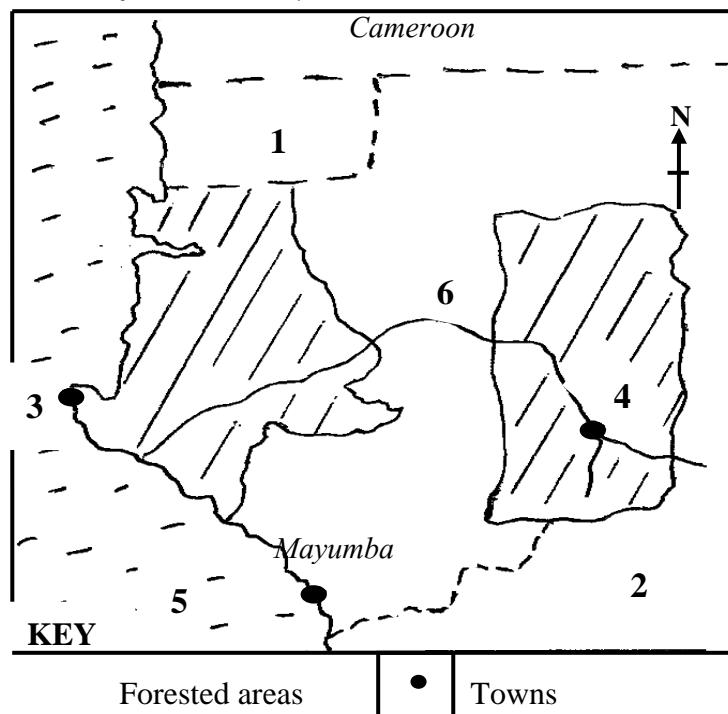
*Any additional question (s) answered will **not** be marked.*

## PART I: THE REST OF AFRICA

Answer two questions in this part.

1. (a) Draw a sketch map of Africa and on it mark and name:
- (i) Highlands: Drakensburg and Futa Jalon.
  - (ii) Basin: Victoria and El Djouf.
  - (iii) Prevailing winds: North east trades and south east trades. (08marks)
- (b) Describe the process responsible for the formation of any one highland marked in (a)(i) Above. (05marks)
- (c) Explain the value of the highland in (b) above to the people of Africa. (07marks)
- (d) Outline the problems faced by people living in highland areas of Africa. (05marks)
2. (a) Draw a sketch map of Egypt and on it mark and name:
- (i) water bodies: Red sea and lake Nasser.
  - (ii) the Nile delta.
  - (iii) industrial centres: Aswan, Cairo and port Alexandria.
  - (i) Aswan high dam. (08marks)
- (b) Describe the factors that have influenced the location of industrial centres in Egypt. (08marks)
- (c) Explain the contribution of industries to the development of Egypt. (06marks)
- (d) Outline the effects of industrialization on the environment in Egypt. (03marks)

3. Study the sketch map of Gabon provided below and answer the questions that follow:



- (a) Name the:
- (i) Countries marked **1** and **2**.
  - (ii) Towns marked **3** and **4**.
  - (iii) Water bodies marked **5** and **6**. (06marks)

- (b) Describe the physical factors that favour forestry in Gabon. (08marks)
- (c) Explain the problems faced by forestry industry in Gabon. (06marks)
- (d) Outline the measures taken to solve the problems in (c) above. (03marks)
- (e) State other **two** countries in Africa where forestry is a major economic activity. (02marks)

4. Study the table below showing percentage of total copper exports in Zambia (1990–1994).

<b>Year</b>	<b>Percentage of total exports</b>
1990	82
1991	48
1992	70
1993	79
1994	94

- (a) Draw a bar graph to show the information given in the table. (08marks)
- (b) Identify the year with the:
  - (i) least.
  - (ii) most.
 percentage of total copper exports. (02marks)
- (c) Describe the conditions that favour mining in Zambia. (08marks)
- (d) Explain the problems facing copper mining in Zambia. (02marks)
- (e) Outline any **two** uses of copper. (02marks)

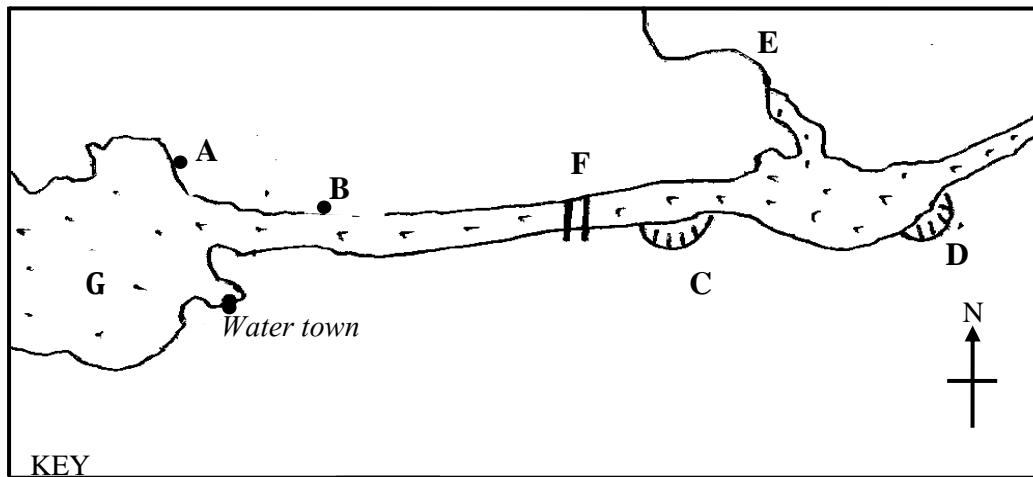
## PART II: STUDIES IN DEVELOPMENT

*Answer **two** questions from this part*

### REGION I: NORTH AMERICA

5. (a) Draw a sketch map of the area covered by the Tennessee Valley Authority (T.V.A) and on it mark and name:-
- (i) States: Alabama and Tennessee.
  - (ii) Towns: Nashville and Knoxville.
  - (iii) Rivers: Tennessee, Ohio and Mississippi. (08marks)
- (b) Explain the reasons for the establishment of the T.V.A. (08marks)
- (c) Explain the contribution of the T.V.A to the modernisation of the region. (06marks)
- (d) Name the **three** areas in East Africa where a river development project has been Established. (03marks)

6. Study the sketching of St. Lawrence Sea way provide below and answer the questions that follow:-

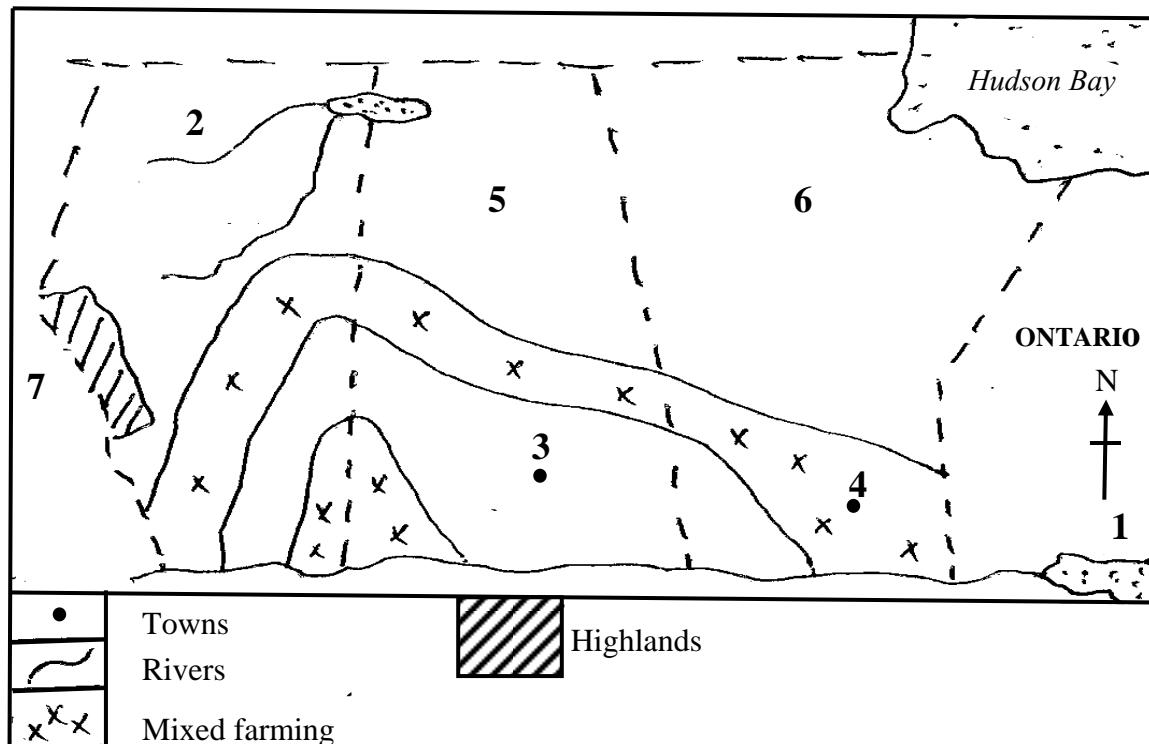


KEY	
●	Towns
[Dam icon]	Dam



- (a) Name the:
- Towns marked **A** and **B**
  - Canals marked **C** and **D**
  - River marked **E**
  - Dam marked **F**
  - Lake marked **G**
- (07marks)
- (b) Explain the aims and objectives of constructing the St. Lawrence Seaway. (06marks)
- (c) Describe the conditions that existed along St. Lawrence Seaway before its construction. (06marks)
- (d) Outline the importance of St. Lawrence Seaway to both Canada and U.S.A. (06marks)

7. Study the sketch map of the Canadian Prairies provided below and answer the questions that Follow:-



●	Towns
~~~~~	Rivers
XX	Mixed farming

(a) Name the:

- (i) Water bodies marked **1** and **2**
- (ii) Towns marked **3** and **4**
- (iii) Wheat growing provinces marked **5** and **6**
- (iv) Highlands marked **7**

(07marks)

(b) Describe the physical conditions that favour wheat production in the Canadian Prairies

(08marks)

(c) Explain the problems facing wheat farmers in the Canadian Prairies.

(06marks)

(d) Outline the steps being taken to solve the problems in (c) above.

(04marks)

## REGION II: RHINELANDS

8. (a) Draw a sketch map of Switzerland and on it mark and name

- (i) rivers Rhine and Rhone
- (ii) lake Geneva
- (iii) tourism centres: Davos, Laussane and Zurich

(07marks)

(b) Name any **two** tourist activities in Switzerland during.

- (i) Summer
- (ii) Winter

(04marks)

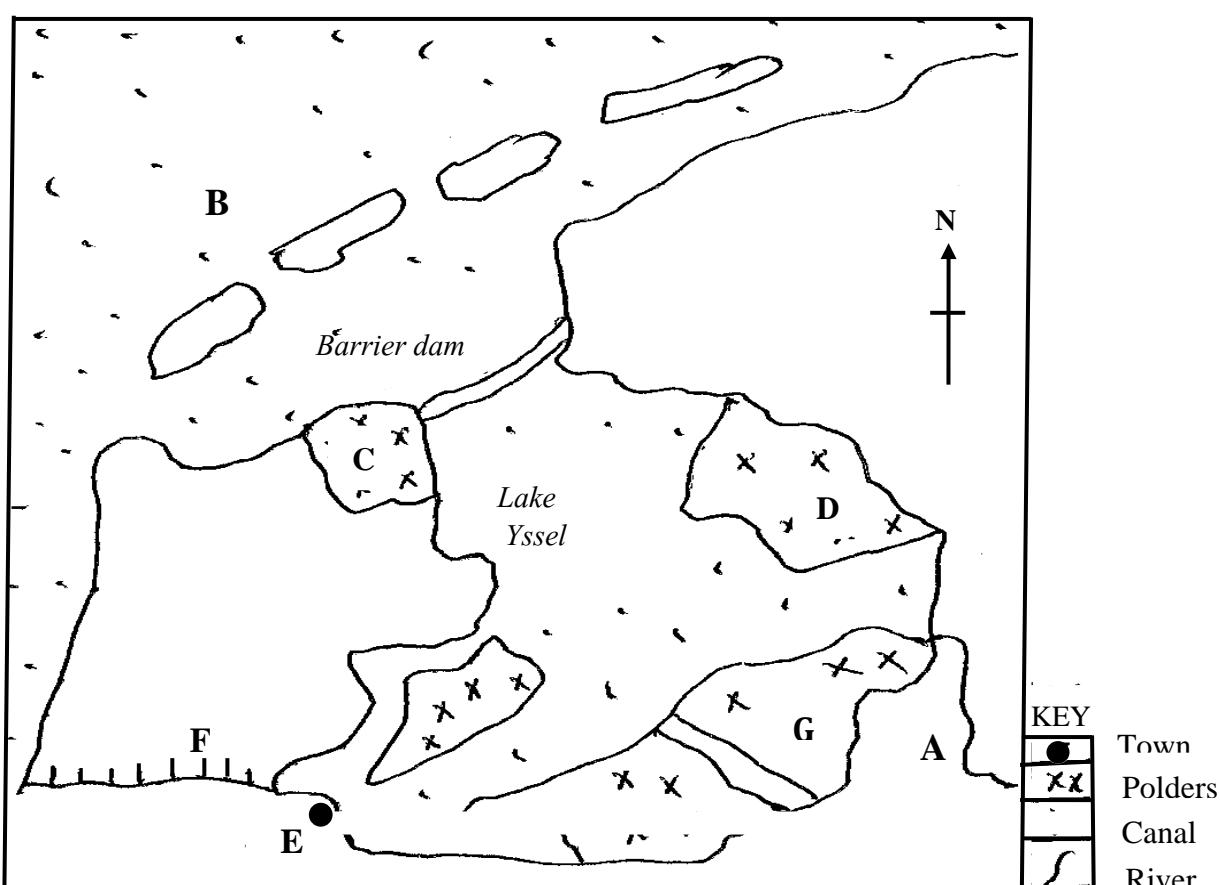
(c) Explain the contribution of the tourism industry to the development of switzerland.

(08marks)

(d) Outline the problems facing the tourism industry in any one country of the Rhinelands.

(06marks)

9. Study the sketch map of the Zuiderzee reclamation scheme in the Netherlands and answer the questions that follow:-



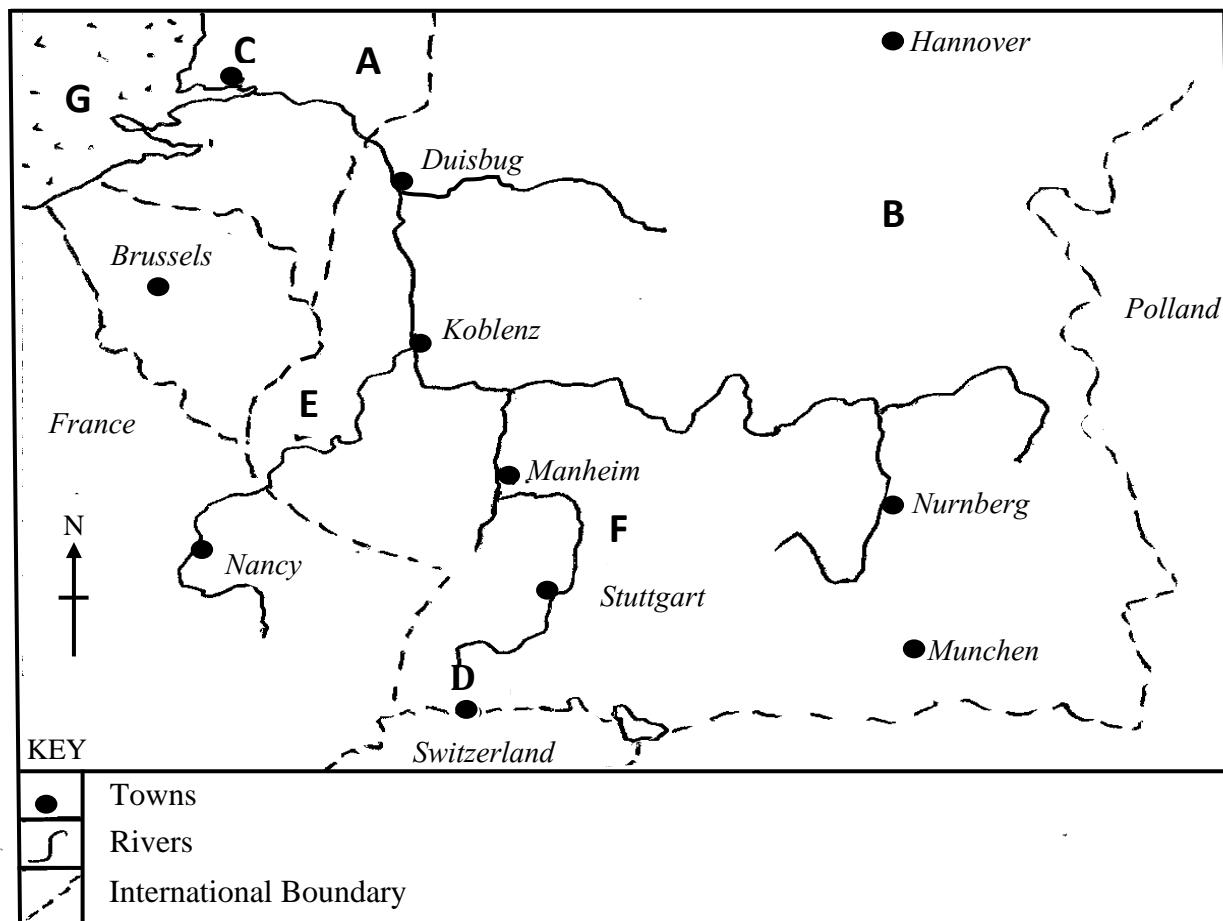
(a) Name the:

- (i) Water bodies marked **A** and **B**
- (ii) Polders marked **C**, **D** and **G**
- (iii) Town marked **E**
- (v) Canal marked **F**

(07marks)

- (b) Describe the factors that favoured land reclamation in the Netherlands. (08marks)
- (c) Explain the benefits of the Zuiderzee project to the Netherlands. (06marks)
- (d) Outline the problems faced in utilizing polders in the Netherlands. (04marks)

10. Study the sketch map of the Rhine water way and answer the questions that follow



(a) Name the:

- (i) River Tributaries marked **E** and **F**
- (ii) Ports marked **C** and **D**
- (iii) Countries marked **A** and **B**
- (iv) Sea marked **G**

(07marks)

- (b) Describe the factors which have led to the development of the Rhine into an international water way. (08marks)
- (c) Explain the importance of the Rhine water way to the development of the Rhine lands. (05marks)
- (d) Outline the:-
  - (i) challenges faced by using the Rhine water way. (03marks)
  - (ii) steps being taken to improve navigation on the Rhine water way. (02marks)

### REGION III: CHINA

- 11.** (a) Name any **three** areas of:  
 (i) low population  
 (ii) High population in China *(06marks)*
- (b) Describe the factors that influenced population distribution in the areas named in either (a)(i) or (a)(ii) above. *(10marks)*
- (c) Explain the problems faced by the people living in highly populated areas named in (a)(ii) above. *(05marks)*
- (d) Outline the steps being taken to solve the problems in (c) above. *(04marks)*
- 12.** Study the table below showing the climate of station B in China and answer the questions that follow.
- | Months                     | J   | F   | M  | A   | M   | J   | J   | A  | S  | O  | N  | D   |
|----------------------------|-----|-----|----|-----|-----|-----|-----|----|----|----|----|-----|
| Temperature( $^{\circ}$ C) | -11 | -16 | 9  | 14  | 20  | 29  | 25  | 20 | 8  | -3 | -8 | -14 |
| Precipitation(mm)          | 48  | 48  | 96 | 150 | 165 | 245 | 180 | 96 | 70 | 81 | 48 | 26  |
- (a) Draw a suitable graph to represent the information contained in the table. *(06marks)*
- (b) Calculate the:  
 (i) mean annual temperature  
 (ii) mean annual rainfall  
 (iii) annual range of temperature *(04marks)*
- (c) Describe the characteristics of the climate of the station. *(08marks)*
- (d) Explain the influence of climate on human activities at station B. *(06marks)*
- 13.** (a) Name any **two**:  
 (i) winter  
 (ii) summer  
 crops in the Yunnan– Kweichow region of china. *(04marks)*
- (b) Describe the factors that have favoured agriculture in the Yunnan– Kweichow region of china. *(06marks)*
- (c) What factors have limited commercial farming in the Yunnan region. *(05marks)*
- (d) Explain the steps being taken to develop the Yunnan region. *(10marks)*

END



**Candidate's Name:**  
.....

Random No.						Personal No.		

**Signature:.....**  
*(Do not write your School Name anywhere on this booklet)*

**527/2**

**PRINCIPLES AND  
PRACTICES OF  
AGRICULTURE**

(Practical)

**Paper 2**

**Nov. /Dec. 2020**

2 hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda certificate of Education**

**PRINCIPLES AND PRACTICES OF AGRICULTURE**

**Paper 2**

2hours

**INSTRUCTIONS TO CANDIDATES:**

**All questions are to be answered.**

**All your answers must be written on this question paper. Additional sheets of paper must not be inserted**

For Examiners' Use Only		
Questions	Marks	Examiners' signature
1		
2		
3		
4		
5		
<b>Total</b>		

**1. You are provided with specimen A and B**

(a) Get a small amount of specimen A and moisten it with a little water. Rub it between your index finger and thumb.

(i) Describe the feel of the specimen.

(01mark)

(ii) Repeat the same procedure with specimen B and describe the feel of the specimen.

(01mark)

(iii) Suggest the type of soil each specimen is;

(02marks)

A

B

(b) Measure 50cm<sup>3</sup> of specimen A in a 100cm<sup>3</sup> measuring cylinder.

Measure 50cm<sup>3</sup> of water and add to the sample in the cylinder. Stir the contents well with glass rod and leave to settle.

(i) Record the volume of the contents in the cylinder, in the table below.

Repeat the procedure with specimen B.

(02marks)

Sample	Volume of contents after setting
A	
B	

(ii) Explain your results.

(02marks)

(c) (i) Which of the two specimens **A** and **B** is better for crop growth? (01mark)

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

(ii) Give a reason. (02marks)

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

(d) Suggest how you can change specimen **A** so that it resembles specimen **B**. (02marks)

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

2. You are provided with specimens **C**, **D**, **E** and **F**.

(a) Observe them and complete the following table. (06marks)

Specimen	Identity	Economic importance
<b>C</b>		
<b>D</b>		
<b>E</b>		
<b>F</b>		

(b) Giving a reason in each case, suggest how specimens **E** and **F** are dispersed. (04marks)

(i) **E:**

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

**Reason**

(ii) **F:**

.....  
.....

**Reason:**

.....  
.....

**3.** You are provided with specimens **G, H, I** and **J** which are parts of a farm animal.

(a) Observe the specimens and describe the appearances of each of them. *(04marks)*

**G:**

.....  
.....

**H:**

.....  
.....

**I:**

.....  
.....

**J:**

.....  
.....

(b) Give the identity of each specimen. *(04marks)*

**G:**

.....  
.....

**H:**

.....  
.....

**I:**

.....  
.....

**J:**

.....  
.....

(c) To which system of the farm animal do the specimens belong?

(½ mark)

(d) To which group of farm animals does the animal from which specimens G, H, I and J were taken belong? (½ mark)

4. You are provided with specimens **K**, **L**, **M**, **N**, **O** and **P**

(a) Identify each specimen and give its function. (06marks)

SPECIMEN	IDENTITY	FUNCTION
<b>K</b>		
<b>L</b>		
<b>M</b>		
<b>N</b>		
<b>O</b>		
<b>P</b>		

(b) How can you ensure that each of the specimens works efficiently? (06marks)

**K:**

**L:**

**M:**

**N:**

**O:**

**P:**

.....

**5.** You are provided with specimens **T** and **W**

(a) (i) Identify the specimens (01mark)

**T:**

.....

**W:**

.....

(ii) State the crop which each specimen attacks. (01mark)

**T:**

.....

**W:**

.....

(b) Using a hand lens observe the mouth parts of the specimens and state the mode of feeding of each specimen. (02marks)

**T:**

.....

**W:**

.....

(c) State **two** types of damage caused by each specimen on the crop it attacks. (04marks)

**T:**

.....

**W:**

.....

**END**

Candidate's Name:

.....

Random No.	Personal No.

Signature:.....

(Do not write your School Name anywhere on this booklet)

535/1

PHYSICS

Paper 1

Jul. / Aug. 2020

2½ hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**PHYSICS**

**Paper 1**

2 hours 15 minutes

**INSTRUCTIONS TO CANDIDATES:**

Section A contains **40** objective type questions. You are required to write the correct answer **A, B, C or D** in **blue or black** ink against each question in the box at the right hand side.

Section B contains **10** structured questions. Answers are to be written in the spaces provided on this question paper.

Mathematical tables and silent non-programmable calculators may be used.

$$\text{Acceleration due to gravity, } g = 10 \text{ ms}^{-2}.$$

$$\text{Specific heat capacity of water} = 4200 \text{ J kg}^{-1} \text{ K}^{-1}$$

**For Examiners' use only**

Q.41	Q.42	Q.43	Q.44	Q.45	Q.46	Q.47	Q.48	Q.49	Q.50	MCQ	Total

## SECTION A (40 MARKS)

1. Which of the following is correct about current that flows through resistors connected in series?
  - A. Current through each of the resistors is the same.
  - B. Current through each of the resistors is proportional to the resistance.
  - C. Current increases as it flows through the resistors.
  - D. Current decreases as it flows through the resistors.
2. The amount of heat absorbed by a 3kg mass at constant temperature is called?
  - A. Specific latent heat.
  - B. Latent heat..
  - C. Specific heat capacity.
  - D. Heat capacity.
3. Which of the following forms Mechanical energy?
  - A. Nuclear energy and Kinetic energy.
  - B. Potential energy and Kinetic energy.
  - C. Electrical energy and Kinetic energy.
  - D. Potential energy and Nuclear energy.
4. Mass, Luminous intensity and Current are;
  - A. derived quantities.
  - B. units of measurement.
  - C. fundamental quantities.
  - D. basic quantities.
5. The brightness of the spot on a C.R.O screen is controlled by:-
  - A. Anodes.
  - B. Grid.
  - C. Cathode.
  - D. X – plates.
6. Brownian motion experiment shows that molecules of gases are:
  - A. in motion in one direction only.
  - B. more closely packed than in liquid.
  - C. in constant random motion
  - D. stationary
7. A stone falls freely from rest to the ground. Which one of the following presents the correct order of energy changes which occur when the stone falls to the ground.
  - A. Kinetic energy → Potential energy → Sound energy → Heat energy
  - B. Sound energy → Potential energy → kinetic energy → Heat energy
  - C. Potential energy → Sound energy → Kinetic energy → Heat energy
  - D. Potential energy → kinetic energy → Heat energy → Sound energy
8. Which one of the following is true for an object under shearing forces?
  - A. The object does not change in shape.
  - B. The object tends to shorten.
  - C. The layers of the object tend to slide on one another.
  - D. The object gets twisted.
9. When a pin hole camera is moved nearer an object, the size of the image:
  - A. remains the same.
  - B. becomes larger.
  - C. becomes diminished.
  - D. becomes smaller.

**10.** In a domestic hot water supply system, hot water in a boiler flows to the taps by convection because:

- A. cold water is prevented from mixing with hot water.
- B. warm water displaces cold water.
- C. hot water is denser than cold water, therefore it sinks.
- D. hot water is less dense and therefore rises.

**11.** Which one of the following affects the frequency of a vibrating string?

- A. Tension and velocity of sound produced.
- B. Mass per length of the string and temperature
- C. Tension and length of the string
- D. Length and mass of the string

**12.** A liquid of mass 120g and density 4g/cc is mixed with a liquid of 20cc and density 8g/cc. The density of the mixture in g/cc is

A.  $\frac{120 + 160}{30 + 20}$       B.  $\frac{120 \times 4}{20 \times 8}$       C.  $\frac{30 + 20}{120 + 160}$       D.  $\frac{120 + 20}{4 + 8}$

**13.** The major reason why helium may be preferred to hydrogen in filling balloons is:

- A. Helium is less denser than hydrogen.
- B. Hydrogen is not flammable.
- C. Helium is more denser than hydrogen.
- D. Helium is not flammable.

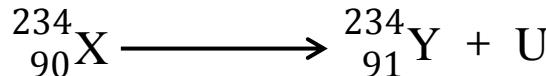
**14.** When the North pole of a bar magnet is moved towards a coil, which of the following ways can be used to increase the size of the induced emf in the coil?

- (i) Moving the magnet at a higher speed.
  - (ii) Reducing the number of turns in the coil.
  - (iii) Using a stronger magnet.
- A. (i), (ii) and (iii).      B. (ii) and (iii) only
- C. (i) and (ii) only      D. (i) and (iii) only

**15.** A man of mass 50kg climbs 40 steps upstairs. If each step is 0.2m high, the potential energy gained is

- A. 4000J      B. 100J      C. 20,000J      D. 400J

**16.** In the reaction below, U is likely to be



- A. a neutron.
- B. a gamma particle.
- C. a beta particle.
- D. an alpha particle.

17. When a yellow dress with blue dots is placed in a room lit with pure red light, the dress appears

- A. yellow with blue dots.  
B. black with yellow dots.  
C. red with black dots.  
D. green with red dots.

18. A body moves with a uniform acceleration of  $ams^{-2}$ . If its initial velocity is  $40ms^{-1}$  and it travels for 12s to attain a final velocity of  $60ms^{-1}$ , find the value of  $a$ .

A.  $\frac{40}{60 \times 12}$       B.  $\frac{60 + 40}{12}$       C.  $\frac{60 \times 12}{40}$       D.  $\frac{60 - 40}{12}$

19. Which of the following statements are true about electric wiring?

- (i) The fuse is connected into the neutral wire leading to a circuit.  
(ii) When a fault develops in the circuit, it is the neutral wire which has to be disconnected.  
(iii) The fuse is always connected into the live wire leading to a circuit.
- A. (i), (ii) and (iii).  
B. (i) and (iii) only  
C. (iii) only  
D. (i) only

20. When sound waves pass through a metal bar, the atoms of the metal

- A. move along the bar.  
B. rotate in circles.  
C. vibrate about fixed points.  
D. expand and contract.

21. A gas occupies a volume of  $0.45m^3$  at a temperature of  $27^{\circ}\text{C}$  and a pressure of 70cmHg.

Find the volume at s.t.p.

A.  $\frac{70 \times 0.45 \times 273}{300 \times 76}$       B.  $\frac{300 \times 76}{70 \times 0.45 \times 273}$   
C.  $\frac{70 \times 76}{0.45 \times 27}$       D.  $\frac{0.45 \times 27}{70 \times 76}$

22. Figure 1 shows a thermionic diode.

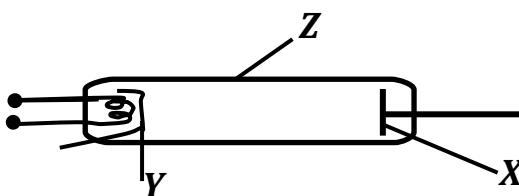


Fig. 1

Which one of the following are represented by  $X$ ,  $Y$  and  $Z$ .

- A. Anode, Glass tube, Cathode.  
B. Anode, Cathode, Glass tube.  
C. Cathode, Anode, Glass tube.  
D. Cathode, Glass tube, Anode.

23. If a load of 1N extends a spring by 5cm, what extension will a load of 0.6N produce?

- A. 3.0 cm  
B. 1.2 cm  
C. 30.0 cm  
D. 8.5 cm

24. Figure 2 shows a ray of light incident at an angle of  $40^{\circ}$  at mirror,  $M_1$ ; which is inclined with mirror  $M_2$  at  $60^{\circ}$ .

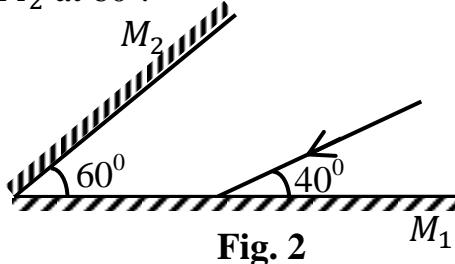


Fig. 2

Find the angle between the incident ray at  $M_1$  and reflected ray at  $M_2$ .

- A.  $50^{\circ}$       B.  $10^{\circ}$   
C.  $100^{\circ}$       D.  $60^{\circ}$

25. In a hydraulic press, the area of the piston on which the effort is applied is made smaller in order to

- A. transmit a force as large as possible to the load.  
B. obtain a pressure as large as possible  
C. facilitate the movement of the piston towards  
D. transmit pressure equally throughout the liquid.

26. The leaf of a charged electroscope gradually collapses with time due to

- A. Leakage to the surroundings  
B. similar charges from the surroundings.  
C. surrounding magnetic field.  
D. pressure variation in the surroundings

27. A car of mass 1200kg moving with a velocity of  $60ms^{-1}$  collides head – on with another car of mass 1000kg at rest and they stick together. Calculate their velocity after collision

- A.  $\left(\frac{1200 \times 60}{1200 + 1000}\right) ms^{-1}$       B.  $\left(\frac{1000 \times 60}{1200 + 1000}\right) ms^{-1}$   
C.  $\left(\frac{1200+1000}{1000 \times 60}\right) ms^{-1}$       D.  $\left(\frac{1200+1000}{1200 \times 60}\right) ms^{-1}$

28. Which of the following properties are true about cathode rays?

- (i) They travel in straight lines.  
(ii) They darken photographic plates.  
(iii) They are deflected by a magnetic field  
  
A. (ii) only  
B. (i) and (iii) only  
C. (i) and (ii) only  
D. (ii) and (iii) only

29. The amount of heat required to raise the temperature of 0.5kg of iron from  $25^{\circ}\text{C}$  to  $50^{\circ}\text{C}$  is  
(specific heat capacity of Iron is  $460 \text{ J kg}^{-1}\text{K}^{-1}$ )

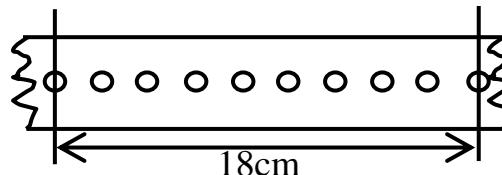
A.  $0.5 \times 460 \times 25 \text{ J}$

B.  $\left(\frac{0.5 \times 25}{460}\right) \text{ J}$

C.  $\left(\frac{0.5 \times 460}{25}\right) \text{ J}$

D.  $\left(\frac{460 \times 25}{0.5}\right) \text{ J}$

30. Figure 3 shows a paper tape pulled at a constant speed through a ticker timer vibrating at 50Hz.



Find the speed of the tape.

**Fig. 3**

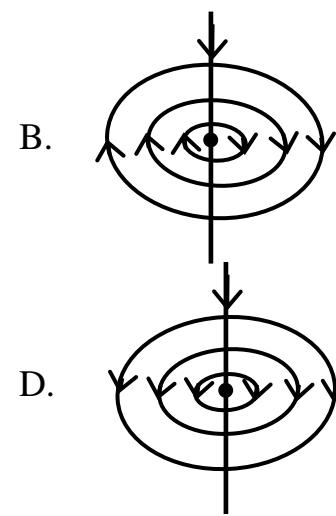
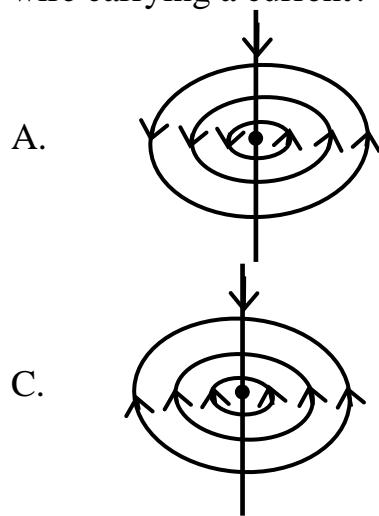
A.  $\left(\frac{18 \times 50}{100 \times 9}\right) \text{ ms}^{-1}$

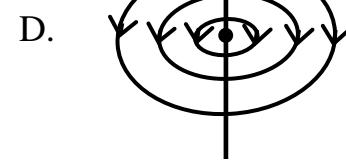
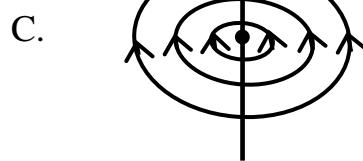
B.  $\left(\frac{18 \times 50}{100 \times 10}\right) \text{ ms}^{-1}$

C.  $\left(\frac{18 \times 50}{100 \times 12}\right) \text{ ms}^{-1}$

D.  $\left(\frac{100 \times 9}{18 \times 50}\right) \text{ ms}^{-1}$

31. Which one of the following diagrams represents the correct magnetic field around a straight wire carrying a current?





32. What occurs when a body is made to vibrate with its natural frequency due to external vibration?

A. Echo.

B. Refraction.

C. Reverberation.

D. Resonance.

33. The strength of the magnetic field between the poles of an electromagnet remains the same if;

(i) the number of turns are halved

(ii) current in the electromagnetic windings is doubled.

(iii) direction of the current in the electromagnetic windings are reversed.

A. (i), (ii) and (iii)

B. (i) and (iii) only

C. (ii) and (iii) only

D. (iii) only

34. A load of 500N is placed at 2m from a pivot of a sea saw. At what distance from the pivot should a weight of 250N be placed to balance the sea saw?

A.  $\left(\frac{250 \times 2}{500}\right) m$

B.  $\left(\frac{250}{500 \times 2}\right) m$

C.  $\left(\frac{500 \times 2}{250}\right) m$

D.  $\left(\frac{500}{250 \times 2}\right) m$

35. Which of the following occurs when a wave passes through a small opening?

- A. Interference.  
B. Difraction.  
C. Refraction.  
D. Reflection.

36. A voltage of 440V is applied to the primary of a transformer of 2000 turns. If the voltage across the secondary is 11kV, what is the number of turns in the secondary coil?

- A. 80,000  
B. 50,000  
C. 50.  
D. 80

37. A detergent is used to wash clothes because it

- A. increases capillarity in the clothes  
B. reduces capillarity in clothes.  
C. increases surface tension allowing water to penetrate the dirt.  
D. Decreases surface tension allowing water to penetrate the dirt easily.

38. Figure 4 shows a circuit diagram of two resistors of resistances  $4\Omega$  and  $2\Omega$  connected to a 3.0V supply and 2 switches  $K_1$  and  $K_2$ .

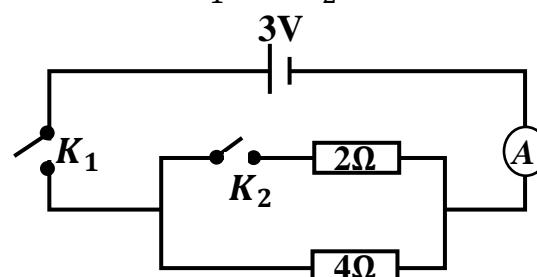


Fig. 4

What will be the reading of the ammeter if switch,  $K_2$  is open and  $K_1$  closed?

- A. 0.75A  
B. 2.25A  
C. 9A  
D. 8A

39. Total internal reflection occurs when

- (i) light travels from a dense to a less dense medium.  
(ii) the angle of incidence in a dense medium is greater than the critical angle.  
(iii) the angle of incidence is equal to the critical angle.

- A. (i), (ii) and (iii)  
B. (ii) and (iii) only  
C. (i) and (iii) only  
D. (i) and (ii) only

40. Figure 5 shows a graph of load against extension for a wire.

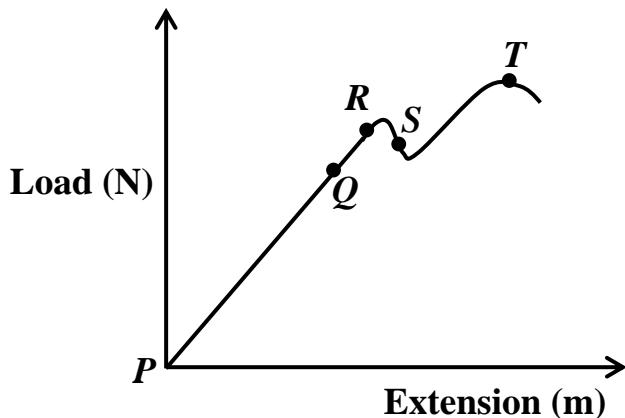


Fig. 5

Which of the portions of the graph corresponds to a permanently strained wire?

- A. **PQ** and **QR**  
B. **QR** and **RS**  
C. **PQ** and **RS**  
D. **RS** and **ST**

## SECTION B (40 MARKS)

*Write in the spaces provided*

41. (a) What are **cathode rays**? (01mark)

.....  
.....

(b) Figure 6 shows cathode rays directed in magnetic field.

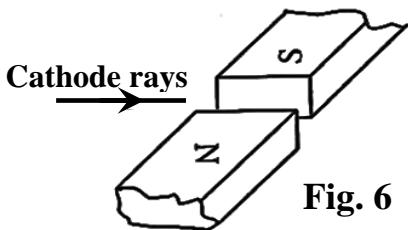


Fig. 6

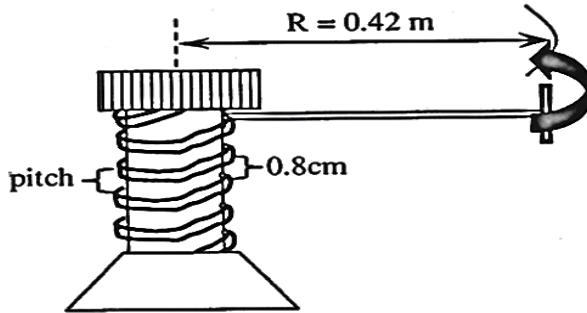
Draw to show the direction taken by the rays. (01mark)

(c) State **two** advantages of a Cathode Ray Oscilloscope (CRO) as a voltmeter. (02marks)

.....  
.....

- 42.** (a) What is meant by a **sensitive galvanometer**? (01mark)
- .....  
.....
- (b) State **two** factors that determine the sensitivity of a moving coil galvanometer. (01mark)
- .....  
.....
- (c) Describe briefly how a galvanometer can be converted into a voltmeter. (02marks)
- .....  
.....
- 43.** (a) State Graham's law of gaseous diffusion. (01mark)
- .....  
.....
- (b) Give **one** example of a gas that has high diffusion rate. (01mark)
- .....  
.....
- (c) State **two** factors that affect the rate of diffusion of a gas. (02marks)
- .....  
.....
- 44.** (a) State **one** application of a hydrometer in Agriculture. (01mark)
- .....  
.....
- (b) Explain why a ship is able to float on water inspite of being made of a metal. (02marks)
- .....  
.....
- (c) Calculate the relative density (*R.D*) of a body whose density is  $1420\text{kgm}^{-3}$ . (01mark)
- .....  
.....
- 45.** (a) Define **pitch of a screw**. (01mark)
- .....  
.....

- (b) Figure 7 shows a simplified Screw Jack of radius 0.42m and velocity ratio 329.7.



**Fig. 7**

- (i) Find the pitch of the Screw Jack

(01mark)

- (ii) Calculate the effort that would be necessary to raise a load of 500N if the Screw Jack is 45% efficient.

(02marks)

- 46.** (a) What are **ultrasonic waves**?

(01mark)

- (b) In sonar navigation, the emitter sends a pulse of an ultrasonic wave vertically towards the bottom of the sea and its receiver next to the emitter receives its echo after 0.65 seconds. If the velocity of sound in water is  $1450\text{ms}^{-1}$ , estimate the sea depth at the point.

(02marks)

- (c) State **one** application of ultrasonic waves.

(01mark)

- 47.** (a) What is a **Joule**?

(01mark)

(b) State how energy from the sun is utilized.

(01mark)

(c) A ball of mass 800g falls from a height of 20m. If it loses 5% of the energy it strikes with, find the kinetic energy with which it bounces. (02marks)

**48.** (a) What is meant by **accommodation of the eye**? (01mark)

(b) Explain how a normal eye is able to see near objects. (01mark)

(c) A man can see far objects clearly. The nearest object he can see well is 0.80m away. Calculate the focal length of the lens he needs. (02marks)

**49.** (a) “A body accelerates at  $4\text{ms}^{-2}$ ”. What do you understand by this statement? (01mark)

(b) Explain why a car originally moving at  $20\text{ms}^{-1}$  with its engine off on a straight road eventually stops. (01mark)

(c) A presidential convoy moving at  $20\text{ms}^{-1}$  notices a goat crossing the road at a distance of 100m away and then applies the brakes 3 seconds later. Find out whether the goat will be knocked if the convoy decelerates at a rate of  $4\text{ms}^{-2}$ . (02marks)

**50.** (a) Sketch a graph of current against voltage for a semi – conductor diode. (01mark)

- (b) A house has one 100W bulb, two 75W bulbs and five 40W bulbs. Find the cost of having all these bulbs switched on for 2 hours every day for 30 days at a UMEME cost of sh.980 per unit. (03marks)
- .....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

**END**

**241/1**

**HISTORY OF  
EAST AFRICA**

**Paper 1**

**Nov./Dec. 2020**

**2 hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**HISTORY OF EAST AFRICA**

**(c.1000 to independence)**

**Paper 1**

**2 hours**

**INSTRUCTIONS TO CANDIDATES:**

*Answer four questions.*

*All questions carry equal marks.*

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

1. (a) What is referred to as the land of Azania? (12marks)
- (b) Why were the East African coastal towns able to develop between 1000 – 1500 AD? (13marks)
2. (a) Why did the Karamajong and Iteso migrate from their original homeland by the 16<sup>th</sup> Century? (12marks)
- (b) Describe their migration and settlement in East Africa by 1800. (13marks)
3. (a) How was the Kingdom of Ankole organized during the 19<sup>th</sup> Century? (13marks)
- (b) What led to its collapse by the end of the 19<sup>th</sup> Century? (12marks)
4. (a) Why was there Busaid Yorubi – Mazrui struggle for the control of the East African coast? (13marks)
- (b) What role did Seyyid Said play in settling the Busaid Yorubi – Mazrui conflict? (12marks)
5. (a) Describe the role played by Christian Missionaries in the colonization of East Africa. (12marks)
- (b) Explain the problems faced by Christian Missionaries in East Africa in the second half of the 19<sup>th</sup> Century. (13marks)
6. Describe the role played by the following societies in the Caravan trade.

  - (a) Yao (13marks)
  - (b) Akamba (12marks)
7. (a) Why did Semei Kakungulu collaborate with the British? (13marks)
- (b) What were the contributions of Semei Kakungulu in Eastern Uganda? (12marks)
8. (a) Explain the causes of Chief Mkwawa's resistance against the Germans between 1890 and 1898? (12marks)
- (b) What were the effects of this resistance on the people of Tanganyika? (13marks)
9. (a) Why was Kenya declared a white settlers' colony? (13marks)
- (b) What were the effects of the white settlers to the people of Kenya? (12marks)
- 10.(a) Explain the causes of political misunderstanding between governor Sir Cohen and Kabaka Mutesa II in 1953 (13 marks)
- (b) What were the effects of this misunderstanding on the peoples of Uganda? (12marks)

END

**241/2**

**HISTORY OF  
WEST AFRICA**

**Paper 2**

**Nov./Dec. 2020**

**2 hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**HISTORY**

**(HISTORY OF WEST AFRICA)**

**(c.1000 to independence)**

**Paper 2**

**2 hours**

**INSTRUCTIONS TO CANDIDATES:**

*Answer four questions.*

*All questions carry equal marks.*

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

1. (a) Describe the organization of the Trans-saharan trade in West Africa by the 15<sup>th</sup> Century. (13marks)
- (b) Explain the reasons for the growth and development of the above trade during the 16<sup>th</sup> Century. (12marks)
2. (a) Explain the origins of Ghana Empire by 500 AD. (13marks)
- (b) Why did the above empire decline by 1240 AD. (12marks)
3. (a) How was Islam spread in West Africa? (13marks)
- (b) Explain the effects of Islam on the people of West Africa (12marks)
4. (a) What role did Sunni Ali play in the development of Songhai Empire? (13marks)
- (b) Discuss the reasons for the growth and expansion of the empire of Songhai. (12marks)
5. (a) Explain the causes of the 19<sup>th</sup> Century Fulani Jihads in West Africa? (13marks)
- (b) For what reasons did the above Jihads succeed? (12marks)
6. (a) Explain the factors for the establishment of Liberia in West Africa? (10marks)
- (b) What problems did the early settlers of Liberia face? (15marks)
7. (a) Discuss the reasons for the French application of the assimilation policy in West Africa. (13marks)
- (b) For what reasons did the above policy fail? (12marks)
8. (a) Explain the factors that contributed to the delay of the growth of Nationalism in West Africa. (13marks)
- (b) What were the reasons that later led to the growth of Nationalism in West Africa. (12marks)

**END**

**241/4**  
**HISTORY OF**  
**SOUTH AFRICA**  
**Paper 4**  
**Nov./Dec. 2020**  
2 hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**HISTORY OF SOUTH AFRICA**

**(c.1000 to independence)**

**Paper 4**

2 hours

**INSTRUCTIONS TO CANDIDATES:**

*Answer any four questions*

*All questions carry equal marks.*

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

1. (a) Describe the origin, migration and settlement of the Hottentots in South Africa. *(13marks)*  
(b) How were the Hottentots organized? *(12marks)*
2. (a) Why did Governor Sir Richard Bourke pass the Magna Carta of the Black people in 1828? *(13marks)*  
(b) How did the Magna Carta improve the life of black people in South Africa? *(12marks)*
3. (a) What challenges did Dingiswayo face as a chief of Mthethwa? *(13marks)*  
(b) How did Shaka ka Senzangakhona improve on Dingiswayo reforms? *(12marks)*
4. (a) Explain the significance of Dr. John Philips in the Missionary Society of South Africa. *(13marks)*  
(b) What problems did the missionaries face in South Africa? *(12marks)*
5. (a) Why was the 1881 Pretoria Convention signed? *(12marks)*  
(b) What were the terms of this Convention? *(13marks)*
6. (a) Why did the peoples of Natal rebel against the British rule between 1906 and 1907? *(12marks)*  
(b) How did this rebellion affect the peoples of Natal? *(13marks)*
7. (a) How did the South African government apply the policy of separate development between 1910 and 1966? *(13marks)*  
(b) What where the effects of this policy to the peoples of South Africa? *(13marks)*
8. (a) Explain the factors that led to the growth of Nationalism in Bechuanaland between 1920 and 1960. *(13marks)*  
(b) How did this nationalism affect the history of Bechuanaland? *(12marks)*

**END**

Candidate's Name:

.....

Random No.	Personal No.

Signature:.....

(Do not write your School Name anywhere on this booklet)

545/3

**CHEMISTRY  
(PRACTICAL)**

**Paper 3**

**Nov./Dec. 2020**

2 hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**CHEMISTRY**

**Paper 3**

2 hours

### **INSTRUCTIONS TO CANDIDATES:**

*Answer both questions. Answers are to be written in the spaces provided in this booklet.*

*Use blue ink ball pen only. Any work done in pencil will not be marked except drawings*

*You are not allowed to use any reference books.(i.e. text books, booklets on qualitative analysis etc).*

**All working must be clearly shown.**

*Mathematical tables and silent non – programmable calculators may be used.*

For Examiners' Use Only		
Q. 1		
Q. 2		
Total		

1. You are provided with the following:

**BA1**, which is a solution of **0.1M** sodium hydroxide.

**BA2**, which is made by dissolving 6.3g of a hydrated salt ( $H_2C_2O_4 \cdot nH_2O$ ) in one litre of distilled water.

You are required to find the value of  $n$  in the compound.

### Procedure

Pipette 20.0 or 25.0cm<sup>3</sup> of **BA1** into a clean titration flask, add **3** drops of phenolphthalein indicator and titrate with **BA2** from the burette. Repeat the titration until you obtain consistent results and record your results in the table below.

Volume of pipette used = .....cm<sup>3</sup> (01mark)

Burette reading	1	2	3
Final Burette reading (cm <sup>3</sup> )			
Initial Burette reading (cm <sup>3</sup> )			
Volume of <b>BA2</b> used (cm <sup>3</sup> )			

(03marks)

Titre values used for obtaining average volume....., .....cm<sup>3</sup> (02marks)

Average volume of **BA2** used = ..... (02marks)

(a) Write the equation for the reaction between **BA1** and **BA2**. (03marks)

.....  
.....

(b) Calculate the:

(i) number of moles of **BA1** that reacted with **BA2**. (03marks)

.....  
.....

(ii) number of moles of **BA2** that reacted with **BA1**. (03marks)

(c) Determine the:

(i) molarity of **BA2**.

(03marks)

(ii) relative molecular mass of  $H_2C_2O_4 \cdot nH_2O$

(03marks)

(iii) value of  $n$ .

(02marks)

2.

You are provided with substance **W**, which contains **two** cations and **one** anion.  
Carry out the following tests on **W** to identify the anion and cation present in **W**.  
Identify any gas(es) that may be evolved.

Record your observations and deductions in the table on page **4**.

(25marks)

TESTS		OBSERVATIONS	DEDUCTIONS
(a)	Dissolve a spatula end – ful of <b>W</b> in about $5\text{cm}^3$ of water. Shake well and filter.		
(b) (i)	Divide the filtrate into <b>4 portions</b> To the <b>first</b> portion add dilute sodium hydroxide drop wise until in excess		
(ii)	To the <b>second</b> portion, add aqueous ammonia drop wise until in excess.		
(iii)	To the <b>third</b> portion, add 2drops of potassium iodide solution.		
(iv)	To the <b>fourth</b> portion, add Barium nitrate solution followed by drops of dilute nitric acid.		
(c) (i)	Wash the residue in distilled water and dissolve it in minimum amount of dilute nitric acid and divide the resultant solution into two parts. To the <b>first</b> part of the solution; add aqueous ammonia dropwise until in excess.		
(ii)	Use the <b>second</b> part of the solution to carry out a test of your own to confirm the second anion in <b>W</b> . <b>TEST:</b>		

(d) (i) The cations in **W** are ..... ; .....

(ii) The anion in **W** is .....

END

**Candidate's Name:**

.....

Random no.	Personal No.

**Signature:.....**

*(Do not write your School Name anywhere on this booklet)*

**527/1**

**PRINCIPLES AND  
PRACTICES OF  
AGRICULTURE**

(Theory)

**Paper 1**

**Nov./Dec. 2020**

2½ hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**PRINCIPLES AND PRACTICES OF AGRICULTURE**

(Theory)

**Paper 1**

2 hours 30 minutes

**INSTRUCTIONS TO CANDIDATES:**

*Answer all questions in Part A and four questions from part B including at least one question from each section.*

For Examiner's Use Only		
Part/Question	Marks	Examiner's signature & No.
<b>Part A</b>		
<b>Part B: No.</b>		
<b>No.</b>		
<b>No.</b>		
<b>No.</b>		
<b>Total</b>		

## PART A: (20 MARKS)

Answer all questions in this part. For question 1, write the letter corresponding to the best answer in the box. For questions 2 to 5, write all answers in spaces provided.

1. (a) Which one of the following is not a variable input in agricultural production?
- A. Labour                                                  B. Seeds  
C. Land                                                      D. Fertilizers
- (b) In the reproductive system of a hen, the uterus is also referred to as the
- A. Isthmus                                                  B. Shell gland  
C. Infundibulum                                            D. Magnum
- (c) Which one of the following pairs of plant and livestock diseases are caused by viruses?
- A. Maize streak and foot and mouth diseases                
B. Coffee berry disease and rinder pest                        
C. Cassava mosaic and foot rot                                
D. Tomato blight and anaplasmosis
- (d) Which one of the following statements best describes steaming up?
- A. feeding dry cows to induce heat  
B. feeding lactating cows to increase milk production  
C. feeding in – calf cows protein – rich ration prior to selling off  
D. fattening steers with protein – rich ration prior to selling off

2. Give four factors that favour the growing of root crops in most parts of Uganda. (04marks)

- (a).....
- (b).....
- (c).....
- (d).....

3. State four characteristics of a plant that make it suitable for use as green manure. (04marks)

- (a).....  
.....
- (b).....  
.....
- (c).....  
.....
- (d).....  
.....

4. (a) Define the term **cannibalism** as used in poultry farming. (02marks)

(b) List **three** causes of cannibalism in a poultry house. (04marks)

(i) .....

(ii) .....

(iii) .....

5. Suggest **five** reasons for carrying out primary tillage. (04marks)

(a) .....

(b) .....

(c) .....

(d) .....

(e) .....

## SECTION B: (80MARKS)

*Answer **four** questions from this part including at least **one** question from each section.  
Write your answers in the answer booklet provided.*

### SECTION 1 MECHANISATION AND FARM MANAGEMENT

6. (a) With the use of a well labeled diagram, describe the cooling system of a tractor engine works. (16marks)

(b) What routine maintenance practices should be carried out on the cooling system described in (a) above? (04marks)

7. (a) How do farmers benefit from forming farming organization? (10marks)

(b) What problems have farming organizations faced in Uganda? (10marks)

8. (a) What are the advantages of agriculture mechanization? (12marks)

(b) Outline the factors limiting the mechanization of agriculture of Uganda. (08marks)

## **SECTION II CROP PRODUCTION**

- 9.** (a) What factors are considered in planning a good rotation? (06marks)  
(b) What are the advantages of crop rotation? (04marks)  
(c) Given **three** plots, plan a four year crop rotation for the following crops, maize, G.nuts and sweet potatoes. (10marks)
- 10.** (a) Describe the cultural methods used in weed control. (14marks)  
(b) What are the disadvantages of using chemicals to control weeds? (07marks)
- 11.** (a) Describe the methods of applying solid fertilizers to the soil. (10marks)  
(b) Discuss the factors affecting response by crops to fertilizers. (10marks)

## **SECTION III ANIMAL PRODUCTION**

- 12.** (a) Draw and label across section of a cattle dip. (06marks)  
(b) State the precautions that should be taken before taking animals to dip. (08marks)  
(c) What factors may reduce the effectiveness of dipping animals. (06marks)
- 13.** (a) Describe the abnormalities that may occur in eggs during their formation. (06marks)  
(b) State and explain the measures that a farmer could take in order to produce high quality eggs. (10marks)
- 14.** (a) Explain the factors affecting milk composition. (14marks)  
(b) Suggest ways by which high quality milk may be maintained on a farm. (07marks)

**END**

**845/1**

**ENTREPRENEURSHIP**

**EDUCATION**

**Paper 1**

**Nov./Nov. 2020**

**2½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**ENTREPRENEURSHIP EDUCATION**

**Paper 1**

**2 hours 30 minutes**

**INSTRUCTIONS TO CANDIDATES:**

*Answer only four questions.*

*All questions carry equal marks.*

*Credit will be given for use of relevant diagrams and illustrations.*

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

1. You have received shs 50, 000, 000 to start up a business.
  - (a) Prepare a pre-operational budget for your business. (05marks)
  - (b) Write a letter to district authorities requesting for a trading license. (07marks)
  - (c) Design a logo to be used by your business. (05marks)
  - (d) Prepare a financial plan for your business. (08marks)
  
2. You have been chosen a director of studies in your school.
  - (a) Write a memo informing teachers to submit end of term one exams. (05marks)
  - (b) Draft end of term one exams time table. (07marks)
  - (c) Formulate rules and regulations to be followed during the examination exercise. (06marks)
  - (d) Develop an A-level end of term report for your school. (07marks)
  
3. You had the following transactions for the month of February 2020

		Shs.
	Feb 1 Balance brought forward	
	Cash in hand	3,000,000
	Cash in bank	3,500,000
1 <sup>st</sup>	Deposited cash into bank	1,000,000
2 <sup>nd</sup>	Bought goods cash	200,000
3 <sup>rd</sup>	Bought furniture by cheque	300,000
7 <sup>th</sup>	Bought goods cash	400,000
8 <sup>th</sup>	Sold goods cash	500,000
10 <sup>th</sup>	Paid general expenses cash	60,000
14 <sup>th</sup>	Sold goods by cheque	370,000
18 <sup>th</sup>	Banked cash	400,000
20 <sup>th</sup>	Bought goods cash	300,000
21 <sup>st</sup>	Paid wages cash	80,000
22 <sup>nd</sup>	Withdrew cash for personal use	90,000
23 <sup>rd</sup>	Cashed a cheque for office use	160,000
29 <sup>th</sup>	Banked cash	830,000

**Required:**

- (a) Prepare a two column cash book for the month. (21marks)
- (b) State four ways of properly managing cash in business. (04marks)

4. The following Trial balance was extracted from books of Bomboka and sons as at 30<sup>th</sup> June 2020

<b>Details</b>	<b>Dr (shs)</b>	<b>Cr (shs)</b>
Capital		60,000,000
Sales		201,000,000
Stock (1 <sup>st</sup> July 2013)	9,000,000	
Purchases	127,800,000	
Drawings	27,000,000	
Lighting	5,700,000	
Loan (10years)		
Discount received		33,000,000
Rent	7,200,000	4,500,000
Cash	1,200,000	
Interest received		1,500,000
Salary and wages	15,600,000	
General expenses	2,100,000	
Bank	3,600,000	
Carriage outwards	3,300,000	
Creditors		27,000,000
Premises	60,000,000	
Commission	6,000,000	
Debtors	36,000,000	
Furniture	22,500,000	
<b>Total</b>	<b><u>327,000,000</u></b>	<b><u>327,000,000</u></b>

**Required:** Prepare

- (a) Trading, Profit and loss Account for the year ended 30<sup>th</sup> June 2020. (15marks)
- (b) Balance sheet at 30<sup>th</sup> June 2020. (10marks)

5. You are an entrepreneur in your locality operating a powerful juice processing project.

- (a) List the requirements for your project. (05marks)
- (b) Prepare an induction programme for your employees. (08marks)
- (c) Prepare an implementation plan for your project. (06marks)
- (d) Design a personal identification card. (06marks)

**END**



**208/1**

**LITERATURE  
IN ENGLISH**

**Paper 1**

**Nov./Dec. 2020**

**2½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**LITERATURE**

**Paper 1**

**2 hours 30minutes**

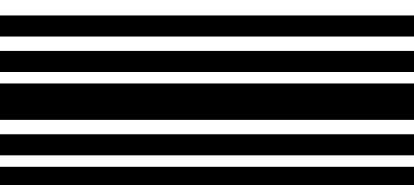
**INSTRUCTIONS TO CANDIDATES:**

*Answer five questions in all, on five books, choosing two from section A and three books from section B, one of which must be from the poetry book.*

*In section A, you must answer one question from sub-section (i) and one question from sub-section (ii)*

**You must cover one play and one novel.**

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



**SECTION A**  
**Sub – Section I**

For passages 1 – 4, you are expected to choose One of your choices and answer the questions following it as precise as possible.

**Either**

**1. BETRAYAL IN THE CITY: *Francis Imbuga***

REGINA: Jusper, you promised. You promised to be a good boy. Do you now talk of revenge? Remember what my brother told you before you left prison. What did he say? What did he tell you to do?

JUSPER: To close my eyes, block my ears and pretend that nothing is happening. But he was wrong. Madmen don't pretend. Regina, don't take sides with them. They only use us as scapegoats, a kind of outlet for their anger. It is shame.

REGINA: It is a shame to wear that thing in the streets, and worse to have it on under my humble roof. Don't they teach you manners at that University?

JUSPER: I am a philosophy student, not a student of manners. Regina, the street disease has caught up with you. You have lost your fighting spirit like everyone else in the street. As we marched up and down, some of them even shouted abusive words to us. Beggars leaning on street walls told us we were wasting time.

REGINA: They are right, you are waste wasting time.

JUSPER: It is a year ago since we lost more than one time. All the students want is his photograph printed in the local newspapers. We are prepared to pay for it.

REGINA: You cannot force them.

JUSPER: That is the tragedy of it all. We can't force the freedom of the press to favour us. Just a photograph with the word THANKS above it; that is all we want.

REGINA: What would you achieve by that?

JUSPER: Nothing, but it is what is done in the circumstances. Why should he be an exception?

REGINA: Jusper, no good will come out of this struggle. Like you, I only have two close friends left in this world. You and my brother, but my brother is inside. If anything should go wrong. We'll all be wiped out. What then is the use of this raving? Those beggars who abused you were right. They know better than to fight stones. If your brother had kept his mouth shut, he would be with us now, and if my brother had also kept quiet, he would not be wasting anyway in a dungeon.

**Questions**

- (a) What events lead to this passage? (06marks)
- (b) Describe the character of Regina and Jusper as revealed in this passage. (04marks)
- (c) What happens after this scene? (06marks)
- (d) Identify and explain the themes shown in the passage above. (04marks)

**Or**

## 2. THE MERCHANT OF VENICE. William Shakespeare

PORȚIA: You see me, Lord Bassanio, where I stand,  
Such as I am. Though for myself alone  
I would not be ambitious in my wish  
To wish myself much better, yet for you  
I would be trebled twenty times myself,  
A thousand times more fair, ten thousand times  
More rich –  
That only to stand high in your account,  
I might in virtues, beauties, livings, friends,  
Exceed account. But the full sum of me  
Is sum of nothing – which, to term in gross,  
Is an unlessoned girl, unschooled, unpracticed,  
Happy in this, she is not yet so old  
But she may learn; Happier than this  
She is not so bred dull but she can learn;  
Happiest of all is that her gentle spirit  
Commits itself to yours to be directed,  
As from her lord, her governor, her king.  
Myself and what is mine, to you and yours  
Is now converted. But now I was the lord  
Of this fair mansion, master of my servants,  
Queen o'er myself; and even now, but now,  
This house, these servants, and this same myself  
Are yours, my lord's. I give them with this ring,  
Which when you part from, lose, or give away,  
Let it presage the ruin of your love  
And be my vantage to exclaim on you.

BASSANIO: Madam, you have bereft me of all words.  
Only my blood speaks to you in my veins,  
And there is such confusion in my powers  
As, after some oration fairly spoke  
By a beloved prince, there doth appear  
Among the buzzing pleased multitude,  
Where every something being blent together  
Turns to a wild of nothing, save of joy  
Expressed and not expressed. But when this ring  
Parts from this finger, then parts life from hence.  
O then be bold to say Bassanio's dead!

NERISSA: My lord and lady, it is now our time  
They have stood by and seen our wishes prosper,  
To cry' good joy'. Good joy, my lord and lady.

GRATIANO: My lord and Bassanio, and my gentle lady,  
I wish you all the joy that you can wish –  
For I am sure you can wish none from me –  
And when your honours mean to solemnize  
The bargain of your faith I do beseech you  
Even at that time I may be married too.

BASSANIO: With all my heart, so thou canst get a wife.

GRATIANO: I thank you lordship, you have got me one.

My eyes, my lord, can look as swift as yours:  
You saw the mistress, I beheld the maid.  
You loved, I loved – for intermission  
No more pertains to me, my lord, than you.  
Your fortune stood upon the casket there,  
And so did mine too, as the matter falls;  
For wooing here until I sweat again,  
And swearing till my very roof was dry  
With oaths of love, at last (if promise last)  
I got a promise of this fair one here  
To have her love, provide that your fortune  
Achieved her mistress.

PORTIA:	Is this true, Nerissa?
NERISSA:	Madam, it is, so you stand pleased withal.
BASSANIO:	And do you, Gratiano, mean good faith?
GRATIANO:	Yes, faith, my lord.
BASSANIO:	Our feast shall be much honoured in your marriage.
GRATIANO:	(To NERISSA) we'll play with them the first boy for a thousand ducats.
NERISSA:	What, and stake down?
GRATIANO:	No, we shall ne'er win at that sport, and stake down. who comes here? Lorenzo and his infidel! What, and my old Venetian friend Salerio!

### Questions:

- (a) What happens immediately before this scene? (06marks)
- (b) Describe the characters of:
  - (i) Portia
  - (ii) Bassanio(04marks)
- (c) Explain one major theme brought out in this extract. (04marks)
- (d) What happens shortly after this scene? (06marks)

### Either

#### 3. THE ALIEN WOMAN: *Laury Ocen*

With time, people came to appreciate him for many things – for his endurance and tolerance of insult, and dedication to his children's education. Even the most conservative ones, like Ogang, Only pretended stiff opposition to Olugo's activities because of envy. They saw some light in some of the things he preached, but only defied them in sheer stubbornness. For instance, there were two wells in Abela, with kilometer distance between. Bicencio Olugo always mobilized the local folk to repair the nearest to him, even Ogang who never cared much for well repair. 'Where did you draw this water from? Didn't I tell you to go to Olugo's well?' he would rebuke one of his young children.

And yet Ogang would always refuse in the repair of the wells and would wait for some greedy local official to come and run after his chickens for the fine. And that was what Olugo did once when he first started work as the local administrator in charge of ten houses. He said he was tired of Ogang's arrogance and therefore seized his two fat cocks as fine. The law allowed him to do this. Ogang had come back from drinking and found out what Olugo had done. Those who saw him said that immediately he was told, the old man burst out into his wild diabolic laughter. He just went into his banana plantation and came out with a handful of soil, possibly taken from Olugo's footmarks. Three days later, Bicencio Olugo developed

elephantiasis that went up to his groin and nearly damaged his testicles. It was Odukany, a medicine man from Kiwola who immediately saved him when in fact the forest owls had already predicted his death by their awful night hooting. Bicencio Olugo had then become aware that these refusals were calculated to fan antagonism possibly to exploit and get rid of him. In such circumstances he would work with the available man power who liked progress and ignore Ogang and his disciples.

### Questions:

- (a) What happens shortly before this extract? (06marks)
- (b) Explain the character of Bicencio Olugo as brought out in this passage. (04marks)
- (c) What two prominent themes are evident in this extract? (04marks)
- (d) What happens immediately after this incident? (06marks)

Or

### 4. CARCASE FOR HOUNDS: Meja Mwangi

In this storm?' the lieutenant shouted above the rain.

'They are fighting in the storm too,' Captain Kingsley snorted. 'Those home – guards might be in need of help. And remember, we came to find Haraka. There he is lieutenant.'

Lieutenant Peter went for the platoons while the captain reached into the land rover for this automatic rifle. Rain fell with an unceasing monotony. He picked up his torch and shone it around him. The trucks looked cold and deserted in the torch light. Further up the road the lieutenant was shouting. The captain searched under the seat of the Land – Rover for spare ammunition. He slipped a few magazines into the pockets of his great coat. Then; pulling his cap lower over his eyes and face to keep out the rain, he dragged himself through the mud and the bogged down convoy. Up front the lieutenant had the three platoons ready.

'Guard the trucks,' he told him. 'I will take the boys up there and have a look at whatever is going on. 'I will be back soon.'

'Good luck, sir,' Lieutenant Peter murmured.

Captain Kingsley led the soldiers up the dark muddy road, leaving the lieutenant standing at the rain, alone. The rain grew heavier. A cold, strong wind came with the rain and the heavy greatcoats stuck chilly and wet to their wearers. The jungle rustled with the wind and rain. By the sides of the road over flowing ditches whooshed with muddy water. And up at the village the crack – crack of the Italian rifles was punctuated by the murderous racket of that damned Patchett.

Guided only by the captain's torch light, the soldiers slogged the two marshy miles to the village. As they came nearer to the scene the noise of the battle rose. They came to the village gate. Behind the strong gate to the forester's house the big Alsatian, bayed mournfully. No gate keepers answered their summons. In the torch light the watch tower appeared cold and lonely in the climbed over the gates and opened there, and sped towards the sound of the shooting. They stopped as they approached the scene of the fighting. Some shooting came from towards the ditch. They opened up with their automatic rifles.

The harsh S.L.R.'s thundered into the night, drowning silent. The whole night was silent.

### Questions

- (a) What happens just before this passage? (06marks)
- (b) Explain the character of Captain Kingsley in this passage. (04marks)
- (c) What obstacles does Captain Kingsley face in this scene? (05marks)
- (d) What happens immediately after this passage? (05marks)

## SECTION II

*If your question is a play in section I now you must attempt a novel and vice versa*

### **BETRAYAL IN THE CITY:** *Francis Imbuga*

**Either**

5. Describe the character of Boss in the play *Betrayal in The City*. (20marks)

**Or**

6. What do you think are major failures of leaders today in reference to the play *Betrayal in the city*?

### **THE MERCHANT OF VENICE:** *William Shakespeare*

**Either**

7. What is the relevance of the play *The Merchant of Venice* to the student today?

(20marks)

**Or**

8. Explain the differences between Shylock and Antonio in the play *The Merchant of Venice*. (20marks)

### **THE ALIEN WOMAN:** *Laury Ocen*

**Either**

9. Why is Bungatira lagging behind in development? (20marks)

**Or**

10. Explain the major hardships that Margaret Nagawa faces in her life. (20marks)

### **CARCASE FOR HOUNDS:** *MejaMwangi*

**Either**

11. What are the weaknesses of the imperial forces in the hunt for Haraka? (20marks)

**Or**

12. Explain the strength of general Haraka in the novel *Carcase for Hounds*. (20marks)

## SECTION B

*Attempt three questions in this section including one question in poetry*

### **THE GOVERNMENT INSPECTOR:** *Nikolai Gogol*

**Either**

13. What specific measures would one consider in helping transform the people in *The Government Inspector*? (20marks)

**Or**

14. “The mayor’s behavior is very much similar to that of our leaders today” do you agree? (20marks)

### **VOICE OF THE PEOPLE:** *Okoiti Omtatah*

**Either**

15. Explain the problems that the people in *Voice of the People* face (20marks)

**Or**

16. How important is Nasirumbito your understanding of the play *Voice of the People*? (20marks)

## A COWRIE OF HOPE: Binwell Sinyangwe

**Either**

17. What specific qualities of an African mother do you see evident in Nasula? (20marks)

Or

18. What useful lessons does Sula offer to you as a student? (20marks)

## THE CURSE OF THE SACRED COW: Karoro Okurut

**Either**

19. What major issues does the playwright bring up in the play, *The Curse of the Sacred Cow*? (20marks)

Or

20. What makes the play *The Curse of the Sacred Cow* enjoyable? (20marks)

## MEMA: Daniel Mengara

**Either**

21. Explain the reasons for which villagers fear Mema in the novel? (20marks)

Or

22. What challenges does Elang face in his life as reflected in the novel, *Mema*? (20marks)

## GROWING UP WITH POETRY Edited by Rubadiri

**Either**

23. PEDESTRIAN, TO PASSING BENZ - MAN

You man lifted gently  
 Out of the poverty and suffering  
 We so recently shared; I say-  
 Why splash the muddy puddle on to  
 My bare legs, as if, still unsatisfied  
 With your seated opulence  
 You must sully the unwashed  
 With your diesel – smoke and mud – water  
 And force him buy, beyond his means  
 a bar of soap from your shop?  
 a few years back we shared a master  
 Today you have none, while I have  
 exchanged a parasite for something worse.  
 But maybe a few years is too long a time.

(Albert Ojuka) Kenya

## **Questions**

- (a) Identify the speaker in this poem? (01mark)
- (b) (i) Who does he address in this poem? (02marks)  
 (ii) Why is this speaker unhappy with the person that he is addressing? (04marks)
- (c) Explain the feelings of the speaker towards the person he is talking about? (04marks)
- (d) What lessons do you learn from this poem? (04marks)
- (e) What makes this poem appealing to you? (05marks)

Or

24. Select a poem that you have studied in the course from the theme of “separation” and use it to answer the following questions
- (a) What is the poem and who wrote it? (04marks)
  - (b) Explain what the poem you have chosen above in (a) is really about? (05marks)
  - (c) Explain the feelings of the speaker towards his message. (06marks)
  - (d) How relevant is the poem to you? (05marks)

AN ANTHOLOGY OF EAST AFRICAN POETRY. Edited by A.D Amateshe

Either

25. EXTENSIONS

When I did marry you  
I married not your clan  
And it was never my plan.

Now I remain encumbered  
With a blanket for grand parents  
Money for your parents  
And presents for your siblings.

Today it is you uncle  
Tomorrow comes your aunt  
The next day is your aunt's  
Cousin's younger daughter  
Then your brother's younger  
Wife's cousin from Misango.

The whole clan comes  
Expecting me to keep smiling  
Expecting me to keep giving  
Expecting me to keep loving  
When I should be worrying  
When I should be lamenting  
At how slow our people  
Are at adapting to  
Modernity and development  
Why are gerontologists  
Taking long to come for  
Those wrinkled old bones?  
Why can't people learn  
That we need privacy?

Why the extended greetings  
Extended begging hands  
Extended vexing expectations  
Extended immense families  
Extended systems of egalitarianism  
Extended marriage extensions

Why can't people learn?  
That we need privacy?  
Why have they done this to me?  
Why have they?  
Why?

(Humphrey Webuye)

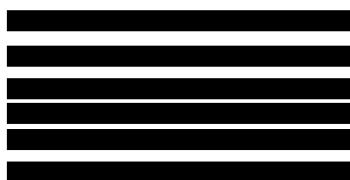
### Questions

- (a) Who is the speaker in this poem? (02marks)
- (b) (i) What do you think this poem is all about? (04marks)  
(ii) Explain the character of the speaker (04marks)
- (c) Describe the relationship that the speaker has with all his visitors. (04marks)
- (d) Do you find this poem relevant to you? (03marks)
- (e) What makes this poem appealing to you? (03marks)

Or

26. Choose a poem from the *Anthology of E. African Poetry*, other than the one in (No. 25) above; on the theme of 'love'. And answer the following questions.

- (a) What is the title of the poem and who wrote it? (03marks)
- (b) What does the poem say about love? (05marks)
- (c) (i) Explain the feelings of the speaker towards love. (04marks)  
(ii) What are your own feelings towards the message in the poem? (04marks)
- (d) Explain the reasons that make the poem appealing to you? (04marks)



**335/1**

**LUGANDA**

**Paper 1**

**Nov./Dec. 2020**

**2 hours**



## **WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

### **WAKATA MOCK EXAMINATIONS 2020**

#### **Uganda Certificate of Education**

**LUGANDA**

**(OKUWANDIIKA EMBOOZI, OKUKYUSA, OKUFUNZA, GGULAMA N'EBISOKO)**

**Olupapula olusooka**

**Essaawa bbiri (2)**

#### **EBIGOBERERWA:**

*Olupapula luno lulimu ebitundu bibiri: A ne B.*

*Mu kitundu A, mulimu nnamba 1(a) ne (b). Londako (a) oba (b)*

*Mu kitundu B, mulimu nnamba 2 ne 3. Nnamba 2, londako (a) oba (b).*

*Nnamba 3 yonna ya buwaze*

## **EKITUNDU A**

*Kola nnamba 1(a) oba 1(b) mu kitundu kino.*

1. (a) Ku mitwe egikuweereddwa, londako **gumu** oguwandiikeko emboozi ya bigambo **400**.  
*(buli mutwe gwa bubonero 50)*
- (i) Abasajja okuwasa abakazi abasuka mu omu kisaana kuwerebwa mu Uganda.  
Kubaganya ebirowoozo.
  - (ii) Akutwala ekiro.....
  - (iii) Omuganda n'ebivuga.
  - (iv) Naswala ne nswaluka.
- Oba**
- (b) Ku mitwe gino londako **ebiri (2)** buli gumu oguwandiikeko emboozi nga bw'olagiddwa.  
*(Buli mutwe gwa bubonero 25)*
- (i) Wandiika omuko mu lupapula lw'amawulire nga weemulugunya ku ngeri polisi  
n'ebitongole by'obyokwerinda gye biyisaamu abamenyi b'amateeka mu ggwanga  
lyammwe. *(Weyambise ebigambo 200).*
  - (ii) Gwe ssentebe w'ekitudu kyammwe, wandiika ebigambo byonootegheeza  
abatunze mu lu kunjana lw'ekyalo ng'obannyonyola engeri y'okulwanyusaamu  
ebbula ly'emmere. *(Weeyambise ebigambo 200).*
  - (iii) Wandikira Minista w'ebyenjigiriza mu ggwanga ng'omunyyonyola engeri  
y'okutumbulamu ebyenjigiriza mu ggwanga bisobole okuba nga bigasa bannansi  
mu ggwanga . *( Weeyambise ebigambo 150).*
  - (iv) Wandiika by'onooyogera mu musomo gw'ebiyobuwangwa ku mutwe guno  
'Omuganda n'eddiba *(Weeyambise ebigambo 200).*

## **EKITUNDU B**

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

2. (a) *Kyusa ekitundu kino okizze mu Luganda.* *(obubonero 20)*

### **HOW TO TACKLE POOR HAND WRITING**

Handwriting is a very important part of child's education and one's concern to bad handwriting of one's child is very important. Some children write without caring about the position of capital letters and small letters or the real shape of letters.

The careless writing often has made students score low marks though some are well academically. Some parents are deeply disturbed by this poor handwriting. Teachers often face real difficulty in improving children's handwriting especially at upper primary level.

This is because handwriting is a skill , which a child begins to master as early as nursery school level, like any other skills the brain controls handwriting as the child begins to handle a pen and pencil . This explains why an individual style of writing remains the same. A neat and organized handwriting is a skill which a child must acquire during the early stages of education.

At primary seven level a child must have established a unique style of handwriting . The parents and teachers must tactfully help children of poor hand writing to improve for better. They should never begin with criticism; a child can react in defence by remaining unchanged instead they should approach the issue with willingness to help. Criticism and punishment may make a child to hate schooling. Our handwriting is no crime but a God given gift and the child should be helped and not punished.

(Partial extract from : *The New Vision July 28 2003 with minor modifications*).

## Oba

(b) *Funza ekitundu kino mu bigambo nga 100.*

(obubonero 20)

Emboozi yiino eyokya etalina muntu n'omu wansi w'enjuba gw'etaliza kaabe mumpyawanyattaka , k'obe muwanvu ng'omuvule , k'obe muddugavu kagongolo, oba mweru kyeruppe. Wabula mwana wattu sijja kwasiikana nnyo , kkiriza mu mwoyo omulungi nkube buteba nkuzzeeyo wetwatandikidde ng'emboozi eno mpaawo gw'etaliza kangira nsimbawo akati ng'enjogera yaffe bwe'gamba . Emboozi yange eno ya kulaama . Okulaama kukulu nnyo mu bulamu bw'omuntu. Abantu abakulu balaamira abato ku baana baabwe bo be bazaala. Era mwana wattu okyawakana nti okulaama kulina gwe kataliza? Bw'abaawo mpozzi nga mulalu ayita Ttembo.

Okulaama kwava dda ku mirembe gya Bajjajjaffe. Edda ng'omusajja bwa'fa asikirwa mugandawe. Omuntu yalondanga omu ku baganda be n'amulaamira okumusikira. Empisa eno yadibizibwa omu ku Bassekabaka ba Buganda ng'emaze ebbanga lya byeya n'ebisiibo. Empisa eno bwe yawerwa njamba ey'abantu okusikirwa baganda baabwe . Olwo nno abantu ne batandika okulaamira abaana baabwe. Kale ggwe ogamba otya nti empisa eno erimu ne bajjajjaffe ne Bassekabaka nti si ya dda? Kale mbeera nkewewuunya! Nze gw'olaba wano njagala nnyo okulaama. Si lwa kigambo kunvugira bulungi mu matu, naye waliwo ensonga nkumu ezinjagaza okulaama. N'abandi abalala tebalaama lwa kwesanyusa oba bbinu wabula balina ensonga eziwera era nga zirimu eggumba ezibalaamisa oba be baba balaamidde. Omuntu okulaamira gundi n'aleka gundi oba omwami gundi n'aleka omwami gundi aba amwetegerezza ebbanga mu bintu nkumu n'alaba empisa ze nga nnungi era ng'asaanidde okusigala mu bintu bye singa ye abeera ng'amaze okulemba olw'e Kaganga!

Omuntu olufa bw'ati nga naawe bw'omanyi namunkukumbo w'ebintu ng'atandika okwesomba. Ababa basigaddewo ng'abakyala bannamwanadu , bamulekwa abaana baba mu kukuba bulati nga Mariya omubatise nga beesunga ebintu by'omufu by'aba alesse ku nsi nga bivuluuja, ebindi nga bigada n'ennyama y'ekibe! Bwe kamutanda n'afa nga teyalaama, olwo munnange ng'akasombye Kimbagaya ke yasombera Ab'ennyonyi. Olwo obulwa buba bumaze okugoba obumale anti obusonzi bwekunya. Abooluganda bagezaako ekijoonyesa bannamwandu ne bamulekwa n'olyoka olaba embaga bw'ekuuliita n'ekidaala nga babanyagako ebyabwe ne babalabya ennaku etalojjeka ku nsi kuno!

Kale nno wattu kye kiva kikwetaagisa okulaama nga bukyali oleme kudda mu lugero lwa Ndiwulira eyalemara mu Kasooli.... Nti oliraama ogenda kufa nga Walumbe akusizza. Gwe asoma bino wandiikirawo mangu ekiraamo kyo k'obe muwala oba mulenzi kasita oba ng'olina akako n'abantu bo nga toli mmombozze mu nsi muno. Jjukira Walumbe talaga nnaku . Bw'oba olaamye emitawaana gye nkoonyeeko waggulu oba oginogedde ekikolo n'eddagala eri abantu b'oba olesse ku nsi kuno.

Ekiraamo kye kimu ku bintu ebiri mu nsi abantu bye basinga okutya n'okussaamu ekitiibwa oba okukkiririzaamu bwe kityo si kyangu ng'olaamye abantu ne bamala gakyusa kiraamo kyo ne bw'oba

omenye empisa y'obuwangwa bw'ensi bisigala nga bo bassa kiraamo mu nkola , Bawoza kimu "Ate oba omufu bwe yalaama, ffe tunaakikolere ki? Ekiraamo tetulina bwe tukikyusa!

Nga mmaliriza njagala ove mu bino abasinga bye babaamu : mbu ab'ekika be baliraba. Tebalaba, ab'ekika bazibu nnyo, baveeko baviireko ddala. Abo b'olaba baagala mulamu, bagenda kujoonyesa ababo naawe gy'oli emagombe okitegeere ekisibya omufu amagulu gy'oli nti agenda kudduka!!

***Kola ebibuuzo 3 (a) ne 3 (b)***

**3. (a) Jjuza ebisoko ebituufu mu mabanga agalekeddwawo.** *(obubonero20)*

- (i) Omusumba w'Ekelezia bwe yali awa abakristu essaakalamantu erya Batiisimu abantu bajja bangi okusaba era kkelezia yonna yajula . n'e.....
- (ii) Tokiiya bwe yanyiiza baaba we Peter eyali amuweerera yali yeeyokeredde ..... kubulwa ky'atuuza.
- (iii) Abantu be Wabinoga mu lumbe lwa Tabbiisa Mawemuko baalya ennyama ne basindiisa n'e ..... anti batta ente nnamba omufu gye yaleka abalaamidde.
- (iv) Pawulo Kirimuttu nga tannatomera Lukenge n'emmotoka ye omukwano gwali gubasaza mu ..... anti enswa nnene.
- (v) Emmere abantu gye baalya ku mukolo gw'okulayiza omukulembeze w'eggwanga badda embuto zibali mu.....
- (vi) Ssekalega yakuba Musoke..... eyamuyamba okusasula ebbanja eryali limubanjibwa Rajabu.
- (vii) Abantu b'ensi bazibu ebintu bya Pawulo ne TN byali bigenda bulungi mu maaso ate laba Lukenge bw'abirinnyamu .....
- (viii) Emboozi yaffe ebadde ky'ejje egwe eti..... ne batukubira ekide mbu tudde mu kibiina tukole ekigezo ekirala.
- (ix) Lwe twagenda okulamaga jjuuzi e Namugongo ku kiggwa ky'abajulizi twatambuza bigere ne tukoowa era we twatuukira ng'.....tugigobya lulimi.

**(b) (i) Ebikolwa ebikuweeredda ddamu ebiwandike ng'obitadde mu kawakatirwa akalazi akaddinjana .(Obubonero 10)**

- a. Soma
- b. Lima
- c. Simba
- d. Kola
- e. Zina

**(ii) Wandikayo amannya ag'enjawulo ataano nga si ga Bantu nga gagwa mu lubu lw'amannya olusooka lu IMU.**

- a. .....
- b. .....
- c. .....
- d. .....
- e. .....

**535/2**

**PHYSICS**

**Paper 2**

**Nov./Dec. 2020**

**2½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**PHYSICS**

**Paper 2**

**2 hours 15 minutes**

**INSTRUCTIONS TO CANDIDATES:**

*Answer five questions*

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

*Mathematical tables and silent non programmable calculators may be used.*

*These values of physical quantities may be useful to you:*

*Acceleration due to gravity* =  $10 \text{ ms}^{-2}$

*Specific heat capacity of water* =  $4,200 \text{ JKg}^{-1}\text{K}^{-1}$

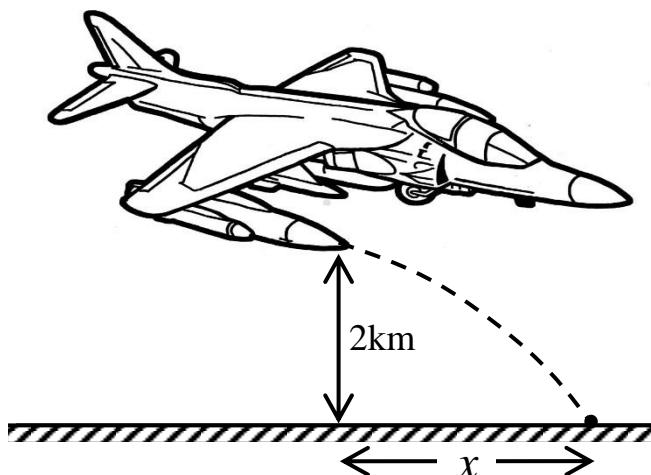
*Specific heat capacity of copper* =  $400 \text{ JKg}^{-1}\text{K}^{-1}$

*Specific latent heat of fusion of water* =  $340,000 \text{ JKg}^{-1}$

*Speed of sound in air* =  $330 \text{ ms}^{-1}$

*Density of water* =  $1,000 \text{ kgm}^{-3}$

1. (a) (i) What is meant by **acceleration due to gravity?** (01mark)  
(ii) Describe an experiment to determine acceleration due to gravity using a pendulum bob. (06marks)
- (b) Explain briefly why a person feels heavier than usual at the instant an elevator starts accelerating upwards. (02marks)
- (c) A bomb is released vertically downwards from a fighter jet moving at a horizontal velocity of  $100\text{ms}^{-1}$  and 2km high as shown in figure 1



**Fig. 1**

Find the;

- (i) distance  $x$  moved by the bomb. (03marks)  
(ii) velocity with which the bomb is moving on striking the ground. (04marks)

2. (a) (i) State **Pascal's principle of transmission of pressure.** (01mark)  
(ii) Describe an experiment to verify Pascal's principle of transmission of pressure (03marks)
- (b) (i) Explain why it is difficult to take a drink using a straw with a hole. (02marks)  
(ii) State **two** uses of pressure measurement. (02marks)
- (c) A U – tube of cross – sectional area  $0.5\text{cm}^2$  has some mercury first poured in, then  $7\text{cm}^3$  of liquid X is poured through one limb and  $4.5\text{cm}^3$  of liquid Y is poured through the other limb. If liquid X has a density of  $1000\text{kgm}^{-3}$  and liquid Y has a density of  $800\text{kgm}^{-3}$ , calculate the;  
(i) difference in levels between the mercury surfaces. (05marks)  
(ii) difference in levels between the surfaces of liquid X and Y. (01mark)
3. (a) (i) What is **diffusion?** (01mark)  
(ii) Describe an experiment to demonstrate the diffusion of a solute in a solvent. (04marks)
- (b) Explain what happens to the molecules of a heated solid as more and more heat is added. (03marks)
- (c) (i) Define **a spring constant.** (01mark)  
(ii) A 5.0 cm long spring was used in an experiment. When a 200g mass was suspended using a mass hanger on the spring its new length became 6.5 cm. When the mass on the hanger was changed to 410g, the length of the spring changed to 8.0cm. Calculate the constant,  $K$ , of the spring. (04marks)

(d) State **two** ways how concrete may be made to withstand tensional forces. (02marks)

4. (a) Define **resonance** as applied to sound waves. (01mark)  
(b) Describe an experiment to demonstrate resonance in an air tube. (04marks)  
(c) Figure 2 shows a cross section of a ripple tank in which **A** is a straight dipper attached to a vibrator and **B** is a barrier with two gaps.



Fig. 2

- (i) Sketch the diagram showing the waves produced when **A** vibrates perpendicular to the water surface. (02marks)  
(ii) State **two** properties of waves shown in your diagram. (02marks)

- (d) Sound of frequency 264 Hz has a velocity of  $320\text{ms}^{-1}$ . At a later time, the temperature changed and the velocity increased to  $330\text{ms}^{-1}$ . Calculate the change in wave length and explain why increase in temperature increases velocity of sound. (05marks)  
(e) State **two** applications of beats. (02marks)

5. (a) State the conditions for total internal reflection to occur. (02marks)  
(b) Figure 3 shows light incident on a glass prism and refracted.

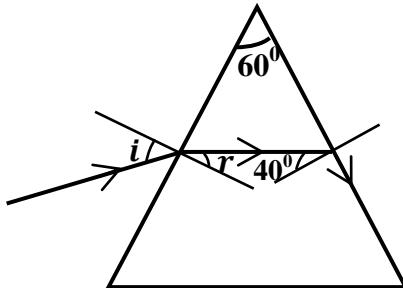


Fig. 3

Find the size of angle **i**.

- (c) Using a ray diagram show how a converging lens is used as a magnifying glass. (03marks)  
(d) Distinguish between secondary and primary colours. (02marks)  
(e) Explain why an object illuminated by white light appears  
(i) black (02marks)  
(ii) coloured (02marks)

6. (a) (i) Define **specific latent heat of fusion of a solid**. (01mark)  
(ii) Describe a simple experiment to determine the specific latent heat of fusion of ice using an electric current. (06marks)  
(b) 1.8kg of water is put in an ice making machine. If the water is at  $40^\circ\text{C}$  and the machine removes heat at a rate of 200J/s, how long would it take to convert it into ice at  $-15^\circ\text{C}$ ? (*specific latent heat capacity of ice =  $336,000\text{Jkg}^{-1}$*   
*specific heat capacity of ice =  $2,100\text{Jkg}^{-1}\text{K}^{-1}$* ) (04marks)

- (c) State what happens when salt is added to ice. (01mark)
- (d) Explain how a green house is able to maintain higher temperatures than the surroundings. (03marks)
- (e) State **one** use of forests in the reduction of the green house effect. (01mark)

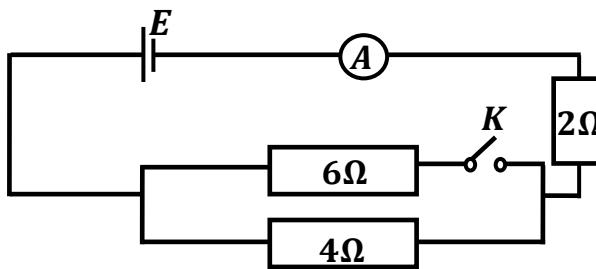
7. (a) Define

(i) **Self induced emf.**

(ii) **Mutual induction**

(02marks)

- (b) With the aid of a diagram, describe the action of a step up transformer. (05marks)
- (c) Explain briefly how power is transported from Owen falls dam to your home. (03marks)
- (e) A cell of Emf,  $E$  and internal resistance,  $r$  is connected to resistors of  $2\Omega$ ,  $4\Omega$  and  $6\Omega$  as shown in figure 4.



**Fig. 4**

When switch  $K$  is open, the ammeter reads 2.00A and when  $K$  is closed, ammeter reads 2.64A. Calculate:

- (i) internal resistance,  $r$  of the battery. (04marks)
- (ii) energy lost per second in driving current through the cell when the switch,  $K$  is open. (02marks)

8. (a) What is meant by;

(i) **Photo electric emission**

(01mark)

(ii) **Thermionic emission**

(01mark)

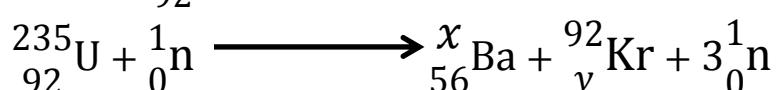
- (b) List **two** applications of photo cells. (02marks)

- (c) State the energy changes that take place in an  $X$  –ray tube. (02marks)

- (d) (i) Explain how intensity and penetrating power of  $X$  –rays produced in an  $X$  –ray tube may be varied. (03marks)

- (ii) Briefly describe how  $X$  –rays may be used to locate the broken part of a bone. (03marks)

- (e) Uranium  $^{235}_{92}\text{U}$  decays according to the nuclear equation below.



Find the values of  $x$  and  $y$ . (03marks)

- (f) Give **one** advantage of a Cathode Ray Oscilloscope (C.R.O) as a voltmeter. (01mark)

**END**

**612/1**

**IPS ART AND CRAFT  
(STUDIO TECHNOLOGY)**

**Paper 1**

**Nov./Dec. 2020**

**2 hours**



"Affordable quality Assessment"

**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**IPS ART AND CRAFT  
(STUDIO TECHNOLOGY)**

**Paper 1**

**2 hours**

**INSTRUCTIONS TO CANDIDATES:**

*Answer all questions.*

*Drawings and diagrams should be where necessary.*

*Credit will be given for their explanatory value.*

1. (a) What is **texture**? (02marks)  
(b) What are the different types of texture? (04marks)
2. (a) How does patchwork differ from appliquéd? (04marks)  
(b) Name and illustrate the types of stitches used in embroidery. (10marks)
3. Name the advantages of using leather as a medium of artistic expression. (10marks)
4. (a) Differentiate between **mosaic** and **collage**. (04marks)  
(b) What factors may one consider when making a mosaic work of art? (06marks)
5. Explain the following techniques of tie and dye. (10marks)  
(i) Pleating  
(ii) Circling  
(iii) Spiral  
(iv) Crumpling  
(v) Tritic
6. (a) Define the term **Batik**. (02marks)  
(b) Describe the process of making a Batik decorated fabric. (06marks)
7. What is meant by the following elements? (10marks)  
(i) Line  
(ii) Tone  
(iii) Shape  
(iv) Texture  
(v) Form
8. (a) What is **clay** (02marks)  
(b) List down the properties of clay (04marks)
9. With clear illustrations, explain any six principles of art and design (12marks)
10. (a) Define the term **Pottery** (02marks)  
(b) Mention and explain the decorative techniques for ceramic wares (12marks)

**END**

**612/5**  
**IPS ART**  
**(CRAFT A)**  
**Paper 5**  
**Nov./Dec. 2020**  
**5 $\frac{1}{4}$  hours**



## **WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

### **WAKATA MOCK EXAMINATIONS 2020**

#### **Uganda Certificate of Education**

#### **IPS ART AND CRAFTS**

**(CRAFT A)**

#### **Paper 5**

Planning session:      2 $\frac{1}{4}$  hours

Practical Examination: 3hours

*Drawing instruments, tracing paper letraset and similar aids are allowed.*

*Answer one question, stating 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 at the top right – hand corner of the front surface of the paper. In this area, the candidate's name & index number, in that order must be written clearly. This area must not be painted.*

#### **TO THE CANDIDATES:**

*Apart from the particular media required by the question candidates are advised to consider the choice of different materials and processes and reminded that the following are possible: coloured inks, poster and water colour, stencils, wax resist, collage or painting from lino, potato and vegetable or fruit or the use of any material such as junk, wire or string, which may give an interesting texture.*

*Instructions to candidates for PLANNING SESSION: (2 $\frac{1}{4}$  hours)*

You are required to spend the 2 hours 15minutes doing the following

- (i)    Reading and selecting both task and materials
- (ii)   Sketching
- (iii)   Transfer, if necessary.

- 1.** Design an emblem for “**ATUNZO DISABLED SOCIETY**” with the motto “**MENTALLY STRONGER**”. Use an area of 20cm x 15cm in not more than three colors of your choice.
  
- 2.** Design a book front with the title “**FEARLESS HUNTERS**” written by **MANFOKI OGIBINGE** and published by **GAHINO PUBLISHERS**, It’s the fifth edition of 2020. This should be done in a space of 22cm x 28cm in only three colours.
  
- 3.** In an area of 27cm x 36cm, design a “**PUBLIC NOTICE**” for a new strange disease “**DOZOPUS**” that instantly kills. The disease is spread through sharing of clothes, use of unwashed utensils and through drinking contaminated water. The notice is a message from the ministry of health and world health organization. Use only three colours of your choice.
  
- 4.** Design a certificate of merit to be presented to the best participants in the “**NATIONAL QUIZ CHALLENGE 2020**” held at Nalondobozi Secondary School, Hoima. Include the signatories of mr. Dolibondo Wils as the chair person and Mrs. Zabege Joan as the Secretary. Use a space of 21cm x 28cm in only three colours of your choice.
  
- 5.** Design a well made Calligraphic message using the following words.

Lock down, the order of the day  
Schools closed  
Churches the same  
Arcades not exceptional  
Bars inclusive  
And not forgetting sports.

Ministry of Health sings,  
Follow the SOPs always,  
Wash hands always  
Practice social distancing at all times  
Stay home to be safe.

**END**

**845/2**

**ENTREPRENEURSHIP**

**EDUCATION**

**Paper 2**

**Nov./Dec. 2020**

**2½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**ENTREPRENEURSHIP EDUCATION**

**Paper 2**

**2hours 30minutes**

**INSTRUCTIONS TO CANDIDATES:**

*Answer only four questions.*

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

*Answer three questions from section B.*

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

## SECTION A (40 MARKS)

*Answer all parts of this section*

1. (a)(i) What is meant by the term **price**? (01mark)  
(i) State any **three** factors that should be considered when determining the price of accommodation (03marks)
- (b) Give any **four** reasons for carrying out market research. (04marks)
- (a) (i) Define the term “**Business**”. (01mark)  
(ii) Mention any **three** importances of business in your country. (03marks)
- (d) Distinguish between the following  
(i) Credit note and Debit note (02marks)  
(ii) Bank over draft and Bank statement (02marks)
- (e) Mention any **four** advantages of double entry system (04marks)
- (f) The following details were obtained from the books of ABC Ltd as at 30.06.2020.

Sales	shs	40,000,000
Purchases	shs	18,000,000
Opening stock	shs	20,000,000
Closing stock	shs	60,000,000
Expenses	shs	4,500,000

Calculate the;

- (i) Cost of sales (02marks)  
(ii) Net profit (02marks)

- (g)(i) What is a **Trial Balance**? (01mark)  
(ii) State any **three** errors that affect the Trial Balance totals (03marks)
- (h)(i) Define the term “**Business Plan**” (01mark)  
(ii) Mention any **three** elements of business plan (03marks)
- (i) State any **four** ethics that an entrepreneur should practice towards employees. (04marks)
- (j) Given the following Assets and liabilities of a business

	Shs
Land	10,000,000
Premises	5,000,000
Stock	4,000,000
Creditors	3,000,000
7 years loan	6,800,000
Cash	2,000,000
Bank	1,000,000

Calculate the value of the;

- |                                                    |           |
|----------------------------------------------------|-----------|
| (i) Capital of the business                        | (02marks) |
| (ii) Total current Assets and Current liabilities. | (02marks) |

## **SECTION B (60 MARKS)**

*Answer any three questions from this section*

- 2.** (a) Explain the factors that an entrepreneur should consider when choosing a packaging material of a product. (08marks)
- (b) Explain **six** importance of packaging a product. (12marks)
- 3.** (a) Why is it necessary to ensure quality control during production? (06marks)
- (b) Explain the factors that should be considered when purchasing raw materials for a manufacturing business. (14marks)
- 4.** (a) Outline the essentials of effective communication in business (06marks)
- (b) Explain the importance of communication in an enterprise (14marks)
- 5.** (a) (a) Explain **five** benefits of a business plan to an entrepreneur. (10marks)
- (b) What are the problems faced by entrepreneurs when preparing a business plan. (10marks)
- 6.** (a) Outline the advantages and disadvantages of selling goods on credit (10marks)
- (b) Explain the different ways of managing credit sales (10marks)

**END**



**612/4**

**IPS ART & CRAFTS**

**Paper 4**

**Nov./Dec. 2020**

5 hours

2 hours- sketching

3 hours- practical test



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**IPS ART AND CRAFTS**

**(Original Imaginative Composition in Colour)**

**Paper 4**

5 hours

*This is to be given to the candidates in the morning on the day of the examination to allow for sketching (9:00-11:00am). The sketch done between 9:00- 11:00 am should accompany the final work which will take 3 hours in the afternoon.*

*At the end of the planning session, candidates must not take away with them any of the tests or their plans/ sketches and they must not bring in any other notice/ sketches to practical examination.*

*The art teacher should supply the candidates with cards measuring 5 cm wide by 12 cm long with which the candidates will demarcate the area at the top right-hand corner of the front surface of the paper. In this area, the candidate's name and personal number in that order must be written clearly. This area must not be painted.*

*Supervisors are requested to ensure that candidates write clearly the number of the question, their names and personal numbers in that order. It may prove impossible to give marks to the work unless the above aspects are legible.*

**N.B**

**Candidates must be instructed that ruling by any mean is forbidden, except when working off space for name and personal number.**

*You are required to make an original composition based on one of the subjects given over leaf.*

*Bear in mind that quality of composition, imagination feeling and originality, rather than a literal interpretation, are the main subjects of this paper.*

**NOTE:**

**You must not on any account, produce other peoples` work**

**Except for the number of the question, your name and personal number, you must not write on this front of your picture, but you may write anything you wish on the back.**

**Your picture should fill or approximately fill your sheet of paper.**

**Instructions:**

<i>Planning/ sketching takes</i>	<i>2 hours</i>
<i>Testing</i>	<i>3 hours</i>

**Attempt one number of your choice.**

## **SUBJECTS/ THEMES**

- 1.** A hospital with Covid 19 patients laid on beds in face masks
- 2.** A herdsman
- 3.** A tour to the river side
- 4.** Gossiping
- 5.** My profession
- 6.** At the well, young women are seen struggling for water
- 7.** I was punished at the school assembly. My fellow students laughed at me. Depict such a scene
- 8.** Very tired indeed

**END**

**612/3**  
**IPS ART**  
**& CRAFTS**  
**Paper 3**  
**Nov./Dec. 2020**  
3 hours



## **WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

### **WAKATA MOCK EXAMINATIONS 2020**

#### **Uganda Certificate of Education**

##### **IPS ART AND CRAFTS**

(Drawing/ Painting from a living person)

##### **Paper 3**

3 hours

*This paper is for supervisor's use only in consultation with the Art teacher.*

*Attention is directed to the syllabuses and to the standing instructions as given in the subject syllabus.*

**N.B candidates must be instructed that ruling by any means whatsoever is forbidden.**

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

*Candidates should be instructed that if the work is painted, the relevant part of the back ground must be included.*

*Candidates should bear in mind that positioning and size of the figure on the space of the paper provided is important.*

**It is estimated that the model will be posing for atleast 20 minutes and have 5 minutes rest between the poses.**

**Either: Full Figure**

**A.**

A model dressed in short sleeved shirt, pair of shorts and shoes sited on a wooden stool with the legs crossed.

The right hand holding the right chick and rested on the knee. The left hand loosely touched the exposed part of wooden stool. Draw or paint the full figure.

**Or: Head including Torso**

**B.**

A model wearing unbuttoned shirt/ blouse sits on a wooden stool reading a novel. The novel is being held by the left while the right hand holds a pony, but both hands should rest on the lap.

The model's head is slightly turned downwards. Draw or paint the upper parts of the model.

**END**

**810/1**

**PRINCIPLES OF  
ACCOUNTS  
Paper 1  
Nov./Dec. 2020  
2½hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**PRINCIPLES OF ACCOUNTS**

**Paper 1**

**2 hours 30 minutes**

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of two sections A and B*

*Answer all questions in section A and any four questions from section B.*

*Answers to all questions must be written in the answer booklet provided.*

*All questions in section B carry equal marks.*

*You may lose marks for untidy work*

*Additional question(s) answered will not be marked.*

## SECTION A: (20 MARKS)

*Write the letter corresponding to the correct answer for each question in this section, in the answer booklet provided.*

1. Which one of the following best describes the accounting process?  
A. recording, classifying, summarizing, interpreting  
B. recording, summarizing, classifying. Interpreting  
C. classifying, recording, summarizing, interpreting  
D. summarizing, interpreting, classifying, recording
  
2. Which of the following are assets?  
(i) rent income due    (ii) wages due    (iii) un used stationery    (iv) commission received in advance  
A. (i) and (iii)                  B. (i) and (ii)                  C. (iii) and (iv)                  D. (ii) and (iv)
  
3. Which one of the following is a real account?  
A. depreciation account                  B. capital account                  C. stock account                  D. Kato's account
  
4. Determine cost of sales given opening stock shs 950,000, withdraw of goods shs 140,000; purchases shs 1,900,000; returns inwards shs 150,000 and closing stock shs 1,210,000.  
A. shs 1,500,000                  B. shs 1,350,000                  C. shs 1,650,000                  D. shs 1,630,000
  
5. What is the effect on the balance sheet if the owner paid a creditor from his private resources?  
A. liabilities decrease; capital increases                  B. both liabilities and capital decrease  
C. liabilities increase, capital decreases                  D. both liabilities and capital increase
  
6. Which account records the credit entry when goods are bought on credit?  
A. stock account                  B. purchases account  
C. cash account                  D. creditor's personal account
  
7. Determine liquid capital given stock shs 2,000,000, debtors shs 1,200,000, bank shs 5,000,000, and cash shs 1,800,000.  
A. shs 10,000,000                  B. shs 8,000,000                  C. shs 6,000,000                  D. shs 3,600,000
  
8. What is the double entry for discount allowed?  
A. Dr. Discount allowed account, Cr. Cash Book  
B. Dr. Cash Book, Cr. Discount allowed Account  
C. Dr. Discount allowed Account; Cr. Debtor's personal account  
D. Dr. Debtor's personal account, Cr. discount allowed account
  
9. Given credit sales amounting to shs 1,400,000 subject to 5% cash discount if payment is made within one month and 2 ½ % with two month. How much was received if the debtor paid after 2 months?  
A. shs 1,330,000                  B. shs 1,365,000  
C. shs 1,400,000                  D. shs 1,295,000
  
10. A firm bought a motor van for shs 6,400,000 on 1<sup>st</sup> January 2018. if depreciation is charged at the rate of 25% using the reducing balance method, determine the book value of the assets as at 31<sup>st</sup> December 2019.  
A. shs 3,200,000                  B. shs 3,600,000  
C. shs 4,000,000                  D. shs 4,800,000

- 11.** What does a credit balance in the subscription account at the end of the financial year represent?  
 Subscriptions ....  
 A. due from members                      B. under paid by members  
 C. paid in advance                      D. not to be recovered from members
- 12.** What would be the balance on the bank statement if a cheque for shs 800,000 was issued to a creditor when the business account with the bank had a debit balance of shs 1,200,000?  
 A. debit balance shs 2,000,000                      B. credit balance shs 400,000  
 C. debit balance shs 400,000                      D. credit balance shs 2,000,000
- 13.** Determine the amount to be transferred to the profit and loss account given that on 1/1/2019 debit balance in salaries account shs 500,000; salaries paid during the year 2020 shs 9,500,000 and salaries accrued at the end of the year shs 400,000.  
 A. shs 8,600,000    B. shs 9,600,000    C. shs 10,000,000    D. shs 10,400,000
- 14.** In case closing stock is under valued, what effect will this have on the affairs of the business?  
 A. gross profit will be under stated  
 B. cost of goods available for sale will be under stated  
 C. gross profit will be overstated  
 D. cost of goods available for sale will be over stated
- 15.** Which of the following are debited to the sales ledger control account?  
 (i) dishonoured Cheque    (ii) returns inward    (iii) credit sales    (iv) discount allowed  
 A. (i) and (iii)    B. (iii) and (iv)    C. (ii) and (iv)    D. (i) and (ii)
- 16.** What are the correcting entries if shs 200,000 received from Asiimwe was debited to her account?  
 A. Dr. suspense account shs 200,000; Cr. Asiimwe's account shs 200,000  
 B. Dr. Cash Book shs 200,000; Cr Asiimwe's account shs 200,000  
 C. Dr. Suspense Account shs 400,000; Cr. Asiimwe's account 400,000  
 D. Dr. Cash Book shs 400,000; Cr. Asiimwe's Account shs 400,000
- 17.** What is Mukasa's share of profits given:  
 - profit sharing ratio 3: 2  
 - capital contributions Mukasa shs 8,000,000; Kintu shs 5,000,000  
 - interest on capital 5%  
 - net profit for the year shs 1,440,000  
 A. shs 474,000    B. shs 790,000    C. shs 316,000    D. shsh650,000
- 18.** What is prepared to determine a surplus or deficit?  
 A. receipts and payments account                      B. subscription account  
 C. accumulated fund account                            D. income and expenditure account
- 19.** What is opening capital given, closing capital shs 6,000,000, drawings shs 500,000, net profit shs 1,500,000 and fresh capital introduced shs 2,000,000?  
 A. shs 2,000,000    B. shs 5,000,000    C. shs 5,500,000    D. shs 3,000,000
- 20.** Which of the following accounting entries are correct?  
 (i) increase in assets are recorded by a debit entry  
 (ii) decreases in capital are recorded a credit entry  
 (iii) increases in liabilities are recorded by a debit entry  
 (iv) decrease in revenue are recorded by a debit entry  
 A. (i) and (iii)    B. (ii) and (iv)    C. (i) and (iv)    D. (ii) and (iii)

**Turn Over**

## SECTION B: (80 MARKS)

Answer any four questions from this section.

21. The following transactions were obtained from the books of Munguchi Investments for the month of March 2019.

<b>March</b>	1	Commenced business with cash in hand shs 20,000,000
	2	Bought office equipment for cash shs 3,500,000
	3	Cash purchases shs800,000
	4	Bought goods on credit from Katusiime stores shs 550,000
	8	Cash sales shs 1,000,000
	9	Returned goods valued at shs 100,000 to Katusiime Stores
	10	Sold goods on credit to Nanziri Retailers shs 900,000
	12	Paid Katusiime stores the entire amount due
	14	Cash drawings by the owner shs 600,000
	15	Nanziri retailers returned goods valued at shs 80,000
	24	Paid rent in cash shs 400,000
	30	Received cash shs 820,000 from Nanziri retailers.

**Required:**

Post the above transactions to the relevant ledger accounts, balance off the accounts at the end of the month and extract a trial Balance. (20marks)

22. Matovu Bakery had the following balances at December 31<sup>st</sup> 2019.

	<b>shs</b>
Cash	8,000,000
Bank overdraft	2,400,000
Debtors	6,000,000
Stock	9,000,000
Motor vehicle	12,000,000
Creditors	3,500,000
Electricity bill due	800,000
Stock of un used stationery	700,000

During the month of January 2019, the following transactions took place.

- Jan 2**      Bought baking flour on credit from Katusiime stores shs 1,400,000 and Nalubwama wholesalers shs 600,000  
**Jan 3**      Credit purchases from Bongani shs 750,000  
**Jan 5**      Returned baking flour to Katusiime stores valued at shs 500,000  
**Jan 10**     Bought 20 trays of eggs from Ssenbatya Farmers each at shs 4,500  
**Jan 13**     Returned 2 trays of eggs to Ssenbatya Farmers

**Required:**

- (a) General Journal to record the opening entries as at January 1, 2019. (09marks)  
(b) Prepare the purchases and returns outwards Journal, and post to the purchases ledger (09marks)  
(c) Prepare the purchases and returns outwards account in the general ledger. (02marks)

**23.** The following balances were obtained from the books of Namukwaya Retailers as at June 30, 2019.

shs

Capital	19,000,000
Land and building	14,000,000
Motor vehicle	7,000,000
Net profit	3,500,000
Debtors	2,000,000
Creditors	1,920,000
Cash at hand	2,300,000
Electricity due	560,000
Stock of goods	1,350,000
Bank overdraft	850,000
Furniture	3,000,000
Commission income due	720,000
Salaries accrued	700,000
Drawings	600,000
Loan (2 years)	5,000,000
Prepaid rent	560,000

**Required to:**

- (a) Prepare a suitable balance sheet clearly showing: Fixed assets, current assets, long term liabilities and current liabilities. (10marks)
- (b) Determine: (i) Fixed capital (02marks)  
(ii) Loan capital (02marks)  
(iii) Working capital (02marks)  
(iv) Liquid capital (02marks)  
(v) Net capital employed (02marks)
- 24.** (a) State any **five** provisions of the 1890 partnership act which apply in absence of a partnership deed. (05marks)
- (b) Odong and Opoka are operating business as partners. At 31<sup>st</sup> December 2019 their records were as follows:

	Odong	Opoka
Fixed capital account	80,000,000	70,000,000
Current accounts (1/1/2019)	4,400,000	2,500,000
Drawings (1/7/2019)	3,000,000	1,000,000
Drawings (1/9/2019)	1,500,000	900,000

Their partnership agreement includes the following provisions:

- (i) Interest on capital at 5% p.a
- (ii) Interest on drawings at 8% P.a
- (iii) Odong and Opoka are entitled to an annual salary of shs 5,000,000 and shs 3,000,000 respectively.
- (iv) Odong and Opoka share profits and losses in the ratio 2: 1 respectively.

**Additional information**

1. The firm made a net profit of shs 37,089,000 during the year.
2. shs 4,000,000 and shs 2,500,000 had been paid in cash by 31<sup>st</sup> December 2019, as salaries for Odong and Opoka respectively.

**Turn Over**

**Required:**

- (a) Partners' appropriation account for the year ended 31/12/2019. (06marks)
- (b) Current accounts (09marks)
- 25.** (a) State five uses of a General journal. (05marks)
- (b) Give any **five** sources of information recorded in the Sales and Purchases Ledger Control Accounts. (05marks)
- (c) The Sales Ledger Control Account below was prepared by G.W Ogutu on October 30, 2019.

Dr.	<b>SALES LEDGER CONTROL ACCOUNT</b>	Cr.	
Balance b/d	610,000	Receipts from debtors	1,483,000
Credit sales	1,792,000	Provision for bad debts	63,000
Cash sales	993,000	Dishonoured cheques	326,000
Discount allowed	216,000	Carriage charged to debtors	46,000
		Transfer to purchases ledger	197,000
		Balance c/d	1,496,000
	3,611,000		3,611,000

A list of debtor' balances extracted from the sales ledger on the same date totaled to shs 869,000. On further examination of the books the following errors were revealed.

- (i) The discount allowed figure includes shs 66,000 allowed for cash sales.
  - (ii) Bad debts shs 110,000 were written off
  - (iii) The total of the returns inwards Journal shs 192,000 was not recorded in the Sales Ledger Control Account.
  - (iv) A refund to a debtor shs 30,000 was not recorded in the control account.
- You are required to draw a revised Sales Ledger Control Account. (10marks)

**26.** The following balances were extracted from the books of Ayesiga Retailers as at June 30, 2019.

<b>Trial Balance</b>	<b>Dr.</b>	<b>Cr.</b>	
	Shs	Shs	
Loan from Equity Bank		5,000,000	
Purchases and Sales	3,400,000	5,900,000	
Returns	300,000	200,000	
Discounts	100,000	230,000	
Office expenses	480,000		
Stock July 1,2 009	2,600,000		
Debtors and Creditors	1,400,000	3,000,000	
Electricity	500,000		
Salaries and Wages	600,000		
Drawings	730,000		
Motor vehicle at cost	6,000,000		
Provision for depreciation		1,800,000	
Furniture at cost	2,000,000		
Provision for depreciation		200,000	
Bank	4,000,000		
Provision for bad debts		90,000	
Capital		5,690,000	
	<hr/> <u>22,110,000</u>	<hr/> <u>22,110,000</u>	

#### **Additional information at June 30, 2019**

- (i) Closing stock was valued as shs 970,000
- (ii) One quarter ( $\frac{1}{4}$ ) of electricity bill should be charged to Ayesiga the owner of the business.
- (iii) 10% interest on loan is due and unpaid.
- (iv) A provision of  $2 \frac{1}{2} \%$  should be charged on debtors for doubtful debts.
- (v) Provide for depreciation on Motor vehicle at 15% and furniture 10% using the reducing balance method for both assets.

#### **Required:**

- (a) Trading and profit and loss account for the year ended June 30, 2019. (12marks)
- (b) Balance sheet as at June 30, 2019. (08marks)

**END**



**225/1**  
**ISLAMIC**  
**RELIGIOUS**  
**EDUCATION**  
**Paper 1**  
**Nov./Dec. 2020**

2 hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education  
ISLAMIC RELIGIOUS EDUCATION  
(HISTORY OF ISLAM)**

**Paper 1**

2 hours

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of three sections A, B and C*

*All questions carry equal marks*

*Answer four questions, taking atleast one question from each section.*

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

## **SECTION A**

### **THE PROPHET MUHAMMAD (P.B.U.H) AND THE EARLY MOSLEM COMMUNITY**

1. Discuss the political and the economic practices of pre- Islamic Arabia. (25marks)
2. Write short notes on each of the following.
  - (a) Muhammad's birth and his childhood. (13marks)
  - (b) Muhammad as a trader and his marriage to Hadijjah. (12marks)
3. (a) Give an account of the migration of the muslims to Abbysinia by 615 AD. (13marks)  
(b) What were the effects of the above migration to muslim community. (12marks)
4. (a) What factors led to the signing of the treaty of Hudaibiyya. (13marks)  
(b) Analyze the effects and the importance of the treaty of Hudaibiyya. (12marks)

## **SECTION B**

### **THE CALIPHATE OF THE FOUR RIGHTLY GUIDED CALIPHATES**

5. (a) Give an account for the election of Abubakar as the first caliph. (12marks)  
(b) Mention the challenges that Abubakar faced during his Caliphate hood. (13marks)
6. Explain the early life of caliph Umar and his conversion to Islam. (25marks)
7. (a) Give the achievements of caliph Uthuman up to 656 AD. (12marks)  
(b) Describe the nature and the character of Caliph Uthuman up to his death. (13marks)
8. (a) Explain the factors that account for Caliph Ali's failure in his office. (12marks)  
(b) Despite the many challenges confronted with Caliph Ali, he made a series of achievements. (13marks)

## **SECTION C**

### **ISLAM IN UGANDA**

9. Explain the traditional beliefs and practices of the people of Uganda prior the coming of Islam. (25marks)
10. (a) How did the reign of Kabaka Mutesa I contribute to the spread of Islam in Buganda. (18marks)  
(b) What factors limited the progress of Islam during Kabaka Mutesa's period. (07marks)
11. How did the following personalities contribute to the spread of Islam in Uganda.
  - (a) Sheik Abdallah Ssekimwanyi. (12marks)
  - (b) Sheik Ahmad Nsambu. (13marks)
12. (a) Give an account for the muslim conflicts and factionalism in Uganda by 1993. (12marks)  
(b) How did the above factionalism affect the progress of Islam in Uganda. (13marks)

**END**

**225/2**  
**ISLAMIC**  
**RELIGIOUS**  
**EDUCATION**  
**Paper 2**  
**Nov./Dec. 2020**

2 hours



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**ISLAMIC RELIGIOUS EDUCATION  
(BELIEFS AND PRACTICES OF ISLAM)**

**Paper 2**

2 hours

**INSTRUCTIONS TO CANDIDATES:**

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

**All questions carry equal marks**

**Answer four questions, taking atleast one question from each section.**

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

**SECTION A**  
**PILLARS OF ISLAM AND MUSLIM CEREMONIES**

1. (a) Explain the conditions for a valid Swalat (prayer). (12marks)  
(b) Of what significance is Swalat (prayer) to a Muslim? (13marks)
2. (a) How is ghusul performed? (13marks)  
(b) What are the obligatory and Sunnah acts of ghusul. (12marks)
3. (a) Discuss the items from which Zakkah is payable. (13marks)  
(b) What are the different categories of the beneficiaries of Zakah? (12marks)
4. Write short notes on each of the following.  
(a) Marriage (12marks)  
(b) Divorce (13marks)

**SECTION B**  
**IMAAN (PILLARS OF FAITH)**

5. (a) Define the following concepts (08marks)
  - (i) Tawheed
  - (ii) Tawheed Rububiya (the oneness of Allah in terms of creation)
  - (iii) Tawheed Uluhiyyah (the oneness of Allah in terms of worship)
  - (iv) Tawheed Asma'a and Siffat (the oneness of Allah in terms of names and attributes)  
(b) Why is important to believe in the oneness of Allah? (17marks)
6. (a) Describe the characteristics of Angels. (12marks)  
(b) Give the names and duties of Angels of Allah mentioned in the holly Quran. (13marks)
7. Explain the story of Prophet Ibrahim and his Son Ismail. (25marks)
8. (a) Mention the events of the day of Judgement. (12marks)  
(b) How does belief in the day of Judgement strengthen one's faith? (13marks)

**SECTION C**  
**IHSÂN (ISLAMIC MORALITY)**

9. Give the teaching of Islam on the following
  - (a) Goodness of parents (12marks)
  - (b) Good treatment of relatives (13marks)
10. Explain the teaching of Islam on
  - (a) Truthfulness (12marks)
  - (b) Peacefulness (13marks)
11. (a) Explain the different categories of foods and drinks which are not supposed to be eaten. (12marks)  
(b) What are the dangers of intoxicates to the society (13marks)
12. (a) Write short notes on each of the following
  - (i) Incest
  - (ii) Zinnah  
(b) Explain the consequences of fornication and Adultery on the society. (13marks)

END

**223/1**

**CHRISTIAN  
RELIGIOUS  
EDUCATION**

**Paper 1**

**Nov./Dec. 2020**

**2½ hours**



**WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)**

**WAKATA MOCK EXAMINATIONS 2020**

**Uganda Certificate of Education**

**CHRISTIAN RELIGIOUS EDUCATION**

**Paper 1**

**2 hours 30 minutes**

**INSTRUCTIONS TO CANDIDATES:**

*Candidates must answer five questions, taking one from each of the sections A, B, C, D and E.*

*All questions carry equal marks.*

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

## **SECTION A**

### **MAN IN A CHANGING SOCIETY**

1. (a) Explain the effects of money on the life of a Christian in Uganda today. (10marks)
- (b) Using relevant examples, explain why Kivebulaaya has been regarded as a man of positive change. (10marks)
2. (a) Explain the changes that have taken place in the patterns of work today. (10marks)
- (b) What do young people learn from Jesus as an example of a good worker? (10marks)
3. (a) Explain the merits and demerits of sports as a way of spending leisure. (10marks)
- (b) How did the coming of Christianity improve on African leisure activities. (10marks)

## **SECTION B**

### **ORDER AND FREEDOM IN SOCIETY**

4. (a) What are the root causes of injustices in Uganda today? (10marks)
- (b) Explain some of the injustices that existed in the Old Testament. (10marks)
5. (a) How did God use his authority in the Old Testament? (10marks)
- (b) What lessons can modern leaders learn from Jesus' example of service? (10marks)
6. (a) How did the Christian missionaries express their commitment to their work? (10marks)
- (b) What lessons can modern Christians draw from missionaries' ways of work? (10marks)

## **SECTION C**

### **LIFE**

7. (a) What was the Christian understanding of happiness during the Middle Ages? (10marks)
- (b) Explain the problems Christians face in trying to find happiness by following the Beatitudes in Mathew 5. (10marks)
8. (a) By giving examples, show how the church remembers those who died in the Christian faith. (10marks)
- (b) How did the Jews doubt Jesus as the way to unending life? (10marks)
9. (a) Explain the evils that have come as a result of people's search for success. (10marks)
- (b) How does the New Testament teaching about success differ from that of the modern society? (10marks)

## **SECTION D**

### **MAN AND WOMAN**

- 10.** (a) How has rural–urban migration affected the African families? *(10marks)*  
(b) What efforts are the churches in Africa making to keep families strong? *(10marks)*
- 11.** (a) “Men and Women are equal but different”. In what ways are they:-  
(i) equal *(05marks)*  
(ii) different *(05marks)*
- (b) What is the government doing to promote equality of men and women in Uganda? *(10marks)*
- 12.** (a) Explain the grounds on which traditional African society permitted divorce. *(10marks)*  
(b) What is the Christian view on divorce? *(10marks)*

## **SECTION E**

### **MAN’S RESPONSE TO GOD THROUGH LOVE AND FAITH**

- 13.** (a) How did the religious rituals in the African traditional society demonstrate the people’s search for God?  
(b) What lessons did the Israelites learn from the exodus event? *(10marks)*
- 14.** (a) Explain how magic and witch craft could lead to evasion of God in the African traditional society. *(10marks)*  
(b) Why did the Christians in the church history evade God? *(10marks)*
- 15.** (a) Why do people discourage religious leaders from participating in politics? *(10marks)*  
(b) What does the New Testament teach about the Christian involvement in the world affairs. *(10marks)*

**END**

