1) Define transparent, translucent, opaque medium.
2) What do you mean by a shadow? State three conditions necessary for its formation.
3) Draw a diagram showing the shadow formation through an extended source of light.
4) How are the umbra and penumbra affected when: (i) screen is moved away from the object? (ii) when source of light is moved towards the opaque body?
5) Why does not a bird flying high up in the air cast its shadow?
6) What are the factors that influence the formation of a shadow?
7) Draw a diagram each of a solar and lunar eclipse and state the differences.
8) State the principle of a pinhole camera, and write down the nature of the image formed.
9) How is the nature of the image affected if the: (i) pinhole is made wider? (ii) if two pinholes are made 1 cm apart from each other? (iii) if the object is drawn away from the pinhole?
10) Mention one precaution that is to be followed while constructing a pinhole camera.
11) Define reflection of light, Explain the term lateral inversion.

MAGNETISM
14) Why are artificial magnets preferred to natural magnets?
15) State four properties of a bar magnet.
16) Draw a diagram each and explain the different forms of magnetization.
17) Explain how magnets can be stored with the help of a diagram.
18) How can you demagnetise a magnet?

ELECTRIC CIRCUITS
19) Name two sources of power
20) What are the chemicals present inside a cell?
21) Draw a labeled diagram of an electric bulb and write down the functions of the following parts:
   a) terminals of the bulb
   b) filament
   c) glass cover
22) Write down the functions of the three metallic strips in an electric torch
23) How would you prove experimentally whether a material is a conductor or an insulator.
   Hence define conductors and insulators.
24) Define electric circuit.
25) What is a switch? Draw and explain how would you make a switch.
26) Why do electricians wear rubber gloves while working with electricity?
27) What do you mean by friction?
28) State the factors governing friction. In a descending order, write down the types of friction.
29) Give two situations where friction is advantageous and two situations where friction is disadvantageous.
30) State four ways of minimizing friction.