

MARTHOMA RESIDENTIAL SCHOOL, THIRUVALLA
ANNUAL EXAMINATION

Std:VII.

PHYSICS

Marks:80

Time:2h

SECTION A

Question 1

- a) i) Define density.
ii) State its SI unit. (2)
- b) Taking density of copper as 8.5 g/cm^3 . Find the
i) Mass of 5 cm^3 and
ii) Volume of 65 g copper. (2)
- c) i) Define uniform speed
ii) The speed of a car is 60 m/s. Calculate the distance covered by the car in 16 s. (2)
- d) Define the two types of translatory motion. (2)
- e) i) Name the kind of motion executed by a 'spinning top'.
ii) Define the above kind of motion. (2)

Question 2



- a) Differentiate between repetitive motion & periodic motion. (Two points) (2)
- b) A car covers a distance of 90 km in 2h, 150 km in next 3h. Calculate the average speed of the car. (2)
- c) State the energy change in the following:
i) Loudspeaker ii) Electric bulb. (2)
- d) i) What is biomass. (1)
ii) Name the gases present in biogas. (1)
- e) i) Define energy. (1)
ii) State its SI unit. (1)

Question 3

- a) i) Name the instrument used to see around corners and other obstructions.
ii) Name the law on which the above mentioned instrument based on. (2)
- b) i) Name a secondary colour.
ii) Which all primary colours are to be mixed to get the above mentioned secondary colour. (2)

- c) i) Define temperature.
- ii) State its SI unit .
- d) i) What is ignition temperature?
- ii) Flammable substances should be handled with great care. Give reason.
- e) i) Name the device used to measure electric current .
- ii) What is the SI unit of electric current ?

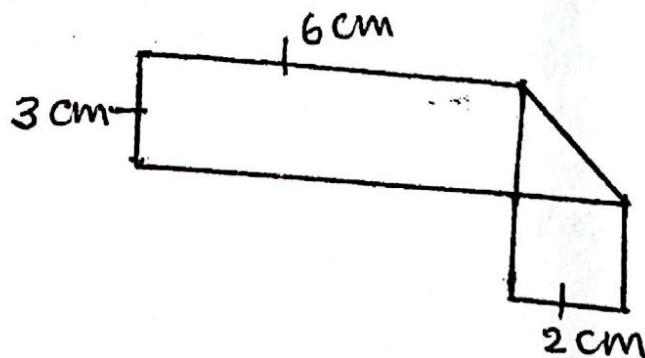
Question 4

- a) Differentiate conductors & insulators of electricity.
- b) i) What is an electric circuit ?
- ii) State the direction of flow of electric current.
- c) What do the following symbols in a circuit represent.
 - i) 
 - ii) 
- d) State the law of conservation of energy .
- e) Write two advantages of hydro energy .

SECTION B

Question 5

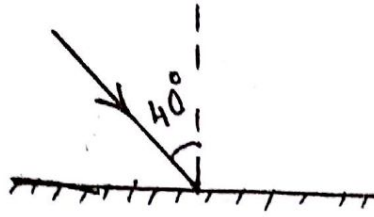
- a) Find the area of the following figure .



- b) i) When is a body said to be at rest .
- ii) ' A car is moving in a crowded street' is an example for variable speed.
- iii) Give a reason for your answer above in part (ii)
- c) i) Define weight .
- ii) State its SI unit .
- iii) Name an instrument used for measuring it.
- iv) Is it a constant through out the universe.

Question 6

- a) Name and define the different forms of mechanical energy. (3)
i) What is nuclear energy? (3)
ii) Define nuclear fission.
iii) Give an example for the conservation of nuclear energy to chemical & heat energy.
- b) i) State the laws of reflection.
ii) Figure below shows an incident ray & the normal on a plane mirror. Copy the diagram and draw the reflected ray and then find the angle between the incident and reflected rays. (4)



Question 7

- a) Convert 327 K to i) $^\circ\text{C}$ and ii) $^\circ\text{F}$
iii) What is thermal expansion? (3)
- b) i) State the laws of magnetism.
ii) Which is the sure test for magnetism? (3)
- c) i) What is an electromagnet.
ii) Suggest a way to increase the strength of an electromagnet.
iii) Give one use of electromagnet.
iv) Name the effect of electricity used to make electromagnet. (4)

Question 8

- a) i) What do you mean by mechanical effect of electricity?
ii) Name a device which work on the above effect.
iii) Name the effect of electricity used in room heater. (3)
- b) i) What is reflection of light?
ii) Name the two kinds of reflection.
iii) Which kind of reflection enables us to see various objects around us. (3)
- c) i) What is lateral inversion?
ii) State any two properties of the image formed a plane mirror.
iii) A man is standing in front of a plane mirror at a distance 25 cm from it.
a) What is the distance between his image and the mirror.
b) What is the distance between man and his image? (4)