NETTUR TECHNICAL TRAINING FOUNDATION

DIPLOMA IN ELECTRONICS ENGINEERING & EMBEDDED SYSTEM – CP04

II SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JUNE 2023

Subject: Analog Electronics-I **Total Time: 2 Hr.**

Subject Code: CP04203T **Total Marks: 50**

PART B

1.0 ANSWER ANY EIGHT OF THE FOLLOWING **2*8=16**

1.1 List the types of clippers

1.2 What is rectifier and name the types of rectifiers?

1.3 Draw the symbol of phototransistor & photodiode.

1.4 Describe the regions of operations of transistor

1.5 Name the different types of biasing circuits

1.6 Write the role of coupling capacitors in amplifier

1.7 Define CMRR

1.8 List the types of FET

1.9 Compare JFET and BJT

1.10 Define ripple factor

2.0 ANSWER ANY SIX OF THE FOLLOWING **3*6=18**

2.1 Draw the block diagram of regulated power supply

2.2 Explain the operation of Peak detector with neat sketch

2.3 Explain the working of LED with neat sketch

2.4 Describe the CC configuration of transistor

2.5 Draw & explain the working of voltage divider biasing circuit

2.6 Explain Common collector amplifier or Emitter follower with neat diagram

2.7 Explain basic differential amplifier with the help of neat diagram

2.8 Why BJT is called as current controlled device?

3.0 ANSWER ANY FOUR OF THE FOLLOWING **4*4=16**

3.1 Explain positive clamper with neat circuit diagram

3.2 Draw the circuit of full wave rectifier and explain its working.

3.3 Explain the working of NPN transistor with neat sketch

3.4 Draw the block diagram of op-amp & List down the various parameters of op-amp

3.5 Briefly explain the working of RC coupled CE amplifier.

3.6 Write a short note on Zener regulator