

CLASS 10 - SCIENCE

SCIENCE TEST 1

Time Allowed: 3 hours

Maximum Marks: 80

Section A

1. Do the freshwater animals reabsorb water through their excretory system like marine animals? Justify your answer. [1]
2. Define photolysis. [1]
3. Name one enzyme which digests protein? [1]
4. What do you understand by peristaltic movements? [1]
5. Which hormone causes release of milk after the birth of young one? [1]
6. Why is it advised to use iodised salt in the diet? [1]
7. Name any one symptom of acromegaly. [1]
8. Name the two portions of adrenal gland. [1]
9. Mention any one disadvantage of producing new plants by vegetative propagation. [1]
10. In which part of the female reproductive tract does the egg get fertilised? [1]
11. At what age do eggs or follicles start maturing in females? [1]
12. Give any two modes of asexual reproduction with examples. [1]
13. Why do you understand by the double helical structure of DNA? Who proposed this structure? [1]
14. Who conducted experiments to show life can originate from inanimate matter? [1]
15. Parents transmit some of their characteristics into their offsprings. How? [1]
16. Give the pair of contrasting traits of the following characters in plant and mention which one is recessive and which is dominant? [1]
(a) yellow seed
(b) round seed
17. The relationship between biotic and abiotic environment is called: [1]
a) Ecosystem b) Biome
c) Community d) Biosphere
18. Which of the following limits the number of trophic levels in a food chain? [1]
a) Food supply b) Decrease in energy at each trophic level
c) Polluted air d) Water
19. Match the following with the correct response: [1]

(1) A man- made ecosystem	(A) Paper, plastic bags, etc
(2) A natural ecosystem	(B) Forest, Pond
(3) Scavengers	(C) Aquarium, Grassland

(4) Recyclable waste	(D) Housekeepers
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a) 1-B, 2-D, 3-A, 4-C

b) 1-A, 2-C, 3-B, 4-D

c) 1-C, 2-B, 3-D, 4-A

d) 1-D, 2-A, 3-C, 4-B

20. Match the following with the correct response:

[1]

(1) Saprotrophs	(A) Organisms obtaining food from green plants
(2) Parasites	(B) Organisms obtaining food from host
(3) Autotrophs	(C) Organisms obtaining food from dead plants and animals
(4) Herbivores	(D) Organisms which prepare their own food

a) 1-B, 2-D, 3-A, 4-C

b) 1-C, 2-B, 3-D, 4-A

c) 1-D, 2-A, 3-C, 4-B

d) 1-A, 2-C, 3-B, 4-D

Section B

21. Explain the correct way to observe guard cells and their nuclei under microscope.

[3]

22. Sunaina was travelling with her family by car. While moving on the way they saw a biker on the road who was bleeding profusely. Her mother asked Sunaina's father to stop the car and help the person. Her father however, did not stop as he feared that they would have to deal with the police enquiry, if they would stop.

[3]

Read the above passage and answer the following questions.

1. What happens, if a person bleeds profusely?

2. What will you do, if the hospital refuses to provide treatment unless the accident case is registered by police?

3. What values were shown by Sunaina's mother?

23. Represent schematically the path of a reflex action.

[3]

24. Explain in brief why hormonal responses are slower than reflex actions.

[3]

25. The sperms are tiny bodies that consist of mainly genetic material and a long tail

[3]

i. Where are the sperms produced?

ii. What is the role of the long tail?

iii. How are the sperms delivered from the site of their production?

26. Can you think of reasons why more complex organism cannot give rise to new individuals through regeneration?

[3]

27. What is natural selection in modern terms? Elucidate the three different effects of natural selection on variation.

[3]

28. i. 'Males are heterogametic'. Why?

[3]

ii. Differentiate between inherited and acquired characters by giving two points.

29. How can you help in reducing the problem of waste disposal, give any two methods?

[3]

30. Give any two ways in which biodegradable substances would affect the environment?

[3]

Section C

31. Define nutrition. What are the different modes of nutrition?

[5]

32. Nervous and hormonal system together perform the function of control and co-ordination in human beings". Justify the statement. [5]
33. Describe the various methods of birth control. [5]
34. What are fossils? What do they tell us about the process of evolution. [5]
35. i. What are animal hormones? List their two characteristics. [5]
ii. Name the hormone.
a. Which brings change in male humans during the beginning of adolescence.
b. Which coordinates the level of sugar in blood?

OR

Name any five vegetables generated from a common ancestor through artificial selection rather than natural selection. Also mention the features for which each vegetable is selected?

36. a. Define excretion. [5]
b. Name the basic filtration unit present in the kidney.
c. Draw excretory system in human beings and label the following organs of excretory system which perform following functions;
i. form urine.
ii. is a long tube which collects urine from kidney.
iii. store urine until it is passed out.

OR

Differentiate between the following:

- i. Pollen tube and style
- ii. Fission in Amoeba and plasmodium
- iii. Fragmentation and regeneration
- iv. Bud of Hydra and Bryophyllum
- v. Vegetative propagation and spore formation