# ECAT Pre General Science Physics Online Test

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | The relation V = IR represents | A. Ampere law<br>B. Faraday's law<br>C. Ohm's law<br>D. Len's law |
| 2 | Surface density of charge is defined as | A. Charge per unit volume<br>B. Charge per unit length<br>C. Charge per unit area<br>D. Charge per unit mass |
| 3 | The RMS value of alternating current is: | A. 0.7 times at the peak value<br>B. 0.5 times the peak value<br>C. 0.7 times the Instantaneous value<br>D. Equal to maximum voltage<br>E. None of these |
| 4 | Atoms of hydrogen gas can be excited by passing electric current through it when the gas is filled into the discharge tube at a pressure which is | A. Less than atmospheric pressure<br>B. Much less than atmospheric pressure<br>C. Greater than atmospheric pressure<br>D. Much greater than atmospheric pressure<br>E. Both C and D |
| 5 | If there identical strings each of constant K are hooked together the spring constant of resultant spring will be: | A. 3 K<br>B. 2 K<br>C. K/4<br>D. K/3 |
| 6 | The rear wheels of an automobile are rotating with an angular velocity of 14 rev/sec which is reduced to 38 rad/sec in 5 second when brakes are applied. Its angular acceleration is: | A. 5 rad/sec<sup>2</sup><br>B. -10 rev/sec<sup>2</sup><br>C. -10 rad/sec<sup>2</sup><br>D. -5 rev/sec<sup>2</sup> |
| 7 | In stationary waves | A. Energy is uniformly distributed<br>B. Energy is minimum at nodes and maximum at antinodes<br>C. Energy is maximum at nodes and minimum at antidotes<br>D. Alternating maximum and minimum energy producing at nodes and antinodes |
| 8 | Three resistance 500,500 and 50 ohms are connected in series across 555 volts mains. The current flowing through them will be | A. 0.52 A<br>B. 1 mA<br>C. 0.7 mA<br>D. 1.4 A |
| 9 | When there is no internal frictional forces between the adjacent layers of fluid, then the fluid is called | A. incompressible<br>B. compressible<br>C. viscous<br>D. non viscous |
| 10 | Gaussian surface is always: | A. Rectangular<br>B. Spherical<br>C. Cylinder<br>D. Box shape<br>E. Any of these |
| 11 | If the distance between the plates of a parallel plate condenser of capacity 10μF is doubled then new capacity will be | A. 5μF<br>B. 20μF<br>C. 10<span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text- |

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|---|---|---|
| | | align: center; background-color: rgb(255, 255, 248);">μF<br>D. 15μF |
| 12 | A man fires a bullet of mass 200 g at a speed of 5 m/s. The gun is of one kg mass. By what velocity the gun rebounds backwards? | A. 0.1 m/s<br>B. 10 m/s<br>C. 1 m/s<br>D. 0.01 m/s |
| 13 | The sum of positive and negative peak values is called: | A. Instantaneous value<br>B. Peak value<br>C. Rms valuie<br>D. Peak-to peak-value<br>E. None of these |
| 14 | Amplitude is the displacement of the vibrating body from: | A. One extreme position to the other extreme position<br>B. Mean position any one extreme position<br>C. Both A and B are correct<br>D. None of these |
| 15 | The rain drop falling from the sky reach the ground with | A. Constant terminal velocity<br>B. Constant gravitational acceleration<br>C. Variable acceleration<br>D. acceleration greater than g |
| 16 | A full-scale deflection is obtained in a galvanometer with a current of few | A. ampere<br>B. volts<br>C. milliampere<br>D. ohm |
| 17 | The body oscillates due to _____ accelerates and overshoots the rest position due to _____: | A. Applied force , inertia<br>B. Restoring force, friction<br>C. Frictional force, inertia<br>D. Restoring force, inertia |
| 18 | When the emitter-base junction of a transistor is reverse biased, collector current | A. Reverses<br>B. Increases<br>C. Decreases<br>D. Stops |
| 19 | The SI unit of spring constant is identical with that of: | A. Force<br>B. Surface tension<br>C. Pressure<br>D. Loudness |
| 20 | Heat required to raise the temperature of one mole of a gas through 1 K at constant pressure is called | A. heat capacity<br>B. specific heat capacity<br>C. specific heat at constant volume<br>D. specific heat at constant pressure |