

## Physics ECAT Pre Engineering Chapter 18 Electronics Physics

| Sr | Questions  | Answers Choice  |
|----|--|---|
| 1  | The concept of electric field theory was introduced by                               | A. Michael Faraday B. Newton C. Dalton D. Kepler E. Einstein  |
| 2  | In describing function of digital systems, 1 represents:                             | A. Closed switch B. True Statement C. Lighted bulb D. Only (B) and (C) E. All are true                            |
| 3  | The number of LED'S needed to display all the digits is:                             | A. Four B. Five C. Nine D. Six E. Seven   |
| 4  | The use of chips in electrons is described in the form of:                           | A. Yellow boxes B. Black boxes C. Red boxes D. White boxes E. Orange boxes  |
| 5  | Op-amp has been discussed as comparator of:  | A. Distances B. Voltages C. Velocities D. Magnetic fields E. Both (A) and (C)                                     |
| 6  | A potential barrier of 0.7 V exists across p-n junction made from:                   | A. Germanium B. Silicon C. Arsenic D. Gallium E. Indium   |
| 7  | Crystal of germanium or silicon in its pure form at absolute zero acts as:           | A. A conductor B. A semiconductor C. an insulator D. Both (A) and (C) E. Both (A) and (B)                         |
| 8  | Computer chips are made from:  | A. Iron B. Silicon C. Helium D. Stontium E. Aluminium   |
| 9  | 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           |
| 10 | An LED emits light when it is:   | A. Forward biased B. Reverse biased C. Operated without battery D. Operated with heat source E. None of these     |
| 11 | A digital system deals with quantities which has discrete values:                    | A. Two in number B. One in number C. Three in number D. Four in number E. None of these                           |
| 12 | By placing a dielectric in between the charges, the electrostatic force between them | A. Is always reduced B. Is always increased C. Is not affected D. Is increased one million times E. None of these |
| 13 | Field lines are closer to each other in the region where the filed is                | A. Stronger B. Weaker C. Much weaker  |

|  | D. Absent<br>E. None of these   |
|--|---|
| All the valence electrons present in a crystal of silicon are bound in their orbits by | A. lonic bond B. covalent bond C. Molecular bond D. Both (A) and (B) E. Both (B) and (C)  |
| In a transistor, collector current is controlled by                                    | A. Collector voltage B. Base current C. Collector resistance D. All of the above  |
| Electric lines of force  | A. Intersect each other B. Are always parallel C. Are always anti-parallel D. Never intersect E. None of these  |
| The values 1 and 0 are designated as:  | A. Continuous values B. Binary values C. Boolean values D. Decimal values E. Either (B) and (C)   |
| 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 |
| 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   |
| To designate the voltage as low or 0 by a logic gate, the specified minimum value is:  | A. 0.2 volt B. 0.8 volt C. 0 volt D. 2.0 volt E. 5.0 volt   |
|  | In a transistor, collector current is controlled by  Electric lines of force  The values 1 and 0 are designated as:  In an N-type silicon, which of the following statement is true  If the distance between two charges is doubled, the force between them will become                 |