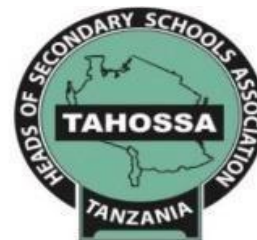


Candidate Number.....



THE PRESIDENT'S OFFICE – RALG
TAHOSSA ROMBO DISTRICT EXAMINATION SYNDICATE
FORM FOUR MOCK EXAMINATION



033/1

BIOLOGY 1

TIME: 3:00 Hours

August, 2024

Instructions

1. This paper consists of sections **A, B** and **C** with a total of **eleven (11)** questions.
2. Answer **all** questions in section A and B and any **two (2)** question from section C
3. Section A carries **sixteen (16)** marks, section B carries **fifty-four (54)** marks and section C carries **thirty (30)** marks.
4. All writing must be in blue or black ink **except** drawings which must be in pencil
5. All communication devices and any unauthorized materials are **not** allowed in the examination room
6. Write your **Examination Number** on every page of your answer sheet(s) provided

FOR ASSESSOR'S ONLY		
QUESTION NUMBER	SCORE	MARKER'S INITIALS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
TOTAL		
CHEKER'S INITIALS		

SECTION A: (16 Marks)

Answer **all** questions

1. For each of the following items (i) – (x) choose the correct answer among the given alternatives and write its letter besides the item number on the answer sheets provided.
- (i) Assume your friend accidentally cut his finger, which item will you use instead of gloves to stop him from bleeding,
A. Socks. B. Tin. C. Plastic bag D. Paper. E. Piece of cloth
- (ii) During a practical session Adam picked a plant which had the following characteristics; fibrous root system, non-Woody stem, vascular bundles without cambium and the flowers contained six sepals and six petals. As a biologist what class of a plant picked by Adam belongs?
A. Dicotyledonae. B. Angiospermophyta. C. Coniferophyta
D. Monocotyledonae. E. Pteridophyte.
- (iii) The following are the organs responsible for blood sugar regulations;
A. liver and heart. B. Kidney and liver C. Heart and kidney
D. Pancreas and liver. E. Spleen and liver.
- (iv) Kameme 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) A man with brown iris eyes married a woman with blue iris eyes, in F1 generation all of their offspring were brown iris eyes. What does this suggest about brown iris color?
A. Incomplete dominance
B. Complete dominance.
C. Co dominance
D. Multiple allelism.
E. Partial dominance
- (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) All of the following are respiratory surface EXCEPT,
A. Skin. B. Lung C. Leaves D. Gills. E. Heart
- (viii) Which of the following is the correct order of events?
A. Ovulation, fertilization, implantation.
B. Fertilization, ovulation, implantation
C. Implantation, fertilization, ovulation
D. Fertilization, implantation, ovulation
E. Ovulation, implantation, fertilization
- (ix) Which features are found in both plant and animal cell?
A. Cell membrane, cell wall and chloroplast
B. Mitochondria, nucleus and cell wall

- C. Cell membrane cytoplasm and nucleus
 - D. Chloroplast, nucleus and cytoplasm
 - E. Vacuole, cell wall and nucleus.
- (x) Which field of study is not related to biology?
- A. Agriculture.
 - B. Evolution
 - C. Medicine
 - D. Forestry.
 - E. Sociology

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	A. Acts on kidney tubules to regulate amount of water to be reabsorbed
(ii) Vasopressin	B. Stimulate production of milk to the lactant mother.
(iii) Prolactin	C. Causes the release of ovum from the ovary
(iv) Luteinizing	D. Causes the development of Graafian follicle in ovary.
(v) Calcitonin	E. It is produced during emergency to prepare the body to act or run.
(vi) Progesterone	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 in this section

3. Matando and his family during the holiday visited Mikumi National Park and on morning around the park, the following organisms were observed; Zebra, Giraffe, lion, grasses, mushroom, hyena and antelope.
- (a) Construct a simple food web from the organisms given above.
 - (b) Construct two (2) food chains from the organisms observed in the National Park
 - (c) Identify organism(s) which are
 - (i) Producer (s)
 - (ii) Secondary consumer(s)
 - (iii) Decomposer

4. (a) Makoke is a civil engineering student at certain university. He is doing a research at your school for the construction of a good laboratory. As a form four student, explain four qualities he must consider when constructing a good laboratory
- (b) While walking to home Jilulu was bitten by a snake. She was given immediate care before she was sent to hospital
- (i) What is the name is given to an immediate care given to JILULU?
- (ii) What do you think is important to do so? Mention any four points.
5. (a) Explain six (6) causes of infertility in male
- (b) Give out three significance of the process which take place in the somatic cell during growth of an organism.
6. (a) How Gregory Mendel Said about inheritance of trait of different organisms?
- (b) In an experiment variety of bean seeds having Red Speed coats were crossed with white seed coated beans; all the beans seed obtained in F1 generation had Red sees coats. When the F1 Generation were selfed total of 7324 seeds were obtained.
- (i) Using appropriate genetic symbols work out the genotypic ratio of F1 generation and genotypic ratio of F2 generation
- (ii) From the information above find total number of red seeds
- (iii) Find the percentage of white and red seeds.
7. (a) Asha was suffering from diabetes mellitus when she went for medical treatments was advised to reduce intake of carbohydrate (glucose) in order to reduce the amount of glucose in the blood stream. What are the hormones are involved in the blood sugar balances?
- (b) For each hormone you have mentioned in 7(a) above state cell where those hormones are produced.
- (c) With help of equation explain the mechanism that take place when the hormones named above are involved in regulation of glucose.
8. (a) Why do you think photosynthesis is a vital process for all living organisms? Give four (4) points
- (b) How is small intestine adapted to its functions? Give five (5) points.

SECTION C (30 Marks)

Answer **two (2)** questions from this section

9. Body of human being is made up of frame work of interconnected bones which play crucial roles to the body. Justify the statement
10. At Mtakuja village people have a belief that only those who are seriously sick should visit the hospital for VCT. This belief is totally wrong. Use **six (6) points** to show wrong side of this belief.
11. Respiration in absence of oxygen is common to both plants and animals: -
- a) Explain how this type of respiration differ in plants and animals.

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- b)** Explain how is it commercially and industrially useful (**05 points**)