2023 MOCK 2 BIOLOGY 2

Paper 2

Answer **three** questions in all; **two** questions in section **A** and one compulsory question in section **B**

SECTION A 1Hr 40min

*Answer **two** questions **only** from this section*

1 (a) (i) What are phototrophs?

(ii) Give **three** (3) differences between photosynthesis and chemosynthesis

(b) (i) Describe the functional unit of the mammalian kidney

(ii) Name the organs in human body that are concerned with homeostasis

2 (a) Explain the following:

(i) Food chain

(ii) Food web

(iii) Pyramid of numbers

(b) (i) Mention any **three** biotic factors that may affect a bee in its habitat

(ii) Mention **five** (5) characteristics of monosaccharides

(c) (i) Describe how blood capillaries in the skin enables a mammal to maintain a constant Body temperature

3. (a) (i) Describe the bone of the lower arm of a human

(ii) Give the locomotory structures for the following organisms

(α) Crayfish

(β) Bat

(γ) Earthworm

(μ) Chlamydomonas

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(b)(i) Differentiate between a permeable membrane and semi permeable membrane

(ii) Give **three** (3) importance of turgidity to plants

(c) (i) Give **five** characteristics of class Aves

4. (a) (i) What is a gene?

(ii) Differentiate between phenotype and genotype

(b) In a garden pea seeds, smooth seed coat is dominant over rough seed coat. Determine the result expected if a homozygous rough pea is crossed with smooth seed coat plant whose parent were rough coated?

SECTION B

*Answer **all** the questions in this section*

5. (a) State five ways in which protein is important to animals.

(b) What is trophic level

(c) Mention four ways by which plants can reduce high rate of transpiration

(d) Distinguish between hydrophytes and xerophytes

(e) Give three examples of insectivorous plant

(f) (i) What is pollution?

(ii) Give three effects of water pollution

(g) (i) define *dislocation*

(ii) state **four** signs of dislocation

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