

II years - MECs (Sem-3).

Electronics Important Questions

Long Questions := 4 SAQ Unit-I

- 1) Draw the circuit diagram of a Half wave Rectifier and explain its working. Obtain an for efficiency and Ripple factor.
- 2) What is Rectifier? Draw the circuit diagram of Full wave Rectifier and explain it. Obtain an expression for Ripple factor, Efficiency of full wave rectifiers.
- 3) Describe the working of Full wave Rectifier. And discuss the use of π -type filter to avoid ripples. Give the diagram to illustrate your answer.
- 4) Draw the circuit diagram of Bridge wave Rectifier and explain it. Obtain an expression for Ripple factor & efficiency.
- 5) Write a short notes on UPS ^{Unit-I} < LAR + SAQ >
- 6) Explain Transistor Series Voltage Regulator.
- 7) Explain IC No. 7805, 7905.
- 8) Draw the circuit diagram in Bridge Rectifier with L-section (or) π -type filter and explain it. Obtain Ripple Factor.
- 9) Draw the circuit diagram of Full wave Rectifier with π -type (or) L-section filter and explain it.

- 10) Describe Construction and Working of Zener diode as a Voltage regulator and explain its working.
- 11) What is Switch Mode power supply system (SMPS). Give its principle and theory of operation.
- 12) Draw the circuit diagram of RC coupled Amplifiers and Obtain the expression for Voltage gain at low, mid and high frequencies.
- 13) Draw the circuit diagram of RC coupled Amplifiers and explain its frequency response.
- 14) Explain the advantages of Negative feedback in Amplifiers.
- 15) Explain the concept of feedback. Types of feedbacks. Discuss effects (or) advantages of -ve feedback.
- 16) Explain emitter coupled differential amplifiers with neat diagram and explain it.
- 17) Explain Darlington pair effect in detail.
- 18) Draw the neat diagram of hybrid π -model and explain.
- 19) Explain Barkhausen Criteria for Sustained oscillator.
- 20) Draw the circuit diagram of Hartley Oscillator and explain.
- 21) Draw the circuit diagram of Colpits Oscillator and explain.
- 22) Draw the circuit diagram of Klein's Bridge Oscillator and explain.

UNIT-III < LAQ + SAQ >

UNIT-IV < LAQ, SAQ >

23) Draw the circuit diagram of Astable Multivibrator and explain.

24) Draw the circuit diagram of Monostable Multivibrator and explain.

25) Draw the circuit diagram of Bistable Multivibrator and explain.

26) Difference between Half Wave Rectifier (HKR) and Full Wave Rectifier (FKR).
→ General Questions (All units)

27) Define filters.

28) Difference between Full Wave Rectifier and Bridge Wave Rectifiers.

29) Describe briefly about Solid State power Supply.
(or) Complete Power Supply System

30) Efficiency 2) Ripple factor 3) Voltage Regulation
iv) Harmonic components of HKR, FKIR, BKR.

31) Explain briefly about Transistor Shunt Voltage Regulator.

32) Difference between 7805 + 7905

33) Difference between positive feedback and negative feedback in Amplifiers