

- Q.25 Describe absolute and incremental coordinate system. (CO-2)
- Q.26 Explain the variation of Metal removal rate (MMR) with respect of voltage effect in EDM. (CO-2)
- Q.27 State the working principle of EBM. (CO-1)
- Q.28 Write Anatomy of robot. (CO-4)
- Q.29 Describe Terminology of EDM. (CO-2)
- Q.30 Explain Horizontal Milling Machine with neat sketch. (CO-4)
- Q.31 Prepare simple Part programme for plain Milling. (CO-5)
- Q.32 Explain NC part programming Languages. (CO-3)
- Q.33 Explain Part program Formats with example. (CO-4)
- Q.34 Explain Robot Terminology/Technical features of an industrial Robot. (CO-4)
- Q.35 Explain the following milling operations with Sketch. (CO-5)

- 1) Plain milling 2) Angular milling

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain the principle and process Parameters of USM and state its applications. (CO-3)
- Q.37 Describe Elements of plain milling cutter & make neat sketch of any two milling cutter. (CO-5)
- Q.38 Explain the Classification of Robots on the Basis of Co-ordinate system/Physical Configuration. (CO-4)

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Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 The full form of CNC (CO-1)
- Computer numerical component
 - Common numerical control
 - Both (a) & (b)
 - Computer numerical control
- Q.2 Computer numerical control machines use (CO-2)
- Digital data & a computer
 - A computer and a CAM program
 - A computer, a CAM program & a digital data
 - None
- Q.3 NC contouring is an example of (CO-2)
- Continuous path positioning
 - Point-Point positioning
 - Absolute positioning
 - Incremental positioning
- Q.4 G-codes in computerized numerical control machines is a Preparatory codes-instructions (CO-1)
- Preparatory codes instructions

- b) Final codes-instructions
 c) Both A & B
 d) None
- Q.5 A CNC Machine controls the movements of the machine to (CO-1)
 a) Automate b) Monitor
 c) Both A & B d) None
- Q.6 In which of the following materials Rotary Ultrasonic Machining can be used to drill holes through them?
 a) Glass b) Alumina
 c) Ferrite d) All of the mentioned
- Q.7 Which of the following is not a dielectric fluid? (CO-4)
 a) Kerosene b) White spirit
 c) Silicon Oil d) Diamond
- Q.8 Ultrasonic Machining can be used for which of the following processes and applications?
 a) Drilling
 b) Sinking and contouring
 c) Polishing
 d) All of the mentioned
- Q.9 Which of the following code will give point to point movement?
 a) G94 b) G01 & G56
 c) G56 & G94 d) G00
- Q.10 Which of the following code is used to select y-z plane in milling?
 a) G19 b) G01 & G56
 c) G56 - & G94 d) None of the above

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SECTION-B

Note: Objective type questions. All questions are compulsory.

(10x1=10)

- Q.11 CNC stands for _____. (CO-3)
- Q.12 Manual method is a programming method of Robot. (True/False) (CO-3)
- Q.13 Write full form of ECM. (CO-3)
- Q.14 Conversion of units is possible in case of DNC machines (True/False) (CO-3)
- Q.15 Name any two dielectric fluids used in electric discharge machining. (CO-1)
- Q.16 _____ gas is filled in flash lamp is laser beam machining. (CO-1)
- Q.17 First milling machine came into existence in about 1770 (True/False) (CO-4)
- Q.18 In 1954 the first programmable robot is design by _____. (CO-4)
- Q.19 In which year, OTC DAIHEN have introduced a line of arc welding and handling robots. (CO-4)
- Q.20 Name the M code for "Tool Change". (CO-3)

SECTION-C

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

- Q.21 State the Disadvantages of LBM. (CO-1)
- Q.22 Describe G codes in part programming. (CO-1)
- Q.23 Discuss function and benefits of DNC. (CO-2)
- Q.24 Explain the difference between NC and CNC system. (CO-2)

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