FORM FOUR CLUSTER KCSE MODEL5

BIOLOGY PAPER 3 QUESTIONS

1. Label 4 (four) test tubes J,K,L and M. Measure 5ml of the hydrogen peroxide provided and place in each test tube. Peel the potato provided and obtain three cubes of about 1cm3. Grind one of the cubes and add water and boil the mixture for five minutes. Place it in tube J. Grind another cube and place it tube K. Place the remaining cube inside tube L. Cut about 1cm3 of specimen N. Grind it and place it in tube M.

   a) i) Compare the observations made in tube J and K.

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   ii) Account for your answer in (i) above.

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   b)

   i) Compare the observations made in tube K and tube L.

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   ii) Account for your observations in b (i) above.

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   .....

   c)

   i) Compare the observations made in tube K and tube M.

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   ii) Account for your observations made in c (i) above.

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   d) Write a word equation for the reaction taking place in tube M.

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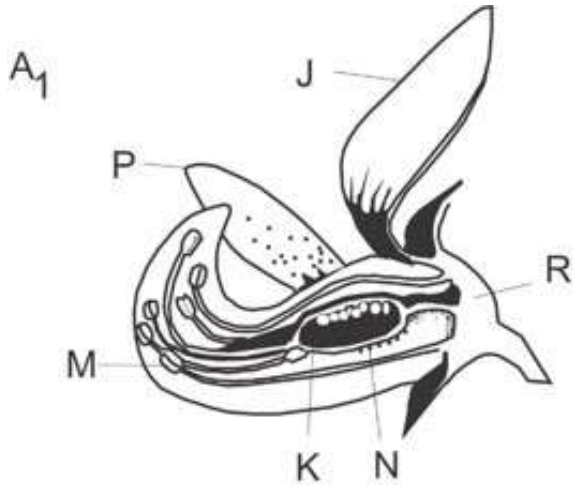
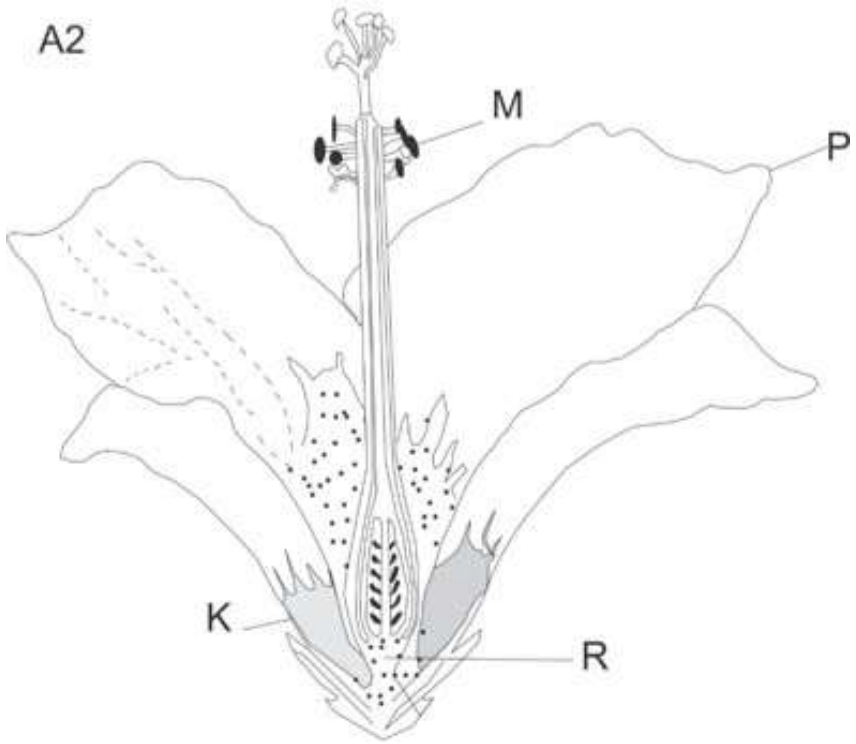
2. Below are photographs labelled A1,A2, of floral parts from two different plants. Study them carefully then answer the questions that follow.





a) State with a reason the plant division from which the specimens were obtained. Division

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Reason

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b) State with a reason the agent of pollination of the above named specimens
Agent……
Reason……
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c) Using observable featured only, state the major differences between specimen A1 and A2.

d) Identify the parts labelled J,K,R and M

J……

K……

R……

M……

e) Describe the floral parts of specimen A2

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f) Describe the androecium of specimen A1

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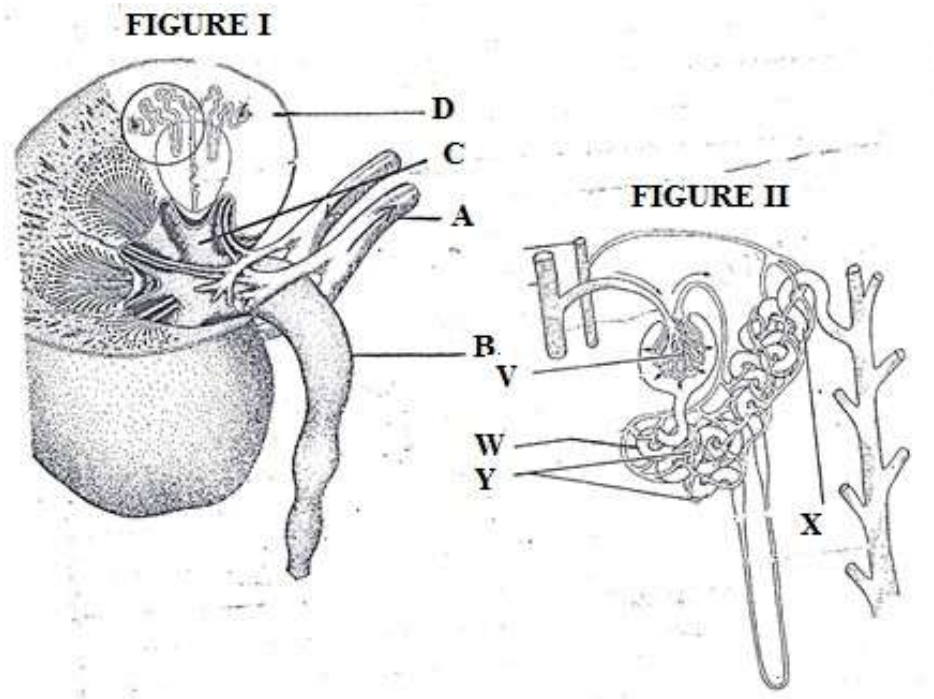
3. Below are diagrams of part of the urinary system. Examine them.



a)

i) Name the parts labelled A,B,C and D in figure 1

A……

B……

C……

D……

ii) Name the parts labelled V,W,X and Y in figure 11.

V……

W……

X……

Y……

b) State two adaptations of part labelled W to its function.

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c) From the diagram, name the part where; i) Counter current flow occurs

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ii) Reabsorption of water occurs

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d) Explain what would happen to the process of urine formation in absence of anti-diuretic hormone (ADH) ……
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