

ANNA UNIVERSITY COIMBATORE  
B.E. / B.TECH. DEGREE EXAMINATIONS : DECEMBER 2009  
REGULATIONS : 2007  
THIRD SEMESTER : EEE  
070290008 - ELECTRONIC CIRCUITS

TIME : 3 Hours

Max.Marks : 100

PART – A

(20 x 2 = 40 MARKS)

ANSWER ALL QUESTIONS

1. Why do we choose  $q$  point at the center of the loadline?
2. List out the different types of biasing.
3. When does a transistor act as a switch?
4. How can a AC equivalent circuit of a amplifier be obtained?
5. What is a differential amplifier?
6. Define CMRR.
7. What is a Tuned amplifier?
8. Define slew rate?
9. What are the types of feedback?
10. Define Barkhausen Criterion.
11. What are the conditions for oscillation?
12. Define Piezoelectric effect.
13. What is a Multivibrator?
14. What is a Schmitt trigger?
15. What are clippers and clampers?
16. Define rectification.
17. Give the equation for average and root-mean-square output voltages of an ideal full wave rectifier.
18. What is a Zener diode?
19. Give the classification of SMPS.

20. What is the use of Schottky diodes?

PART – B

(5 x 12 = 60 MARKS)

ANSWER ANY FIVE QUESTIONS

21. Explain the small signal analysis of CE amplifier with fixed bias.
22. Explain the AC and DC Analysis Common collector Amplifier.
23. Explain the concept involved in crystal oscillator with its characteristics?
24. Explain the process of Square wave generation with neat diagram.
25. Explain the operation of Schmitt trigger.
26. Explain RC phase shift oscillator?
27. Explain about rectifiers with neat diagrams and derive its efficiency.
28. Explain about SMPS with neat diagram.

\*\*\*\*\*THE END\*\*\*\*\*