3/10/13

B.E. DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2013

Common to Mat.Sci, Mech, Print, Indus, Manuf. Engineering

Second semester

EC152/EC192/EC297/EC9169 – ELECTRONICS ENGINEERING (R-2004/2008)

Time: 3 hr Max. Marks: 100

Answer **ALL** Questions

Part – A (10 x 2 = 20 Marks)

1. What is meant by P-type and N-type semiconductor?
2. Draw the V-I characteristics of Zener diode.
3. Mention the applications of transistor.
4. What is Tuned amplifier?
5. Draw the symbol and characteristics of SCR.
6. What is Triac?
7. What is positive feedback?
8. Mention the applications of Op-Amp.
9. What are the different types of A/D converters?
10. What is Demultiplexer?

Part – B (5 x 16 = 80 Marks)

11. (i) Explain the construction, working principle, characteristics and applications of UJT. (12)
(ii) What are the advantages of FET amplifier. (4)

12.(a)) (i) Draw the fixed bias circuit and derive the stability factor (8)
(ii) Explain the principle of capacitance coupled tuned amplifier. (8)

(OR)

12. (b) (i) Draw a input and output characteristics of CE transistor and explain. (10)
(ii) Give the advantages of negative feedback. (6)

13. (a). Explain the construction and V-I characteristics of PN junction diode. (16)

(OR)

13. (b) Explain the working of Full-wave Bridge rectifier with neat circuit diagram and derive the ripple factor. (16)

14. (a). Explain the following with neat diagram
(i) Differentiator (8)
(ii) Integrator (8)

(OR)

14. (b) Explain the principle of Hartley Oscillator. (16)

15.(a) Explain the Full Adder and Full Subtracter with truth table (16)

(OR)

15.(b) Write short notes on
(i) Encoder (8)
(ii) J-K flip-flop (8)