

Questions 48-50 refer to the following table showing the composition of four different foods (A, B, C, D) found in Cameroon.

FOOD	Energy value kilojoules	Carbohydrates g	Fats g	Proteins g	Iron mg	Calcium mg	Vitamin A mg	Vitamin B1 mg	Vitamin C mg	Vitamin D mg
A	280	4.8	3.5	3.2	0.01	12.5	4.5	3.8	130	0.005
B	500	0	13.5	25.0	1.5	0.8	600	35.0	2000	0.1
C	100	5.0	0.2	0.9	0.25	3.0	0	25.0	0	0
D	150	9.0	0.1	0.5	0.05	0.5	0	10.0	5	0

Use only the information given in the table to answer the following questions.

48. Which food is most likely to cause scurvy if used as a staple diet?

- A
- B
- C
- D

49. Which food would best prevent anaemia?

- A
- B
- C
- D

50. If you eat one of the above foods and not others, which would most likely result in kwashiorkor?

- A
- B
- C
- D

STOP

NOW GO BACK AND CHECK YOUR WORK

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD
General Certificate Of Education Examination

510 BIOLOGY 1

JUNE 2014

ORDINARY LEVEL

Centre No. & Name	<i>unused</i>
Candidate No.	
Candidate Name	

510 BIOLOGY 1: 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 – 510 Biology 1"
4. Insert the information required in the spaces above.

5. Insert 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 on which answer is most 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]
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.
11. Do all rough work in this booklet, using, where necessary, the blank spaces in the question booklet.
12. Mobile phones are **NOT** allowed in the examination room.
13. **You must not take this booklet out of the examination room. All question booklets and answer sheets will be collected at the end of the examination.**

Turn Over

SECTION I

Questions 1-9

(Nine 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 of these is the correct sequence in the food chain relationship in a terrestrial community?
 - A Grass → grasshopper → lizard → hawk.
 - B Grasshopper → grass → lizard → hawk.
 - C Grasshopper → hawk → grass → lizard.
 - D Grass → lizard → hawk → grasshopper.
2. In fungi, which of the following is the main component of the cell wall?
 - A Cellulose
 - B Chitin
 - C Sugars
 - D Lipids
3. Which of the following is found in a yeast cell but **not** found in a filamentous green alga?
 - A Glycogen granules
 - B Vacuole
 - C Cell wall
 - D Nucleus
4. During a reflex action, a relay neurone passes impulses directly to
 - A Motor neurone
 - B Sensory neurone
 - C Sensory cells
 - D Effectors cells
5. Which of the following statements about exhalation is true?
 - A Intercostal muscles contract, moving ribs upward and outwards.
 - B Diaphragm contracts and flattens.
 - C Volume of thoracic cavity decreases.
 - D Pressure in thoracic cavity decreases.
6. To test whether the gas released by an aquatic plant during photosynthesis is oxygen, you would use
 - A Glowing splint
 - B Soda lime
 - C Lime water
 - D Pyrogalllic acid
7. Which of these reagents would you use to prove the presence of fat in a food substance?
 - A Sudan III
 - B Millon's reagent
 - C Biuret reagent
 - D Fehlings reagent
8. Which of the following human activities would lead to leaching?
 - A Pollution
 - B Under grazing
 - C Terracing
 - D Deforestation

9. Which of the following is an effect of ultraviolet radiation in the environment?
- A Causes skin cancer.
 - B Causes bronchitis
 - C Causes acid rain
 - D Causes the yellowing of leaves.

SECTION II

Questions 10-19

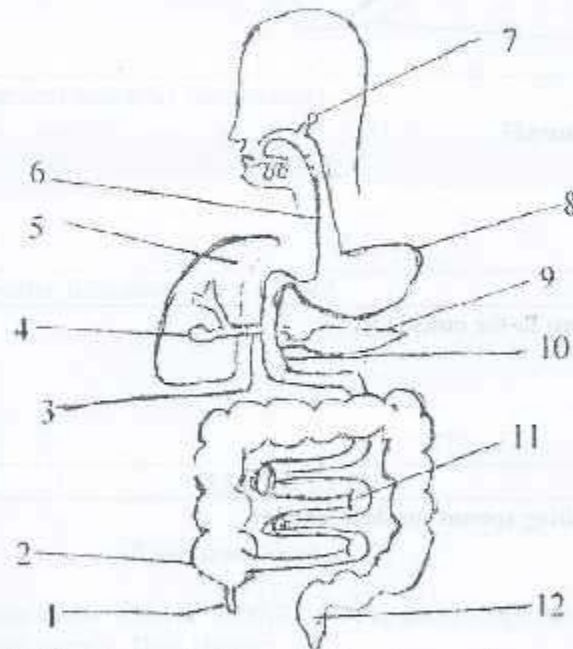
(Ten questions)

Directions: This group of questions relates to biological diagrams. Each diagram is followed by a set of questions. Select the best answer for each question.

Questions 10-13 refer to numbered structures in the following diagram of the digestive system of humans.

10. Which structure produces bile?

- A 3
- B 4
- C 5
- D 9



11. Where is completely digested food absorbed into the blood stream?

- A 2
- B 9
- C 10
- D 11

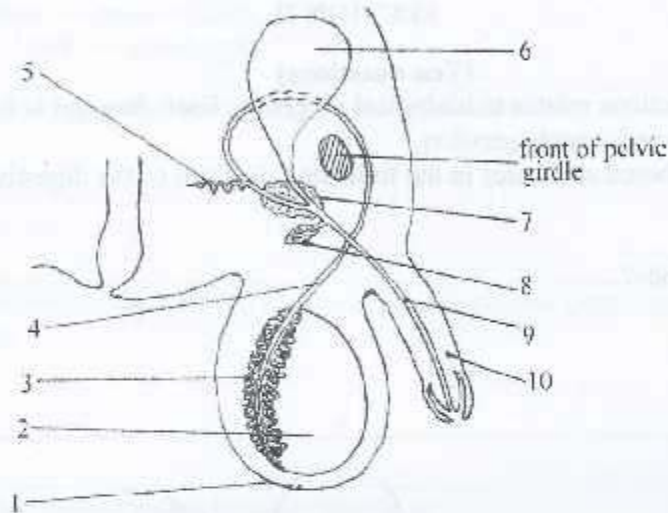
12. The structure which has no function in humans is?

- A 1
- B 4
- C 9
- D 12

13. Which of these structures is the duodenum?

- A 3
- B 6
- C 10
- D 11

Questions 14-16 refer to the numbered structures in the following diagram of the side view of the male reproductive organ.



14. In which structure are sperms stored?

- A 1
- B 2
- C 3
- D 4

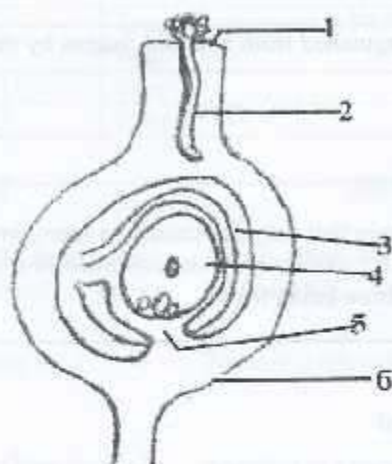
15. The correct path taken by sperms to the outside is

- A 2, 3, 4, 10
- B 2, 3, 4, 9
- C 3, 4, 6, 9
- D 1, 2, 4, 9

16. Which structure serves in depositing sperms inside a female?

- A 1
- B 4
- C 9
- D 10

Questions 17-19 refer to numbered structures in the following diagram of a single carpel after pollination.



17. Which of the labeled structures is the embryo sac?
- A 1
B 3
C 4
D 6
-
18. Which structure becomes the seed coat after fertilization?
- A 1
B 3
C 4
D 6
-
19. The part through which the pollen tube enters the ovule is?
- A 1
B 3
C 5
D 6

SECTION III

Questions 20-27

(Eight 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:

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

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

Turn Over

20. All viruses
- 1 Have a protein coat.
 - 2 Reproduce inside a living cell.
 - 3 Contain nucleic acid.
-
21. A filamentous green alga may be distinguished from a mould fungus by the:
- 1 Possession of chloroplasts.
 - 2 Production of spores.
 - 3 Lack of roots.
-
22. A control:
- 1 Is an experiment set up to ensure that only the condition being investigated affected the results.
 - 2 Is a set up in which scientists try to alter only one condition at a time.
 - 3 Is a set up that lacks the condition being tested.
-
23. Meiosis
- 1 Is a reduction division
 - 2 Chromosome number is halved
 - 3 Takes place in somatic cells.
-
24. Water moves in xylem vessels by
- 1 Osmosis
 - 2 Cohesion
 - 3 Adhesion
-
25. As maternal blood passes through the placenta, it
- 1 Loses oxygen
 - 2 Loses mineral salt
 - 3 Gains amino acid
-
26. Photosynthesis
- 1 Requires water
 - 2 Requires light
 - 3 Releases carbon dioxide
-
27. Herbivorous mammals
- 1 Have a diastema
 - 2 Have bacteria in their gut
 - 3 Have long intestine
-

SECTION IV

Questions 28-33

(Six 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** statement is true or false.

Decide whether the **second** statement is true or false.

Then, on the answer sheet mark:

- A. If both statements are true and the second statement is a **correct explanation** of the first statement.
- B. If both statements are true and the second statement is **NOT a correct explanation** of the first statement.
- C. If the first statement is false but the second statement is true.
- D. If both statements are false.

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	False	True
D	False	False

FIRST STATEMENT**SECOND STATEMENT**

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>28. Sailors can avoid the deficiency disease called rickets by eating fresh citrus fruits while at sea.</p> <p>29. Decomposers benefit an ecosystem by returning nutrients to the soil.</p> <p>30. During bread making, the dough rises due to yeast activity.</p> <p>31. Red blood cells engulf bacteria forming food vacuoles.</p> <p>32. Birds are poikilothermic.</p> <p>33. Untreated infection with the malaria parasite can lead to anaemia.</p> | <p>Fresh citrus fruits contain a good supply of vitamin C.</p> <p>Termites drag dead leaves into the soil</p> <p>Alcohol is produced during sugar fermentation by yeast.</p> <p>Red blood cells contribute to body defence.</p> <p>Birds can use internal mechanisms to vary their body temperature.</p> <p>The malaria parasite destroys human red blood cells.</p> |
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SECTION V**Questions 34-41****(Eight Questions)**

Directions: Each group of questions below consists of four-lettered terms or headings followed by a list of numerical questions. For each numbered question, select the one heading which is most closely related to it. Each heading may be used once, more than once, or not at all.

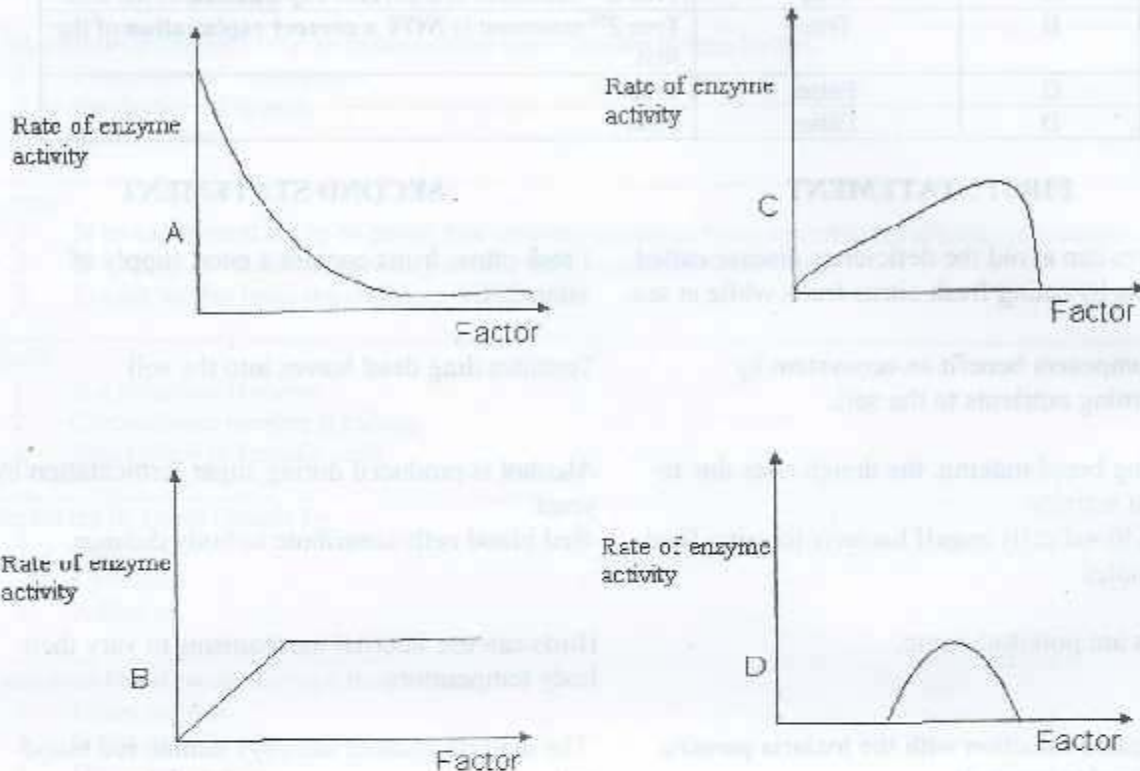
Questions 34-38 are concerned with the following organisms:

- A Filamentous green alga.
- B Yeast.
- C Bacteria.
- D Insect.

- 34. Autotrophic nutrition
- 35. Budding.
- 36. Mucilage.
- 37. No Nuclear membrane.
- 38. Camouflage.

Turn Over

Questions 39-41 are concerned with the following graphs of effects of some factors on enzyme activity.



Relate each of the following with one of the graphs.

39. Temperature.
40. Substrate concentration.
41. pH.

SECTION VI

Questions 42-50

(Nine Questions)

Questions 42-44 are concerned with the following:

- A Oxygen
- B Carbon dioxide
- C Light
- D Water

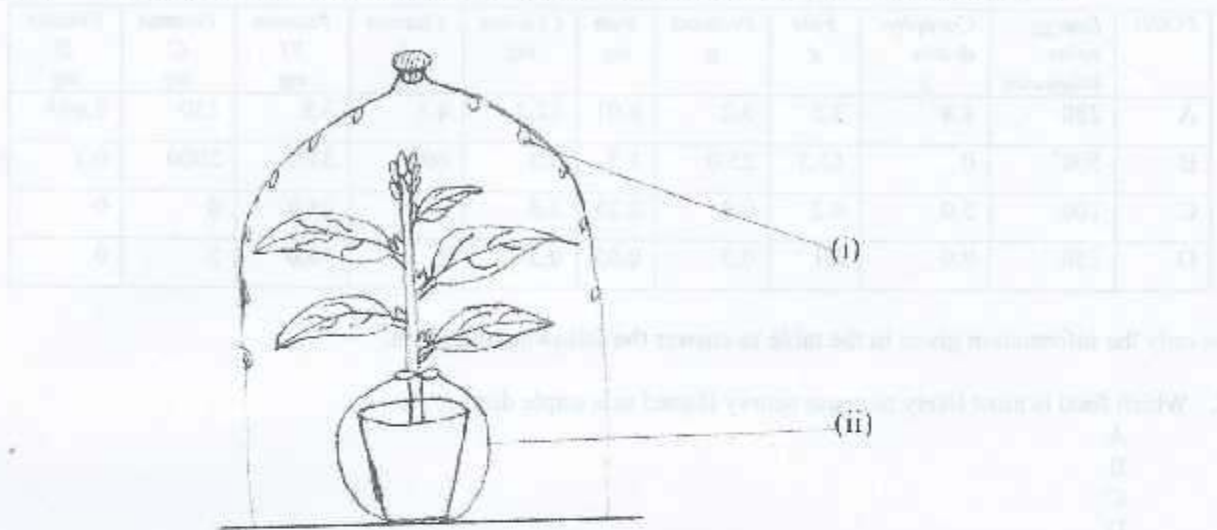
Which of the above

42. Is present in air to the extent of 0.03%?

43. Provides hydrogen for carbohydrate synthesis?

44. Acts as a limiting factor when its intensity alters?

Questions 45-47 The diagram below illustrates an experimental set-up. Use it to answer questions 45 - 47



45. The part labeled (i) is

- A A micro organism
- B A developing insect
- C Water droplet
- D An oil droplet

46. The function of the part labeled (ii) is to

- A Prevent the entry of insects into the soil.
- B Prevent the entry of light into the soil.
- C Prevent light from shining on delicate roots.
- D Prevent evaporation from the soil.

47. Which of the following can be used to detect the loss of water vapour from the leaves of plants?

- A Hydrated copper sulphate.
- B Blue litmus paper.
- C Red litmus paper.
- D Anhydrous copper II sulphate.