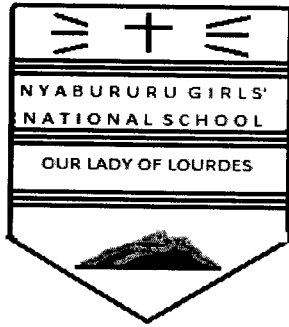


NAME.....CLS.....C.NO.....ADM.....



DATE DONE.....

INVIGILATOR.....

DATE RETURNED.....

DATE REVISED.....

**BIOLOGY**  
**FORM TWO C.A.T. 2**  
**PAPER 2**  
**TERM TWO 2016**  
**TIME: 2 HOURS**

**INSTRUCTIONS.**

- Write your name, class, class number and adm in the spaces provided above.
- Answer all questions in the spaces provided.
- In section B, answer question 6 (compulsory) then either question 7 or 8 in the spaces provided.

**FOR EXAMINER'S USE ONLY**

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1	8	
	2	8	
	3	8	
	4	8	
	5	8	
B	6	20	
	7	20	
	8	20	
	<b>TOTAL SCORE</b>	<b>80</b>	

**SECTION A**

1. An experiment was set up to investigate a certain physiological process. Three beakers were set up and labeled A, B, C containing distilled water, 0.9% sodium chloride solution and 9% sodium chloride solution respectively. A drop of blood was added to each beaker. The experiment was then left for one hour after which the cell were observed under a microscope.

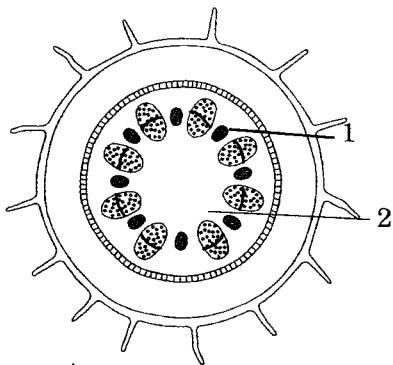
(i) State the physiological process that was being investigated. (1 Mk)

(ii) State and explain the observation that were made in;  
 (a) Beaker (distilled water) (2 Mks)

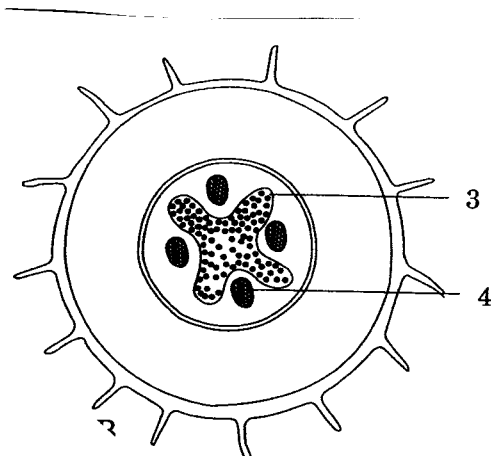
(b) Beaker B (0.9% Sodium Chloride solution). (2 Mks)

(ii) What other factors affect the physiological process stated above. (3 Mks)

2. The diagram below shows sections taken though the stem and root of a bean plant.



A



B

(a) (i) From which part of the plant in section A taken? Give reason. (2 Mks)

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

(ii) From which part of the plant is section B taken. Give reason. (2 Mks)

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

(b) (i) What is the name of the tissue which carries water and dissolved mineral salts. (1 Mk)

.....

(ii) Translocate manufactured food through the plant. (1 Mk)

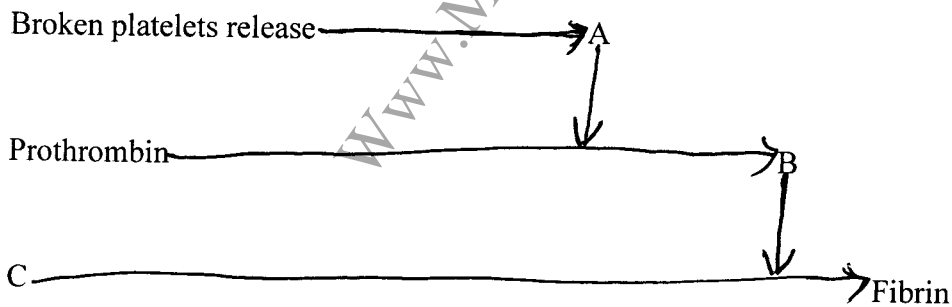
.....

(c) Name the parts labeled (2 Mks)

2 .....

4 .....

3. Study the diagram below and answer the questions that follow.



(a) Name the substances; (3 Mks)

A .....

B .....

C .....

(b) Name two enzymes required in the blood clotting process. (2 Mks)

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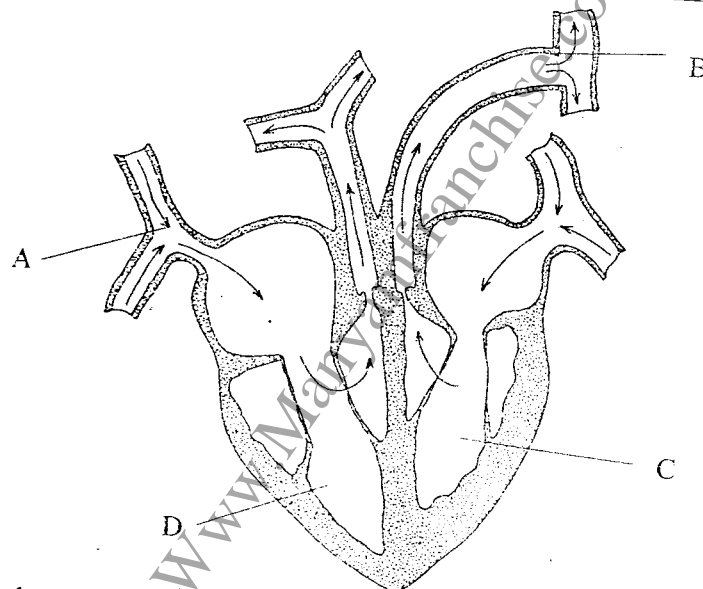
(c) State the metallic ion that is also necessary for the conversion of prothrombin to substance B. (1 Mk)

.....

(d) State two environmental factors that affect the rate of transpiration in plants. (2 Mks)

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.....  
.....

4. The diagram below shows a section through the heart of a mammal.



(a) Label the parts marked; (4 Mks)

A .....  
B .....  
C .....  
D .....

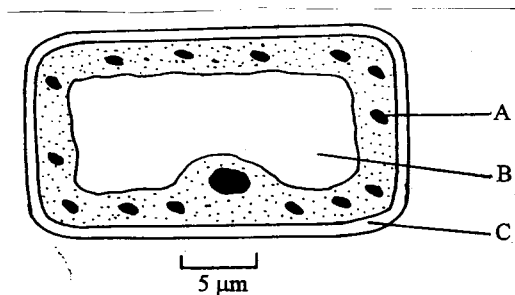
(b) State two structural difference between blood vessels A and B. (2 Mks)

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.....  
.....

(c) Explain why chamber C has thicker wall than the chamber labeled D. (2 Mks)

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.....

5. Study the diagram and answer the questions that follow.



(i) Name three structures that show that this is a plant cell and not an animal cell. (3 Mks)

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

(ii) Name one chemical compound that is only found in the structure labeled A and state its function. (2 Mks)

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

(iii) What is the main chemical compound found in the structure labeled c. (1 Mk)

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

(iv) Name the fluid found in part labeled B and state its function. (2 Mks)

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