CBSE Class 12 Electronic Technology 2007 - Set 114

Question Paper

Conducted by the Central Board of Secondary Education (CBSE)

Time Allowed: 3 Hours **Maximum Marks: 40**

General Instructions

(i) Attempt all questions. Each question carries five marks.

Questions

1(a).

Define A.C. load line and give its use.

1(b).

Draw a typical circuit of a single stage C.E. amplifier with proper biasing circuit.

OR

1.

Give the expression for voltage gain, current gain, input impedance and output impedance for a single stage C.E. amplifier circuit in terms of 'h' parameters.

2.

Draw a typical circuit of transformer coupled multistage amplifier and explain its working. Draw its frequency response.

OR

2.

Draw the frequency response of R.C. coupled multistage amplifier and explain the physical significance of the terms bandwidth, upper crossover frequency and lower crossover frequency.

3(a).

Explain the difference between voltage and power amplifier.

3(b).

Define collector efficiency of power amplifier.

OR

3.

Explain the working principle of complementary symmetry push-pull amplifier circuit and give its advantages.

4(a).

State types of feedback.

4(b).

Derive an expression for the gain of an amplifier using negative feedback.

5.

Give the expression for impedance at resonance for a series resonant circuit. State the relationship between resonant frequency, Q and bandwidth.

6.

Draw the circuit of Wein's bridge oscillator and explain its working principle.

7.

Explain the working of transistor as a switch.

8.

Explain the importance of ICs in modern electronics. Give any four examples of ICs.

- End of Question Paper -