NETTUR TECHNICAL TRAINING FOUNDATION

DIPLOMA IN MECHATRONICS ENGINEERING AND SMART FACTORY – CP15

VI SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-MAY 2023

Subject: Automated Production System **Total Time: 2 Hr.**

Subject Code: CP15603T **Total Marks: 50**

PART B

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

1.1 What is the role of automation in production system?

1.2 List the types of automated flow line

1.3 What is lead time?

1.4 What is the objectives of line balancing?

1.5 Define material handling.

1.6 What is automated inspection?

1.7 What is computer integrated manufacturing?

1.8 List out the technologies involved in smart manufacturing.

1.9 What is Cycle Time?

1.10 Name the 3 levels of manufacturing flexibility.

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

2.1 Write a short note on types of automation.

2.2 What are the objectives of automated flow line?

2.3 List the factors involved in selection of work transport method.

2.4 Explain rack & pinion mechanism with neat sketch

2.5Write a short notes on on-line/in-process and on-line/post-process inspection methods.

2.6 What are the types of AS/RS also mention its benefits

2.7 Draw the structure of computer aided process planning (CAPP) system.

2.8 List the technologies involved in Industry 4.0

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

3.1 List the 10 strategies of automation.

3.2 Explain any two linear transfer mechanism in detail.

3.3 Explain different methods of work transport in detail

3.4 Explain different types of Flexible Manufacturing System Layout.

3.5 Explain the 3 paradigms of Intelligent Manufacturing System.

3.6 Explain the different phases of smart factory architecture.