

- Q.25 What are the various factors considered in selecting tooling for CNC Machines
- Q.26 Explain Preset and qualified tools
- Q.27 Explain Automatic tool changer
- Q.28 Explain in brief types of tool holding devices
- Q.29 Explain basic types of ATC
- Q.30 Write a short note on Work holding and locating devices
- Q.31 Explain components of CNC Systems
- Q.32 Differentiate between conventional and CNC Machines
- Q.33 Explain Swarf removal process
- Q.34 Enlist various safety devices used to safeguard CNC
- Q.35 Compare conventional and CNC Machine Tool

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain the working principle and features of ATC
- Q.37 Explain various feedback control systems.
- Q.38 Explain the following :
- a) PLC
  - b) Micro-controllers

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No. of Printed Pages : 4  
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#### 5th Sem Subject:- Basics of CNC Machines

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Command Go1 means
- a) Linear Interpolation b) Rapid positioning
  - c) Circular Interpolation d) None
- Q.2 CNC stands for:
- a) Computer Network control
  - b) Computer Numeric control
  - c) Computer Nested control
  - d) all of the above
- Q.3 Point to point systems are used for \_\_\_\_\_
- a) drilling b) parting
  - c) grooving d) facing
- Q.4 The CNC Control systems which has no feedback are
- a) uncontrolled system b) controlled system
  - c) closed loop d) open loop
- Q.5 The other name for G codes is \_\_\_\_\_

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- a) Speed codes                      b) Preparatory codes  
c) Governing codes                d) Miscellaneous codes
- Q.6 Which type of feedback device used in CNC  
a) Position feedback    b) velocity feedback  
c) Both a and b                d) none of above
- Q.7 DNC stands for :  
a) Direct Network control  
b) Direct Numeric control  
c) Direct Nested control  
d) all of the above
- Q.8 In a DNC System  
a) Many machine tool can be controlled simultaneously  
b) Only single machine tool can be controlled  
c) NC machine cannot be controlled  
d) None of the above
- Q.9 Which of the following is not the advantage of CNC machine:  
a) Many machine tool can be controlled simultaneously  
b) Only single machine tool can be controlled  
c) NC machine cannot be controlled  
d) None of the above
- Q.10 Which code is used for dwell function  
a) G01                                b) G03  
c) G02                                d) G04

## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 List any two applications of CNC
- Q.12 What is the function of G01 Code in CNC
- Q.13 Define DNC
- Q.14 Expand MCU
- Q.15 What is the function of ATC
- Q.16 The function of slideways in CNC is to \_\_\_\_\_
- Q.17 The tool coatings improve the performance of tool  
a) True                                b) False
- Q.18 Ceramic tools can be used for \_\_\_\_\_ cutting speeds
- Q.19 What is PLC
- Q.20 M01 Code is used for \_\_\_\_\_

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Explain closed loop control systems.
- Q.22 State few advantages and disadvantages of CNC
- Q.23 Explain various stages of tool change
- Q.24 Write a short note on tool materials used for CNC Machine