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Question Paper Code : 42495

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018

Third Semester

Electrical and Electronics Engineering

EE 2203 – ELECTRONIC DEVICES AND CIRCUITS

(Regulations 2008)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. What is drift current ?
2. Differentiate LCD and LED.
3. Draw the hybrid model for CE configuration.
4. What is opto couplers ?
5. Define pinch off voltage.
6. Write the drain current equation.
7. What is shunt feedback ?
8. Write the condition for oscillation.
9. Draw a clipper circuit.
10. Why wave shaping circuit is needed ?

PART – B

(5×16=80 Marks)

11. a) Explain the working and applications of the bridge wave rectifier and derive the necessary equation to calculate the efficiency.

(OR)

- b) i) Explain the VI characteristics of PN junction diode. **(10)**
- ii) How Zener work as regulator ? Explain. **(6)**



12. a) Explain the input and output characteristics of CE configuration.

(OR)

b) Explain the input and output characteristics of CB configuration.

13. a) Explain the VI characteristics of JFET.

(OR)

b) Explain the small signal model of common source amplifier and derive the necessary equation to calculate the voltage gain, current gain, input impedance and output impedance.

14. a) With a neat diagram explain the types of negative feedback and derive the necessary equation to calculate the gain.

(OR)

b) With a neat diagram explain the working of any one LC oscillator and derive the equation to calculate the frequency.

15. a) Explain the characteristics and applications of UJT.

(OR)

b) Explain the working of any one multivibrator.