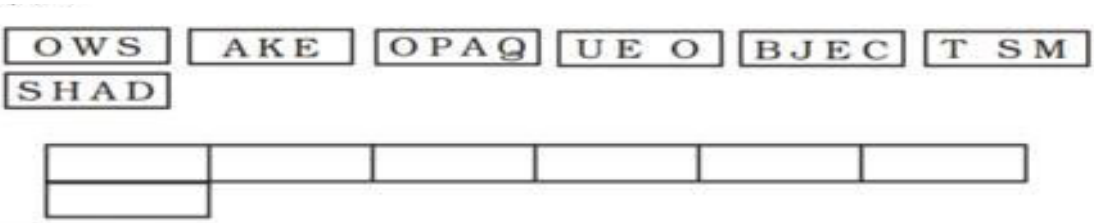
LIGHT, SHADOW AND REFLECTION

EXERCISES

Question 1:
Rearrange the boxes given below to make a sentence that helps us understand opaque objects.



Answer 1:

Question 2:
Classify the objects or materials given below as opaque, transparent or translucent and luminous and non-luminous:

Air, water, a piece of rock, a sheet of aluminium, a mirror, a wooden board, a sheet of polythene, a CD, smoke, a sheet of plain glass, fog, a piece of red hot iron, an umbrella, a lighted fluorescent tube, a wall, a sheet of carbon paper, the flame of gas burner, a sheet of cardboard, a lighted torch, a sheet of cellophane, a wire mesh, kerosene stove, sun, firefly, moon.

Answer 2:

Transparent: Air, water.

Translucent: A sheet of polythene, smoke, sheet of plane glass, fog, a sheet of cellophane, a wire mesh.
Opaque: A piece of rock, a sheet of aluminium, a mirror, a wooden board, a CD, a piece of red hot iron, an umbrella, a lighted fluorescent tube, a wall, a sheet of carbon paper, the flame of a gas burner, a sheet of cardboard, a lighted torch, kerosene stove, sun, firefly, moon.
Luminous: A piece of red hot iron, a lighted fluorescent tube, the flame of red burner, a lighted torch, sun, firefly.
Non-Luminous: Air, water, a piece of rock, a sheet of aluminium, a mirror, a wooden board, a sheet of polythene, a CD, smoke, a sheet of plane glass, fog, an umbrella, a wall, a sheet of carbon paper, a sheet of cardboard, a sheet of cellophane, a wire mesh, kerosene stove, moon.

Question 3:
Can you think of creating a shape that would give a circular shadow if held in one way and a rectangular shadow if held in another way?

Answer 3:
A cylinder object can cast shadows in two ways. When the top cylinder view faces the shining object, a circular shape shadow is formed. When its curved side faces the shining object, it casts a rectangular shadow.

Question 4:
In a completely dark room, if you hold up a mirror in front of you, will you see a reflection of yourself in the mirror?

Answer 4:
No, to see the reflection, source of light is required. We can see only in the presence of light.