INTERSECONDARY SCHOOLS EXAMINATION SERIES
ISESE

FORM THREE SERIES No.01

033/1 **BIOLOGY 1**

TIME 3 HRS **Year 2026**

INSTRUCTIONS

1. This paper consists of section A, B and C
2. Answer all questions from section A, B and only **two (2)** questions from section C
3. All answers must be written in the space provided
4. All writing must be in blue or black ink.
5. Write your number at the top right hand corner of every page.

FORM ONE AND FORM THREE SERIES EXAMINATION
ISESE TIME TABLE
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ALL SUBJECTS	DATE
SERIES - 01	03rd August 2026
SERIES - 02	10th August 2026
SERIES – 03	17th August 2026
SERIES - 04	24th August 2026
SERIES – 05	31st August 2026

NB# SERIES No.06 – No.10 (SEPTEMBER – OCTOBER)
WE ALSO HAVE EXAMINATION SERIES FOR FORM TWO, FORM FOUR, FORM FIVE AND FORM SIX

SECTION A (16 Marks)

Answer **ALL** questions from this section

1. For each of the item (i-x) choose the correct answer from the given alternatives and write its letter beside the item number in the answer sheet provided.

i. A patient has been diagnosed with high level of blood sugar. Which hormone would you recommend to regulate the victim's sugar?

A. Glucagon
B. Insulin
C. Aldosterone
D. Testosterone
E. Antidiuretic

ii. As a First aider which of the following you can advise the and matron not to do to a person who is bitten by a snake during giving first aid,

A. Tying with a soft cotton cloth a victim part at the upper
B. Laying a victim at a comfortable area
C. To take a victim from a dangerous area
D. Giving an alcohol to a victim
E. Giving a hopeful words a victim

iii. All substances carried by the blood toward the kidney are filtrated during urine formation but the following food substance is not one of the glomerulus filtrate

A. Glucose
B. Protein
C. Water
D. Amino acids
E. Mineral salts

iv. Msaki was driving a bicycle in a sun day hour he lost a lot of water through sweating. Which of the following organs are responsible for water loss?

A. Skin.
B. Kidney
C. Liver
D. Stomach
E. Nephron

v. Which of the following is an example of a mutualistic relationship?

A. A caterpillar eating tomato plant
B. A flowering plant and its pollinators
C. A plasmodium inside the human body
D. A tick and a cow
E. A lion and antelope

vi. Which of the following is the site of digestion where both mechanical and chemical digestion occurs?

A. Stomach.
B. Oesophagus.
C. Mouth
D. Small intestine.
E. Duodenum

vii. The joints which allow movement in many (all) directions are;

A. Glind and hinge joints
B. Glind and pivot joints
C. Ball and socket joints
D. Ball and glind joints
E. Socket and hinge joints

viii. Mr.Msaki, a form one biology teacher at U.B.N Secondary School set experiment to demonstrate the effect of fertiliser on plant, growth. He applied right amount of fertiliser on farm A and farm B left without any treatment. What does farm A represent.
A. Hypothesis
B. Experiment group
C. Control group
D. Dependent variable
E. Controlled variable

ix. A food sample x turned blue black when treated with iodine solution. The detected food substance in sample x performs which function in the human body?
A. Initiate digestion of food
B. Supplies the body with sufficient water
C. Builds up the body
D. Strengthen body immunity by fighting with infections
E. Provides the body with energy

x. Plants do not need specialised excretory system like animals because of the following reasons, except?
A. Have large vacuole which store wastes
B. They produce less poisonous substances
C. They have cell wall made up of cellulose
D. They can store the waste in organisms that are destined to fall off or die off
E. Their rate of producing waste products is very small

2. Match the hormone in **LIST A** with their corresponding effect in human body in **LIST B** by writing the letter of the correct response beside the item number in the answer sheet provided

LIST A	LIST B
(i) Oxytocin (ii) Vasopressin (iii)Prolactin (iv)Luteinizing (v) Calcitonin (vi)Progesterone	A. Acts on kidney tubules to regulate amount of water to be reabsorbed B. Stimulate production of milk to the lactant mother. C. Causes the release of ovum from the ovary D. Causes the development of Grafian follicle in ovary. E. It is produced during emergency to prepare the body to act or run. F. It converts glycogen to glucose in liver cells. G. Secreted by thyroid gland to regulate the level of calcium in blood. H. It stimulates the contraction of uterus during childbirth. I. It facilitates the uptake of glucose in cells, muscles and liver. J. Maintains pregnancy by preventing production of oval and contractions of the uterine walls

SECTION B (54 Marks)

Answer **ALL** questions from this section

3. A woman visited a food seller and bought the following foods: eggs, irish potatoes and sun flower seeds.
(a) Identify the type of nutrient found in each of the food items listed.
(b) Give functions of the nutrient identified in the eggs.

4. In a school setting, a group of students consistently neglects personal hygiene practices such as regular hand washing, wearing clean uniforms, and using the toilet properly. at the same time, they show poor manners, including interrupting others, shouting in class and ignoring instructions from teachers.
(a) Analyze how the lack of personal hygiene and poor manners can affect not only the individuals involved but also the healthy safety and learning environment of the whole school.
(b) Propose and justify three school-wide strategies that can promote both personal hygiene and good manners among students?

5) A girl is walking in a forest when she suddenly sees a snake in front of her. She immediately stops, feels fear, and her body begins to tremble.
(a) Describe how her sense organs and nervous system work together to detect and respond to this danger.
(b) Outline the role of brain in processing this information and coordinating her reaction.
(c) Explain how coordination between the nervous and endocrine systems prepares her body to escape.

6 a) In natural environment organisms do interact with one another and with- non-living things so as to maintain the ecosystem, briefly explain three (3) symbolic ways in which organism used to interact
b) In a certain ecosystem there were following organisms: grasser, grasshopper, Toad, Bacteria and Snake. Construct the feeding relationship that will accommodate all.
c) Identify trophic levels for each organism in the feeding relationship above.

7. (a) Describe how antagonistic muscles and joints work together to produce movement in human arm.
(b) Compare the movement mechanisms in an earthworm and grasshopper, highlighting at least three major differences.

8. Water and salt are needed in constant optimal amounts for effective and proper functioning of the body.
a) Explain three factors which affect the content of the water and salt in the human body.
b). Mention the two hormones which are responsible for regulation of water and salts in the body

SECTION C (30 Marks)

Answer **ONLY TWO (2)** questions from this section

9. Describe the human circulatory system and explain how it functions to maintain life.

10. It is just a human nature for the woman to experience monthly discharge of the uterus lining, dead ovum and epithelial cells of the uterus as debris out of the vagina.
a) What biological term you would use and explain the biological phenomenon above.
b) The process in (a) above is controlled by four hormones and each hormone performs its specific roles. As biology student how would you justify the statement?
c) As an expert in food and nutrition department, which types of food would you advise the women to use for the replacement of the blood being discharged during the process in (a) above

11. There are lot of microorganisms around us which can cause harm to our health. Justify with six (6) points on how our bodies defend themselves against them.