No. of Printed Pages : 4
Roll No.....

124663

Branch : CNC
Subject : CNC Part Programming

Time : 3 Hrs. **M.M. : 100**

SECTION-A

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

Q.1 G code are _____
a) Machine Codes b) Coolant Codes
c) Preparatory Functions Codes
d) Dimension Codes

Q.2 Which code is used for Tool Change
a) M06 b) S100
c) M73 d) N03

Q.3 Subroutine is also knows as _____
a) Part Program b) Sub Program
c) Base Program d) None of the above

Q.4 Spindle Speed is measured in
a) MM/Min b) MM/Sec
c) RPM d) Inch/Min

Q.5 Sequence Number words are
a) T words b) N Words
c) F Words d) S Words

Q.6 Z-Axis is generally taken as
a) Spindle Axis b) Vertical Axis
c) Longest Axis d) Tool Axis

Q.7 To cancel a Cutter Radium Compensation _____ code is used
a) G49 b) G88
c) G44 d) G40

Q.8 M00 is used for
a) End of Program b) Programme Stop
c) Spindle Start d) None of the above

Q.9 CNC machine lathes have built-in coordinate measuring system. The zero position on the co-ordinate system is called:
a) Reference point b) Machine zero point
c) Work zero point d) Programe zero point

Q.10 An ATC plays a significate role in reducing
a) Tool change time b) Idle time
c) Machining time d) Control time

Section-B

Note: Objective types Questions. All Questions are compulsory. (10x1 = 10)

Q.11 EOB stands for _____.

Q.12 A Block is a collection of complete group of _____ representing instruction.

Q.13 X, Y and Z are _____ words.

Q.14 G17 represents_____.

Q.15 _____ codes prepares the MCU to perform a specific mode of operation

Q.16 APT stands for _____.

Q.17 MDI involves the entry of Part Program data through a _____.

Q.18 Macros are another type of _____.

Q.19 The tape format which uses alphabets is knows as _____.

Q.20 For Coolant ON, _____ code is used.

Section-C

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

Q.21 What is part programming?

Q.22 What do you mean by Function Code?

Q.23 What is Post Processing? Give its advantages.

Q.24 Explain different types of Dimensioning System used in CNC programming.

Q.25 What is Floating Zero? Explain with example.

Q.26 What is Subroutine? Discuss its imporatnce.

Q.27 What is Manual Part Programming.

Q.28 What are Miscellaneous Function Code? What functions do they perform in a CNC Machine.

Q.29 What is APT. Gve advantage of APT.

Q.30 Describe how a point is defined in APT.

Q.31 Explain Online editing of Program.

Q.32 Prepare a Part program for following turning operation as shows in Fig 1

Take feed = 200mm / min., Speed = 800rpm,. Depth of cut = -2mm per cut. Take absolute system of dimensioning

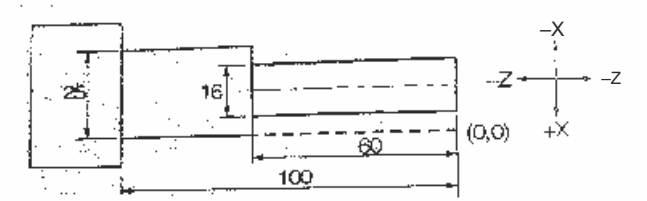

Fig 1

Q.33 Explain the Tool Change process in CNC Machine.

Q.34 Give the Axis designation of a CNC Drill Machine.

Q.35 What are Sequence number words in a CNC Part programming. Give its importance.

Section D

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

Q.36 Prepare a Part Program for the Part shows in Fig 2 Given below using both the tools of Mill and Drill. Assume the thickness of Plate = 15 units and Setpt at(0, 20, 0) and Z = 0 at the surface of the job.

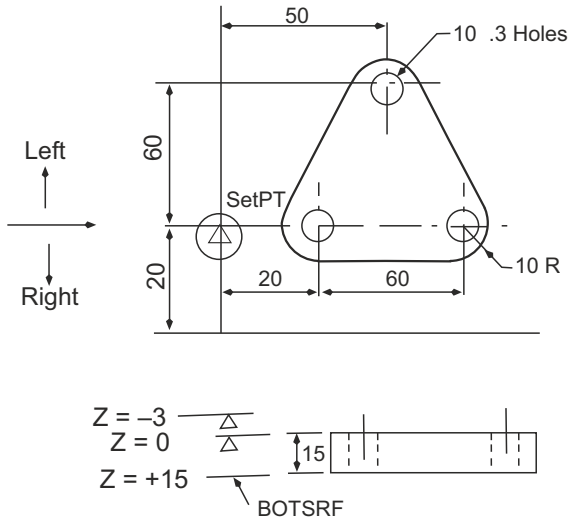

Fig 2

Q.37 What is Part Programming? Why do we need Part Programming? Explain the various steps for making a Part Program.

Q.38 Prepare a part programming of the taper turning operation shows in gir. 3.

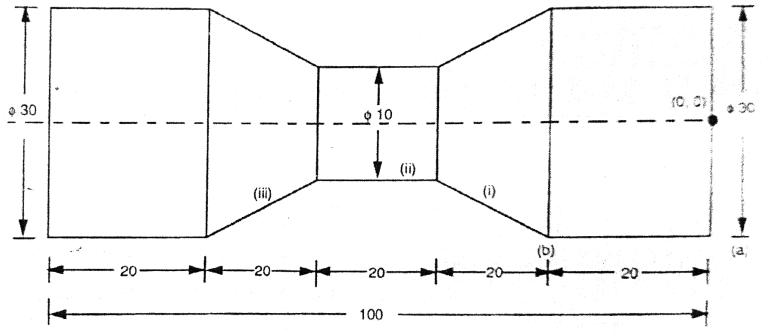

Fig 3

Assume all the machining parameters such as speed feed, depth of cut etc.