

# Physics

PR - XII (A-I-B) (24)

۱۔ ہر سوال کے سامنے چار دائرے دیئے گئے ہیں۔ صرف صحیح جواب والا دائرہ بھریں۔

۲۔ دائروں کو شیڈ (بھرنے) کے لیے نیلے یا کالے رنگ کا پین استعمال کریں۔

۳۔ جواب میں ایک سے زائد دائرے بھرنے سے جواب غلط تصور ہوگا۔

Time: 20 Min

**SECTION - A**

Marks: 18

- 1) An alternating voltage is given by  $20\sin(157t)$ , the frequency of AC is:
 

25 Hz     50 Hz     75 Hz     100 Hz
- 2) In Hysteresis, magnetic flux density (B) that remains in material when magnetizing force is zero is termed as;
 

Retentively     Reluctance  
 Coercive force     Residual flux
- 3) In reversed biased condition of a diode, sudden increase in current is known as \_\_\_\_\_ effect.
 

Knee     Compton     Zener     Photoelectric
- 4) The wavelength of electrons is \_\_\_\_\_ times, shorter than visible light.
 

$10^3$       $10^5$       $10^7$       $10^9$
- 5) According to uncertainty principle, if uncertainty of position of electron becomes 3 times, then uncertainty in momentum will be:
 

3 times      $\frac{1}{3}$  times     9 times      $\frac{1}{9}$  times
- 6) The first excitation potential of hydrogen atom is:
 

219.5 volt     12.1 volt     10.2 volt     0 volt
- 7) Helium-Neon Laser Beam emitted from a discharge tube has \_\_\_\_\_ colour.
 

Blue     Green     Red     White
- 8) In nucleus, beta ( $\beta$ ) emission does not change the number of:
 

Nucleon     Proton     Neutron     None of these
- 9) All free particles have colour charge of:
 

0      $\frac{2}{3}$       $\frac{1}{3}$      1
- 10) The time constant (RC) has the same unit as that of:
 

Resistance     Charge     Capacitance     Time
- 11) Object 'A' and 'B' have charges  $2\mu\text{C}$  and  $6\mu\text{C}$  respectively. Which statement is true about the electric forces on the objects?
 

$F_{AB}=F_{BA}$       $F_{AB}=-3F_{BA}$       $-3F_{BA}=F_{BA}$       $F_{AB}=-F_{BA}$
- 12) If slope of an Ohmic substance form an angle of  $30^\circ$  in I-V graph, then resistance of the conductor will be:
 

$0\Omega$       $\sqrt{3}\Omega$       $F \frac{1}{\sqrt{3}\Omega}$      Infinite
- 13) To obtain maximum output power, resistance of source is equal to:
 

Load resistance     Infinite     Zero     Constant
- 14) When an resistance each of value "r" are connected in parallel, then resultant resistance is x. When these n resistances are connected in series, then total resistance is:
 

nx     Rnx      $\frac{x}{n}$       $n^2x$
- 15) Which of the given has the least resistance in the measuring instruments;
 

Galvanometer     Voltmeter  
 Ammeter     All have the same
- 16) When north pole of a magnet move towards the coil, then that end of the coil will act as:
 

Positive charge     Negative charge  
 North pole     South pole
- 17) The SI unit of mutual inductance (M) is:
 

Farad     Weber     Tesla     Henry
- 18) In pure inductive circuit, the phase difference between I and V is:
 

0      $\frac{\pi}{2}$       $\pi$       $\frac{3\pi}{2}$