

ELECTRONIC DEVICES AND CIRCUITS

QUESTION BANK

UNIT IV

PART A:

1. Define conversion efficiency of power amplifier.
2. Define cross over distortion and the ways to overcome.
3. Comment on the maximum efficiency of class-B amplifier operation.
4. What are push-pull amplifiers? Draw a model for 2-transistor in a push-pull arrangement.
5. Sketch ac load line in case of class A power amplifier.
6. Sketch ac load line in case of class B power amplifier.
7. What are the advantages and disadvantages of class C push-pull amplifier?
8. Draw the block diagram practical power amplifier.
9. Differentiate voltage amplifier and power amplifier.
10. State the merits of using push pull configuration.
11. Define a mutivibrator and list its types.
12. What are the applications of Bistable Multivibrator?
13. What is meant by hysteresis in a Schmitt Trigger?
14. What is the function of commutating (Transpose) Capacitors in Bistable Multivibrator?
15. Under what condition would a Schmitt operate as an amplifier?

PART B:

1. Explain the working of Class A Power amplifier and derive the expression for the power output and efficiency.
2. Explain the working of Class B Power amplifier and derive the expression for the power output and efficiency.
3. Explain the working of Class AB Power amplifier and derive the expression for the power output and efficiency.
4. With the help of a neat diagram and waveforms, explain the principle of operation of monostable multivibrator.
5. With the help of a neat diagram and waveforms, explain the principle of operation of Astable multivibrator.
6. Explain the working of Schmitt trigger with the help of a neat circuit diagram.