

**FORM FOUR CLUSTER KCSE MODEL 6**  
**BIOLOGY PAPER 3 QUESTIONS**

1. You are provided with specimens labelled Q and R. Make a transverse section of Q.

a) Draw and label the transverse section of specimen Q. (3marks)

b) State the magnification of your drawing. Show your working (2marks)

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c) With a reason, in each case, state the type of fruit for specimen Q and R. Q Type of fruit (1mark)

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Reason (1mark) .....

R Type of fruit (1mark) .....

Reason (1mark) .....

d) Make a transverse section of R. i) Suggest the mode of dispersal of R giving one reason for your answer. (1mark)

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ii) Give a reason for the mode of dispersal in d (i) above. Reason (1mark)

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e) Give two differences between specimen R and Q using the transverse sections. (2marks)

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2. You have been provided with Benedict's solution, DCPIP, Iodine solution, Sodium hydroxide solution and 1% copper sulphate solution. Use them to establish the food nutrients contained in solution Z. Use the table below to show your findings.

	<b>Food substance</b>	<b>Procedure</b>	<b>Observation</b>	<b>Conclusion</b>
1				
2				
3				
4				

3. You are provided with a cube of liver tissue and a cube of Irish potato, cut the liver tissue into two equal portions. Do the same for Irish potato tissue. In a test tube labelled A, place boiled piece of liver tissue. In test tube B, put the remaining piece (unboiled) of liver tissue. In test tube C, Put fresh piece of potato tissue and in test tube D, Put crushed pieces of Irish potato.

a) Add 2mls of hydrogen peroxide in test tube A and make your observations after 1 minute. Repeat the procedure in test tubes B, C and D. Record your observations in the table below

Test tube	Observations
A	
B	
C	
D	

b) Give one reason for difference in observation between test tube A and B. (1mark)

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c) Why were the contents in test tube D crushed? (1mark)

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d) Give a word equation for the reaction in test tube C. (2marks)

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e) Name the enzyme that caused the reaction in test tube A. (1mark)

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f) Of what importance is such a reaction in a human body? (1mark)

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g) Give five other roles of the mammalian liver other than the one being tested in the above experiment. (5marks)??

- i) .....
- ii).....
- iii).....
- iv).....
- v).....