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**UGANDA CERTIFICATE OF LOWER SECONDARY EDUCATION**

**COMPETENCE BASED ASSESSMENT EXAMINATION**

 **S3 Ρ533/1 BIOLOGY**

 **(THEORY)**

**MID-TERM 1 2023**

**TIME: 2 HOURS**

**Instructions**

**This paper consists of two sections i.e. Section A and Section B**

**Answer all questions in Section A and choose any two questions from Section B.**

**SECTION A (40 MARKS)**

1. **A S.3 placed a candle at two varying distances i.e. 100cm and 5 cm respectively from a plant placed in a pot. Explain how this affects the amount of food manufactured by the plant? ( 4 marks)**

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1. **Why should we take care of our teeth? (4 marks)**

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1. **Explain the features of a fertile soil? ( 4 marks)**

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 **4a) Animals obtain their food by feeding on plants and so called heterotrophs. Explain how plants obtain their energy they use to make their food? (2 marks)**

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**b) How do animals obtain the energy from plants? (2 marks)**

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**5. How does temperature affect the working of an enzyme? (4 marks)**

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**6. The cell membrane controls the entry and exit of certain substances into the cell. Explain why it is important to move materials in and out of the cell? (4 marks)**

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**7. Explain how the root hair absorbs water and mineral salts from the soil? (4 marks)**

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**8. Joan observed carefully a plant leaf and she saw water droplets on the upper epidermis of the leaf. Of what importance is that process taking place in the plant leaf? (4 marks)**

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**9. Jesca used not to sleep under a mosquito net while at school. She woke up to go for morning lessons but was feeling dizzy, had body weakness, and serious fever. What could have caused those conditions and how does the body respond to such? (4marks).**

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**10a) Why is it important to eat a balanced diet? (2 marks)**

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**b) How does the body of a starving individual obtain energy? (2 marks)**

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**SECTION B (40 MARKS)**

**Choose any two questions from this section. Begin each question on a fresh page.**

**11a) Giving an example in each case, explain why it is important to conserve insects? (10 marks)**

**b) Describe the different methods of controlling the harmful stages of insects (10 marks)**

**12a) Describe an experiment you can carry out to determine the percentage of air in the soil (10 marks)**

**b) Of what importance is air and water in soil to other living organisms? (4 marks)**

**c) How best can one control erosion of soil in your community? (6 marks)**

**13a) It is advised that you always have a meal containing all nutrients in their right amounts for proper growth. Discuss the effects of nutrient deficiency in humans. (10 marks)**

**b) What are the factors that affect the rate of photosynthesis? (10 marks)**

**14a) How is the root hair adapted for absorption of water and mineral salts? (6 marks)**

**b) Why is circulation of blood important in human body? (8 marks)**

**c) Using your knowledge of blood transfusion, explain why it is not possible for a person of blood group B to donate blood to one of blood group A.**

**END**

***THINK AND GROW RICH***