



# SMART TEST SERIES

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Name:		Subject:	Physics-12
Roll # :		Unit(s):	13,
Class:	Inter Part-II	Test:	Type 3 - MCQs + SQs Test - Marks=30
Date:		Time:	

## Q.1 Four possible answers A, B, C & D to each question are given. Circle the correct one. (10x1=10)

- 1 Heat generated by a 50 watt bulb in one hour is:  
(A) 36000 J (B) 48000 J (C) 18000 J (D) 180000 J
- 2 One ohm is equal to:  
(A)  $VC^{-1}$  (B)  $CV^{-1}$  (C)  $AC^{-1}$  (D)  $VA^{-1}$
- 3 Specific resistance of a material depends upon:  
(A) Length (B) Area (C) Temperature (D) Both A & B
- 4 The SI unit of temperature coefficient of resistivity is:  
(A)  $Ohm \cdot m$  (B)  $K^{-1}$  (C)  $K$  (D) Ohm
- 5 Resistivity at a given temperature depends upon:  
(A) Area of cross section (B) length (C) Nature of material of conductor  
(D) Both length and Area.
- 6 Temperature coefficient of resistance ( $\alpha$ ) is equal:  
(A)  $\frac{R_t + R_o}{R_o \Delta t}$  (B)  $\frac{R_o - R_t}{R_o \Delta t}$  (C)  $\frac{R_t - R_o}{R_o \Delta t}$  (D) None of these
- 7 When a wire of length "l" and resistance R is cut into two equal parts then resistivity of each part.  
(A) Becomes half (B) Remains unchanged (C) Becomes two times  
(D) Becomes four times
- 8 In carbon resistors, the value of Blue colour is:  
(A) 7 (B) 6 (C) 8 (D) 9
- 9 If fourth band is missing on resistance, its tolerance is:  
(A)  $\pm 5\%$  (B)  $\pm 10\%$  (C)  $\pm 15\%$  (D)  $\pm 20\%$
- 10 Kirchhoff's first rule is the manifestation of the law of conservation of:  
(A) Mass (B) charge (C) Energy (D) Momentum

## Q.2 Write short answers of the following questions.

(10x2=20)

- (i) Define conventional current and solar cell.
- (ii) Write name of any two effects of current.
- (iii) What is the effect of current passing through a long straight wire?
- (iv) Define Ohm's Law. Also define ohmic and non ohmic devices.
- (v) An ordinary bulb is marked 60 watts, 200 volts. What is its resistance?
- (vi) Do bends in wire affect the electrical resistance? Explain.
- (vii) What is rheostat? Write its one use.
- (viii) What is meant by tolerance? Find the resistance of a resistor with red, green, orange and fourth and gold respectively band.
- (ix) What are thermistors? How are they made?
- (x) Explain why the terminal potential difference of battery decreases when the current drawn from it is increased?