

NAME ..... INDEX NUMBER .....

SIGNATURE .....

DATE .....

231/1  
BIOLOGY  
PAPER 1  
TIME: 2 HRS  
JULY/AUGUST 2016

**NYERI COUNTY FORM 4 JOINT ASSESSMENT**  
Kenya Certificate of Secondary Education (K.C.S.E)

**BIOLOGY**  
Paper 1  
(Theory)  
July/August 2016  
Time: 2 hours

**INSTRUCTIONS TO CANDIDATES**

- a) Write your name and index number in the spaces provided above.
- b) Sign and write the date of the examination in the spaces provided above.
- c) Answer all the questions in the spaces provided.
- d) Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.

**FOR EXAMINER'S USE ONLY**

Question	Maximum Score	Candidates Score
1-26	80	

1. a) Name the part of the microscope that is used to;  
i) Change from one objective lens to another (1 mark)

.....  
ii) Regulates the amount of light to the specimen. (1 mark)

.....  
b) State two functions of the centrioles. (2 marks)

.....  
2. a) Name a physiological process that requires energy to be used for it to take place. (1 mark)

.....  
b) State how osmosis can promote support in young non-woody plants. (1 mark)

.....  
3. a) Identify the phylum and class to which a scorpion belongs. (2 marks)

i) Phylum .....

ii) Class .....

b) State two reasons for your answer in b(ii). above. (2 marks)

.....  
4. State two physiological changes that take place in the human skin to help in the conservation of the body heat. (2marks)

.....  
5. The diagram below shows a human male gamete.



a) Name the part labelled A. .... (1 mark)

6. Highlight four ways of making a warehouse efficient in its operations. (4 marks)

- i) .....
- ii) .....
- iii).....
- iv).....

7. State four factors that influence the demand for a product. (4 marks)

- i) .....
- ii) .....
- iii).....
- iv).....

8. Outline four difficulties encountered when determining the national income using the output approach. (4 marks)

- i) .....
- ii) .....
- iii).....
- iv).....

9. Outline four features of mail order businesses. (4 marks)

- i) .....
- ii).....
- iii).....
- iv).....

10. The following transactions took place in the month of January 2015 for Karuku Retailers.

- Jan 12th Sales to Juma worth shs.200,000 invoice no. 231
- 20th Sales to Kiama worth sh.150,000
- 26th Sales to Mercy worth sh.125,000

Required : A sales journal for Karuku. (5 marks)



11. Highlight four circumstances for using the short message service (SMS) to communicate. (4 marks)

- i) .....
- ii) .....
- iii).....
- iv).....

12. Outline the significance of each of the following insurance policies a trader may take for his business. (4 marks)

- a) Fidelity guarantee  
.....
- b) Workman's compensation  
.....
- c) Public liability  
.....
- d) Consequential loss  
.....

13. Identify four rights of a partner as expressed in the Partnerships Act of 1963. (4 marks)

- i) .....
- ii) .....
- iii).....
- iv).....

14. The following balances were extracted from the books of Murungari General stores.

	shs.
Premises	350,000
Creditors	150,000
5yrs bank loan	100,000
Motor vehicle	200,000
Bank overdraft	250,000
Stock	170,000
Debtors	120,000
Cash	60,000
Prepaid rent	22,000
Capital	?

Required :

Prepare a balance sheet as at 30th April 2014.

(5 marks)

15. On 1st April 2015, Nyamothe Retailers has sh.20,000 in cash and sh.45,000 at bank. During the month of April the following transactions took place :

- April 2nd Credit sales to Juma sh.5,000
- 12th Cash sales directly banked sh.15,000
- 16th Paid rent 8,000 and wages 2,000 all in cash
- 18th Credit purchases from Kamau 20,000
- 20th Paid telephone bills by cheque shs.12,000
- 29th Deposited all the cash into bank except sh.1000

Required :

Prepare dully balanced two column cash book.

(5 marks)

Dr					Cr				
Nyamothe Retailers Two Column Cash Book									
Date	Details	F	Cash	Bank	Date	Details	F	Cash	Bank

16. Outline four ways through which an entrepreneurs may generate business ideas.

(4 marks)

- i) .....
- ii) .....
- iii).....
- iv).....

22. a) Name two water-borne human diseases that are characterised by severe diarrhoea. (2 marks)

.....  
.....

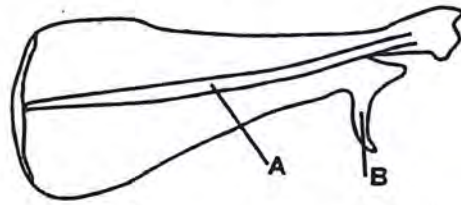
b) i) Name the part of plant where nitrogen fixation takes place. (1 mark)

.....

ii) What is the effect of denitrifying bacteria in the soil? (1 mark)

.....

23. The diagram below represents a mammalian bone.



a) Identify the bone. (1 mark)

b) Name the parts labelled A and B. (2 marks)

A ..... B .....

24. Apart from the lungs, name two respiratory surfaces in a mature frog. (2 marks)

.....  
.....

25. Distinguish between homologous and analogous structures. (2 marks)

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

26. a) State two advantages of metamorphosis to the life of insects. (2 marks)

.....  
.....



b) What is the role of air in a germinating seed?

(2 marks)

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