**THE TOP SCHOOLS MULTILATERAL SERIES 2 FORM 3 MIDTERM 1 EXAMS 2024**

**NAME: ………………………………….. ADM NO: …………. CLASS: ……….**

**INSTRUCTIONS TO CANDIDATES:**

1. You are provided with food substance labeled solution G. The reagent provided are Iodine solution, Benedicts solution, 2M HCl acid, 10% Sodium hydroxide solution Copper (II) sulphate and 10-% Sodium hydroxide solution.

 (a) Perform food tests and fill in the table below. (12 mks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Food substance** | **Procedure** | **Observation** | **Conclusion** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

 (b) (i) Name the enzyme responsible for digestion of food substance present in G in two named

 regions of the human alimentary canal. (2 mks)

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 (ii) Name three deficiency diseases in children that may result from lack of one of the food

 substances in G. (1 mk)

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2. Study the kidney diagrams below.



1. (i) Name the parts labeled **A**, **B**, **C** and **D** in figure **1**. (4 marks)

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(ii) Name the processes that take place in the parts labeled. **V and W** (2 marks)

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(b) State **two** adaptations of the part labeled **W**. (2 marks)

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(c) On the diagram name the part where counter current flow occurs. (1 mark)

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(d) State **two** homeostatic functions of the diagram above. (2 marks)

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(e) Explain what will happen to the process of urine formation in absence of vasopressin hormone.

 (4 marks)

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3. The photographs on the leaf attached are of animals belonging to the same taxonomic unit (class).



a) i) Name the class to which the organisms in the photographs belong. (1mk)

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ii) State three reasons for your answer in a) (i) above. (3mks)

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b) State three economic importance of organisms in this class. (3mks)

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c) Use the following characteristics to prepare a two step dichotomous key of the animals in the photographs. (4mks)

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