EE 302 (EC 302)

III Semester Diploma (Electrical/Electronics and Tele Communication) Examination, August 2011

ELECTRONIC DEVICES

Time : 3 Hours Max. Marks : 75

Instructions : *1) Answer **all** Questions in Part – **A** and either **(a)** or **(b)** of each Question in Part – **B**.*

*2) **Each** Question carries **1 (one)** mark in Part – **A** and **12 (twelve)** marks in Part – **B**.*

PART – A

I. Answer **all** questions. **(15×1=15)**

1) Mention the uses of Variable Inductors.

2) How to form P-type Semiconductor ?

3) Define Rectifier Efficiency.

4) Draw the symbol for NPN transistor.

5) Mention the advantages of fixed biasing.

6) Draw the curve for AC load line.

7) Define RC Oscillator.

8) Mention the advantages of MOSFET.

9) Write the applications of TRIAC.

10) Define latching current in SCR.

11) Draw the symbol for DIAC.

12) Draw the valley point for UJT.

13) Write the advantages of LCD.

14) What is meant by optocoupler ?

15) Define clipper.

P.T.O.

PART – B

II. Answer **all** questions : **(5×12=60)**

16) a) Explain the forward bias and reverse bias characteristics of semiconductor diode.

OR

b) Explain with neat diagram of Full Wave Rectifier and mention the disadvantages.

17) a) Why need for configuration in transistor ? Explain CE configuration.

OR

b) Explain with neat diagram of Negative Feedback circuits and write advantages.

18) a) Explain with neat diagram and working principle of LC oscillator.

OR

b) Explain with neat diagram and working principle of UJT.

19) a) Explain with neat diagram, construction and working principle of SCR.

OR

b) Explain with neat diagram, construction and working principle of FET.

20) a) Explain with neat diagram, construction and working principle of LED.

OR

b) Explain with neat diagram, construction and working principle of Monostable Multivibrator.