**NAME ……………………………………………………………………...…CLASS..............…**

**ADMNO………..………………..…SIGN………………………….…………………..………...**

**231/3**

**BOLOGY**

**PAPER 3**

**SEPT/OCT - 2024**

**TIME: 13/4HOURS**

**MOI GIRLS’ HIGH SCHOOL - ELDORET**

**K.C.S.E – TRIAL EXAMS 2024**

**BIOLOGY PRACTICAL**

**Instructions**

Write your name, class and admission number in the space provided above.

Write the date of the examination and sign in the space provided above.

Answer all the questions in the space provided above.

You will be penalized for wrong spelling especially technical terms.

**For examiner’s use only**

|  |  |  |
| --- | --- | --- |
| **QUESTION** | **MAXIMUM SCORE** | **CANDIDATES SCORE** |
| **1** | **16** |  |
| **2** | **15** |  |
| **3** | **09** |  |
| **TOTAL** | **40** |  |

1. You are provided with solutions labelled K, L, X iodine Benedicts. Use them to perform the experiment below and answer the questions that follow.

1. Using the reagents provided, test for the presence of starch and reducing sugars in the solution labelled X. Use two drops of solution X to carry out the food test. (6 marks)

|  |  |  |  |
| --- | --- | --- | --- |
| Food test | Procedure | Observation | conclusion |
| Starch |  |  |  |
| Reducing sugars |  |  |  |

b) Add two drops of the solution K to equal amount of the solution X, maintain the mixture in temperature range of 30-38°C for 20 minutes and repeat the food test above. Fill in the table below. (4 marks)

|  |  |  |
| --- | --- | --- |
|  | Observation | Conclusion |
| Starch |  |  |
| Reducing sugars |  |  |

1. Identify solutions (2 marks)

X ………………………………………………………………………………

K …………………………………………………………………………………

1. Give a reason for the identity K (1 mark)

………………………………………………………………………………………

c) Add 2 drops of the solution K to equal amount of solution X, add 3 drops of solution L, maintain the mixture the same temperature range as in (b) above and repeat the food test for starch and reducing sugars. Fill the table below. (2 marks)

|  |  |
| --- | --- |
| Food test | Conclusion |
| Starch |  |
| Reducing sugars. |  |

1. Give the identity of solution L (1 mark)

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1. Explain the identity above in (ci) above (1 mark)

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2. use the photograph alongside to answer the following questions

a) State two characteristics of bone labelled A (2 marks)

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………………………………………………………………………………………

b)i) Name the joint labelled B (1 mark)

………………………………………………………………………………………

1. What is the name of the substance found at B and state its functions

(3 marks)

Name: ……………………………………………………………………………

Function: ……………………………………………………………………………

………………………………………………………………………………………

c)i) State two adaptation of the bone labelled C (2 marks)

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

ii) Name the muscle attached to the part labelled C and state two characteristics of the muscle.

Name: …………………………………………………………………(1 mark)

Characteristics ………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

(2 marks)

d) State a difference between joints D and E (1 mark)

………………………………………………………………………………………

………………………………………………………………………………………

e)i) Name the membrane at the part labelled D (1 mark)

………………………………………………………………………………………

(ii) State two functions of the membrane in (e)i) (2 marks)

………………………………………………………………………………………

………………………………………………………………………………………

3. Uniform coleoptile were used to carry out experiments in the dark as shown in the following figure. The tips of coleoptiles B and C in experiments Q and R were cut off.

1. What conclusions can be drawn from the experiment P (1 mark)

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1. Why was plain a jar used in the experiment Q (1 mark)

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………………………………………………………………………………………

1. Explain results in experiment Q (1 mark)

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1. From the results of experiments Q and R, what can you conclude about the movement of auxin in the coleoptile (2 marks)

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1. What would have happened if the experiments were carried out in uniform light. (1 mark)

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1. If one of the seedlings was grown in a dark room;
2. State two observations made on the seedling (2 marks)

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1. Name the phenomenon that led to the observation above (1 mark)

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