Assignment Questions

Subject: Analog Electronics & Linear IC

Semester: IV (E &TC)

1. Briefly explain the working Principle of Diode and its Breakdown.
2. Define Rectification. Explain about full wave bridge type Rectifier.
3. Define transistor. write its types. what are the different types of transistor configuration?
4. Explain the working of a N-P-N transistor. with Input and output characteristics in CE mode.
5. Establish the mathematical relationship between α, β and γ.
6. what do you mean by transistor biasing? Explain the voltage divider Biasing.
7. Explain the working Principle of R-C coupled amplifier and its Frequency Response.
8. Differentiate between voltage and power amplifier.
9. Explain the working Principle of class-A power amplifier.
10. Explain the construction and working principle and advantages of Push pull amplifier.
11. Differentiate between JFET and BJT.
12. Explain the construction, working Principle & characteristics of JFET.
13. Explain the construction, working principle & characteristics of MOSFET.
14. Define feedback. write its types. and Advantages of Negative feedback
15. Explain the working Principle of RC phase shift oscillator, wien bridge oscillator with equation for frequency of oscillation.
16. Define and Classify tuned amplifier. Explain the working principle of Single tuned amplifier.
17. Explain different types of Clipper and clamper circuits.
18. Explain the working of Astable, monostable and Bistable multivibrator.
19. what do you mean by differential amplifier? Draw the Block diagram of a typical op-amp and its equivalent circuit.
20. Define CMRR, Slew rate, input offset voltage, input offset current.
21. Draw and explain the inverting and non-inverting amplifier.
22. Explain the summing amplifier, integrator and differentiator using OP-Amp.
23. Explain Block diagram and operation of IC 555 timer & IC 565 PLL.
24. Explain the operation of power supply using 78xx and 79xx series.
25. Explain working of IC regulator LM 723 & LM 317.