EC3301 ELECTRON DEVICES ANS CIRCUITS

IMPORTANT QUESTIONS

UNIT - I PN JUNCTION DEVICES.

2 - Mark

1. What is PN junction diode?
2. Write the structure of PN Junction Devices.
3. Define Rectifiers.
4. Write about Display devices.
5. Explain LED.
6. What are Laser diodes.
7. Define Zener diode as regulator.

13 - Mark

1. Explain operation and V-I characteristics
2. Describe diffusion and transition capacitance
3. Demonstrate Clipping & Clamping circuits.
4. Identify Half Wave and Full Wave Rectifier.
5. Describe the difference Zener diode characteristics- Zener diode Reverse characteristics.

UNIT - II TRANSISTORS AND THYRISTORS

2 - Mark

1. Narrate the expansion of BJT
2. What is JFET
3. Explain the full form of MOSFET, ,
4. Define structure of Transistors

13 - Mark

1. Explain characteristics and Biasing UJT
2. Identify Thyristors and IGBT -
3. Describe Structure and characteristics of thyristors

UNIT - III AMPLIFIERS

2 - Mark

1. What is CB?
2. Define CC amplifiers.
3. Demonstrate Gain and frequency response
4. Write about MOSFET small signal model

13 - Mark

1. Explain BJT small signal model
2. Describe Analysis of CE
3. Write the Analysis of CS and Source follower
4. Explain High frequency analysis.

UNIT - IV MULTISTAGE AMPLIFIERS AND DIFFERENTIAL AMPLIFIER

2 - Mark

1. Define Differential amplifier
2. What is Common mode?
3. Explain FET input stages.
4. What are Single tuned amplifiers?
5. Point out any five Neutralization methods.
6. What are power amplifiers?
7. What are the Types of Qualitative analysis?

13 - Mark

1. Explain BIMOS cascade amplifier.
2. Write about Common mode and Difference mode analysis.
3. Describe Gain and frequency response.
4. Explain Neutralization methods.

UNIT - V FEEDBACK AMPLIFIERS AND OSCILLATORS

2 - Mark

1. What is voltage / current?
2. Write about Shunt feedback.
3. Demonstrate positive feedback.
4. Explain phase shift.
5. What is Wien bridge?
6. Define Hartley.

13 - Mark

1. Explain the Advantages of negative feedback.
2. Describe Condition for oscillations.
3. Write about Colpitts and Crystal oscillators.