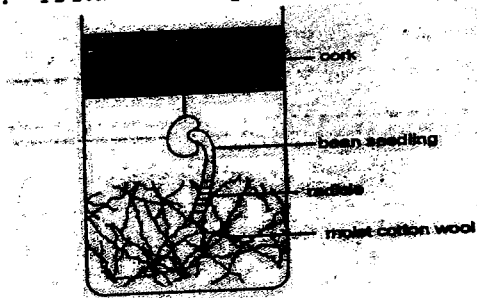


ADM..... NAME..... CLASS.....

**FORM FOUR BIOLOGY MID – TERM EXAMINATION**  
**Term I 2015. Time 1½ hours**

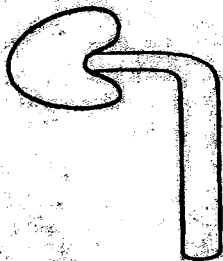
Answer all the questions in the spaces provided in the question paper.

1. A student set up an experiment as shown in the diagram below.



(a) What was being investigated in the experiment. (1mk)

(b) On the diagram below, indicate the expected results after 2 days. (2 mks)



(c) Give the reason why the cotton wool in the container was moist. (1mk)

(d) What is the role of each of the following to a germinating seed (2mks)

(i) Oxygen

(ii) Cotyledon

(2mks)

(1mk)

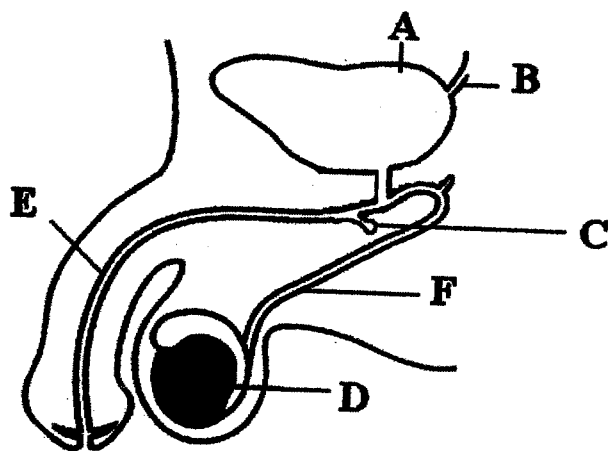
(e) Small seeds require light immediately after germination. Explain

(1mk)

(f) State four roles of water in germination.

(4mks)

2. The diagram below shows the male reproductive system.



a) Give the letter of the structure on the diagram that matches each of the following descriptions.

i) Where sperms are formed

(1mark)

ii) The ureter

(1 mark)

i) Tube that would be cut if the man was to be sterilized.

(1mark)

iv) Where urine is temporarily stored

(1mark)

b) Complete the sentence below.

(2 marks)

Sperms are deposited close to the cervix, and swim from there to the .....where fertilization takes place. The new cell formed after fertilization is called.....

c) Gonorrhoea is a disease that is spread by sexual intercourse. Give two ways by which the spread of gonorrhoea can be reduced. (2 marks)

3. Form four carried out an experiment to investigate the rate of growth of pollen tube against time.

The results were tabulated in a table below as shown below

| Time in minutes | Length of pollen tube in millimeters |
|-----------------|--------------------------------------|
| 0               | 0                                    |
| 20              | 4                                    |
| 40              | 9                                    |
| 60              | 15                                   |
| 80              | 20                                   |
| 100             | 21                                   |
| 120             | 22                                   |

(a) Plot a graph of pollen tube length against time on the graph paper provide (6mks)

(b) (i) Determine the growth rate between 80 minute and 34 minute (2mks)

.....  
 .....

(ii) What was the length of the pollen tube at 90 minutes (1mk)

.....  
 .....

(iii) AT what time was the length of the pollen tube was 18mm (1mk)

.....

(c) With reasons, describe the growth pattern of the pollen tube between

(i) 0-80 minutes

(2mks)

.....  
.....

(ii) 80-120 Minutes

(2mks)

.....  
.....

(d) Give the importance of the growth of pollen tube to the plant

(2mks)

.....  
.....

(e) Mention the changes that take place in a flower after fertilization

(4mks)

.....  
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