

2011 BECE- INTEGRATED SCIENCE 1 Q&A

OBJECTIVE TEST

45 minutes

1. An example of a noble gas is
 - A. chlorine
 - B. neon
 - C. nitrogen
 - D. oxygen

2. The structure that stores sperms temporarily in the male reproductive system of humans is
 - A. epididymis
 - B. scrotal sac
 - C. sperm duct
 - D. testes

3. Which of the following properties of alcohol as a thermometric liquid is correct?
 - A. It is opaque
 - B. It does not wet glass
 - C. It has a very low freezing point
 - D. It has a high freezing point

4. In which of the following vegetation zones of Ghana does millet and sorghum grow well?
 - A. Coastal savannah
 - B. Forest zone
 - C. Guinea savannah
 - D. Transition zone

5. Which of the following methods is/are used for preserving fish?
 - I. Canning
 - II. Frying
 - III. Smoking
 - A. I only
 - B. I and II only
 - C. II and III only
 - D. I, II and III

6. Which of the following practices in the home can prevent disease infection?
 - A. Covering one's food
 - B. Drinking unclean water
 - C. Keeping one's surroundings untidy
 - D. Sharing towels and sponges

7. An example of a semimetal is

- A. calcium
- B. lithium
- C. silicon
- D. sodium

8. Which kind of energy transformation takes place in an electric motor?

- A. Chemical energy to electrical energy
- B. Chemical energy to mechanical energy
- C. Electrical energy to light energy
- D. Electrical energy to mechanical energy

9. Landrace is a breed of

- A. cattle
- B. goats
- C. pigs
- D. sheep

10. In flowering plants, the stamen is made up of

- A. anther and stigma
- B. anther and filament
- C. stigma and filament
- D. stigma and style

11. Which of the following statements about a transistor is correct?

- A. It can be used to amplify current
- B. It is similar to three diodes
- C. It consists of two leads only
- D. It has three junctions

12. An atom has 6 protons and 7 neutrons in its nucleus. What is its mass number?

- A. 1
- B. 6
- C. 7
- D. 13

13. A record of daily activities on a farm is termed

- A. labour record
- B. inventory record
- C. farm diary
- D. production record

14. Which of the following devices work(s) on the principle of transmission of pressure in fluids?

- I. Water pumps
- II. Syringes

III. Bicycle brakes

- A. I only
- B. I and II only
- C. II and III only
- D. I, II and III

15. Which of the following crops is not correctly matched with its group?

- A. Cowpea – cereal crop
- B. Cocoa – beverage crop
- C. Coconut – oil crop
- D. Cocoyam – tuber crop

16. Which of the following substances is a salt?

- A. H_2SO_4
- B. NaOH
- C. HCl
- D. $CaCl_2$

17. In which part of the digestive system of a fowl does grinding of feed take place?

- A. Crop
- B. Gizzard
- C. Oesophagus
- D. Proventriculus

18. The parts of a bony fish that are used to control the level at which the fish swims are known as

- A. dorsal and caudal fins
- B. caudal and pectoral fins
- C. pectoral and pelvic fins
- D. dorsal and pectoral fins

19. Million's reagent is used to test for

- A. carbohydrates
- B. fats
- C. proteins
- D. vitamins

20. In an n-p-n transistor, the n-type collector is connected to the positive terminal of the battery thus making

the

- A. base-collector junction reverse biased
- B. base-collector junction forward biased
- C. base-emitter junction reverse biased
- D. base-emitter junction forward biased

21. Which type of vegetation favours both wet and hot environmental conditions?

- A. Strand and mangrove
- B. Coastal savannah
- C. Guinea savannah
- D. Tropical forest

22. During drought, some plants dry out because of high

- I. atmospheric temperature
- II. humidity
- III. rate of evaporation

Which of the statements above is/are correct?

- A. III only
- B. I and II only
- C. I and III only
- D. I, II and III

23. Soil erosion on sloppy farmlands is best controlled by

- A. cover cropping
- B. mulching
- C. strip cropping
- D. terracing

24. A viable seed is one that

- A. germinates under suitable conditions
- B. contains oil
- C. develops from fertilized ovary
- D. has a pericarp

25. Which of the following pairs of structures form part of the female reproductive system of humans?

- A. Urethra and uterus
- B. Cervix and uterus
- C. Ureter and uterus
- D. Cervix and ureter

26. Which of the following chemical symbols is that of a metal?

- A. Ca
- B. Ne
- C. P
- D. S

27. All the living and non-living things that surround an organism constitute its

- A. community
- B. ecosystem

- C. environment
- D. habitat

28. Which of the following crops should be planted after cassava in crop rotation?

- A. Cocoyam
- B. Cowpea
- C. Onion
- D. Yam

29. Endoparasites in farm animals can be controlled by

- A. drenching
- B. dipping
- C. dusting
- D. spraying

30. Which of the following devices requires the use of transistors in its operation?

- A. Computer
- B. Electric heater
- C. Microphone
- D. Wall clock

31. Feel Method is used to determine soil

- A. air
- b. colour
- C. structure
- D. texture

32. Which of the following modes of heat transfer is the thermos flask designed to minimize?

- I. Conduction
- II. Convection
- III. Radiation
- A. I and II only
- B. I and III only
- C. II and III only
- D. I, II and III

33. An atom of an element is represented as A_ZX . What is the respective number of neutrons and protons in the atom?

- A. 12 and 13
- B. 12 and 25
- C. 13 and 12
- D. 25 and 12

34. The anemometer is an instrument used in determining

- A. amount of rainfall
- B. speed of wind
- C. relative humidity
- D. intensity of light

35. Which of the following subjects is/are considered as applied science?

- I. Biology
 - II. Medicine
 - III. Psychology
- A. I only
 - B. I and II only
 - C. I and III only
 - D. II and III only

36. *Chinchilla* is a breed of

- A. goats
- B. pigs
- C. rabbits
- D. sheep

37. Which of the following characters is not acquired through heredity?

- A. Language spoken
- B. Shape of nose
- C. Colour of eyes
- D. Temperament

38. The food nutrient which ensures good health in farm animals is

- A. carbohydrates
- B. minerals
- C. proteins
- D. vitamins

39. The use of resistant breeds of farm animals to control pests is a

- A. biological method
- B. chemical method
- C. cultural method
- D. physical method

40. Which of the following arrangements show the correct order of increasing complexity of structures in living organisms?

- A. cells → organs → tissues → systems
- B. cells → tissues → organs → systems
- C. cells → systems → tissues → organs
- D. cells → tissues → systems → organs

OBJECTIVE TEST

1. B. neon
2. A. epididymis
3. C. It has a very low freezing point
4. C. Guinea savannah
5. D. I, II and III
6. A. Covering one's food
7. C. silicon
8. D. Electrical energy to mechanical energy
9. C. pigs
10. B. anther and filament
11. A. It can be used to amplify current
12. D. 13
13. C. farm diary
14. D. I, II and III
15. A. Cowpea - cereal crop
16. D. CaCl_2
17. B. Gizzard
18. C. pectoral and pelvic fins
19. C. proteins
20. A. base-collector junction reverse biased
21. D. Tropical forest
22. C. I and III only
23. D. terracing
24. A. germinates under suitable conditions
25. B. Cervix and uterus
26. A. Ca
27. C. environment
28. B. Cowpea
29. A. drenching
30. A. Computer
31. D. texture
32. D. I, II and III
33. C. 13 and 12
34. B. speed of wind
35. D. II and III only
36. C. rabbits
37. A. Language spoken
38. D. vitamins
39. A. biological method
40. B. cells → tissues → organs → system