

BSC1O23 / STUG01ELE002 - Open Elective-I : Electronics Components and Instruments

P. Pages : 1

Time : Three Hours

**GUG/W/24/15644**

Max. Marks : 40

- Notes :
1. All the questions are compulsory and carry equal marks.
 2. Draw the neat and labelled diagram wherever necessary.
 3. Use of log table/ calculator is allowed.

Either:

1. a) What is resistor? Give the classification of resistors. 8

OR

- b) What is capacitor? Explain any two types of capacitors. 8

Either:

2. a) What is Capacitor? Explain series combination of capacitors. 8

OR

- b) Explain series and parallel combination of resistors. 8

Either:

3. a) Explain the construction and working of LED. 8

OR

- b) Design the 5V dc power supply using Zener diode. 8

Either:

4. a) How will you measure Ac and d.c. voltage using CRO. 8

OR

- b) Explain the use of voltmeter and ammeter. 8

5. Attempt **any eight**.

- a) What is the unit of inductance. 1
- b) State any two semiconductor devices. 1
- c) What is IC? 1
- d) $R_1 = 10\Omega$, $R_2 = 15\Omega$, calculate the parallel equivalent of R_1 and R_2 . 1
- e) Draw the circuit symbol of electrolytic capacitor. 1
- f) Draw the circuit symbol of resistor and inductor. 1
- g) What is LED? 1
- h) Draw the circuit symbol of Zener diode. 1
- i) What is regulated power supply? 1
- j) State two applications of CRO 1
- k) What is multimeter? 1
- l) Write full form of CRO. 1
