GENERAL INSTRUCTIONS

1. Read all the questions carefully.
2. All the answers to be written on the answer sheet provided.
3. Total number of questions – 12. All questions are compulsory.

SECTION - A

1. The plant disease caused by virus and spread by insect is
   a. Citrus canker b. Rust of wheat c. Yellow vein Mosaic of Okra d. All the above.
2. Which among the following is considered as cleanest fuel?
3. Force acts on object may change
   a. Direction b. Shape c. Speed d. All the above.
4. The charge acquired by glass rod when it is rubbed with a silk is _______________.
   a. Negative b. Positive c. Both d. None of these.
5. _______________ effect of current is responsible for the glow of bulb.
   a. Chemical b. Magnetic c. Heating d. All the above.
6. Rolling friction is smaller than _______________.
7. Aspergillus is an example of _______________.
8. _____ is the poisonous gas produced by the burning of charcoal in closed room.
9. Force exerted by earth on any object is _______________.
10. The innermost layer of earth is called _______________.
11. Which metal is electroplated on iron while constructing bridges?
    a. Sodium b. Zinc c. Mercury d. Tin
12. A toy car released with the same initial speed will travel farthest on ___________ surface.
    a. Muddy b. Cemented c. Bricked d. All the above.
13. Which of the following reproduce only inside a host cell?
14. Pressure is defined as ____________________________.
15. If we apply oil on door hinges, the friction will _____________.

SECTION – B

II. Name the following (1x3 =3)

16. Scientist who discovered the bacterium which causes anthrax.
17. The process of transferring of charge from charged object to earth.
18. The amount of heat produced on complete combustion of 1kg fuel.

III. Fill in the blanks. (1x3 = 3 )

19. The shorter lead of LED is always connected to _____ terminal of the battery.
20. ________________ is the point directly above the origin point of earthquake.
21. The process of coating of desired metal on other material by the passage of electricity is called _____.

IV. Rewrite the false statement correctly. (1 x2 = 2)

22. Intensity of earthquake is measured on Celsius scale.
23. In the sun, the heat and light are produced by biological reaction.

V. Give reason. (1x 2 = 2)

24. Why do our bodies not get crushed due to atmosphere pressure?
25. Farmers prefer to grow beans and peas in nitrogen deficient soil. Why?

SECTION – C

VI. Answer the following in one or two sentences. (2 x 10 = 20)

26. a) Name the two factors which are used to describe the state of motion of an object.
   b) What will be the net resultant force if the forces are equal and opposite & forces applied in same direction?

27. Write any four disadvantages of friction.
28. a) Why is chromium is not used for making the whole object?
    
    b) List three properties of chromium which enable it to be used in electroplating.

29. What are antibiotics? Give two examples.

30. a) What are inflammable substances?
    
    b) Why water is not suitable for fire involving oil?

31. How do we get the supply of carbon dioxide in fire extinguisher?

32. a) What are the two kinds of charges?
    
    b) Write two properties of static charges.

33. What is LED? Write its use and advantages.

34. a) What are the carriers of diseases?
    
    b) Name the carriers of malaria and dengue fever.

35. What is fluid friction? Write the factors on which it depends?

SECTION – D

VII. Answer the following in three or four sentences. (3 x 10 = 30)

36. Differentiate between rapid and spontaneous combustion with examples.

37. How does a vaccines works and who discovered vaccine for small pox?
    
    OR

37. Write a short on the role of microorganisms in cleaning the environment.

38. Explain why objects moving in fluids must have special shape?

39. a) What is lightning conductor?
    
    b) Write two indoor safety measures to protect ourselves from lightning.

40. Differentiate between contact and non-contact forces with 2 examples.

41. a) Define atmospheric pressure.
    
    b) Potter’s place a round piece of cloth on their head to carry heavy load. Why?

42. Why does the match stick start burning on rubbing it on the side of the match box?

43. What is an earthquake? Mention any two damages caused by an earthquake.
44. How do lubricants reduce friction?

45. What are the three chemical effects of electric current?

SECTION – E

VIII. Answer the following in detail. (5 x 3 =15)

46. a) Define electrolysis of water. (1)
   b) What do you observe after passing electricity through water? (2)
   c) Draw a labelled circuit diagram of electrolysis of water. (2)

47. a) List some properties of ideal fuel. (1 ½)
   b) Draw a well labelled diagram of different zones of candle flame. (3 ½)
   OR

47. a) In an experiment, 1.5kg of a fuel was completely burnt and the heat produced was 75,000kj. Calculate the Calorific Value of the fuel. (2)
   b) Some substances like molten wax produce flame whereas charcoal does not produce flame. Why? (1 ½)
   c) Mention the adverse effect of global warming. (1 ½)

48. a) List any four methods of preservation. (2)
   b) Complete the flow chart of Nitrogen cycle. (3)