Sharya Academy

Science Worksheet Class X
Mixed bag (1marks)

1. Name the physical quantities which are indicated by the direction of thumb and forefinger in the Fleming's right hand rule?
2. A spherical mirror and a thin spherical lens each have a focal length of – 15 cm. What would be thetype of mirror and lens these are?
3. Give an example of a phenomenon where tyndall effect can be observed.
4. Veins are thin walled and have valves. Justify.
5. Explain how ozone being a deadly poison can still perform an essential function for our environment.
6. What will be the colour of the sky when it is observed frocm a place in the absence of any atmosphere?
7. How is the wall of small intestine adapted for performing the function of absorption of food?
8. Out of a goat and a tiger, which one will have a longer small intestine? Justify your answer.
9. Some work is done to move a charge Q from infinity to a point A in space. The potential of the point A is given as V. What is the work done to move this charge from infinity in terms of Q and V?
10. In a concave mirror where should we keep the object so that image formed will be real, inverted and enlarged ?
11. When is the force experienced by a current carrying conductor placed in a magnetic field largest?
12. Which kind of mirrors are used in the headlights of a motor-car and why?
13. Why does a ray of light bend when it travels from one medium into another?
14. List the factors on which scattering of light depends.
15. Which colour of white light travel (a) fastest (b) slowest in glass prism?
16. Lead nitrate solution is added to a test tube containing potassium iodide solution. Write the name and colour of the compound precipitated.
17. A small amount of quick lime is added to water in a beaker. Name and define the type of reaction that has taken place.
18. While constructing a house ,a person selects marble flooring and marble slab for kitchen where vinegar, lemon juice and tamarind are more often used for cooking .Will you agree to this selection and why?
19. On what factors does the resistivity of a conductor depend?
20. Name the method by which Spirogyra reproduces under favourable condition. Is this method Sexual or asexual?
21. Write the chemical name and chemical formula of baking soda.
22. Write one observation when Magnesium ribbon is burnt in air.
23. What happens to a plant if xylem is removed from it?
24. Why do the walls of trachea do not shrink even though there is less air in it?
25. In a conical flask when dilute sulphuric acid is poured on zinc granules. On touching the flask ,do you feel any change in its temperature?
26. Draw the magnetic field lines around a straight current carrying conductor.
27. In a food chain comprising lion, deer and grass ,which will transfer the maximum amount of energy and which will receive minimum amount of energy?
28. Two unequal resistances are connected in parallel. If you are not provided with any other parameters (eg. numerical values of I and R), what can be said about the voltage drop across the two resistors?
29. Name the part of a lens through which a ray of light passes without suffering any deviation.
30. If a harmful chemical enters a food chain comprising snakes, peacocks ,rats and plants . which of the organisms is likely to have maximum concentration of the harmful chemical in the body?
31. Why do the blood coming to right auricle or atrium have less oxygen?
32. A current carrying solenoid coil is suspended freely . in which direction will it settle and why?

33. What will be the amount of heat (H) produced in a resistor (R) carrying a current (I) and having a potential difference (V) across it in time (t)?
34. When do the desert plants take up carbon dioxide and perform photosynthesis?
35. The image formed by a concave mirror is observed to be real, inverted and larger than the object. Where is the object placed?
36. Rearrange the following according to their ascending trophic level in a food chain Hawk, Grass, Snake, Rabbit
37. Name any one enzyme of our digestive system and write its function.
38. Both a spherical mirror and a thin spherical lens have a focal length of (-)15 cm. What type of mirror and lens are these?
39. Why are bacteria and fungi called decomposers?
40. List any two observations when Ferrous Sulphate is heated in a dry test tube?
41. Identify the products formed when 1 mL of dil. Hydrochloric acid is added to 1g of Sodium metal?
42. Write the chemical name and chemical formula of the salt used to remove permanent hardness of water.
43. Why does the Sun appear white at noon?
44. How does valency of an element vary across a period?
45. Define catenation.
46. Give reason why a food chain cannot have more than four trophic levels.
47. What happens when a metal reacts with an acid?
48. Write S.I. unit of resistivity.
49. State the role of pancreas in digestion of food.
50. Elements P, Q, R and S have atomic numbers 11, 15, 17 and 18 respectively. Which of them are reactive non-metals?
    (a) P and Q
    (b) P and R
    (c) Q and R
    (d) R and S