

NETTUR TECHNICAL TRAINING FOUNDATION
DIPLOMA IN ELECTRONICS ENGINEERING & EMBEDDED SYSTEM – CP04
III SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JAN 2023

Subject: PCB Design & Fabrication
Subject Code: CP04304T

Total Time: 2 Hr.
Total Marks: 50 Marks

PART B

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

- 1.1 List out any five tools used in Eagle
- 1.2 What are the main ingredients of copper clad laminate?
- 1.3 What are the 3 process involved in SMD soldering?
- 1.4 What is the difference between solder mask layer and paste mask layer?
- 1.5 What is meant by annular ring of the PCB pad?
- 1.6 How to clean the contaminated copper surface of the laminate?
- 1.7 List out the 3 types of plating techniques
- 1.8 Name the 4 types of etching process
- 1.9 Name any 3 lasers, which is used in PCB machining operations
- 1.10 Define about Blind Via & Buried Via

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

- 2.1 Define the process of copper foil manufacturing by electrolytic process
- 2.2 Write any five design rules of single sided PCB layout
- 2.3 Explain the silkscreen layer in PCB design
- 2.4 Write about continuity testing of bare PCB board
- 2.5 How to decide the space between two parallel conductor routings?
- 2.6 What are the advantages of Multilayer PCB's?
- 2.7 What is meant by Net list?
- 2.8 Define the dielectric strength & dielectric constant of the copper clad laminate

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

- 3.1 What is the function of ADD tool in Eagle?
- 3.2 Write about double sided PCB's
- 3.3 Write about pick & place process in SMD soldering
- 3.4 What is the difference between Electro plating and Electro less plating?
- 3.5 Draw the diagram of treating process in PREPREG manufacturing
- 3.6 Draw the flow chart of copper clad laminate manufacturing