BHARATI VIDYAPEETH INSTITUTE OF TECHNOLOGY

Elements of Electronics

Unit Test-II Question Bank

EOE-K Scheme (312309)

UNIT IV. Oscillators (14 M)

2 M Questions

1. What is Oscillator?
2. Define feedback. State types of feedback.
3. Give classification of oscillators.
4. Give the difference between LC oscillators and crystal Oscillator.
5. Give the difference between RC and LC Oscillator.
6. Define Positive feedback.
7. Define Negative feedback.
8. State the difference between Positive and Negative feedback.

4 M Questions

1. State Barkhausen criteria.
2. State the difference between positive and negative feedback.
3. Draw and explain diagram of RC phase shift oscillator and determine frequency of oscillation
4. Draw and explain diagram of Wein Bridge oscillator and determine frequency of oscillation
5. Draw the circuit diagram of crystal oscillator and explain
6. Draw circuit diagram of Colpitt's oscillator and explain its working
7. Draw the circuit diagram of Hartley's oscillator and explain its working
8. Sketch circuit diagram of RC phase shift oscillator. If value of capacitor C = C1 = C2 = C3 = 5 pF and frequency of oscillation is 800 Hz, calculate value of resistor R, (R = R1 =R2 = R3).

UNIT V. Regulators and Power Supply (12M)

2 M Questions

1. Define the term Line Regulation with formulae
2. Define the term Load Regulation with formulae
3. State the need of DC regulated power supply
4. Draw and explain how Zener diode can be used as a voltage regulator.
5. State the output voltages of IC 7805 and IC 7912.
6. Write three terminal voltage regulator IC for obtaining : (i) + 24V (ii) -6V
7. Draw circuit diagram of DC regulated dual power supply for ±12V using IC 78XX and IC 79XX

4 M Questions

1. Draw the block diagram of DC regulated power supply and describe the working of each block
2. Draw the pin diagram of IC 78XX , IC 79XX, IC LM 723
3. Explain a dual regulated power supply using IC 78XX and 79XX
4. What is switch mode power supply (SMPS) ?
5. Draw block diagram of IC 723. Write the function of IC 723