

O

MARCH 2023

The Teachers' Resource Unit and the Regional Inspectorate of Pedagogy, in collaboration with NASTA	SUBJECT CODE NUMBER 0510	PAPER NUMBER 1
GENERAL CERTIFICATE OF EDUCATION REGIONAL MOCK EXAMINATION	SUBJECT TITLE BIOLOGY PAPER	
CANDIDATE NAME:		
CANDIDATE NUMBER:		
CENTRE NUMBER:		
ORDINARY LEVEL		

Time Allowed: One and a half hours
INSTRUCTIONS TO CANDIDATES:

Mobile phones are **NOT ALLOWED** in the examination room.

1. USE A SOFT HB PENCIL THROUGHOUT THIS EXAMINATION.
2. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Before the Examination begins:

3. Check that this question booklet is headed "Ordinary level—0510 code and subject title— BIOLOGY -Paper 1".
4. Insert the information required in the spaces above.
5. Without opening the booklet, pull out the answer sheet carefully from inside the front cover of this booklet. Take care that you do not crease or fold the answer sheet or make any marks on it other than those asked for in these instructions.
6. Insert the information required in the spaces provided on the answer sheet using your HB pencil:

Candidate Name, Centre Number, Candidate Number, Subject Code Number, and Paper number

How to answer questions in this examination:

7. Answer ALL the 50 questions in this examination. All questions carry equal marks.
8. Non-programmable calculators are allowed.
9. For each question there are four suggested answers, A, B, C and D. Decide which answer is correct. Find the number of the question on the Answer Sheet and draw a horizontal line across the letter to join the square brackets for the answer you have chosen. For example, if C is your correct answer, mark C as shown below:

[A] [B] [C] [D]
10. Mark only one answer for each question. If you mark more than one answer, you will score zero for that question. If you change your mind about an answer, erase the first mark carefully, and then mark your new answer.
11. Avoid spending much time on any question. If you find a question difficult, move to the next. You can come back to the question later.
12. Do all rough work in this booklet using, where necessary, the blank spaces in the question booklet.
13. You must not take this booklet and answer sheet out of the examination room. All question booklets and answer sheets will be collected at the end of the examination.

Section I (Seven questions)

Question 1-7

Direction: Each of these questions or incomplete statements is followed by four suggested answers. Select the best answer in each case and mark the answer sheet appropriately.

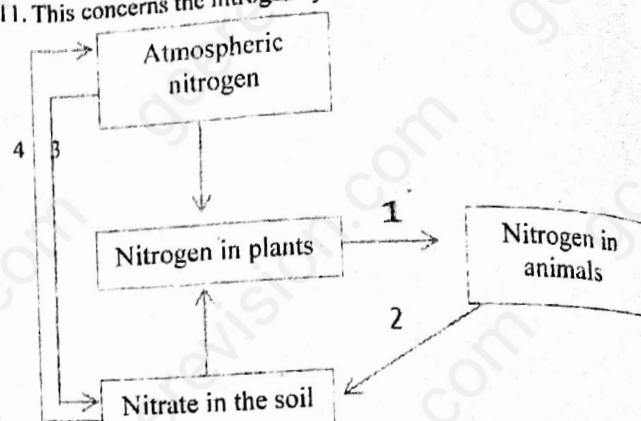
1. A secretion released into the alimentary canal which does not contain enzymes but speeds up fat digestion:
 - a) Intestinal juice
 - b) Bile
 - c) Pancreatic juice
 - d) Saliva
2. If a joint allows movement in any direction it is called:
 - a) Rotating joint
 - b) Sliding joint
 - c) Hinge joint
 - d) Ball and socket joint
3. Two body organs where reabsorption of water occurs include:
 - a) Colon and kidney
 - b) Kidney and liver
 - c) Liver and duodenum
 - d) Duodenum and colon
4. Which of the following statements about exhalation is true?
 - a) Intercostal muscles contract moving ribs upward and outward.
 - b) Diaphragm contracts and flattens.
 - c) Volume of thoracic cavity decreases.
 - d) Pressure in thoracic cavity decreases
5. In Fungi, which of the following is the main component of the cell wall?
 - a) Lipids
 - b) Cellulose
 - c) Chitin
 - d) Sugars
6. A natural unit composed of living and non-living components whose interaction results in stable and self-perpetuating system is an example of:
 - a) A community
 - b) A biome
 - c) An ecosystem
 - d) A biosphere
7. What is transpiration?
 - a) Rise of water up the stem of a plant
 - b) Form of respiration in plants
 - c) Secretion of water essential for photosynthesis.
 - d) Loss of water vapour from the leaves of plants

Section II (Thirteen questions) Questions 8-20

Directions: This group of questions relates to biological diagrams, select the best answer for each question.

8. In the diagram of the mammalian kidney, ultrafiltration occurs in the.
 - a) Bowman's capsule
 - b) Loop of Henle
 - c) Collecting duct
 - d) Glomerulus
9. Which part of the flower conveys the male gamete to the ovary?
 - a) Style
 - b) Pollen Tube
 - c) Stigma
 - d) Anthers
10. The structure of the fish that helps it to detect changes in water is:
 - a) Lateral line
 - b) Eyes
 - c) Fins
 - d) Ear

11. This concerns the nitrogen cycle shown below



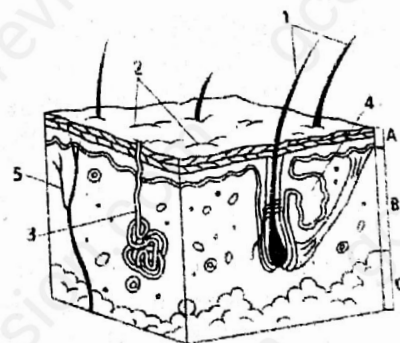
Which process is represented by the arrow 3?

- a) Denitrification
 - b) Decay
 - c) Lightning
 - d) Feeding
12. In the vertical section of the mammalian eye which structure contains a high concentration of cones?
 - a) Sclera
 - b) Choroid
 - c) Fovea
 - d) Blind spot
 13. This concerns the section through the kidney below

The structure labeled 7 is the:

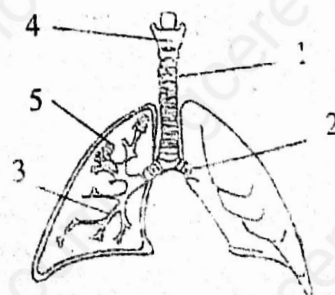
 - a) Pelvis
 - b) Ureter
 - c) Urethra
 - d) Pyramid
 14. The structure that helps the bread mould to adhere to its substrate is:
 - a) Rhizoids
 - b) Roots
 - c) Stolons
 - d) Sporangiospore

Below is the diagram of the mammalian skin



15. Which numbered structure secretes sebum?
 - a) 1
 - b) 2
 - c) 3
 - d) 4

16. Below is a diagram of the human respiratory system



The part of the respiratory system where gaseous exchange occurs is.

- a) 5
b) 4
c) 3
d) 2

17. The part of the brain that controls involuntary activities is:

- a) Cerebrum
b) Cerebellum
c) Medulla Oblongata
d) Hypothalamus

18. The part of the cell that controls all the activities of the cell.

- a) Cytoplasm
b) Vacuole
c) Cell membrane
d) Nucleus

19. The blood vessel that carries oxygenated blood from the lungs to the heart

- a) Pulmonary Artery
b) Aorta
c) Pulmonary Vein
d) Coronary artery

20. The part of the spirogyra that stores food is:

- a) Chloroplast
b) Cytoplasm
c) Cell wall
d) Pyrenoid

SECTION III (Five Question) Question 21-25

Directions: For each of the questions below, ONE or MORE of the responses is (are) correct. Decide which of the responses is (are) correct. Then choose:

A	If 1, 2 and 3 are correct.
B	If 1 and 2 only are correct.
C	If 2 and 3 only are correct.
D	If 1 only is correct

21. Hydrochloric acid in the stomach

- kills bacteria in food
- activates pepsinogen to pepsin
- stops the action of ptyalin

22. Relationship in which both organisms benefit

- Mutualism
- Parasitism
- Saprophytism

23. After fertilization in flowering plants:

- The ovule forms the fruit
- The ovary forms the fruit
- The calyx and corolla wither and fall off

24. What is the importance of meiosis?

- Leads to the formation of haploid cells
- Leads to the formation of gametic cells
- Leads to variation

25. Reflex actions in mammals require?

- Receptors
- Effectors
- Terminators

SECTION IV

(Five Questions) Questions 26 – 30

Directions: Each of the following questions consists of a statement in the left-hand column followed by a second statement in the right-hand column.

Decide whether the First Statement is true or false.

Decide whether the Second Statement is true or false

Then, on the answer sheet, mark:

Directions summarized

	First statement	Second statement	
A	True	True	2 nd statement is a correct explanation of the first.
B	True	True	2 nd statement is NOT a correct explanation of the first
C	True	False	

D False

True

	First statement	Second statement
26	Insects undergo metamorphosis	The housefly under goes incomplete metamorphosis
27	Deforestation leads to global warming	Lack of vegetation increases carbon dioxide concentration in the atmosphere
28	Enzymes are organic catalysts	They speed up biochemical reactions within the cell
29	Antidiuretic hormone (ADH) is secreted by the kidney	ADH causes reabsorption of water by the kidney tubules
30	During bread making the dough rises due to yeast activity	Alcohol is produced during sugar fermentation by yeast

SECTION V (Ten questions) Question 31 – 40

Directions: Each question consists of four lettered headings A, B, C, D. Select the heading which is closely related to the description which follows.

31.

- a) Genes
b) Chromosomes
c) C Zygote
d) Gametes

Fuse during fertilization

32.

- a) Carbon dioxide
b) Nitrogen
c) Water vapour
d) Oxygen

A component of air which is an excretory-product in plants only

33.

- a) Mycelium
b) Rhizoid
c) Sporangium
d) Stolon

The vegetative structure of a mould fungus

34.

- a) Progesterone
b) Oxytocin
c) Oestrogen
d) Testosterone

Causes uterine contraction during labour

35.

- a) Population
b) Colony
c) Community
d) Ecosystem

A group of organisms of different species living together

36.

- a) Ovary
b) Oviduct
c) Uterus
d) Cervix

Area where fertilization occurs in female mammals

37.

- a) Vitamin D
b) Vitamin C
c) Vitamin B
d) Vitamin A

Deficiency leads to poor development of bone and teeth

38.

- a) Kidney
b) Pancreas
c) Spleen
d) Liver

Organ where deamination occurs

TURN OVER