

Basic Electronics

3rd Sem

Assignment No:-1

Q. No. 1) Explain the formation of the depletion layer in PN Junction diode.

Q. No. 2). Explain the Characteristics of the PN junction Diode.

Q. No.3). Explain photodiode, varactor diode and LED in brief.

Assignment No:-2

Q. No. 4). What is a rectifier, and what are the types of rectifiers, explain these in rectifiers.

Q. No. 5) Define the following 1).PIV, 2). Ripple Factor, 3).TUF, 4). Rectifier Efficiency.

Q. No. 6) what is the filter? Write down the types of filters and explain the C and pi filters in brief.

Assignment No:-3

Q. No. 7). Explain the Zener diode with its Characteristics.

Q. No. 8). What is Zener breakdown and avalanche breakdown.

Q. No. 9). Explain about Zener voltage regulator.

Q. No. 10). What are clippers and explain all the clippers.

Q. No. 11). What are clippers and explain all the clippers.

Assignment No:-4

Q. No. 12) What is BJT, explain the working of PNP and NPN Transistor.

Q. No. 13) Explain the input-output characteristics of BJT in CE, CB and CC configuration.

Q. No. 14) What is transistor biasing explain the methods of transistor biasing.

Q. No. 15) Describe the working and operation of FET.

Q. No. 16) Differentiate between BJT and FET.

Assignment No:-5

Q. No. 17) Sketch the block diagram of OP-AMP ic and also describe the function of each block.

Q. No. 18) Define the following 1). Virtual Ground 2). Slew Rate 3). Gain input and output resistance
4) Frequency Response.

Q. No. 19) Analyse the working of OPAMP as an Inverting and Non-Inverting amplifier.

Q. No. 20) How to use OPAMP as an integrator and differentiator.