

Q.1.A] Do as directed: 05

1) State whether true or false.

Water stored at height possesses kinetic energy

2) Define:

a) Acceleration

b) Electric current

3) Find odd one out:

a) Rubber, glass, aluminium, wood

b) C, HCl, CO₂, H₂O

B] Choose the correct option and rewrite the statement:05

1) The electronic configuration of sodium (Na) is _____.

a) 2,8,2 b) 2,8,3c) 2,8,1 d) 2,8,4

2) _____ is an acid.

a) NaOH b) CaO c) H₂CO₃ d) KOH

3 $\text{Al}_2\text{O}_3 + 2\text{NaOH} \longrightarrow$ _____ + H₂O

a) 2NaAlO₂ b) AlOH c) NaAl d) Na₂OH

4) _____ is the frequency of a sound wave if the time period of the oscillation is 0.05s

a) 20Hz b) 30Hz c) 2 Hz d) 50Hz

5) When the object is kept between pole and focus, the image is formed _____ the mirror.

a) behind b) below c) above d) infinity

Q.2] Attempt any five:

101) Differentiate between concave and convex mirror.

and convex mirror.

2) How does the velocity of sound depend upon its frequency?

3) Explain use of CO₂ in fire extinguisher.

4) Give uses of bleaching powder.

5) Explain hazards of radioactive substances and radiations.

6) Sound waves of wavelength 1cm have a velocity of 320m/s in air. What is their frequency? Can this sound be heard by the human ear?

Q.3] Attempt any five:

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- 1) Explain concept of biogas with the help of diagram of biogas plant.
- 2) Look at the figure below and answer the following questions.
 - a) With which gas in the air does the coal react on igniting?
 - b) What is the substance formed?
 - c) What change takes place in the litmus paper?
- 3) What is a deodorant? What are its major constituents? Explain the various types of deodorants.
- 4) Explain the three rules for drawing ray diagrams with the help of proper diagrams.
- 5) Explain the concept of SONAR
- 6) Neeta heard the sound of lightening after 4 secs of seeing it. What was the distance of the lightening from her? (The velocity of sound in air is 340m/s)
- 7) Identify the substance used in the process shown in the picture below:
Give properties and uses of the same.

Q.4] Attempt any one:

05

- 1) Explain the experiment to show that graphite is a good conductor of electricity. Also give properties and other uses of graphite.
- 2) An object of height 7cm is kept at a distance of 25cm in front of a concave mirror. The focal length of the mirror is 15cm. At what distance from the mirror should a screen be kept so as to get a clear image? What will be the size and nature of image?