



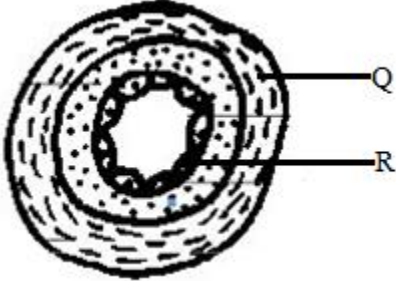
**JUNIOR CATEGORY EXAMS**

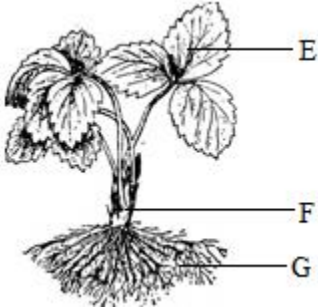
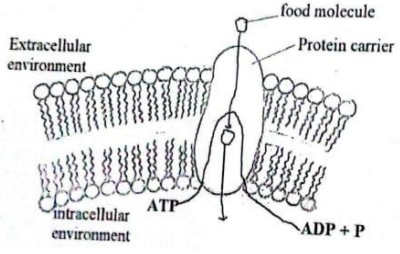
NAME.....SCHOOL CODE.....

TIME: 1HOUR

VENUE: .....

S/N	Question	Maximum Score	Students' Score
1	Explain two ways in which glycogen is formed ..... .....	(2marks)	
2.	Give the difference between cycad tree and cypress tree based on a) Position of cones ..... ..... b) Nature of leaves ..... .....	(2marks)	
3.	Write word equation for biochemical reaction that will take place in tissues of a) Donkey pulling a heavy cart ..... ..... b) Plant subjected to prolonged flooding ..... .....	(2marks)	
4.	Describe the role of starch grains contained in root endodermis ..... ..... .....	(3marks)	
5.	Give three ways in which mangroves are adapted to overcome physiological drought ..... ..... ..... .....	(3marks)	

6.	<p>The diagram below shows cross section area of a blood vessel. Examine it</p>  <p>a) Give the function of the blood vessel shown above  .....</p> <p>b) Explain how parts labeled Q and R adapts the blood vessel to its function</p> <p>Q.....  .....</p> <p>R.....  .....</p>	(3marks)	
7.	<p>Give three functions of water in blood.</p> <p>.....  .....  .....  .....</p>	(3marks)	
8.	<p>State the difference between arthropods and chordates based on</p> <p>a) Type of circulatory system  .....  .....</p> <p>b) Type of skeleton  .....  .....</p> <p>c) Respiratory surfaces  .....  .....</p>	(3marks)	
9.	<p>State two ways in which animals living in cold temperate areas cope up with the conditions in those areas.</p> <p>.....  .....  .....  .....</p>	(2marks)	

		(3marks)	
11.	<p>The diagram below shows morphology of a plant. Examine it.</p>  <p>a) Explain the functional relationship between organs labeled E, F and G</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>b) Give the role of ostia in insect circulatory system</p> <p>.....</p> <p>.....</p>	(3marks)	
12.	<p>Give two steps involved in milk digestion in the stomach</p> <p>.....</p> <p>.....</p>	(2mark)	
13.	<p>Explain how the inhaled air is cleaned before reaching the alveoli.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	(3marks)	
14.	<p>The diagram below illustrates a certain physiological process. Examine it</p>  <p>a) Identify the physiological process illustrated above</p> <p>.....</p> <p>b) Give two reasons for your answer in (a) above</p> <p>.....</p> <p>.....</p> <p>.....</p>	(1mark)	

15.	Taking warm water after a meal increases the rate of digestion. Explain ..... ..... ..... .....	(3marks)	
16.	Explain how ulcers develop in an individual who has ingested food infected with cyst of <i>Entamoeba histolytica</i> ..... ..... .....	(3marks)	
17.	Explain why mitochondria have thin membranes ..... ..... .....	(2marks)	
18.	An individual got an accident and one of his eyeballs got crushed. The damaged eyeball was replaced with an eyeball of rabbit. Hours later, the functionality of the transplanted eye reduced and finally stopped. Explain this phenomenon ..... ..... .....	(3marks)	
19.	A student observed 12 cells under light microscope using eye piece and objective lens magnification of $\times 10$ and $\times 25$ respectively. a) Calculate the actual length of one cell in millimeters given that the diameter of field of view was $60\mu\text{m}$ ..... ..... ..... ..... b) How would the result differ if the student changed objective lens to $\times 80$ ? Explain ..... .....	(2marks)  (2marks)	
<b>TOTAL</b>		<b>50 MARKS</b>	