	ې د .	5 <sup>66</sup>
Ν	NAME:	INDEX NO:
S	SIGNATURE:	DATE :
2 E	231/1 visit www.fr BIOLOGY	
F J T	PAPER 1 2013 JULY / AUGUST 2013 FIME: 2HOURS	
* <sup>ree</sup>		
for More	EVALUATION	TEST 2013

## NANDI NORTH DISTRICT JOINT MOCK **EVALUATION TEST 2013**

Kenya Certificate of Secondary Education (K.C.S.E.) BIOLOGY PAPER 1 TIME: 2 HOURS

## **INSTRUCTIONS TO CANDIDATES:**

- (a) Write your name and Index Number in the spaces provided.
- (b) Sign and write the date of examination in the spaces provided.
- (c) Answer ALL questions in the spaces provided.
- (d) Wrong spelling especially of technical terms will be penalized.

FOR EXAMINER 3 USE ONLY			
QUESTION	MAX. SCORE	CANDIDATE SCORE	
1 – 30	80		

## EOD EVAMINED'S LIGE ONLY

	1.	Name the gaseous exchange structure in woody stems.	(1mk)
	2.	Explain how high altitude affects the rate of breathing in humans.	(2mks)
		ste <sup>eet</sup>	
	3.	What is the role of vasopressin in Osmo-regulation?	(1mk)
	4.	State three differences between members of division Bryophyta and Pterid	ophyta.
		en part t	(3mks)
	e 4		
\$ fe	2		
MOTE	5.	Name the structures associated with the following in human beings:	
\$ OF		(i) Region of highest visual acuity.	(1mk)
		(ii) Amplifications of vibrations.	(1mk)

6. In an experiment to observe some variations in length of leaves of Jacaranda, the following curve was obtained.



- Give two examples of the above variation in human beings. (C) (2mks) 7. State **three** roles of Gibberettins in the growth and development of plants. (3mks) ..... 8. (a) If pepsiongen and trypsinogen were produced in their active forms, what would be their effect on the alimentary canal? (1mk) ..... ..... FOT NOTE FIFEE (b) How else is the alimentary canal protected from the effects stated in (a) above? (1mk) .....
  - 9. The diagram below illustrates an experiment to demonstrate the gas produced during fermentation.



After one hour the following observations were made:

- Gas bubbles appears in both tubes.
- White precipitate formed in lime water.
- (a) Account for the above observations. (3mks)



رم 10.(a) Pure lines of black and white mice were crossed. All the F1 generation w	ere
grey. Explain the absence of white and black mice in the F1 generation.	(1mk)
(b) Define multiple alleles.	(2mks)
······································	
11. The diagram below represents a chloroplast.	
do do do k More Free Kcst Past Past and do do L	
(a) Name the parts labeled M and L.	(2mks)
M:	
(b) List <u>two</u> processes that take place in the structure labeled K.	 (2mks)
12. Explain how geographical distribution of organism is an evidence of evolution.	organic (4mks)
13. A student used 1m <sup>2</sup> quadrat to determine the population of striga weed in a	a 20m x
Quadrat (throws Population of striga weed	

Quadrat (throws	Population of striga weed	
1	19	
2	12	
3	11	
4	14	
5	16	

	COR		
	Using the data above, determine the total population of striga weed.	(3mks)	
	ast papers visit www.freekceepestpape		
	14.(a) Why is the Afferent arteriole wider than the efferent arteriole in the kid	lney	
	<sup>e</sup> nephron?	(2mks)	
for Note fr	(b) Explain why plasma proteins and blood cells are absent in glomerular filtrate. (2mks)		
	15. Two strips A and B were from a potato whose cell sap was 30% sugar.	The strip A	
	was placed in a solution of 10% sugar concentration while strip B was pla sugar concentration.	aced in 50%	
	(a) What change was expected in strips A and B?	(2mks)	
	Strip A		
	Strip B:		
	(b) Account for the results in strip A.	(3mks)	

- 16. The diagram below represents a stage during cell division.
  - 17. The diagram below shows the difference in growth response to varying hormone concentration by root and shoot.



18. Give two structural differences between mooth muscles and skeletal muscles.

	XP87	(2mks)
Smooth muscle	Skeletal Muscle	
(i)	<u></u>	
(ii) stre		
Nat		

19. (a) Name the structure on the bodies of Arthropods responsible for intermitted growth curve pattern. (1mk) ..... (b) Mame the region in plants where the following take place: (i) Primary growth (1mk) FOT NOTE Free ..... (ii) Secondary growth (1mk) ..... 20. (a) State two importance of predation in an ecosystem. (2mks) ..... (b) Apart from predation, state two other biotic factors that will influence the distribution of an organism in an ecosystem. (2mks) ..... ..... 21. Differentiate between myopia and hypermetropia. (2mks) ..... ..... 22. State two advantages of hybrid vigour. (2mks) ..... ..... 23. Explain how the following factors determine the amount of energy human being requires in a day. (i) Basal Metabolic Rate. (1mk) ..... (ii) Age (1mk) .....

	24 Explain the significance of the following processes in living organism	
	(a) Reproduction.	(1mk)
	(b) Irritability.	(1mk)
	(c) Excretion.	(3mks)
	25. (a) What is the role of diastema in herbivores.	(1mk)
	(b) Mame the <u>two</u> types of periodontal diseases.	(2mks)
Notest	(c) What is the significance of emulsification?	(1mk)
\$0 <sup>1</sup>	26.Name <u>two</u> organelles present in unicellular organism but absent in c cellular organisms.	ells of multi- (2mks)
	27. Explain how increased temperature affects the rate of transpiration in pla	nts.
	28. Explain the adaptations of collenchyma as a tissue in plant.	(2mks)
	29. Name the disease of blood characterized by: (i) Crescent shape haemoglobin.	(1mk)
	(ii) Abnormally large number of white blood cells.	(1mk)
	30.A rainbow lizard was seen basking on a rock. Name <u>two</u> ways by wh heat by these behavioural process.	iich it gained (2mks)