

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD

General Certificate of Education Examination

0565 HUMAN BIOLOGY 1

JUNE 2017



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 "-- 0565 **Human Biology 1 - Ordinary Level**"

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 and Number, Centre Number and Name.

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. Each question has FOUR suggested answers: **A, B, C** and **D**. Decide on 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]

8. 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.

9. 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 that question later.

10. Do all 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 ANY.

Turn Over

1. What will happen to a cell whose cell membrane is ruptured?
- A It will lose its ability to divide.
 - B Substances will enter and leave the cell at random.
 - C Some substances will not be able to enter the cell.
 - D Chemical processes of the cell will be hindered.
-

2. What is the role of the hyaline cartilage at the end of long bones?
- A It prevents friction between the bones.
 - B It facilitates bending movement.
 - C It brings about growth by cell division.
 - D It protects the point of insertion of the bone.
-

3. Why is the neurone considered as the basic unit of the nervous system?
- A It is the smallest functional unit of the nervous system.
 - B It contains the nucleus of the nervous system.
 - C It is responsible for impulse conduction.
 - D It contains the cytoplasm of the nervous system.
-

4. For questions 4 and 5 choose:
- A If statements (i), (ii), and (iii) are correct.
 - B If statements (i), and (iii) are correct.
 - C If statements (ii) and (iv) are correct.
 - D If statement (iv) only is correct.

Adaptation of the mouth to digestion

- (i) It has different types of teeth for cutting and chewing food.
 - (ii) It has the salivary gland that secretes saliva.
 - (iii) Saliva has mucin that sticks the food particles together.
 - (iv) Peristaltic movement in the mouth forces the food into the stomach.
-

5. Digestion in the large intestine
- (i) The colon secretes no enzyme,
 - (ii) The large intestine comprises the appendix, caecum, colon and rectum.
 - (iii) The colon absorbs most of the water from the undigested residue.
 - (iv) The colon is inhabited by symbiotic fungi.
-

6. Sex linkage is defined as:
- A The linking of genes on the sex chromosomes.
 - B The occurrence of genes on the sex chromosomes.
 - C The occurrence of genes found on the X-chromosomes and transmitted together with sex.
 - D The occurrence of genes that determine sex on the chromosomes.
-

7. Which of the hormones listed below causes an increase in heartbeat when secreted in blood?
- A Insulin
 - B Adrenaline
 - C Thyroxin
 - D Glucagon
-

8. How does the skin prevent excessive loss of heat in cold conditions?
- A The liver steps up its metabolic activities.
 - B The hair erector muscles relax.
 - C The rate of panting increases.
 - D The rate of sweating reduces.
-

9. What ensures the movement of impulses across the synapse in only one direction?
- A The secretion of the neurotransmitter substance
 - B The presence of the neurotransmitter on only one side of the synapse
 - C The release of calcium ions into the synaptic knob
 - D The fusion of the synaptic vesicles to the presynaptic knob
-

10. Which of the substances below corresponds with the nature of enzymes?
- A Carbohydrate
 - B Protein
 - C Vitamine
 - D Fat
-

- II. A birth control method used strictly by men is;
- A Use of condom
 - B Use of diaphragm
 - C Abstinence
 - D Vasectomy
-

12. Select the condition which is likely to result in coronary heart disease:
- A Clot in blood vessels.
 - B Increased heartbeat.
 - C Slow heartbeat.
 - D Shock as a result of bad news
-

13. Black is the best colour of clothing to wear in cold weather because:
- A It is a good conductor of heat
 - B It insulates the body
 - C It radiates heat
 - D It reflects heat
-
-

Question 14 has a statement followed by a reason.
Choose:

- A If both statement and reason are true and related.
- B If both statement and reason are true but not related.
- C If statement is true and reason is false.
- D If statement is false but reason is true.

14 Statement: Nutritional disorders result from malnutrition.
Reason: Obesity results from eating too much.

15. In a food chain, which group of organisms receives the least amount of energy?
A Producers
B Consumers
C Decomposer
D Omnivores

16. Why are viruses considered as living organisms?
A Because they have all the characteristics of living things
B Because they can reproduce
C Because they can be transmitted from person to person
D Because they cause diseases

17. A disease can be considered as pandemic when:
A The number of cases of the disease exceeds what would normally be expected
B It is present at least at low level among the population
C It affects only children of the age below ten years
D The disease breakout spreads from one country to another

18. The cutting down of forest accompanied by planting of new trees is called:
A Agro-forestry
B Reforestation
C Agriculture
D Farming

19 Brick walls and concrete block walls are usually built with an air cavity between two layers of materials. What is the function of air in the cavity?
A Air acts as a good insulator against heat loss.
B Air ventilates the walls.
C Air makes the walls lighter.
D Air prevents dampness of the wall.

20. In which part of the body are the mammalian ovaries located?

- A Lower part of the abdominal cavity.
- B Between the upper and lower part of the thoracic cavity.
- C Lower part of the thoracic cavity.
- D Upper part of the thoracic cavity.

21. During exhalation in man, the movement of the ribs can be described as:

- A Lowered and close.
- B Raised and further apart.
- C Raised and closed together.
- D Lowered and further apart.

22. Friction is overcome at the joint by the:

- A Ligaments
- B Tendons
- C Synovial fluid
- D Bone capsule

23. What is the number of chromosomes found in the human body cells and in the gamete?

Body cel!	Gamete
23	23
23	46
46	23
46	46

24. The diagram below shows the section through the male reproductive system. Where are the sperm cells stored until they mature?



courtesy of Don Mackeans

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

25. Which of the following best describes the cardiac muscles?
- A They are made up of spindle shaped fibers.
 - B They are made up of branched striated fibers.
 - C They are attached to the heart.
 - D They are voluntary and neurogenic.

-
26. Identify a sexually transmissible infection caused by bacteria.
- A Thrush
 - B Herpes
 - C HIV/AIDS
 - D Chlamydia

-
27. If a piece of bone is placed in a beaker of acid for 24 hours, it will become:
- A Flexible
 - B Rigid
 - C Brittle
 - D Charred

-
28. What is the function of the Eustachian tube of the ear?
- A It equalizes the pressure between the oval and round windows.
 - B It prevents the ear ossicles from amplifying vibrations.
 - C It transmits vibrations to the cochlea.
 - D It equalizes the pressure on either side of the tympanum.

-
29. Identify the process responsible for forcing blood under high pressure into the capsular space of the Bowman's capsule.
- A Selective reabsorption
 - B Absorption
 - C Filtration
 - D Ultrafiltration

-
30. Why is it advisable to use a flourinated toothpaste?
- A To prevent tooth decay.
 - B To encourage blood circulation in the pulp.
 - C To encourage healthy growth of gums.
 - D To make the teeth brighter.

-
31. The scheme below shows the main stages in the treatment of sewage:

Raw sewage → Screen → Grit chamber → Settlement tank → Sprinkler (aeration chamber) → River

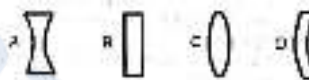
At which stage is most of the organic matter broken down by aerobic bacteria?

- A Grit chamber.
- B Settlement tank.
- C Screen.
- D Aeration chamber,

32. A specialist medical personnel who fakes care of children and babies is called:
- A Neurologist
 - B Gynecologist
 - C Obstetrician
 - D Pediatrician.
33. A man with blood group AO gets married to a woman with blood group BO. What is the probability that a child will have blood group O?
- A 50 %
 - B 25 %
 - C 75 %
 - D 100%

34. Which of these characteristics makes man different from other primates?
- A The foot is arched and flat.
 - B Highly developed sense of vision.
 - C Possession of nails.
 - D Grasping hands and opposable thumb.
35. Food is preserved in the freezer so that the bacteria on the food:
- A Are quickly killed.
 - B Stay alive and continue to reproduce.
 - C Stay alive but cannot reproduce.
 - D Are slowly destroyed.

36. Examine these lenses and identify the one that will be effective to correct short-sightedness



- A
- B
- C
- D

37. Select the health unit that gives family planning advice before birth.
- A Child welfare clinic
 - B Ante natal clinic
 - C Post natal clinic
 - D Geriatric clinic

38. The period of development of the foetus inside the uterus is called:
- A Gestation B Parturition
 - C Micturition D Incubation

39. Drugs that increase the rate of the heartbeat, blood pressure and breathing rates are called;
A Stimulants
B Hallucinants
C Depressants
D Sedatives
40. The diagram below shows gaseous exchange in the alveolus. Where is the blood at point X flowing to?



Courtesy of Don Mackeans

- A The heart
B The lungs
C The tissues
D The kidney
-
41. One importance of reformatory centers is to:
A Rehabilitate delinquents.
B Accommodate the old.
C Rehabilitate criminals.
D Accommodate lepers.
-
42. What first aid treatment should be given to a person who has just had an epileptic crisis?
A Cover casualty with a cloth to keep warm.
B Give casualty a glass of water to drink.
C Hit casualty to keep him awake.
D Remove all hard or sharp object around casualty.
-
43. The equation below shows the reaction of chlorine gas with water.
$$\text{Cl}_2 + \text{H}_2\text{O} \rightleftharpoons \text{HOCl} + \text{HCl}$$
$$\text{HOCl} \rightleftharpoons 2\text{HCl} + \text{O}_2$$
-
44. Why is noise considered a pollutant?
A It causes headache.
B It destroys the sense cells and nerves in the cochlea.
C It causes inequality of pressure in the outer and middle ear.
D It causes rapid movement of the ear fluids.
-
45. Select the causative agent for athlete's foot.
A Trichophyton
B Mycobacterium
C Salmonella
D Vibrio
46. Chlorophyll is important for the process of photosynthesis because:
A It helps to absorb carbon dioxide.
B It absorbs oxygen.
C It absorbs sunlight energy.
D It causes starch to be stored.
47. Exercise is beneficial to the body because:
A it increases the rate and depth of breathing.
B It keeps the body warm.
C It decreases peristaltic movement.
D It causes ligament and tendon to become weak
48. Which blood vessel carries deoxygenated blood to the lungs?
A Pulmonary vein.
B Pulmonary artery.
C Mesenteric artery.
D Mesenteric vein.
-
49. The part of the brain concerned with memory and learning is:
A Medulla oblongata.
B Cerebellum.
C Cerebrum.
D Hypothalamus.
-
50. Which organ in the human body receives a double blood supply rich in oxygenated blood and nutrients?
A Liver
B Heart
C Spleen
D Brain

STOP

GO BACK AND CHECK YOUR WORK

What role does oxygen play in the water purification?

- A It oxidizes organic particles in water.
B It clumps fine particles together.
C It destroys bacteria in water.
D It makes water pure.