

Parishram (2025)

Physics

DPP: 3

Current Electricity

- Q1** Constantan wire is used for making standard resistance, because it has
 (A) high melting point
 (B) low specific resistance
 (C) high specific resistance
 (D) negligible temperature coefficient of resistance
- Q2** At temperature 0K, the germanium behaves as a / an
 (A) conductor
 (B) insulator
 (C) super-conductor
 (D) ferromagnetic
- Q3** Which of the following is used for the formation of thermistor?
 (A) Copper oxide
 (B) Nickel oxide
 (C) Iron oxide
 (D) All of the above
- Q4** What is the suitable material for electric fuse?
 (A) Cu (B) Constantan
 (C) Tin-lead alloy (D) Nichrome
- Q5** A strip of copper and another of germanium are cooled from room temperature to 80 K. The resistance of
 (A) each of these increases
 (B) each of these decreases
 (C) copper strip increases and that of germanium decreases
 (D) copper strip decreases and that of germanium increases
- Q6** The electric resistance of a certain wire of iron is R. If its length and radius are both doubled, then (A) the resistance and the specific resistance, will both remain unchanged
 (B) the resistance will be doubled and the specific resistance will be halved
 (C) the resistance will be halved and the specific resistance will remain unchanged
 (D) the resistance will be halved and the specific resistance will be doubled
- Q7** Nichrome or Manganin is widely used in wire bound standard resistors because of their
 (A) temperature independent resistivity
 (B) very weak temperature dependent resistivity
 (C) strong dependence of resistivity with temperature
 (D) mechanical strength
- Q8** With increase in temperature the conductivity of
 (A) metals increases and of semiconductor decreases.
 (B) semiconductors increases and metals decreases.
 (C) in both metals and semiconductors increases.
 (D) in both metal and semiconductor decreases.
- Q9** The resistance of a metal increases with increasing temperature because
 (A) the collisions of the conducting electrons with the electrons increase
 (B) the collisions of the conducting electrons with the lattice consisting of the ions of the metal decreases
 (C) the number of conduction electrons decreases
 (D) the number of conduction electrons increases
- Q10** To minimise the power loss in the transmission cables connecting the power stations to homes



and factories, the transmission cables carry current

- (A) at a very low voltage.
- (B) at a very high voltage

(C) at 220 volt

- (D) neither at a very high voltage nor at a very low voltage.



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Answer Key

Q1 (D)

Q2 (B)

Q3 (D)

Q4 (C)

Q5 (D)

Q6 (C)

Q7 (B)

Q8 (B)

Q9 (A)

Q10 (B)



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