

FOCUS A365

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FORM 2 TERM 2 BIOLOGY EXAMINATIONS 2018

NAME----- ADM NO -----

Answer all the questions in the spaces provided

1. a) Differentiate between parasitic and saprophytic nutrition. (2mk)

b) Give two examples each of

i. Parasites (2mks)

ii. Saprophytes (2mks)

2. Name the reagents used to test for the following food substances

i. Reducing sugar (1mk)

ii. Proteins (2mks)

iii. Starch (1mk)

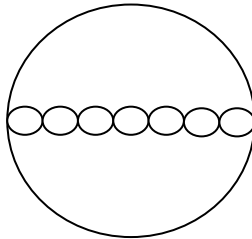
3. List three adaption's of herbivores to their mode of feeding (3mks)

i.

ii.

iii.

4. A group of students observed cells under the light microscope and drew the diagram below.



They recorded the field of view as 3mm

a. Calculate the length of one cell in millimeters (2mks)

b. Given that $1\text{mm} = 1000\mu\text{m}$, calculate the length of one cell in micrometers (2mks)

c. If the cells were observed under low power magnification, what was the length of the actual cell? (Eyepiece magnification = $\times 10$, low power lens magnification = $\times 4$) 2mks)

5a)i What are the structural units of lipids? (1mk)

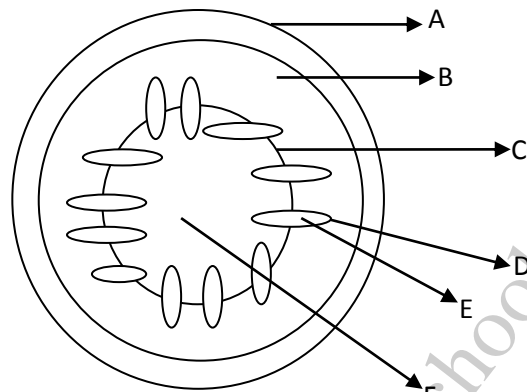
ii) Name the process in which the units combine to form a lipid (1mk)

b) State the functions of lipids in the body (2mks)

i)

ii)

5. The diagram below represents a transverse section of a young stem.



a) Name the parts labeled (3mks)

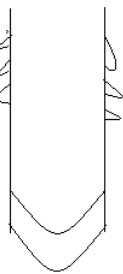
A	D
B	E
C	F

b. State the functions of the parts labeled D and E

D: (1MK)

E: (1MK)

7. The diagram below represents regions of a root tip



a) Name the part labeled x and state its functions (1mk)

b) Name the two regions above x in ascending order (2mks)

i

ii

8. Distinguish between heterotrophic nutrition and autotrophic nutrition (2mks)

9. Name three types of thickening found in xylem vessels

i)

ii)

iii)

10. Suggest what would happen to plants if large amounts of nitrate fertilizers are added to the soil in which they are growing. (2mks)

11 a) What is transpiration? (1mk)

b) Name three types of transpiration (3mks)

i)

ii)

iii)

c) State the importance of transpiration in plants(2mks)

12 Name the five kingdoms used in classification of organism (5mks)

i

ii

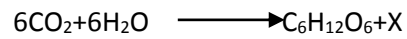
iii

iv

v

13 Draw diagrams to show venation in monocotyledonous and dicotyledonous leaf. (4mks)

- 14 The equation below shows a chemical reaction that takes place in green plants under certain conditions



- a. Name substance X
 - b. Name the process represented by the equation (1mk)
 - c. State two conditions necessary for the above reaction to take place (2mks)
 - i
 - ii
 - d. Name two types of cells in which this process occurs (1mk)
 - i
 - ii
15. State two functions of the xylem vessels (2mks)
- i
 - ii

(60mks)

3. a) Mention three variations found in the structure of leaves of plants (3mks)

i

ii

iii

c) Name two types leaves (2mks)

d) Draw diagrams to show the types of leaves named in 3(b) above (2mks)

4. List down five characteristics of living things (5mks)

i.

ii.

iii.

iv.

v.

5. What is biology? (1mk)

b. State the nature of study of the scientists named below

i. Genetist (1mk)

ii. cytologist (1mk)

6. Name three careers in which knowledge of biology is needed (3mks)

i.

ii.

iii.

7. What is hand lens? (1mk)

b) Write the formula of calculating magnification of diagram drawn using a razorblade (1mk)

c) The size of a diagram is found to be the same as the size of the object. Calculate the magnification of the diagram. Show your working (2mks)

8a) State two functions of roots (2mks)

i.

ii.

iii.

b. Draw diagrams to show taproot root system and fibrous root system (4mks)

9a) What is respiration? (1mk)

b) Name two types of respiration (2mks)

i

ii

10a) What are two characteristics of living things that are easily observed in both plants and animals?(2mk)

i.

ii.

b. Both plants and animals respond to stimuli state a difference in their response towards stimuli (1mk)

11. a) What is the difference between nutrition in plants and animals.

(1mk)

b. Name the green colouring matter in plants (1mk)

12. Mention the name given to the study of each of the following (4mks)

i. The cell

ii. Micro –organisms

iii Fungi

iv. Insects

13. Name the structures used for movement in the following animals (2mks)

i. Fish

ii. Rat

(50mks)

MID TERM EXAM
FEBRUARY 2018
BIOLOGY: FORM THREE
TIME: 11/2HR

NAME----- ADM NO-----

Answer all the questions in the spaces provided

1. a) Name the respiratory surface in the following organisms (3mks)

i. Fish

ii. Amoeba

iii. Insects

b) List three characteristics of respiratory surfaces (3mks)

i.

ii.

iii.

2. Name three methods of excretion in plants (3mks)

i

ii

iii

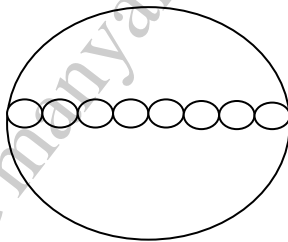
3. State three ways in which fungi are important to humans (3mkrs)

i

ii

iii

4. The diagram below shows cells seen under the light microscope.



The field of view was 4mm

a) Calculate the length of one cell in millimeters (2mks)

b) Calculate the length of one cell in millimeters (1mm= 1000um) 2mks)

c) If the cells were observed under the low power magnification, what was the length of the actual cell? (Eyepiece magnification =x10, low power lens magnification =x 4) (2mks)

5. You are given a list of organizations with the following scientific names

- a. Bos indicus
- b. Leo canaries
- c. Boss Taurus
- d. Leo fedinards
- e. Solanum nigrum
- f. Leo canis
- g. Solanum incanum

i) How many genera are represented by the organism? (1mk)

ii) Identify three organisms among those listed above that belong to the same genus. (3mks)

iv) What is common about Bos indicus and Bos Taurus? (1mk)

6. State the main nitrogenous waste product excreted by each of the following types of animals (3mks)

Animal	Nitrogenous waste
Birds	-----
Mammals	-----
Fresh water fish	-----

- 7a) Name the Products of anaerobic respiration in
i plants (2mks)

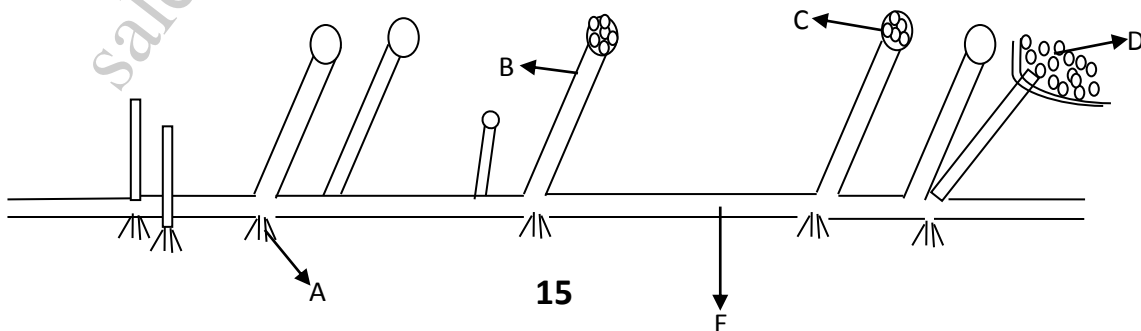
- ii Animals (1mks)

- b) Name one waste products that is

- i) Transported in blood but not removed by the kidney (1mk)

- ii) Released during respiration and is used by the body (1mk)

8. The figures below show part of a mould growing on a substrate.



a. Name the parts labeled (4mks)

A

B

C

D

b. State the functions of the parts labeled A and C

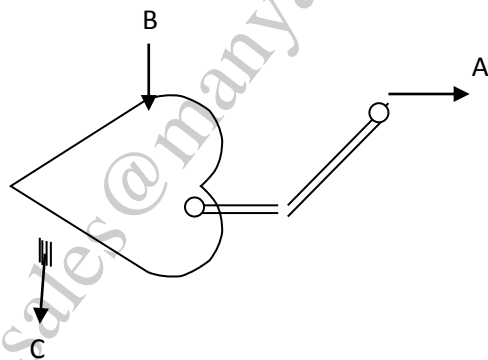
A

(2mks)

C

C. To what kingdom does the mould belong? (1mk)

9. Study the diagram below and answer the questions tat follow.



a) Name the parts labeled A,B,and C (3mks)

A

B

C

b) State two functions of part B (2mks)

i)

ii)

c) To which division does the organism belong ? (1mk)

10.a) Name the structures in liverworts that produce

i) male gametes (1mk)

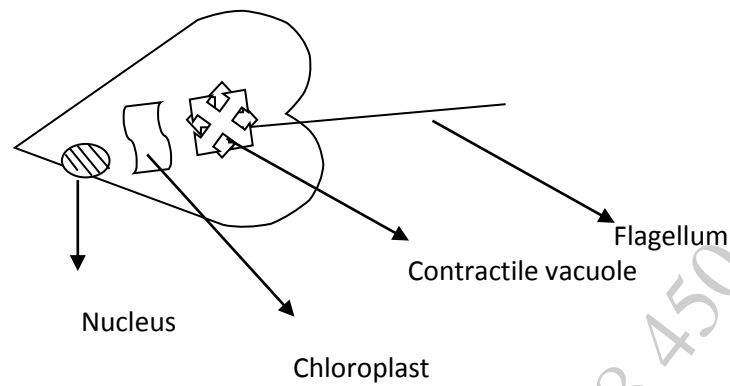
ii) Female gametes (1mk)

b) Name the method of reproduction found in

i) Yeast (1mk)

ii) Bacteria (1mk)

11. The diagram below was drawn by students during a biology practical lesson.



- a) Suggest how the organism obtain food (1mk)
- b) State the function of the following structures .
- Contractile vacuole (1mk)
 - Flagellum (1mk)
- c.) To what kingdom does the organism belong (1mk)

12. An experiment was carried out to investigate the effect of temperature on the rate of reaction catalysed by an enzyme. The results are shown in the table below.

Temperature	Rate of reaction in mg of products per unit time
5	0.2
10	0.5
15	0.8
20	1.1
25	1.5
30	2.1
35	3.0
40	3.7
45	3.4
50	2.8
55	2.1
60	1.1

a) On the graph paper provided draw a graph of rate of reaction against time (6mks)

b) When was the rate of reaction 2.6 mg of product per unit time? (2mks)

c) Account for the shape of the graph between

i. 5°C and 40°C (2mks)

ii. 45°C and 60°C (3mks)

iii. d) Other than temperature name two ways in which the rate of reaction between 5°C and 40°C could be increased (2mks)

e i) Name one digestive enzymes in human body which works best in acidic condition (1mk)

ii How is the acidic condition for the enzymes name in (e)(i) above attained (2mks)

(70 mks)

MID TERM EXAM

FEBRUARY:2018

BIOLOGY:FORM 4

TIME:

NAME----- **ADM NO** -----

Answer all the questions in the spaces provided

- 1a) Name the organelle that produces ATP in a cell (1mk)
- b) Explain why such organelles are numerous in muscles and sperm cells.
2. The scientific names of the dog and jackal are *canis familiaris* and *canis masemeles* respectively.(1mk)
- a) What is common about the two animals? (1mk)
- b) Name the kingdom to which they belong? (1mk)

c) To which genus do they belong? (1mk)

3.a) What are the functions of the xylem vessels to their functions (2mks)

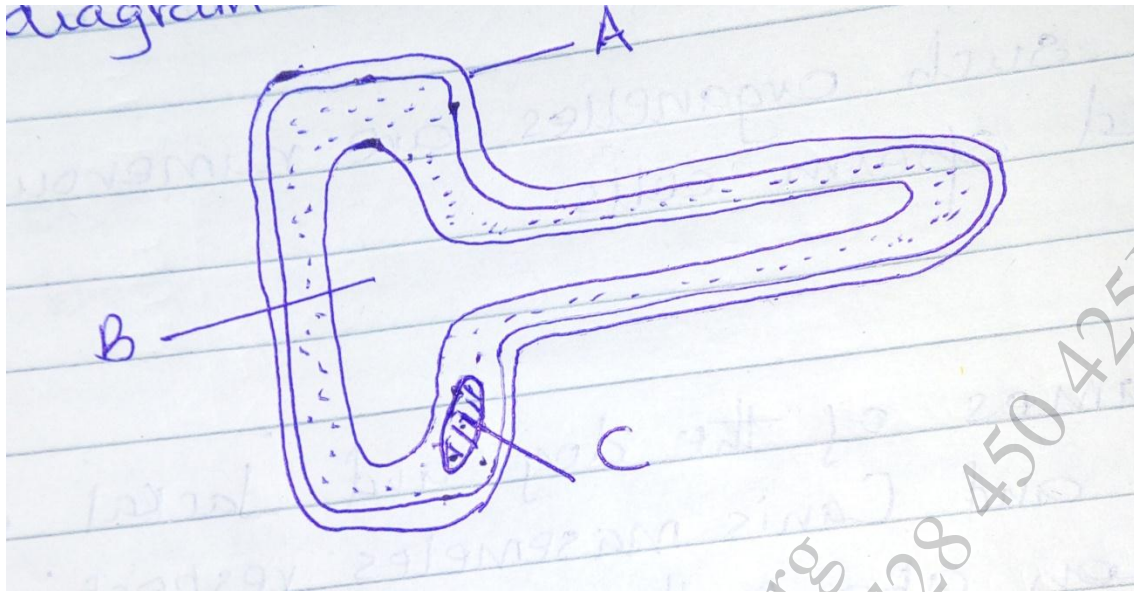
b) State the adaptations of the xylem vessels to their function. (2mks)

4. A person of blood group AB requires a transfusion.

i) Name the blood groups of the possible donors (2mrks)

ii) Give reasons for your answer in (1mk)

5. The diagram below shows a specialized plant cell.



a i) Name the cell (1mk)

ii) Name the parts labeled 2mks)

A

B

b) State the function of the part labeled C (1mk)

6. What name is given to the study of

a) The cell (1mk)

b) Insects (1mk)

7. Give three excretory organs in mammals and name the substances they excrete (6mks)

Excretory organ

Waste substance

i

ii

iii

8.a) differentiate between parasitic and saprophytic nutrition (2mks)

b) name two examples of saprophytes (2mks)

i

ii

9. Tallness in pea plants is due to a dominant gene. Two tall pea plants were crossed and their F₁ generation were in the ratio of 3tall:1short. Using T to represent the gene for tallness and t for shortness, give the

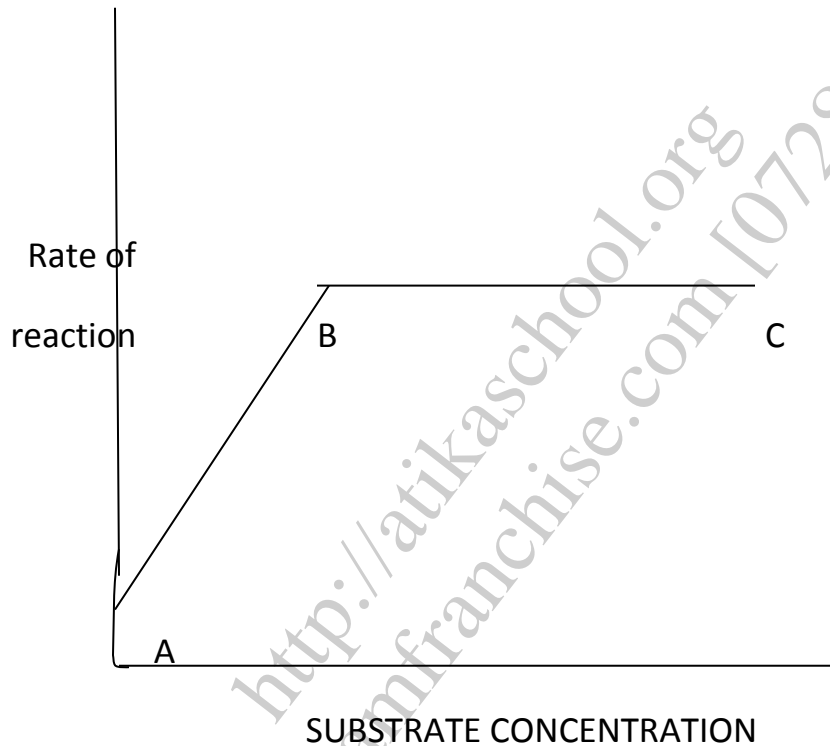
a) i) genotypes of the parents (2mks)

ii) gametes of the parents (2mks)

iii) genotypic ratio of the F₁ generation (3mks)

b) what is meant by the term testcross in genetic studies (1mk)

10. The graph below shows the effect of substrate concentration on the rate enzyme reaction



a) account for the shape of the graph between (3mks)

i) A and B

ii) Band C

(2mks)

b) How can the rate of reaction be increased after point B? (1mk)

c) state two other factors that affect the rate of enzyme reaction (2mk)

11. when pure breeding black guinea pigs were crossed with pure breeding white guinea pigs, the offspring had a coat with black and white patches

a) using letter G to represent the black coat colour and H for white coat colour, work out the genotypic ratio of F₂. (5mks)

(use punnet square to show your working)

b) State the phenotypic ratio of F_2 (1mk)

c) i Name the term used when two alleles in heterozygous state are fully expressed phenotypically in an organism. (1mk)

ii Give an example of a trait in human beings the condition whose term is named in (c) (i) above expresses itself (1mk)

12. Two persons X and Y drunk volumes of concentrated solution of glucose. The amount of glucose in their blood was determined at intervals.

The results are shown in the table.

Time (minutes)	Glucose level in blood (mg/100cm ³)	
	X	Y
0	87	84
15	112	123
30	139	170
45	116	188
60	100	208
90	95	202
120	92	144
150	88	123

- a) On the graph paper provided, plot graphs of glucose level in blood against time on the same axes (7mks)

b) What was the concentration of glucose in the blood of X and Y at the 20th minutes (2mks)

c) Suggest the glucose level in person X stopped rising after 30 minutes while it continued rising in person Y. (2mks)

d) Account for the decrease in glucose level in person X after 30 minutes (3mks)

X

Y

e) Name the compound that stores energy released during oxidation of glucose (1mk)

13. Describe how xerophytes are adapted to living in their habitat (13mks)

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MID TERM EXAM

FEBRUARY:2018

BIOLOGY:FORM 4

TIME:

NAME-----**ADM NO** -----

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- b) Explain why such organelles are numerous in muscles and sperm cells.
2. The scientific names of the dog and jackal are *canis familiaris* and *canis masemeles* respectively.
 - a) What is common about the two animals? (1mk)
 - b) Name the kingdom to which they belong? (1mk)
 - c) To which genus do they belong? (1mk)
- 3.a) What are the functions of the xylem vessels to their functions (2mks)
- b) State the adaptations of the xylem vessels to their function. (2mks)
4. A person of blood group AB requires a transfusion.
 - i) Name the blood groups of the possible donors (2mrks)
 - ii) Give reasons for your answer in (1mk)
5. The diagram below shows a specialized plant cell.

a i) Name the cell (1mk)

ii) Name the parts labeled 2mks)

A

B

b) State the function of the part labeled C (1mk)

6. What name is given to the study of

a) The cell (1mk)

b) Insects (1mk)

7. Give three excretory organs in mammals and name the substances they excrete (6mks)

Excretory organ

Waste substance

i

ii

iii

SHULE YA UPILI YA MUKINDURI

MTIHANI WA KISWAHILI

KIDATO HA PILI

1.UFAHAMU

SOMA KIFUNGU KIFUATACHO KISHA UJIBU MASWALI

Watu wengi hawawezi kunywa chai au uji bila kutia sukari. Wanatumia sukari kwa hamu ana ghamu bila kutambua kuwa hiyo ni sumu wanayojiongezea mwilini.

Ni ukweli usiopingika kuwa wazee wetu wa jadi waliishi muda mrefu wakiwa na siha njema kuliko sisi. Hii ni kwa kuwa waliishi katika kipindi ambacho sukari inayaotengenezwa viwanani haikuweko. Iwapo ilikuweko, ilijuwa bidhaa ya wateule waungwana na akina yahe hawangeweza kihgaramia.

Watafiti wa masuala ya afya wamegundua kuwa sukari inayo tayarishwa viwandani sasa hivi haina virutubishi vyovyote. Umuhimu wake ni kutia ladha tamu tu. Umuhimu huu hauwezi kulinganishwa na madhara yanayoletwa na sukari hii. Baada ya kusagika mwilini, sukari hii huacha masalio ya aside mwilini yenye sumu inayothiri siha. Halikadhalika, utaratibu wa viwandani wa kutayarisha sukari ili iwe nyeupe na kuichuja huharibu virutubishi vinavyoweza kuwa muhimu mwilini.

Matumizi ya sukari kwa wingi husababisha madhara mbarimbari mwilini. Kwanza, huchangia kuoza na kuharibika kwa maneneo. Pili, sukari nyeupe imehusishwa na ongezeko la maradhi ya kisukari, moyo na hipoglisimia au upungufu wa sukari mwilini. Matumizi holele ya sukari huletakipandauso au ugonjwa wa ghafla wa kuumwa upane mmoja wa kichwa unaoambatana na kichechefu, kutapika na matatizo ya kuona. Pia huleta maradhi ya ngozi na figo. Pamoja na ongezeko la klestroli, kemikeli hii ya kolestroli inaporundikana moyoni. Hufanya mishipa inayotoa damu moyoni na kuisambaza mwilini kuwamyembamba na sugu. Moyo hulazimikakusukuma damu kwa nguvu na huenda moyo ukachoka na kukoma kufanyakazi.

Madhara haya ya sukari ndiyo yanayowafanya watu wengi kukiri kuwa sukari ingawa ni tamu. Ni sumu mwilini

Watalamu wa lishe wamependekeza ulaji wa vyakula kama nafaka,matunda,mboga na miwa ambavyo vimejaa sukari asilia.

Fauka ya hayo,sukari inayotoka katika asali ni bora zaidi kwa mwili wa mwandamu.Asali huwa na sukari asilia. Vitamin, madini na amino aside.Hivivyote huwa na manufaa mbalimbali mwilini.Mathalani,asali huupa mwili nishati inayohitajika kuendesha shughuli za viungo. Licha ya hayo,asali huuchangamsh kiwango cha hemoglobin. Hivyo kupunguza uwezekanowa watoto kuwa na anemia (upungufu wa damu).Halikadhalika asali husaidia katika usagaji wa chakula iwapo itatumiwa kabla yam lo. Matumizi ya kijiko kimoja cha asali kila siku husaidia mwilikujikinga dhidi ya nmagonjwa ya kukohoa.Asali husaidia pia kuonoa harufu mbaya kichwani.

Asali inaweza kutumiawa kujipaka.inapotumiwa kwa jia hii, hutunza ngozi na kuifanya inga're. huondoa vipetele na ugumu wa ngozi,pamoja na kutibu kule ngozi ilikotatikakatika. Halikadhalika,asali hutibu vidonda.viwanda vingi vya vipondozi hutumia asa kama malighafi muhimu katika utengenezaji wa bidhaa hizo.

- a. Kutokana na taarifa hii wazee wa zamani waliishi muda mrefu kuliko watu wa siku hizi kwa nini?(ala1)
- b. Taja matumizi mawili ya sukari nyeupe(ala 2)
- c. Onyesha madhara ya sukari nyeupe (ala2)

- d. Taja aina ya sukari iliyona manufaa mwilini (ala1)
- e. Asali ina manufaa ya ndani ya mwilini na nje ya mwili.Taja manufaa hayo (ala 3)
- f. Eleza maana ya maneneo yafuatoayo kama yalivyoatumika katika kifungu hiki (ala 4)
- i. Hamu na ghamu
 - ii. Akina yahe
 - iii. Sugu
 - iv. Vipodozi

Sarufi na matumizi ya lugha (ala 40)

a. Taja sauti mbili ambazo ni ghuna (ala 2)

b. Silabi ni nini? (ala 2)

ii. Taja aina zozote mbili za silabi na utolee mfano mmoja mmoja (ala 2)

C Taja vipashio vine vya lugha (ala 4)

d. Onyesha viambishi awali na viambishi tamati katika kitenzi (ala 2)
Nilimkatia

E Eleza maana mbili zinazojitokeza katika neon:asifike

f. Unda nomino kutokana na kitenzi (ala1)
sifu-----

- g Tunga sentensi moja kwa kutumia kiunganishi (ala 1)
ilhali-----
- h Andika sentensi hii katika ukumbwa (ala 2)
Kitabu cha motto kilianguka mtoni
- I Andika katika wingi (ala 2)

Ua ulikatwa kwa upanga wake
- J Nyambua vitenzi vifuatavyo katika kauli ya kutendesha (ala 2)
Iga-----

Ogopa-----
- K Tunga sentensi yenye kitenzi chenye asali ya kigeni (ala 1)
- L Huku ukitoa mifano onyesha miundo miwili ya nomino katika ngeli
ya:KI-VI (ala 2)
- M Sentensi hugawika katika sehemu mbili kuu.zitaje (ala 2)

N Onyesha vivumishi katika sentensi ifuatayo na ueleze ni vya aina gani(ala 3)

Kijana Yule mweusi alipewa zawadi mbili.

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FORM ONE CRE
MIDTERM EXAM 2018

Answer all the questions

1. State six benefits of studying C.R.E in secondary school (6mks)

- c) List five national goals of education (5mks)

2. Why is the bible referred to word of God (6mks)

b) State occasions when Christians use the bible (6mks)

c) list 8 historical books of the Bible (8mks)

d) Identify 8 versions of the bible (8mks)

d) State 6 effects of translating the bible (6mrks)

3. Highlight what God created in the following days

Day 1

Day 2

Day 3

Day 4

Day 5

Day 6

Day 7

b. Outline 6 differences between the first and second account of creation (12mks)

c . What responsibilities was man given by God in Genesis 1 and 2
(7mks)

4. Outline attributes of God from Genesis stories of creation (8mks)

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b How do Christians care for God's creation (5mks)

5. State causes of sin according to genesis (4mks)

b State effects of sin in genesis 3-11 (8mks)

6. Name four books of major prophets (4mks)

MUKINDURI MIXED SECONDARY SCHOOL

MID TERM EXAM

CRE : FORM TWO

NAME:----- ADM NO: -----

Answer all questions provided

1. Outline six reasons why Christians read the Bible (6mks)

2. Why is the Bible considered as the word of God (5mks)

3. Why do some Christians find it difficult to read the Bible (5mks)

4. Explain how human beings fail to carry out responsibilities given to them by God (5mks)

5. Outline Micah's prophecy about the Messiah (5mks)

6. How did Jesus fulfil Isaiah's prophecy about the Messiah (5mks)

7. Describe the annunciation of the Birth of John the Baptist
(8 mks)

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b) Outline the angel's message to Zachariah (5mks)

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8. Describe the temptations of Jesus in the wilderness (5mks)

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FORM TWO
MID TERM EXAM 2018
GEOGRAPHY

Answer all the questions on the space provided

1. Name two theories of the origin of the earth (2mks)
- b. Name four layers of the atmosphere (4mks)
- c. State three effects of the rotation of the earth (3mks)
- d. State five proofs that the area is spherical (5mks)

2 State three characteristics of the inter-tropical convergence zone (3mks)

b With aid of a labeled diagram describe how relief rainfall is formed (6mks)

3a) Name three instruments to match three elements of weather that can be measured at a weather station (3mks)

b Describe a suitable site where you would locate a weather station in your school (3mks)

c Give reasons why Stevenson screen b

i. Painted white(2mks)

ii. Has loovers (2mks)

4a)

Months	J	F	M	A	M	J	J	A	S	O	N	D
Temp °C	21	20	20	17	15	13	12	13	15	16	18	20
Rainfall mmm	12	12	15	50	90	110	87	87	50	35	20	15

Use the above table to answer the following questions

a. Calculate the mean annual range of temperature (2mks)

b. Calculate the annual rainfall of the station (2mks)

c. On the graph paper provided draw a bar graph to represent rainfall of the above station .

Use a vertical scale of 1cm rep 50mm (5mks)

5a Differentiate between a rock and mineral (2mks)

b. Give an example of a

i. Plutonic rocks (1mk)

ii. Hypabyssal rocks (1mk)

iii. Volcanic rocks (1mk)

c. Explain three significance of rocks to Kenya economy (6mks)

6a Define mining (2mks)

c. State three ways in which minerals occur (3mks)

d. List types of mining methods (2mks)

e. State four benefits of soda ash mining to the economy of Kenya (4mks)

7a) Name the two major types of earth movements that occur within the earth's crust (2mks)

b. Describe the origin of the continents according to the theory of continental drift (3mks)

c. Name two types of boundaries according to plate tectonic theory (2mks)

8a) Name four types of folds (4mks)

b) In which countries are the following fold mountains found

i. Andes (1mk)

ii. Cape ranges (1mk)

iii. Aips (1mk)

c) Name three orogenies of fold mountains building (3mks)

9a) What is faulting (1mk)

b. Name three types of faults. (3mks)

d. Explain formation of Rift valley through tensional forces through aid of diagram (5mks)

10a) Name two intrusive features of vulcanicity (2mks)

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AGRICULTURE
FORM ONE 2018
MDTERM EXAM

1. Differentiate between pomoculture and orericulture (2mks)
2. State 4 characteristics of shifting cultivation (4mks)
3. State 4 importance s of agriculture to the economic growth of Kenya (4mks)
4. State 5 methods of farming (5mks)
5. Define the following terms (4mks)
 - a. Crop pathology
 - b. Pastrol nomadism
 - c. Soil science
 - d. Aqualculture

6. State four branches of livestock production (4mks)
7. State six effects of wind on crop production (6mks)
8. State and explain 6 biotic factors that influence agriculture (12mks)
9. State 3 effects of HIV/AIDS on agriculture (3mks)
10. a) Give 5 biotic factors that influence agriculture (5mks)

- b) Name six human related factors that influence farming (6mks)
11. Explain how government policy influence agriculture. (3mks)
12. State three aspects of rainfall (3mks)
- 13 Define the following terms (3mks)
- a) Short day plants
 - b) Long day plants
 - c) day-neutral plants
14. State 5 climate factors that influence agriculture (5mks)

15. State 4 soil forming factors that influence soil formation (4mks)

16. Giving example state 3 processes of weathering (6mks)

17. State three functions of the soil (3mks)

18. State five factors that influence soil formation (5mks)

19. How does the following influence weathering (4mks)

a) Wind

b) Water

c) Human being

d) Plants

AGRICULTURE

FORM TWO

MID TERM 2018

1. State four characteristics of nitrogenous fertilizers (2mks)
2. Calculate the amount of K_2O that would be contained in 600kg of a compound fertilizer, 30,20,10 (3mks)
3. Under what conditions would the opportunity cost be zero? (2mks)
4. a. What is a farm record? (1mk)
b. State six different records a farmer should keep. (6mks)
c. Explain 5 importances of keeping farm records in the farm. (5mks)
5. Give two reasons that make a camel better adapted to arid and semi-arid areas. (2mks)
6. Name breeds of dairy goats (4mks)
7. Give 5 differences between exotic and indigenous cattle breeds (10mks)
8. Define the following terms: (8mks)
 - i. Chick
 - ii. Broiler
 - iii. Bull
 - iv. Steer
 - v. Piglet
 - vi. Gilt
 - vii. Billy
 - viii. Kid
9. Differentiate between a Landrace and a Large White pig (2mks)
10. Illustrated below is a method of turning compost. Study the method and answer the questions that follow.
 - a) Identify the method (1mk)
 - b) Using arrows in the diagram show the turning is done before the manure can be taken to the field (2mks)
 - c) After about how long should the compost be ready for use?
11. State 5 ways in which soil loses its fertility (5mks)
12. Name three types of organic manure (3mks)
- 13a) What is water conveyance? (1mk)
b) Name three methods of conveying water from one place to another in the farm. (3mks)
14. Give four reasons for treating water before distribution. (4mks)
15. State 6 stages of water treatment (3mks)
16. Explain 5 different farming practices likely to cause water pollution (5mks)
17. Give five reasons for land preparation (5mks)
- 18a.) What is minimum tillage (1mk)
b. State four benefits of carrying out minimum tillage in crop production (4mks)

19. Name 3 factors that determine the number of secondary operation in the formation of a seedbed.
(3mks)

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MUKINDURI SECONDARY MIXED SCHOOL

FORM TWO

MID TERM EXAM

MATHEMATICS

1. Evaluate $\frac{-12 \div (-3) \times 4 - (-20)}{-6 \times 6 \div 3 + (-6)}$ (3mks)

2. Evaluate

$$\frac{\frac{3}{4} + 1\frac{5}{7} \div \frac{4}{7} \text{ of } 2\frac{1}{3}}{(1\frac{3}{7} - \frac{5}{8}) \times \frac{2}{3}}$$

3. Kutu withdrew some money from a bank. He spent $\frac{3}{8}$ of the money to pay MMutus shool fees and $\frac{2}{5}$ to pay for Tatus school fees. If he remained with Ksh 12330, calculate the amount of money he paid for tatus school fees (4mks).

4. Three people Odawa, Mliwa and Amina contributed money to purchase a flour mill. Odawa contributed $\frac{1}{3}$ of the total amount. Mliwa contributed $\frac{3}{8}$ of the remaining amount and Amina contributed the rest of the money. The difference in contribution between Mliwa and Amina was shs 40000 calculate the price of the flour mill (4mks)

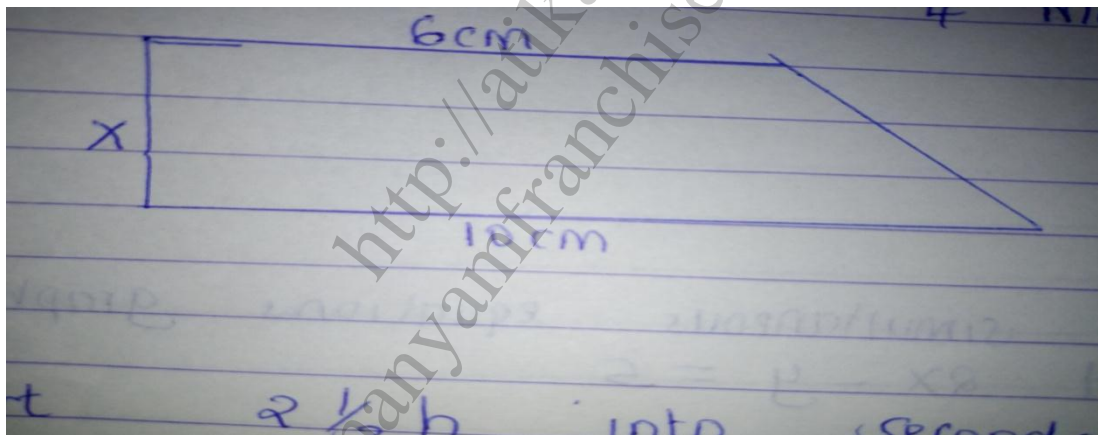
5. Use logarithms to evaluate (4mks)

$$\sqrt[3]{(35.6 \times 0.0613^2)}$$

6. Solve for x in the equation (3mks)

$$\frac{81^{2x} \times 27^x}{9^x} = 729$$

7. Calculate the length X of the following figures if the area = 112cm



8. Convert 21/3h into seconds (3mks)

9. Solve for X in

$$\frac{2X-5}{3}=X$$

(3MKS)

10. Solve for X and Y in the following simultaneous equation by elimination method (3mks)
- $$\begin{array}{l} X+2y+5 \\ 3x-y+8 \end{array}$$

11. Two years ago Jane was twice as old as John if the sum of their ages 5 years from now will be 44 years calculate their present ages (3mks)

12. Given that $x=2$ and $2=4$ find the value of Y if

$$\frac{x + yz}{y - x} = 2$$

13. Solve this pair of simultaneous equations graphically

$$X+2y=5$$

$$2x-y=5$$

(10mks)

14. Obtain the x and y intercepts using the equation

$$Y = -\frac{1}{6}x + 3$$

(4mks)

15. Three shopping malls A B and C are such that while C is 62km from B on a bearing of 294° while A is on a bearing of 195° from c and 114 km from B using a scale of 1cm: 10km (10mks)

- a. Draw a map to locate the malls A,B and C

- b. Find the distance from A to C

- c. Find the compass bearing of B from A

16. Use logarithms to evaluate

(4mks)

$$4\sqrt{\frac{4.562 \times 0.038}{0.82}}$$

17. Use reciprocal tables to work out the following (4mks)

$$\frac{4}{0.375} - \frac{5}{37.5}$$

18. Find the square root of the following using mathematical tables (8mrks)

a. 154

b. 7192

c. 0.0061

d. 0.000742

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