

ECAT Physics Chapter 18 Electronics

| Sr | Questions | Answers Choice |
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| 1 | Electric field strength is defined as | A. Work done on unit charge B. Force exerted on unit charge C. Distance covered by unit charge D. Power exerted by unit charge E. None of these |
| 2 | The concept of electric field theory was introduced by | A. Michael Faraday B. Newton C. Dalton D. Kepler E. Einstein |
| 3 | In an N-type silicon, which of the following statement is true | A. Electrons are majority carriers and trivalent atoms are the dopants B. Electrons are minority carriers and pentavalent atoms are the dopants C. Holes are minority carriers and pentavalent atoms are the dopants D. Holes are majority carriers and trivalent atoms are the dopants |
| 4 | In a transistor, collector current is controlled by | A. Collector voltage B. Base current C. Collector resistance D. All of the above |
| 5 | A transistor has: | A. One region B. Two regions C. Three regions D. Four regions E. None is correct |
| 6 | In full wave rectification, simultaneous action is that: | A. Two diodes conduct and two do not. B. One diode conduct and three do not. C. Three diodes conduct and one does not. D. All the four diodes conduct E. None of these |
| 7 | If the distance between two charges is doubled, the force between them will become | A. Double B. Half C. Three times D. One fourth E. One third |
| 8 | Op-amp has been discussed as comparator of: | A. Distances B. Voltages C. Velocities D. Magnetic fields E. Both (A) and (C) |
| 9 | The intensity at a point due to a charge is inversely proportional to | A. Amount of charge B. Size of the charge C. Distance between charge and the point D. Square of the distance from the charge E. None of these |
| 10 | If both the inputs given to a gate are 1 such that the output is 0, then it is: | A. AND gate B. NOR gate C. OR gate D. NOT gate E. Both (A) and (C) |
| 11 | The SI unit of charge is | A. Ampere B. Watt C. Coulomb D. Volt E. Joule |
| 12 | Most of the electrons in the base of an NPN transistor flow | A. Out of the base lead B. Into the collector |

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| | | C. Into the emit D. Into the base supply |
| 13 | When transistors are used in digital circuits they usually operate in the | A. Active region B. Breakdown region C. Saturation and cutoff regions D. Linear region |
| 14 | Origin of the electric and the gravitational forces | A. Was known in 1911 A.D. B. Was known in 1811 A.D. C. Was known in 1711 A.D. D. is still unknown E. Was known in 1611 A.D. |
| 15 | In the forward biases situation, the current flowing across the p-n junction is a few: | A. amperes B. Milli amperes C. Micro amperes D. Pico amperes E. None of these |
| 16 | Majority charge carriers in the p-region of p-n junction are: | A. electrons B. positrons C. Holes D. Neutrons E. None of these |
| 17 | The reverse saturation current in a PN junction diode is only due to | A. Majority carriers B. Minority Carriers C. Acceptor ions D. Donor ions |
| 18 | Michael Faraday is known by his work on | A. Nuclear strong force B. Gravitational force C. Nuclear weak force D. Electric force E. None of these |
| 19 | A potential barrier of 0.7V exists across p-n junction made from: | A. Germanium B. Silicon C. Arsenic D. Gallium E. Indium |
| 20 | .Depletion region contains: | A. Protons B. Positive ions C. Negative ions D. Both (B) and (C) E. Both (A) and (C) |