

ECAT Pre General Science Online Test

Sr	Questions	Answers Choice
1	A particle of mass 5.0 mg moves with a speed of 8.0 m/s. Its de-Broglie wavelength is	A. 1.66 m B. 1.66×10^{-10} m C. 1.66×10^{-29} cm D. 1.66×10^{-29} m
2	Victor de-Broglie received the Nobel prize in physics in	A. 1925 B. 1929 C. 1932 D. 1935
3	0.1 kg mass will be equivalent to the energy	A. 9×10^{15} J B. 5×10^8 J C. 6×10^{16} J D. 9×10^{-16} J
4	The stopping voltage for a certain metal is 100 volts, then the work function for the cathode plate is	A. 100 J B. 1.6×10^{-17} J C. 100 eV D. 1.6×10^{-17} eV
5	According to the de-Broglie relation, an object of large mass and ordinary speed has	A. very small wavelength B. very large wavelength C. very small frequency D. all of these
6	Photocell is a device which converts	A. chemical energy into electrical energy B. electrical energy into light energy C. heat energy into electrical energy D. light energy into electrical energy
7	In process of annihilation of matter, the two photons produced move in opposite direction to converse	A. momentum B. charge C. energy D. mass
8	Pair production is the phenomenon in which	A. matter is converted into energy B. energy is converted into matter C. light is converted into electrical energy D. electrical energy is converted into light
9	Positron was discovered by Carl Anderson in	A. 1920 B. 1925 C. 1928 D. 1932
10	The existence of positron was predicted by Dirac in	A. 1920 B. 1925 C. 1930 D. 1928
11	When a positron comes close to an electron they annihilate into photons such that	A. each photon has energy 0.51 MeV B. each photon has energy 1.02 MeV C. each photon has energy 0.25 MeV D. none of these
12	When a positron comes close to an electron they annihilate into	A. one photon B. two photons which travel in the same direction C. two photons which travel in the opposite direction D. two photons which travel in any direction
13	Converse of pair production is known as	A. Compton effect B. annihilation of matter C. photoelectric effect D. none of these
14	In order to produce pair production, a photon must have a energy	A. 0.511 MeV B. 0.256 MeV C. 1.02 MeV D. none of these

15	If the radius of first orbit of hydrogen atom is 0.53° A the radius of second orbit will be	<p>A. 2.120° A</p> <p>B. 0.212° A</p> <p>C. 21.2° A</p> <p>D. 0.14° A</p>
16	When a high energy photon interact with a metal, which of the following effect is most likely to be taken place	<p>A. pair production</p> <p>B. photoelectric effect</p> <p>C. Compton effect</p> <p>D. None of these</p>
17	When low energy photon interact with a metal, which of the following effect is likely to be taken place	<p>A. pair production</p> <p>B. photoelectric</p> <p>C. Compton effect</p> <p>D. None of these</p>
18	Compton was awarded Nobel prize in physics in	<p>A. 1921</p> <p>B. 1923</p> <p>C. 1925</p> <p>D. 1927</p>
19	In the Compton's effect, it is found that the wavelength of incident x-rays is	<p>A. greater than the wavelength of scattered x-rays</p> <p>B. equal to the wavelength of scattered x-rays</p> <p>C. less than the wavelength of scattered x-rays</p> <p>D. any one of these</p>
20	Current is measured in	<p>A. volts</p> <p>B. watt</p> <p>C. ohm</p> <p>D. ampere</p>
21	Resistance is measured in	<p>A. volts</p> <p>B. ampere</p> <p>C. ohm</p> <p>D. watt</p>
22	Avo-meter is used to measure the	<p>A. current, voltage</p> <p>B. voltage, resistance</p> <p>C. resistance, current</p> <p>D. current, voltage and resistance</p>
23	A resistance used in galvanometer to make it voltmeter is called	<p>A. shunt resistance</p> <p>B. high resistance</p> <p>C. zero resistance</p> <p>D. none of these</p>
24	When a suitable small resistance is put in parallel with the galvanometer coil, it is converted into	<p>A. Voltmeter</p> <p>B. Avometer</p> <p>C. Ammeter</p> <p>D. None of these</p>
25	A resistance used in voltmeter is called	<p>A. shunt resistance</p> <p>B. high resistance</p> <p>C. low resistance</p> <p>D. zero resistance</p>
26	In order to make a voltmeter, high resistance is connected with galvanometer, in	<p>A. perpendicular</p> <p>B. may be parallel or perpendicular</p> <p>C. series</p> <p>D. none of these</p>
27	Which is modified form of galvanometer	<p>A. potentiometer</p> <p>B. battery</p> <p>C. voltmeter</p> <p>D. slide wire bridge</p>
28	A voltmeter is used to measure the	<p>A. potential difference</p> <p>B. current</p> <p>C. temperature</p> <p>D. resistance</p>
29	For measuring large currents, an ordinary galvanometer cannot be used without proper, then both relates with each other as	<p>A. modification</p> <p>B. voltage</p> <p>C. current</p>

then both relates with each other as

C. current
D. resistance

30

A full-scale deflection is obtained in a galvanometer with a current of few

A. ampere
B. volts
C. milliampere
D. ohm