

Time: 2 ½ hrs

Total Marks: 80

General Instructions:

1. The question paper consists of 34 questions and is divided into four sections, A, B, C and D.
2. All questions are compulsory.
3. Section A comprises question numbers 1 to 15. These are multiple choice questions carrying one mark each. You are to select one most appropriate response out of the four provided options.
4. Section B comprises question numbers 16 to 22. These are SAQs carrying two marks each.
5. Section C comprises question numbers 23 to 31. These are SAQs carrying four marks each.
6. Section D comprises question numbers 32 to 34. These are SAQs carrying five marks each.

SECTION – A

1. In case of reproduction in Frogs, the eggs are hold together by [1]
 - a) Water
 - b) Shell
 - c) Jelly
 - d) Frog's saliva
2. Which of the following gives the step wise method of reproduction? [1]
 - a) Fertilisation → zygote → foetus → embryo
 - b) Fertilisation → foetus → zygote → embryo
 - c) Fertilisation → embryo → zygote → foetus
 - d) Fertilisation → zygote → embryo → foetus
3. The development of shell in hen's egg takes places during, [1]
 - a) The formation of zygote
 - b) The fertilisation

- c) The travel to the oviduct
d) The incubation period
4. In case of multicellular organisms, a group of specialized cells form, [1]
a) Embryo
b) Organs
c) Tissues
d) Nerves
5. Which of the following components of plant cells permits to and fro movement of particles? [1]
a) Cytoplasm
b) Cell membrane
c) Plasma membrane
d) Cell wall
6. Moths and insects repellent has its base from [1]
a) Coal
b) Coke
c) Coal tar
d) Fossils
7. Which of the following artificial fibers are suitable for making men's and women's casual wears? [1]
a) Rayon
b) Polyester
c) Acrylic
d) Nylon
8. Under which of the following conditions, the remains of plants get converted to coal? [1]
a) High pressure and low temperature
b) High pressure and high temperature
c) Low pressure and high temperature
d) Low pressure and low temperature
9. Which of the following condition is the main reason for "droughts"? [1]
a) Clearance of forests
b) Increase in global temperature

- c) Over grazing of soil
- d) Reduction of infiltration rate

10. Which of the following is a major threat to protected forests and wild life sanctuaries?

[1]

- a) Encroachment
- b) Global Warming
- c) Drought
- d) Scarcity of food

11. The frictional force dependant on

[1]

- a) Shape of the objects and nature of the fluid
- b) Nature of the fluid and weight of the object
- c) Weight of the object and shape of the object
- d) Shape and size of the objects

12. Balu applies force on a moving remote truck. Which of the following action will take place?

[1]

- a) The truck will change its direction
- b) The truck will stop
- c) The truck will increase its speed
- d) All the above

13. Which of the following is an example of muscular force?

[1]

- a) Movement of a car on the road
- b) The presence of magnetic field around the earth
- c) Boxer and kickboxing bag
- d) The to and fro motion of pendulum

14. What colour does a combination of copper hydroxide and copper carbonate produce?

[1]

- a) Red
- b) Blue
- c) Green
- d) Colourless

15. The maximum visibility of sunlit portion of the moon occurs on

[1]

- a) New moon day

- b) Full moon day
- c) Days before full moon
- d) Days after full moon

SECTION – B

16. Explain the contribution of “magnifying glasses” in studying the Cell of the organisms. [2]
17. Explain the process of formation of multicellular embryo from a single celled reproductive unit. [2]
18. Which season and months are best in India to sow the groundnut seeds? [2]
19. Which organelle in cytoplasm is responsible for carrying hereditary information? [2]
20. What are protected areas? Give example of one such kind. [2]
21. Explain how vibration and sound are interrelated. [2]
22. What force is present in solar system? What does it do? [2]

SECTION – C

23. [4]
- i) Does all the body parts grow at the same time during puberty?
 - ii) Explain two such scenarios to prove.
24. Explain the process of fertilisation in frogs. Discuss the various stages involved in the life cycle of frog. [4]
25. Explain the importance of microorganisms in the production of dairy products. [4]
26. What are the inputs and outcomes of the “combustion” process? Give an example. [4]

27. How to prevent milk from spoiling and preserve it? [4]
28. What action has been taken to preserve the river Ganga? [4]
29. Give an example of highly reactive metal and non-metal and a method to store them. [4]
30. When does the eye consider an object is in motion? Give example. [4]
31. Pressure is inversely proportional to area. Prove it with example. [4]

SECTION – D

32. How outgrowths become individuals in Hydra? Explain with diagram. [5]
33. Give any five different kind of pollutants present in the air and the sources of it. [5]
34. [5]
- i) Application of force leads zero changes in state of motion. Prove with example.
 - ii) Give two causes of tremors.