

# O P JINDAL SCHOOL, SAVITRINAGAR

## PRACTICE PAPER - 06

CLASS X PHYSICS

TOPIS : ELECTRICITY

Date : 21/04/20

MM :315

- 1 In the following questions, the Assertion and Reason have been put forward. Read the statements carefully and choose the correct alternative from the following:  
(a) Both the Assertion and the Reason are correct and the Reason is the correct explanation of the Assertion.  
(b) The Assertion and the Reason are correct but the Reason is not the correct explanation of the Assertion. 1  
(c) Assertion is true but the Reason is false.  
(d) The statement of the Assertion is false but the Reason is true. Assertion: Bending of wire decrease the resistance of electric wire.  
Reason: The resistance of a conductor depends on length, thickness, nature of material and temperature of the conductor.
- 2 746 watts make \_\_\_\_\_ horse power. 1
- 3 Rheostat used in series in a circuit can make a bulb to glow with varying brightness. [True/False] 1
- 4 One common point and no sharing devices for that point are the conditions to be satisfied for two resistors to be in series. [True/False] 1
- 5 When bulbs are connected in series, the lower power bulb glows brighter. [True/False] 1
- 6 Devices of higher power used at home have lower resistance. [True/False] 1
- 7 12 V means the work done to carry a unit charge from one point to another is 12 joule. [True/False] 1
- 8 How is an ammeter connected in a circuit to measure current flowing through it? 1
- 9 Calculate the current in a circuit if 500 C of charge passes through it in 10 minutes. 1
- 10 Work done in moving 5 C charge across the ends of a conductor is 100 J. If the potential at the one end of the conductor is 10V, find the potential at the other end of this conductor. 1

- 11 A lamp draws a current of 0.5 A when it is connected to a 60 V source. What is the resistance of the lamp? 1
- 12 A torch bulb is rated at 1.5 V, 500 mA. Find its resistance. 1
- 13 Two bulbs 60 W, 220 V and 40 W, 220 V are connected in series. Which of the bulb will glow brighter? 1
- 14 There are two electric bulbs (i) marked 60 W, 220 V and (ii) marked 100 W, 220 V. Which one of the two has a higher resistance? 1
- 15 Write relation between heat energy produced in a conductor when a potential difference  $V$  is applied across its terminals and a current  $I$  flows through for ' $t$ '. 1