

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD
General Certificate Of Education Examination

0510 BIOLOGY 1

JUNE 2016

ORDINARY LEVEL

| | |
|------------------------------|--|
| Centre Number | |
| Centre Name | |
| Candidate Identification No. | |
| Candidate Name | |



Mobile phones are NOT allowed in the examination room.
MULTIPLE CHOICE QUESTION PAPER

One and a half hours

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you start answering the questions in this paper. Make sure you have a soft HB pencil and an eraser for this examination.

1. USE A SOFT HB PENCIL THROUGHOUT THE 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 Biology 1"
4. Fill in the information required in the spaces above.
5. Fill in the information required in the spaces provided on the answer sheet using your HB pencil: **Candidate Name, Exam Session, Subject Code, Centre Number and Candidate Number.**
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.

How to answer the questions in this examination

6. Answer **ALL** the 50 questions in this Examination. All questions carry equal marks.
7. Calculators are allowed.
8. Each question has **FOUR** suggested answers: **A, B, C** and **D**. Decide which answer is appropriate. 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]

9. Mark only one answer for each question. If you mark more than one answer, you will score a zero for that question. If you change your mind about an answer, erase the first mark carefully, then mark your new answer.
10. Avoid spending too much time on any one question. If you find a question difficult, move on to the next question. You can come back to this question later.
10. Do all your rough work in this booklet using the blank spaces in the question booklet.
11. **At the end of the examination, the invigilator shall collect the answer sheet first and then the question booklet. DO NOT ATTEMPT TO LEAVE THE EXAMINATION HALL WITH IT.**

SECTION I
Questions 1-7
(Seven questions)

Directions: 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. Which is the following atmospheric conditions would increase the rate of water loss in a plant ?
A Windy, cold and damp.
B Windy, hot and dry.
C Hot, windy and damp.
D Damp, hot and no wind.

2. Which of the following best describes a typical reptile?
A Scaly, warm blooded and egg-laying.
B Invertebrate, scaly and cold blooded.
C Vertebrate, scaly and cold blooded.
D Hairy, vertebrate and cold blooded.

3. A solution from crushed germinating beans was put in a test tube. Millon's reagent was added and the test tube was heated. Which of the following conclusions is correct?
A A blue colouration
B A purple colouration.
C A red colouration.
D No colour change

4. Which of the following best describes the blood in the pulmonary artery?
A Deoxygenated, poor in food and under low pressure.
B Oxygenated, rich in food and under high pressure
C Oxygenated, poor in food and under low pressure.
D Deoxygenated, rich in food and under high

5. A shoot illuminated on one side will
A Bend to one side.
B Bend towards the light source.
C Look weak.
D lack chlorophyll.

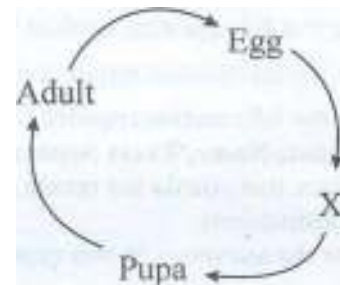
6. The pigment melanin that gives the skin its colour is found in
A Malpighian layer.
B Granular layer.
C Cornified layer.
D Dermis.

7. Trypsin is secreted by the
A Duodenal wall.
B Stomach wall.
C Pancreas.
D Ileum.

SECTION II
Questions 8-20
(Thirteen questions)

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

8. The diagram below is the life cycle of a housefly.



- Which of the following is true of stage X?
- A It feeds heavily.
 - B It is not segmented.
 - C It is dormant.
 - D It is the cocoon.
-
9. Adult insects are covered by?
A A cuticle.
B Scales.
C Hairy skin.
D Epidermal cells.

10. The production of urine takes place in the mammalian
- Testis.
 - Kidney.
 - Bladder.
 - Ureter.

11. Pollen grains are produced in,
- Stigma.
 - Ovary.
 - Pollen tube.
 - Anthers.

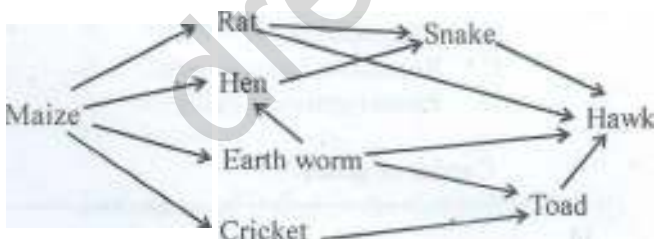
12. The antennae are for
- Defence.
 - Feeding.
 - Tasting.
 - Smelling.

13. In which part of the eye are light sensitive cells found?
- Lens
 - Vitreous humour.
 - Retina.
 - Choroid.

14. The amount of light entering the eye is controlled by
- Cornea.
 - Aqueous humour.
 - Iris and pupil.
 - Pupil only.

15. Refraction of light in the eyes is by
- Cornea, humours and retina.
 - Cornea, humours and lens.
 - Cornea, retina and iris.
 - Cornea, pupil, humours and retina.

16.



In the food web above, a tertiary consumer could be

- Toad.
- Rat.
- Hen.
- Hawk.

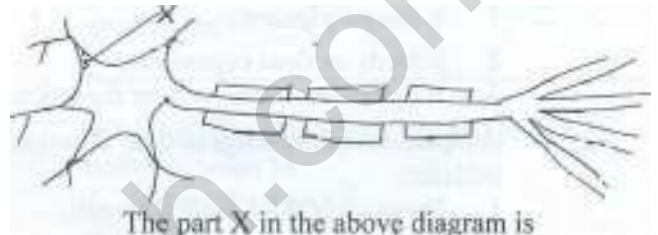
17. The body of an adult insect is divided into three main parts, namely

- Head, thorax and abdomen.
- Head, wings and abdomen.
- Cephalothorax, legs and abdomen.
- Head, legs and abdomen.

18. In which part of the mammalian kidney does ultrafiltration take place?

- Medulla.
- Glomerulus.
- Pelvis.
- Renal tubule.

19.



The part X in the above diagram is

- Dendron.
- Axon.
- Cell body
- Receptor.

20. Herbivorous mammals have long guts for

- Storing food.
- Regurgitation.
- Grinding food.
- Giving time for cellulose to be digested.

SECTION III

Questions 21-25

(Five questions)

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:

- If 1, 2 and 3 are all correct.
- If 1 and 2 only are correct.
- If 2 and 3 only are correct.
- If 1 only is correct.

| Directions summarized | | | |
|-----------------------|-------------|-------------|-----------|
| A | B | C | D |
| 1,2,3 | 1,2 only | 2,3 only | 1 only |

21. During inspiration,
- 1 The diaphragm flattens.
 - 2 The volume of the lungs increase.
 - 3 The lower ribs move downward.

22. A Virus
- 1 Is parasitic.
 - 2 Can contain RNA and DNA.
 - 3 Has a nuclear membrane.

23. Favourable effects of biotic factors in an ecosystem include
- 1 Pollination.
 - 2 Decomposition of dead organic matter.
 - 3 Eutrophication.

24. Mushroom is a saprophyte because
- 1 It has no pigment.
 - 2 It feeds on dead organisms.
 - 3 It carries out extra-cellular digestion.

25. Adaptations of the lungs to their function include:
- 1 Presence of thick walled alveoli.
 - 2 Moisture on alveolar walls.
 - 3 Highly vascularized.

SECTION IV
Questions 26-30
(Five Questions)

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** is true or false.
Decide whether the **second** is true or false.
Then, on the answer sheet mark as shown in the table below:

| Directions | | | |
|-------------------|-----------------|------------------|---|
| | 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 | |

- 26 The heart beats faster at the face of danger. Adrenaline is secreted into bloodstream during danger.

27. ADH is secreted by the kidney ADH is secreted when blood is concentrated.

28. During swallowing, breathing stops Entrance into the glottis blocked by food during swallowing

29. Untreated sewage in water bodies causes eutrophication. Untreated sewage causes algal boom in water.

30. The number of organisms decreases as one moves from lower trophic to higher trophic levels. Much energy is lost as one moves from lower to higher trophic levels

SECTION V
Questions 31-40
(Ten questions)

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 Rennin.
B Ptyalin.
C Trypsin.
D Pepsin.
A carbohydrate digesting enzyme

32. A Atmospheric temperature.
B Light.
C Atmospheric pressure.
D Soil acidity.

33. An edaphic factor
- A Genotype.
B Chromosome.
C Recessive.
D Phenotype -
Carrier of genes.

34. A Biosphere.
B Ecosystem.
C Population.
D Community.

Made up of organisms of the same species.

- 35.
- A Platelets.
 - B Plasma.
 - C Erythrocytes.
 - D Leucocytes.

Production of antibodies.

- 36.
- A Synovial membrane.
 - B Cartilage.
 - C Ligament.
 - D Bone.

Produces lubricant at joints.

- 37.
- A Vitamin D
 - B Vitamin C
 - C . Vitamin B
 - D Vitamin A

Deficiency of this vitamin results in bleeding gums.

- 38.
- A Ecosystem.
 - B Environment.
 - C Community.
 - D Habitat.

Where an organism lives.

- 39
- A Phloem.
 - B Xylem.
 - C Cambium.
 - D Cortex.

Its destruction will interrupt movement of water in plants.

- 40.
- A Thyroid gland.
 - B Adrenal gland.
 - C Pituitary gland.
 - D Pancreas.

Deficiency of iodine in the diet will lead to its malfunctioning.

SECTION VI
Questions
41-50 (Ten
questions)

Directions: This group of questions deals with biological situations. Each situation is followed by a set of questions. Select the best answer for each question.

- 41.
- A All offspring are black.
 - B 3/4 of offspring are black.
 - C 1/2 of offspring are black.
 - D 1/4 of offspring are black
- Given that black fur is dominant over grey fur in mice. Which of the above is the result of crossing a heterozygous black mouse and a grey mouse?

41. In testing a leaf for starch, the leaf is first boiled in water to
- A Make the leaf soft.
 - B Stop all chemical reactions.
 - C Slow down enzyme activities.
 - D To speed up the conversion of glucose to starch.

42. At the start of seed germination, water
- A Activates enzymes.
 - B Breaks testa.
 - C opens the micropyle
 - D Is used to produce food.

43. A drop in dry mass of a seed occurs at the beginning of germination due to
- A Water evaporation.
 - B Stored food being used.
 - C Excretion
 - D Digestion of food reserve.

44. Maize plants interspersed with leguminous plants will look greener because
- A The leguminous plants give shed to the maize.
 - B The leguminous plants reduce water loss.
 - C The leguminous plants make more water available to the maize.
 - D The leguminous plants increase the nitrogen content of the soil.

Turn over

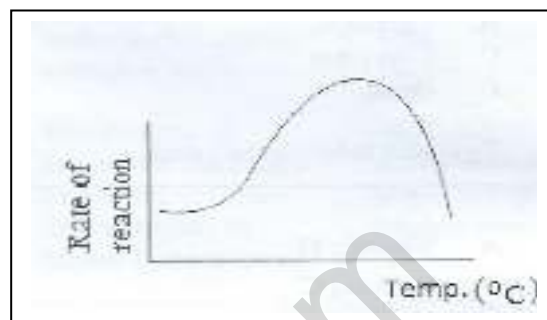
45. The percentage of carbon dioxide, in expired air is more than that in inspired air
 A It is produced in tissue respiration.
 B Much carbon dioxide is produced in the lungs.
 C It is not useful in the body.
 D Carbon dioxide is poisonous.

47. Roofs of houses in industrial areas are often corroded due to,
 A Poor quality of material.
 B Much rain.
 C Presence of dissolved chemicals in the atmosphere.
 D Smoke from industries.

48. The wilting of a newly transplanted well watered seedling on a sunny day is due to
 A High light intensity.
 B The weakness of the stem.
 C High temperature.
 D High rate of transpiration and little water uptake.

49. Bread left on the kitchen window for two days moulds due to
 A Growth of fungal spores from the air.
 B Decay by bacteria.
 C Absorption of moisture from the air.
 D Decomposition by viruses and bacteria.

50.



- From the graph above showing the effect of temperature on the rate of enzyme controlled reaction, which of the following is true
 A Increase in temperature always increases the rate of reaction.
 B Enzymes are active at all temperatures.
 C Enzymes are denatured at very high temperatures.
 D Enzymes are inactive at very high temperatures.

STOP

GO BACK AND CHECK YOUR WORK