

Q.22 Describe M00, M01, M10, M17 code in part programming. (C03)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three Questions. (2x8=16)

Q.23 Explain in Law of Robotics, Anatomy of robot with figure. Also its objectives using Robots. (C04, 5)

Q.24 Explain the principle and process of LBM (Laser Beam Machining) with neat sketch and state its disadvantages & application. (C03)

Q.25 Explain Constructional details of CNC Milling machine with neat sketch. (C05)

(Note : Course Outcome/CO is for office use only)

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4th Sem.

Branch :Automobile

Sub. : CNC Machines and Advanced Manufacturing Processes

Time : 3 Hrs.

M.M. : 60

### SECTION-A

**Note:** Multiple choice Questions. All Questions are compulsory. (6x1=6)

Q.1 Several machine tools can be controlled by a central computer in

- a) NC
- b) CNC
- c) DNC
- d) CCNC

Q.2 What does CNC machine use to control motion and speed?

- a) Numerical
- b) Programs, as well as computer keyboard, Graphical user interface
- c) Feedback system
- d) GUI

Q.3 Numerical control\_\_\_\_\_.

- a) Applies only to milling machines
- b) is a method for producing exact number of parts per hour
- c) Is a method for controlling by means of set of instructions
- d) None of the mentioned

- Q.4 A code for End the currently running program

  - a) G09
  - b) M02
  - c) M01
  - d) G00

Q5. Computer will perform the data processing functions in

  - a) VMC
  - b) CNC
  - c) DN
  - d) All of the mentioned

Q.6 In the CNC machine tool, the part program entered into the computer memory

  - a) Can be used only once
  - b) Can be used again and again
  - c) Can be used again but it has to be modified every time
  - d) None of the mentioned

## **SECTION-B**

**Note: Objective type questions. All questions are compulsory. (6x1=6)**

- Q.7 EDM stands for \_\_\_\_\_. (C03)

Q.8 Machine control unit implements interpolation commands to generate axial motion commands. (True/False) (C03)

Q.9 Conversion of units is possible in case of CNC machines (True/False) (C03)

- Q.10 For CNC machining skilled part programmers are not needed. (True/False) (C03)

Q.11 First milling machine came into existence in about 1770 (True/False) (C04)

Q.12 Write full form of ECM. (C03)

### **SECTION-C**

**Note: Short answer type Questions. Attempt any eight questions out of ten Questions. (8x4=32)**

- Q.13 Write the disadvantages of DNC. (C02)

Q.14 State the advantages of ECM. (C01)

Q.15 Describe application of CNC machines. (C01)

Q.16 Explain (a) Point to point (b) Straight line. motion control system (C05)

Q.17 Write the functions of Transducer in USM. (C02)

Q.18 Explain any four Robot languages. (C04)

Q.19 Describe NC words. (C01)

Q.20 Compare Milling Machine with Engine Lathe. (C04)

Q.21 State the working principle of EDM with figure. (C01)