Bhavan's Tripura Vidyamandir

2nd Terminal Examination : (2024-2025)

Class:- 8 **Subject: Science**

Time:- 3 Hours Total :- 80 Marks

Name of the student : Roll. Sec.

General Instructions :-

Question no 1 to 20 carrying 1 mark each
Question no 21 to 29 carrying 2 marks each
Question no 30 to 38 carrying 3 marks each
Question no 39 to 41 carrying 5 marks each

Answer the following questions in very short. (1×4=4)

1. Name the hormone controls the metamorphosis in frog.
2. Define the term fractional distillation.
3. A force of 100N is applied on an area $4m^2$. Compute the pressure being applied on an area.
4. What is frequency?

Fill in the blanks :- (1×4=4)

5. Males & females have special reproductive cells called_____.
6. Loudness is determined by the _____ of vibration.
7. Separation of the grains from the chaff is called_____.
8. Night birds have _____ cones than rods in their eyes.

Choose the correct option from the following (1×4=4)

9. Angle of incidence is equal to the angle of reflection when-
   a. Always b. Sometimes,
   c. Under special conditions d. Never
10. In a liquid, pressure is exerted in-
   a. Downward direction b. Upward direction
   c. All direction d. None of these
11. Sound wave will not travel through:
   a. Air b. water c. vacuum d. solid
12. Which of the following are not oviparous?
   a. Frog b. Turtle c. Sparrow d. Bat

Write true or false for the following statements: (1×4=4)

13. Endocrine glands have duct.
14. A person with myopia cannot see the near object clearly.
15. Electrostatic force is a contact force.
16. Petrol fire can be extinguished by water.

Study the case answer the following questions :- (1×4=4)

Electrolysis is defined as a process of decomposing ionic compounds into their elements by passing a direct electric current through the compound in a fluid form. The cations are reduced at cathode and anions are oxidised at the anode. The main components that are required for conducting electrolysis are an electrolyte, electrodes, and some form of external power source is also needed. Electrolysis is usually done in a vessel named 'electrolytic cell' containing two electrodes (cathode and anode) connected to a direct current source and an electrolyte which is an ionic compound undergoing decomposition. In the process of electrolysis, there is an interchange of ions and atoms due to the addition or removal of electrons from the external circuit. Basically, on passing current, cations move to the cathode, take electrons from the cathode (given by the supply source-battery), and is discharged into the neutral atom. The neutral atom, if solid, is deposited on the cathode and if gas, move upwards. This is a reduction process and the cation is, reduced at the cathode. At the same time anions, give up their extra electrons to the anode and is oxidised to neutral atoms at the anode.

17. Define the term electrolysis.
18. What are electrodes?
19. What will happen after passing current through cation?
20. State the reduction process from the given context.

Answer to the following questions :- **(2×9=18)**

21. Suggest two measures to protect ourselves from lighting?
22. Give two differences between zygote & a foetus.
23. What is coal tar? Write one use of it?
24. State the law of reflection of Light.
25. How is the loudness of sound related of its amplitude?
26. A girl is 11years old & 132cm tall. Find the maximum height she may attain at the end of her growth period. (Percentage of full height = 88%).
27. Write two differences between wild life sanctuary & biosphere reserve.
28. When person moves high up on the mountains why nose bleeds?
29. If aluminium strips of an electroscope are replaced by plastic strips and a charged body is brought in contact with the metal clip. What will happen?

Answer the following questions :- **(3×9=27)**

30. Mention few important applications of electroplating?
31. Give a short note on – a. Adam's apple b. secondary sexual characteristics. (1.5+1.5)
32. A pendulum oscillates 40 times in 4sec. Find its time period & frequency? What do you mean by the term pitch? (2+1)
33. Illustrate lighting conductor with a diagram.
34. A rocket has been fixed upwards to launch a satellite in its orbit. Name the two forces acting on the rocket immediately after leaving the launching pad. Why friction is a contact force? (2+1)
35. What are the result of a chemical reaction by a conducting solution?
36. Sketch larynx & explain its function.
37. Discuss the effects of deforestation on –
    a. wild animals b. Environment c. Earth (1+1+1)
38. What is Braille system? How does it help the visually challenged person? (1+2)

Answer in broad for the following questions :- **(5×3=15)**

39. Explain the schematic representation of sex determination in unborn baby. What are sex hormones? State their function. (3+1+1)
40. Draw and label the human ear. Explain two ways for noise pollution is harmful to us. (3+2)
41. Differentiate between regular & diffused reflection. Does diffused reflection means failure of laws of reflection. What is the angle of incidence of a ray of the reflected ray is at an angle of 90® to the incident ray? (2+1+2)