

## Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	The magnetic force exerted on an electron moving with velocity 'v' at right angle to the magnetic field is given by	A. $F=evB$ B. $F=e<sup>2</sup>V/B$ C. $F=e/VB$ D. $F=B<sup>2</sup>/ev$
2	Which one of the following has larger value of relative permittivity $\epsilon_r$ at room temperature?	A. Vacuum B. Air C. Glass D. Water
3	If a process cannot be retraced in the backward direction by reversing the controlling factors, it is	A. a reversible process B. an irreversible process C. any one of them D. both of them
4	Scalar product is also called:	A. Cross product B. Dot product C. Product scalar D. <div>Product vector</div>
5	Static electricity is produced by the transfer of	A. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family:&quot;Times New Roman&quot;,&quot;serif&quot;">Electrons<o:p></o:p></span></p> B. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family:&quot;Times New Roman&quot;,&quot;serif&quot;">Protons<o:p></o:p></span></p> C. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family:&quot;Times New Roman&quot;,&quot;serif&quot;">One fluid<o:p></o:p></span></p> D. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family:&quot;Times New Roman&quot;,&quot;serif&quot;">Two fluids<o:p></o:p></span></p> E. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family:&quot;Times New Roman&quot;,&quot;serif&quot;">None of these<o:p></o:p></span></p>
6	Bernoulli's equation is based upon law of conservation	A. Mass B. Momentum C. Energy D. None of these
7	Fire fighters have a jet attached to the head of their water pipes in order to head of their water pipes in order to	A. Increase the mass of water flowing per second B. Avoid wastage of water C. Increase the velocity of water flowing out D. Increase the volume of water flowing per second
8	The graphical representation of ohm's law is	A. hyperbola B. straight line C. ellipse D. parabola
9	Self induced e.m.f. is also called	A. Motional e.m.f. B. Thermistor C. Electrostatic induction D. Back e.m.f.
10	The reactance of a cell changes directly with	A. frequency of a.c B. the inductance C. both a and b D. none of these
11	An A.C. voltmeter read 250 volts. The frequency of alternating is 50 Hz, the peak value of voltage is	A. 3525.0 volts B. 35.35 volts C. 252.5 volts

value of voltage is

C. 355.5 volts

D. 3.535 volts

12 We can express the work in term of

A. directly measurable variables

B. indirectly measurable variables

C. either of them

D. both of them

13 What are the SI base units of the coefficient of viscosity

A.  $\text{Kg m s}^{-2}$

B.  $\text{kg m}^2 \text{s}^{-2}$

C.  $\text{Kg m s}^{-1}$

D.  $\text{kg m}^{-1} \text{s}^{-1}$

14 At low speeds, the drag force is

A. proportional to speed

B. inversely proportional to speed

C. not simply proportional to speed

D. none of them

15 One newton is a force that produces an acceleration of  $0.5 \text{ m/sec}^2$  in a body of mass:

A. 2 Kg

B. 3 Kg

C. 4 Kg

D. 8 Kg

16 High speed meteors rushing through air reduces to ashes because of:

A. Force of gravity

B. High resistance of air

C. Drag force

D. None of these

17 The half life of radium-226 is

A. 238 years

B.  $4.5 \times 10^9$  days

C. 1620 years

D. 332 years

18 For a n-p-n transistor, the conventional current equation can be written as

A.  $I_E + I_C = I_B$

B.  $I_C - I_B = I_E$

C.  $I_C + I_B = I_E$

D.  $I_B + I_E = I_C$

19 If a train traveling at 72 kmph is to be brought to rest in a distance of 200 meters then its retardation should be

A.  $20 \text{ ms}^{-2}$

B.  $10 \text{ ms}^{-2}$

C.  $2 \text{ ms}^{-2}$

D.  $1 \text{ ms}^{-2}$

20 Where the streamlines are very far apart from each other, the pressure will be

A. low

B. zero

C. high

D. all of them