

GREENLAWNS SCHOOL, WORLI
FINAL EXAMINATION
PHYSICS

STD: VIII
Date: 20/02/2020

Marks: 80
Time: 2hrs.

Question 1

- a. Give reason, when glass rod rubbed with silk cloth, both are charged. [2]
- b. Differentiate between the conduction and induction process of charging. [2]
- c. Give reason - why a lightning conductor is fixed on the tall building. [2]
- d. What is the function of live & neutral wire? [2]
- e. Give reason why observations made with only one charged electroscope may not be sufficient to prove that a given body carries some charge on it. [2]

Question 2

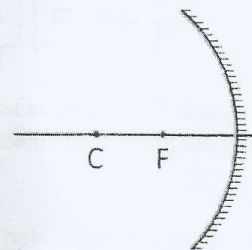
- a. List two good conductors and two insulators that are used in our day to day life. [2]
- b. i. What will be the radius of curvature of a spherical mirror whose focal length is 5cm? [2]
ii. Name the imaginary line connecting the pole and the focus of a curved mirror. [2]
- c. Discuss any two applications of thermal expansion in liquids. [2]
- d. Define one kilowatt hour .How it is related to SI unit of energy [2]
- e. Define potential difference and give its SI unit. [2]

Question 3

- a. Give reason Fuse or MCB is used in household wiring. [2]
- b. Give reason Food items cook faster in a pressure cooker. [2]
- c. What do you mean by compressions and rarefaction in a sound wave? [2]
- d. What is series and parallel circuits ? Explain with the help of diagram. [4]

Question 4

- a. Study the picture and answer the questions. [5]
 - i. Identify the mirror
 - ii. Draw and label a ray diagram to show the formation of image when an object is placed within the focal length of this type of mirror.
 - iii. What is the focal point of a mirror?



b. Study the picture and answer the questionS:

[5]

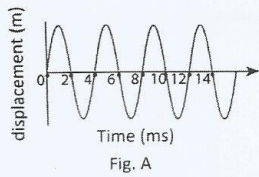


Fig. A

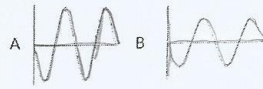


Fig. B

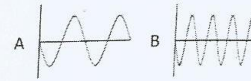


Fig. C

- What is the time period of a wave in fig A? What is its frequency?
- Which of the wave in fig B represent a louder sound?
- Which of the wave in fig C represents sound of higher pitch? Why?

Question 5

- When you fill water in a bottle or bucket, the pitch of the sound produced by falling water become shriller as the water level increases, why? [2]
- How does the distance between the listener and a source of sound affect the loudness heard? [2]
- Calculate the amount of electrical energy consumed if a 60 watt tungsten bulb is used for 5 hrs. How much energy will it consume if used 5 hrs a day for 30 days. [3]
- Name the type of electricity in which the direction of the flow of charges changes constantly.
 - Name a piece of wire with low melting point used to prevent over loading.
 - State the safe limit of loudness of audible sound for human ears. [3]

Question 6

a. Study the picture and answer the following question.

Fig. A

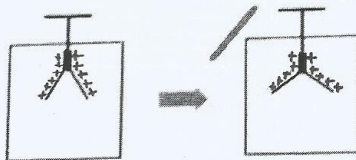
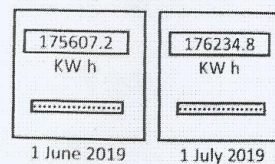
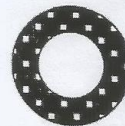


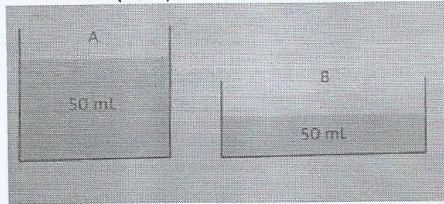
Fig. C



- Can you tell if the rod in fig A is charged? If charged, what is the type of charge? [2]
 - Calculate the amount of electricity consumed by the house in June, from the picture C of the meter as on 1st June and 1st July. [1]
- State the speed of sound in iron, water, and air. [3]
 - If a washer (a steel disc with hole) is heated, will the area of the hole increases or decreases. Give reason for your answer [2]

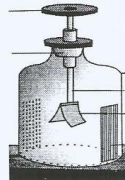


d. From which of the container (A, B) will water evaporate faster? Why? [2]

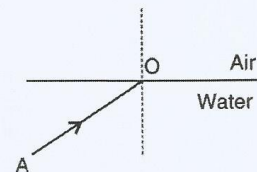
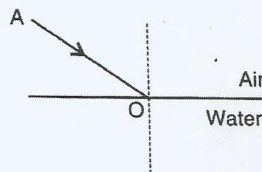
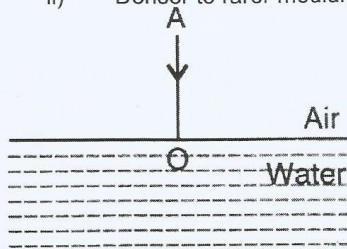


Question 7

a. Name the device shown in the image.
What is the device used for? [2]



- b. State any two precautions to be taken while using electricity. [2]
c. State the color coding of three wires in a cable used for house hold electrical circuit and also respective wire's voltage. [3]
d. Diagrammatically represent the refraction of a ray of light when it is.
1. Normally incident
2. Obliquely incident and travelling from.
i) Rarer to denser medium
ii) Denser to rarer medium. [3]



Question 8

- a. Draw a displacement – distance graph of a sound wave and label it. [2]
b. How does the speed of light determine the optical density of a medium? [2]
c. Define current and state its SI unit. [2]
d. State any two safety measures to be taken during the lighting and thunderstorm. [2]
e. State any two effects of heat. [2]
