

KHM HIGHER SECONDARY SCHOOL, VALAKKULAM
FIRST MIDTERM EVALUATION - 2023

PHYSICS

Time: 40 Minutes

STD: X

Max.Marks:20

Identify the word pair relationship and complete the following ?

- 1, Electric bulb: light effect
Fuse wire : ----- (1)
2. **Pick the odd one out ?**
 - a) $H=I^2Rt$, $H=P/t$, $H=VIt$, $H=(V^2/R)t$ (1)
 - b) iron box, mixie, electric heater, induction cooker. (1)
3. why nichrome is not used to make filaments ? (1)
4. Write any two precautions to be taken while connecting fuse wire in a circuit ? (1)
5. which are the circumstances that cause high electric current in a circuit ? (1)
6. Define Joule's law ? (2)
7. Why tungsten has been widely used to make filaments ? (2)
8. Nowadays "LED" bulbs have been using world wide. Write any four advantages of LED bulb ? (2)
9. Why heater with low resistance heated more ? Justify your answer ? (2)
10. A heating device has a resistance of 115 ohm. If 2A current flows through it, what is the power of the device ? (2)
11. 4 ohm, 2 ohm resistors are connected series.
 - a) Draw the circuit diagram ? (1)
 - b) Calculate effective resistance ? (1)
 - c) What will be the ammeter reading (current) if the circuit connected with 12 V electric source ? (2)