

TIME : 3 Hours

Max.Marks : 100

PART – A

(20 x 2 = 40 MARKS)

ANSWER ALL QUESTIONS

1. What is De-sensitivity?
2. State the disadvantages of negative feedback
3. What is Butterworth filter?
4. What is an oscillator?
5. Draw the Twin-T oscillator circuit.
6. Write the types of filter?
7. Define Q-factor.
8. Differentiate between cascade and cascode amplifier.
9. Draw the circuit diagram of bootstrap circuit.
10. What is loop gain?
11. List the types of feedback amplifiers.
12. What is a tuned amplifier?
13. Write the expression for second order LCR circuit.
14. State the application of Mixer circuit
15. What is Miller circuit?
16. Define eddy current loss
17. What are the uses of transformers?
18. What is percentage tilt?
19. What is storage delay?
20. What is meant by multivibrator?

PART – B

(5 x 12 = 60 MARKS)

ANSWER ANY FIVE QUESTIONS

21. a Explain in detail about the MOS differential amplifier 6  
b Discuss the frequency response of differential amplifier 6
22. a List out the properties of feedback 6  
b Explain the output impedance of negative feedback 6
23. a Analysis the feedback topologies for voltage series with corresponding diagram? 6  
b Derive the expression for Hartley oscillator, with a neat circuit diagram 6
24. a Derive the expression for RC phase shift oscillator 6  
b Design and analyze a single tuned amplifier, with a neat circuit diagram 6
25. a Explain the class C tuned amplifier, with a neat circuit diagram 6  
b Describe about the unloaded Q factor 6
26. a Design and derive expression for Wien bridge oscillator, with a neat circuit diagram 6  
b Discuss in detail about Colpitts oscillator 6

- 27 a Explain the working of a Schmitt trigger, with a neat circuit diagram 6
- b Draw the circuit and derive any two of the low pass RC circuits 6
- 28 a Explain the working of a astable multivibrator. 6
- b Draw the circuits and explain about the clippers and clampers, with a neat circuit diagram 6

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