Securing your Future with your own Hands

NETTUR TECHNICAL TRAINING FOUNDATION

DIPLOMA IN ELECTRONICS ENGINEERING & EMBEDDED SYSTEM – CP04

III SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JAN 2023

Subject: Digital Electronics-II **Total Time: 2 Hr.**
Subject Code: CP04302T **Total Marks: 50 Marks**

PART B

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

1.1 Define Sequential Circuits
1.2 List the alternate names for Johnson Counter.
1.3 Define Counters & Brief about need for Counters.
1.4 Define Bidirectional Shift Registers.
1.5 Define Data Conversion. List the types of Data Converters.
1.6 List the Units of Binary Data
1.7 List the 3 parameters which can determine the performance of memory system
1.8 Write a short note on Flash Memory.
1.9 Classify Analog to Digital Converters.
1.10 Name the 2 types of LED Seven Segment Display

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

2.1 Define Triggering & What are the types of triggering?
2.2 Explain the working of 4-bit SISO Shift Register with neat sketch
2.3 Write the comparison between combinational circuits & sequential circuits.
2.4 Differentiate between Binary Weighted DAC & R-2R Ladder DAC.
2.5 Define the following parameters related to performance of memory system.
a) Access Time b) Memory Cycle Time c) Transfer Rate
2.6 Write a short note on EEPROM.
2.7 Define PAL. Explain the working of PAL with neat block diagram
2.8 Explain the working of common cathode SSD with neat circuit diagram

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

3.1 Differentiate between asynchronous counters & synchronous counters
3.2 Explain the working of MOD-10 Ripple Up Counter with neat sketch
3.3 Design a 4-bit Johnson Counter using D Flip-flop.
3.4 List the advantages & disadvantages of single slope or ramp type ADC.
3.5 Compare CPLDs to FPGAs.
3.6 Define PLA. Explain with the neat block diagram, the working of PLA