

- Q.27 State the working principle of PAM. (C0-1)
 Q.28 Write classification of robot. (C0-4)
 Q.29 Write the properties of generator in USM. (C0-2)
 Q.30 Explain Universal Milling Machine with neat sketch. (C0-4)
 Q.31 Prepare Part Program for Turning. (C0-5)
 Q.32 Explain NC part programming Languages. (C0-3)
 Q.33 Explain Part program structure with example. (C0-4)
 Q.34 Name some industrial applications of Robots. (C0-4)
 Q.35 Explain the variation of Metal removal rate (MMR) with respect to voltage effect in EDM. (C0-5)

SECTION-D

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

- Q.36 Explain the principle and process of ECM and state its limitations. (C0-3)
 Q.37 Explain plain milling cutter & End milling cutter with neat sketch. (C0-5)
 Q.38 Explain in details the various components of robot. Also give the main advantages and disadvantages of robots in industries. (C0-4)

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

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Sub. : Advanced Manufacturing Processes

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SECTION-A

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

- Q.1 The full form of CNC (C0-1)
 a) Computer numerical component
 b) Common numerical control
 c) Both A & B
 d) Computer numerical control
 Q.2 In a DNC system. (C0-1)
 a) Many machine tools can be controlled simultaneously
 b) Only a single machine tools can be controlled
 c) NC machine cannot be controlled
 d) None of the mentioned
 Q.3 Several machine tools can be controlled by a central computer in (C0-2)
 a) N.C. b) CNC
 c) DNC d) None of the above
 Q.4 Computer numerical control machines use (C0-2)
 a) Digital data & a computer
 b) A computer and a CAM program
 c) A computer, a CAM program & a digital data
 d) None

- Q.5 Open loop system controls the (C0-2)
 a) Input b) Output
 c) Both A & B d) None
- Q.6 Collets in milling machines are generally used to (C0-5)
 a) Hold cutters
 b) Hold the work piece on table
 c) Act as auxiliary spindle
 d) None of the mentioned
- Q.7 Which of the following system has feedback system? (C0-2)
 a) Open loop system b) Closed loop system
 c) Direct loop system d) None of the above
- Q.8 Laser is produced by (C0-1)
 a) Diamond b) Ruby
 c) Graphite d) Magnesium
- Q.9 Ultrasonic machining is based upon (C0-3)
 a) Vibrational waves of zero frequency
 b) Vibrational waves of low frequency
 c) Vibrational waves of high & low frequency
 d) Vibrational waves of high frequency
- Q.10 Frequency of tools's oscillation in USM ranges between (C0-1)
 a) 5-10 kHz b) 10-15 kHz
 c) 18-20 kHz d) 25-50 kHz

SECTION-B

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

- Q.11 DNC stands for _____ (C0-3)
- Q.12 LASER Stands for _____ (C0-3)

(2)

180354/170354

- Q.13 Down milling is also called _____ (C0-3)
- Q.14 Conversion of units is possible in case of CNC machines (True/False) (C0-3)
- Q.15 Name any two dielectric fluids used in electric discharge machining. (C0-1)
- Q.16 For CNC Absolute system command _____ (C0-93, CO-92, C0-90, C0-91)
- Q.17 _____ code is used for cutter radius compensation right?
- Q.18 _____ gas is filled in flash lamp is laser beam machining. (C0-1)
- Q.19 First milling machine came into existence in about 1770 (True/False) (C0-4)
- Q.20 Name the M code for "spindle stop" and "Tool Change". (C0-3)

SECTION-C

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

- Q.21 State the disadvantages of EDM. (C0-1)
- Q.22 Describe NC Words. (C0-1)
- Q.23 Discuss various types of DNC system. (C0-2)
- Q.24 Explain constructional details of CNC milling machine. (C0-2)
- Q.25 Differentiate between absolute and Incremental coordinate system. (C0-2)
- Q.26 Explain the following milling operations. (C0-5)
 a) Face milling b) Side milling

(3)

180354/170354