CLASS X   **SECOND MID TERM EXAMINATION**   **MARKS: 20**

PHYSICS

1. A news appeared is given below.
"13 year old boy timely throw saves mother grandma from electrocution"
a) What should you do before providing first aid to a person who is electrocuted? (1)
b) What precaution should be taken to avoid the above situation? (2)

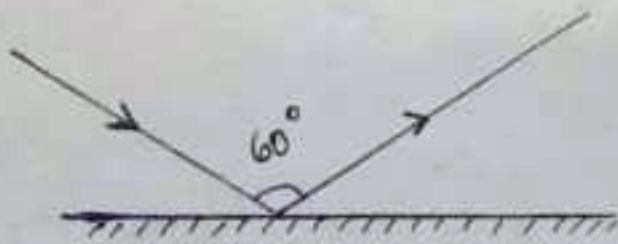2. A safety device used in electric circuit is given.

a) What is this device? (1)
b) Name the longest pin in it? (1)
c) This pin is thicker and longer than other pins. Briefly explain the advantages of these features. (2)

3. The current in the secondary coil of a transformer is 1A and that in the primary is 0.5A.
a) What type of transformer is this. down (1)
b) If 200V is available in the secondary coil of this transformer, what is the voltage in the primary? down (2)
c) Explain the working principle of a transformer. (1)

4. Using the figure, find out the angle of incidence. (1)

5. An object is kept 60m away from a concave mirror gives an image on a screen at a distance 40m from the mirror. Calculate its focal length? (2)

6. Find out the nature of the object when the object is placed between the centre of curvature and focus of a concave mirror. Same size (2)

7. A spherical mirror form a real image at the same position of the object placed at a distance of 20 cm in front of the mirror.
a) What type of mirror is this? (1)
b) What is the magnification? Justify your answer? (1)
c) Find out the focal length and radius of curvature of the mirror. (2)