

S.B. Roll No.....

**CNC MACHINES AND AUTOMATION**  
**6<sup>th</sup> Exam/Mech./5380/Jun'2021**  
**(For 2018 Batch Onwards)**

**Duration: 1.15Hrs.**

**M.Marks:25**

**SECTION-A**

**Q1. Attempt any three questions.**

**3x5=15**

- i. Enlist any five industrial applications of CNC.
- ii. What is Tool Coating?
- iii. Explain Incremental Co-ordinate system.
- iv. What is loop control system?
- v. Define the term CIM and FMS
- vi. What do you mean by automatic tool changer (ATC)
- vii. What is canned cycle? What are its advantages in programming CNC machines?

**SECTION-B**

**Q2. Attempt any one question.**

**1x10=10**

- a. Define CNC? Write its advantages & disadvantages from engineering point of view.
- b. Explain in detail the various types of Automation.
- c. Explain the following with the help of neat diagrams  
i) LVDT                      ii) closed loop control system                      iii) PLC
- d. Explain the need for flexible Manufacturing system? and explain the benefits of flexible Manufacturing system