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SUBJECT:- PHYSICS

CLASS:- XTH

DATE:30/07/XX

SUBJECT TEACHER:- MR. NEEL NIRANJAN

CHAPTER 1. (ELECTRICITY REVISION) (BASED ON NCERT PATTERN)

Direction (Q44 to Q48): 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.
- (c) Assertion is true but the Reason is false.
- (d) The statement of the Assertion is false but the Reason is true.

44. Assertion: When a battery is short circuited, the terminal voltage is zero.
Reason: In short circuit, the current is zero.

Answer: c

Explanation:

(c) Assertion is true but the Reason is false.

45. Assertion: Conductors allow the current to flow through themselves.
Reason: They have free charge carriers.

Answer: a

Explanation:

(a) Both the Assertion and the Reason are correct and the Reason is the correct explanation of the Assertion.

46. Assertion: In an open circuit, the current passes from one terminal of the electric cell to another.

Reason: Generally, the metal disc of a cell acts as a positive terminal

Answer: d

Explanation:

(d) The statement of the Assertion is false but the Reason is true.

47. Assertion: The statement of Ohm's law is $K = IR$

Reason: $V = IR$ is the equation which defines resistance

Answer: c

Explanation:

(c) Assertion is true but the Reason is false.

48. 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

Answer: a

Explanation:

(a) Both the Assertion and the Reason are correct and the Reason is the correct explanation of the Assertion.