0602E1521

Candidate's Seat No :_____

B.Sc. Sem.-1 Examination

DSC-C-111

Electronics

Time : 2-00 Hours] **February 2025** **[Max. Marks : 50**

Instructions : (1) All questions are compulsory.
(2) All questions carry equal marks.
(3) Symbol used have their usual meaning.

1 Give the colour code for carbon resistance & discuss any two types of resistor in detail 10

OR

Explain about fixed type & variable types of capacitors in detail. Also discuss energy stored in capacitor.

2 Explain about Binary to Gray, Gray to Binary & Excess-3 code in detail. 10

OR

(a) $347B.5C_{(16)}$ = ... (10) = ... (2)
(b) $749.56_{(10)}$ = ... (16) = ... (2)
(c) $342.41_{(10)}$ = ... (8)

3 Explain about the construction, working, V/I characteristics, parameters & application of PN Junction diode. 10

OR

Explain about clipper & clamper circuit in detail.

4 Explain about CB, CC & CE configuration of a transistor. Also discuss transistor as an amplifier. 10

OR

Discuss the characteristics of common base & common emitter circuit.

5 Answer in short (Any ten) : 10

(1) 3.2 M Ω = ... k Ω
(2) 4.7 micro farald = ... nano farad
(3) What is the unit of inductor?
(4) Give the full form of ASCII.
(5) What is the base of Hexa decimal number system?
(6) A+B = ...
(7) Draw the symbol of PN Junction diode.
(8) Define : Clipper.
(9) Define : Clamper.
(10) Draw the symbol of PNP transistor.
(11) Give the full form of BJT
(12) In which configuration transister works as an amplifier?