

Date : 1-2-2024 SUT – 2024 Time : 1 hour
Std : IX Sub : Science & Technology Marks: 20

A

Part : I

Q.1) Select proper alternative and write the complete statements: (4)

- ✓1) To join plastic surfaces together _____ sound is used.
a) audible b) infra-sonic
✓c) ultrasonic d) reverberated
- ✓2) The frequency of infra-sonic sound is _____.
a) less than 20 Hz b) greater than 20000 Hz
c) greater than 20 Hz ✓d) less than 20000 Hz
- ✓3) If the object is placed at the centre of curvature in front of concave mirror then size of image formed is _____.
a) magnified b) diminished
c) same as the object ✓d) very large
- ✓4) The mirrors used in shops and malls are _____ mirrors.
✓a) plane b) concave
c) convex d) none of the above

Q.2.A) Answer any two of the following: (4)

- ✓1) Sound waves of wavelength 1 cm have a velocity of 340m/s in air. What is their frequency? Can this sound be heard by human ear?
- ✓2) State the difference between real image and virtual image.
- 3) Draw neat and labelled diagram of Cartesian sign conventions.

Q.2.B) Answer the following: (any 2) (2)

- ✓1) Define – Velocity of sound.
- ✓2) Which mirror is used in the following:
solar devices, head lamps of vehicles.
- ✓3) Which sound is created by bats while flying at night? Why?

Part : II

Q.1) Select the proper alternative and write the complete statements: (4)

- ✓ 1) To get round and yellow peas _____ genotype is necessary.
a) rrYY b) RRyy ~~c) rryy~~ d) RrYy
- ✓ 2) The number of chromosomes in frog is _____.
a) 20 ~~b) 4~~ c) 48 d) 26
- ✓ 3) Flower of tuberose opens at _____.
~~a) night~~ b) morning c) noon d) evening
- 4) _____ functions as centre of co-ordination of reflex action.
a) Cerebrum b) Cerebellum
c) Medulla oblongata ~~d) Spinal cord~~

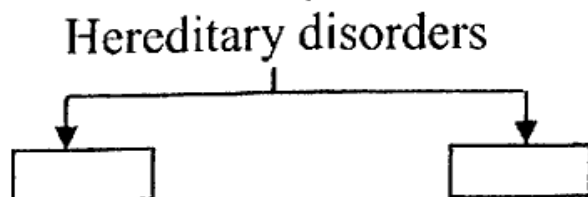
Q.2.A) Answer any two of the following: (4)

- 1) Write a short note on Transpiration.
- 2) Distinguish between cranial nerves and spinal nerves.
- ✓ 3) Explain the structure, function and types of RNA.

Q.2.B) Answer the following: (Any 2) (2)

- ✓ 1) 3:1 : Monohybrid :: 9 : 3 : 3 : 1 _____ Identify co-relation.

- ✓ 2) Complete the following:



- 3) Write the names of hormones secreted by following endocrine gland – Thyroid gland.