HOLIDAY WORK TERM ONE, 2019
GREAT MINDS SHAPE THE WORLD
SENIOR FOUR

Academics dept.
27th April, 2019

SUBJECT	CHALLENGE	MKS

INSTRUCTIONS
1. For classes 1 to 2 all questions in all subjects are compulsory thus attempt all questions
2. For senior 3 students, please attempt all questions for the compulsory subjects and only those for your options
3. For senior 5 students, please attempt all questions in your subject combination
4. For better marks, you must present and explain thoroughly well all the attempted challenges
5. For each of your study subject done, it must be put in a separate 96 exercise book (its ok to use the previous books)
6. Holiday work must be done before reporting back to school and the respective class teacher shall receive your work on reporting

ENGLISH — You were involved in an accident that left many of your friends dead. You are lucky to have survived. The police are investigating the accident and would like you to help them write your statement as a witness. **40mks**

LITERATURE — Write the plot and story part of A cowrie of Hope. **40mks**

FRENCH — Refer to the French holiday work separate sheet

MATHEMATICS **20mks**

1. There are 54 students in a class, taking Maths (M), Economics (E) or Geography (G). Given that n(M) = 30; n(E) = 20; n(G) = 21; n(M ∩ E) = 13; n(M ∩ G) = 12;   n(G ∩ E) = 11; n(M ∩ G ∩ E$^/$) = 4. Find:
   (a)n(M ∩ E ∩ G) (b) how many take 2 subjects only. (c) How many don't take any of the subjects
   (d)how many take 1 subject only. (e)Find the probability that a student chosen at random takes at most two subjects

2. (a) Given that $f(x)=ax-b$, $f(2)=10$ and $f(1)=7$, find the values of a and b.

   (b) If $f(x)=\dfrac{2x-1}{x^2-9}$, find the values of x for which the function $f(x)$ is undefined.

   (c) Given that $f(x)=x^2+7$ and $g(x)=x-2$, find the values of x for which

   $$fg(x)=\frac{38-x^2}{2}$$

CHEMISTRY **25mks**

1.(a)Define the term **enthalpy of combustion**. (2mk)(b) Write an equation for the complete combustion of ethanol(1½ mks)
   (c)(i) Describe an experiment that can be carried out to determine the heat of combustion of Ethanol.   (8marks)
      (ii) When 0.482g of Ethanol was burnt the heat evolved raised the temperature of 100cm^3 of water from 15°C to 42°C.Calculate the heat of **combustion of ethanol.** (3½marks) (heat capacity of water is 4.2Jg^{-1o}C^{-1}, density of water =1g/cc)

2. (a) What is meant by the term **electrolysis** (02 marks)
   (b) Explain any two factors which determine the ion discharged at an electrode during **electrolysis**. (04 marks)
   (c) (i) Draw a well labelled diagram for the electrolysis of dilute sulphuric acid using platinum electrodes. (03 marks)
   (ii) Write equations for the reactions that occur at the electrodes (02 marks)(iii) State three applications of electrolysis

BIOLOGY **40mks**

Paper 1
1. (a) What is meant by the following terms (i) **continuous variation (2marks) (ii)vestigial structures(2marks)**
   (b) Give any four differences between **discontinuous variation** and **continuous variation(4marks)**
   (c) Explain the different causes of variation amongst the individuals of the same species. **(7marks)**
2. (a) Describe an experiment to show plant shoot responds positively to **phototropism (7 marks)**
   (b) Explain the importance of different tropic responses to plants.**(8marks)**
Paper 2. You are required to obtain fresh irish label it A, Ginger(B) and whole onion bulb(with roots C), Cut specimen C longitudinally only. (a) Describe the structure of each specimen

Specimen	Specimen A	Specimen B	Specimen C
structure			

(a)Give any two similarities between specimen B and specimen C
(b)Give four differences between the structure of specimen C and specimen A
(c)How is specimen B adapted to it mode of reproduction. (d) Draw and label one half of specimen C

PHYSICS **15mks**

1. (a) Describe the structure and action of a fluorescent tube. (04marks)
   (b) Give one advantage of a **fluorescent tube** over a filament lamp. (02mark)
   (c) Describe the function of;- (i) **Fuse** (01mark)   (ii) An **earth wire**   (01mark)
   (d) Describe briefly how power is transmitted from a power station to a home. (04marks)
   (e)Find the cost of running two 60W lamps for 48hours if the cost of each unit is shs.80. (04marks)

PLEASE TURN OVER

SUBJECT	CHALLENGE	MKS
COMMERCE	1.(a) Explain the methods used in carrying out market research. (10mks) (b)Mention the problems encountered in carrying out market research (10mks)	
HISTORY	**East africa** 1 (a) What led to the declaration of the Devonshire white paper of **1923**? (13 marks) (b) What were the terms of the paper? (12 marks) **South Africa** 2. Explain the effects of rereigning treaty on, (a) Africa (b) Whites.	**50mks**
AGRICULTURE	1. (a) Give and explain the reasons behind **price fluctuations** for agricultural products in Uganda.(20 mks) (b) What factors affect the **demand** for agricultural products?(20 marks) (c) How can the **supply** of agricultural products on the market be increased? (10marks)	**60mks**
GEOGRAPHY	1. For any one field work study you have conducted on a trading Centre. (a) (i) State the topic of the study.(2mks) (ii)Outline the objectives of the study. (2mks) (b) Describe how you used any **two** of the following methods to collect data during the study. (i)Interviewing (ii)Recording (iii) Sampling (iv) Observation (4marks) (c) Outline the problems you faced while collecting data in the field. (3marks) (d) Describe the relationship between relief and land use in the area of study. (4marks) 2. (a)(i) Define the term "Plantation Farming" (1 mk) (ii) Outline the characteristics of plantation farming . (4 mks) (b) Identify any; (i) Two crops and (ii) Two countries, where plantation farming is carried out. (4 marks) (c) Describe the conditions that have favored plantation farming in any one country identified in (b) above (8mk) (d) State the; (i) advantages (ii) disadvantages of, plantation farming (8 marks).	**40mks**
IRE	1.Make a research about Islam in Uganda and give how the people of the following areas received the message of Islam. (i) Northern Uganda (ii) Bunyoro. 2. (a)For what reason did the Muslims go to war with Christians in Buganda? 13 marks (b) Why were the wars won by the Christians? 12 marks	**30mks**
FINE ART	Make a composition from any topic/ theme of Still- life, Nature, or geometric shapes and forms of your preference keeping in mind the Elements and Principles of art and design. The composition will be used to create (a) motif design(s) for your UNEB Print-making pieces on cloth.	**40mks**
COMPUTER	You are given a computer to use and eventually you discover that it is too slow in performing your tasks. (a) Establish the hardware components that might have caused this poor performance. *(05 mks)* (b) Explain how you can solve this problem of slow performance. *(15 mks)*	**20mks**
CRE	1 (a) Identify the ways in which the early church Christians showed their concern for their community? (b) How do Christians today show their concern for their community? 10 marks	**20mks**

Assessment Percentage rank for term two, 2019

Report	Holiday work	Mid-term exam	End of term exam	TOTAL MARK
Mid-term report	**20%**	**80%**	……….	**100%**

GREAT MINDS SHAPE THE WORLD

END