Department of Electrical and Electronics Engineering

ANALOG ELECTRONIC CIRCUITS / 19EET202
Important Questions (14 Marks)

UNIT I

1. Explain the structure and operation of PN junction diode with a neat sketch
2. Illustrate the difference between of PN diode and zenar diode. Discuss the RB operation of a zenar diode
3. Elaborate the operation of a full wave rectifier with a neat circuit and necessary waveforms
4. Discuss in detail the operation of (i) LED, (ii) Photo diode
5. Draw and explain with necessary circuit and waveform the working of clipper and clamper circuits
6. Describe the operation and application of PV cell

UNIT II

7. Describe the static input and output characteristics of a CE transistor with neat circuit diagram.
8. Explain the construction and working of FET with a neat sketch

9. Discuss with diagram, the structure and operation of MOSFET
10. Discuss with diagram, the structure and operation of SCR
11. Explain with necessary graph, the special application of UJT
12. Elaborate the structure of IGBT and also discuss its characteristics
UNIT III
13. Draw and explain with block diagram the IC fabrication process
14. Discuss in detail about photo-lithography process and Diffusion in manufacturing of monolithic IC
15. Illustrate the BJT fabrication process with relevant diagrams
16. Discuss how ICs are classified.
17. Draw and explain the working of seven segment display and LCD
18. Explain the purpose and operation of opto coupler devices
UNIT IV
19. List out different configurations of differential amplifier? Discuss with neat-labeled diagram for dual input, balanced output.
20. Describe in detail about transformer coupled class A amplifier
21. Evaluate the working of class B push pull amplifier

22. Discuss about multi stage amplifier and darling pair connection
23. Describe the working of Schmitt trigger using transistor.
24. With neat sketch describe the working of Astable multivibrator and find out the expression for time period and frequency of oscillation
UNIT V
25. State the advantages of negative feedback amplifier
26. Illustrate the with block diagrams, voltage series and current parallel feed-back systems
27. Design and test the RC phase shift oscillator
28. Discuss with neat circuit diagram the working of copitts oscillator
29. Discuss with neat circuit diagram the working of wien bridge oscillator
30. Explain with neat circuit diagram the working of crystal oscillator