Multiple Choice Questions

1. Which statement does not define “protoplasm" correctly:
   (i) protoplasm is the living substance of the cell
   (ii) protoplasm includes the cytoplasm and the nucleus
   (iii) protoplasm is the entire content of the cell
   (iv) protoplasm is the jelly-like substance present in between the cell membrane and the nucleus

2. Metamorphosis in frog is controlled by .................. hormone.
   (i) Thyroxine  (ii) Adrenaline
   (iii) insulin  (iv) Growth hormone

3. Which of the following material will not produce flame on burning:
   (i) Magnesium  (ii) Candle
   (iii) Charcoal  (iv) Kerosene stove

4. The small portion of the moon appears in the sky on the next day of the new moon day, this is known as:
   (i) Half moon  (ii) Semilunar moon
   (iii) Crescent moon  (iv) None of the above

5. The embryo in hen takes about .......... weeks to develop into a chick.
   (i) 3  (ii) 4
   (iii) 5  (iv) 6


R/2

[P.T.O.]
6. Portable water is:
   (i) water which is suitable for drinking
   (ii) water which is contaminated with chemicals
   (iii) water which looks clear and without any smell, but contaminated
   (iv) water used in factories for different purposes

7. Find out the correct statement about the image formed by a plane mirror:
   (i) The image is real
   (ii) The image is upside down
   (iii) The image is in front of the mirror
   (iv) The distance between the mirror and the image is equal to the distance between the mirror and the object

8. The SI unit of calorific value of fuels is expressed in:
   (i) J/Kg
   (ii) KJ/Kg
   (iii) Kg/KJ
   (iv) g/KJ

9. Inflammable substances catch fire easily because the ignition temperature is
   (i) medium
   (ii) high
   (iii) low
   (iv) can't say

10. The unfertilized egg always has
    (i) one X chromosome
    (ii) one Y chromosome
    (iii) two X chromosomes
    (iv) two Y chromosomes
1. Insufficient production of insulin in the body causes:
   (i) Addison's disease
   (ii) Cretinism
   (iii) Diabetes
   (iv) None of the above

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R/2
5. The electric charge developed during rubbing objects against each other is:
   (i) moving  (ii) static
   (iii) both static and moving (iv) can't say

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   this is known as:
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8. A gas that helps in burning is:
   (i) Oxygen  (ii) Nitrogen dioxide
   (iii) Hydrogen (iv) Carbon dioxide

9. Natural gas is found:
   (i) below the petroleum oil (ii) above the petroleum oil
   (iii) along the petroleum oil (iv) none of these

10. Portable water is:
   (i) water which is suitable for drinking
   (ii) water which is contaminated with chemicals
   (iii) water which looks clear and without any smell, but contaminated
   (iv) water used in factories for different purposes
1. Fertilization occurs in the:
   (i) Uterus
   (ii) Vagina
   (iii) Oviduct/Fallopian tube
   (iv) None of these

2. Which of the following material will not produce flame on burning:
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   (iii) 5
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6. Incomplete combustion of fuel gives........................gas:
   (i) Carbon monoxide
   (ii) Carbon dioxide
   (iii) Nitrogen dioxide
   (iv) Sulphur dioxide

R/2
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    (i) g/KJ  (ii) J/Kg
     (iii) Kg/KJ  (iv) KJ/Kg
1. How is lightning caused? (1)
2. Name the gas that is produced when coal burns. (1)
3. Why do we consider budding in Hydra as an asexual reproduction? (1)
4. Define metamorphosis. (1)
5. Which is the sensitive cell for bright light in human eye? (1)
6. Stars appear to move from east to west. Give reason (1)
7. Name a cell in human body which is spindle shaped. (1)
8. When you twist the string of a card with the picture of a bird on one side and a cage on the other side and make it twirl rapidly, you can see the bird in the cage. Explain the scientific principle behind it. (2)
9. Give two point of differences between a plant cell and an animal cell. (2)
10. When a glass rod rubbed with silk is brought near to a charged plastic straw, both attract each other. Give reason (2)
11. What is menstruation? Explain (2)
12. Which would be a better practice, burning or composting dry leaves? Support your answer with proper reason. (2)
13. What are meteors? Why are they known as shooting stars? (2)
14. Differentiate between a zygote and a foetus. (2)
15. What is meant by puberty stage? Mention the role of pituitary gland in bringing about changes during this stage in girls and boys. (1+2)

R/2 [P.T.O.]
16. What is meant by natural satellite and artificial satellite. Give one example for each. (1,1/2+1,1/2)

17. (i) We should use fossil fuels only when absolutely necessary. Why? (1+2)
(ii) Mention any two uses of coke.

18. Make a sketch of human nerve cell. What function do the nerve cell performs? (2+1)

19. (i) The sex of a child is determined by its father, not by its mother. Explain (2+1)
(ii) Name the endocrine gland responsible for the production of adrenaline and mention one function of it.

20. Mention the role of industries in polluting water bodies and explain any two consequences of it. (1+2)

21. (i) How do lightning conductors protect tall buildings? (2+2)
(ii) How is earthquake caused? Explain

22. (i) It is said that frogs metamorphose, but not human beings. Why? (2+2)
(ii) What is meant by External Fertilization and Internal Fertilization.

23. (i) Explain an activity which indicates that the incident ray, the normal at the point of incidence and the reflected ray all lie in the same plane. (3+1)
(ii) With the help of a ray diagram, show the relation between angle of incidence and angle of reflection.

24. (i) Explain how carbon dioxide works as a fire extinguisher. (3+1)
(ii) Define calorific value of a fuel.

25. (i) What conditions on earth make it suitable for the existence of life? (2+3)
(ii) How will you locate pole star with the help of Ursa Major? Explain with the help of a diagram

26. (i) Draw and label the different zones of a candle flame. (3+2)
(ii) A heap of dry leaves catch fire easily as compared to green leaves. Why?

27. (i) Why is coal called as a fossil fuel? Explain how is it formed. (3+2)
(ii) What are the advantages of using CNG as fuel?