

GOVT BOYS HR SEC SCHOOL,UTHIRAMERUR—603406.

SCIENCE (Physics) Revision Test:1 Std:10 Nov:2019. Marks:50 Time:1.30 Hrs.

I .Choose the correct answer.

6X1=6

1. If the Earth shrinks to 50% of its real radius its mass remaining the same, the weight of a body on the Earth will
a) decrease by 50% b) increase by 50% c) decrease by 25% d) increase by 300%
2. Power of a lens is $-4D$, then its focal length is
a) 4m b) $-40m$ c) $-0.25 m$ d) $-2.5 m$
3. If a substance is heated or cooled, the change in mass of that substance is
a) positive b) negative c) zero d) none of the above
4. Kilowatt hour is the unit of
a) resistivity b) conductivity c) electrical energy d) electrical power
5. The velocity of sound in air at a particular temperature is $330 m s^{-1}$. What will be its value when temperature is doubled and the pressure is halved?
a) $330 m s^{-1}$ b) $165 m s^{-1}$ c) $330 \times \sqrt{2} m s^{-1}$ d) $320 / \sqrt{2} m s^{-1}$
6. Artificial radioactivity was discovered by _____
a. Bequerel b. Irene Curie c. Roentgen d. Neils Bohr

II. Answer any 5 questions

5X2=10

7. State Newton's second law
8. Why does the sky appear in blue colour?
9. True or False, if false explain why?
 - i). For a given heat in liquid, the apparent expansion is more than that of real expansion
 - ii) Thermal energy always flows from a system at higher temperature to a system at lower temperature
10. **Assertion:** LED bulbs are far better than incandescent bulbs.
Reason: LED bulbs consume less power than incandescent bulbs.

Mark the correct choice as

- a. If both the assertion and the reason are true and the reason is the correct explanation of the assertion.
- b. If both the assertion and the reason are true but the reason is not the correct explanation of the assertion.
- c. Assertion is true, but the reason is false.
- d. Assertion is false, but the reason is true.

11 Match the following

- | | | |
|------------|-----|-------------------|
| a. Co - 60 | --- | Age of fossil |
| b. I - 131 | --- | Function of Heart |
| c. Na - 24 | --- | Leukemia |
| d. C - 14 | --- | Thyroid disease |

12. Name three animals, which can hear ultrasonic vibrations
13. Why is tungsten metal used in bulbs, but not in fuse wires?
14. i) _____ is used to change the speed of car.
ii) A man of mass 100 kg has a weight of _____ at the surface of the Earth

III. Answer any 5 questions (Q No 16 is compulsory) 5X4=20

15. Give the applications of universal law gravitation.
16. A torch bulb is rated at 3 V and 600 mA. Calculate its
a) power
b) resistance
c) energy consumed if it is used for 4 hour
17. a) What do you understand by the term 'ultrasonic vibration'?
b) State three uses of ultrasonic vibrations.
c) Name three animals which can hear ultrasonic vibrations
18. i. 'X - rays should not be taken often'. Give the reason.
ii. Cell phone towers should be placed far away from the residential area - why?
19 Differentiate mass and weight
20. Draw a ray diagram to show the image formed by a convex lens when the object is placed between F and 2F
21 Distinguish between ideal gas and real gas.
22. a) What is meant by electric current?
b) Name and define its unit.
c) Which instrument is used to measure the electric current? How should it be connected in a circuit?

IV. Answer any two

2X7=14

23. Explain the construction and working of a 'Compound Microscope'.
(OR)
24. What is an echo?
a) State two conditions necessary for hearing an echo.
b) What are the medical applications of echo?
c) How can you calculate the speed of sound using echo?
25. Derive the ideal gas equation
(OR)
26. Compare the properties of alpha, beta and gamma radiations.

VVR / Utr.

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