DIPLOMA IN PRODUCTION ENGINEERING

CENTRALIZED QUESTION BANK

1025234320 - METAL CUTTING AND CNC MACHINES

DIRECTORATE OF TECHNICAL EDUCATION GOVERNMENT OF TAMILNADU

Course: Production Engineering

Subject: Metal Cutting and CNC Machines　　　　　　　**QP Code:** 1025234320
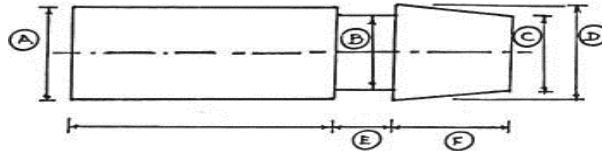
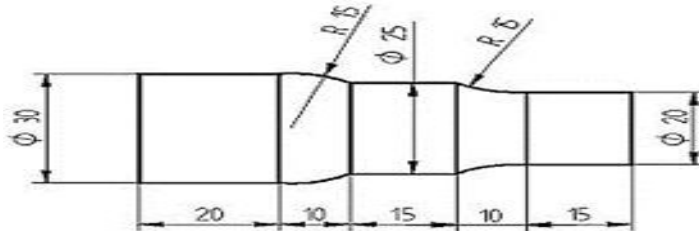**Time : 3 Hours　　　Date :　　　　　　Session:　　　　　Max Marks:**100

Answer the following Questions

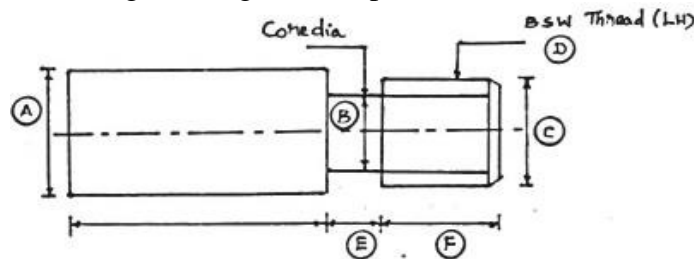**1.**　　(A) Make a Grooving and Taper Turning for the given component in center lathe.

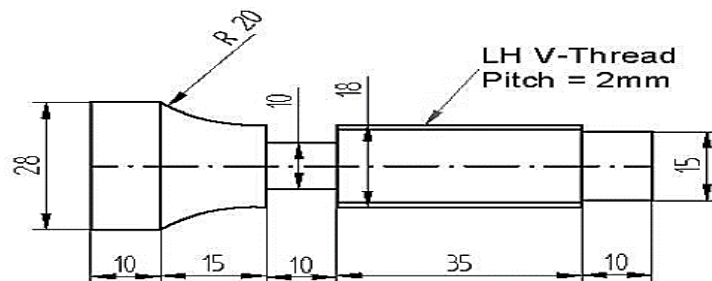　　(B) Using linear and circular interpolation create a part program and produce a component in the CNC Turning center.

ALL DIMENSIONS ARE in mm.

2.

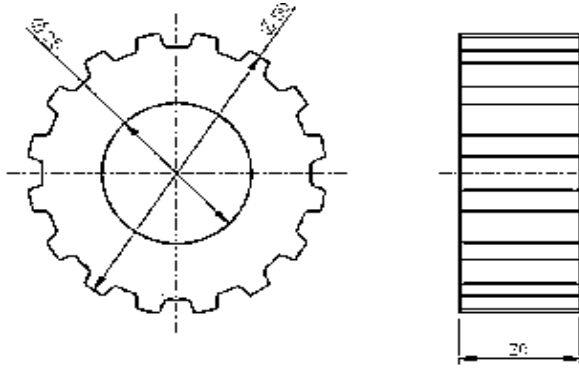　　(A) Make a Thread cutting for the given component in center lathe.

　　(B) Using canned cycle create a part program for thread cutting, grooving and produce a component in the CNC Turning center.
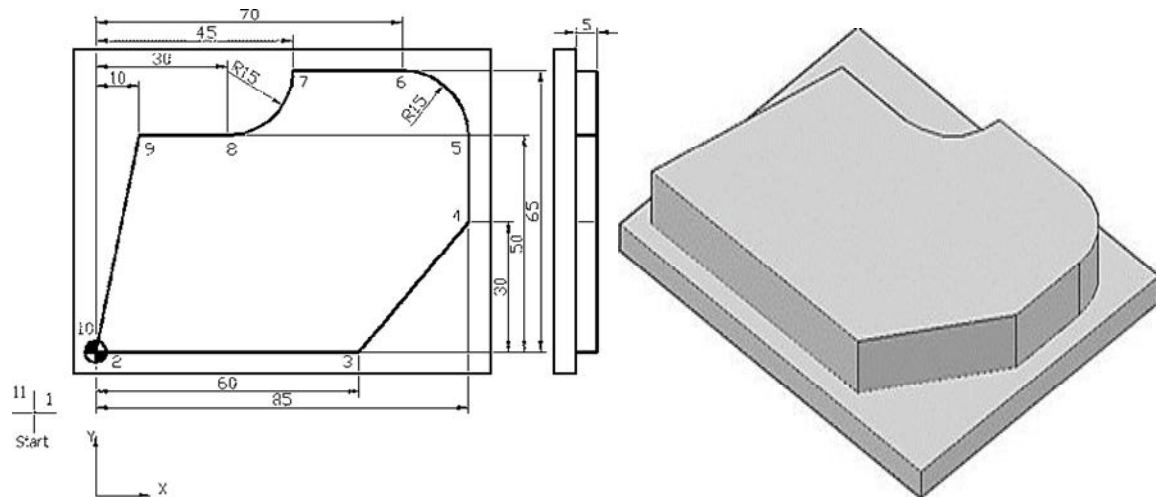

ALL DIMENSIONS ARE in mm

3.

(A) Make Spur Gear using Horizontal milling machine by simple Indexing

OUTER DIAMETER ⌀ 50mm
MODULE : 2mm
NO.OF TEETH : 16

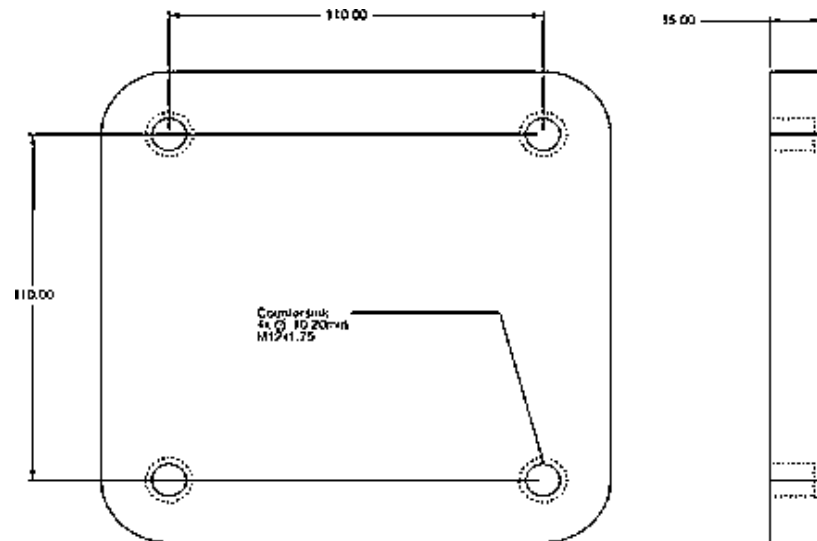(B)Using linear interpolation and circular interpolation, create a part program for contour machining in the VMC.

ALL DIMENSIONS ARE in mm.

4.

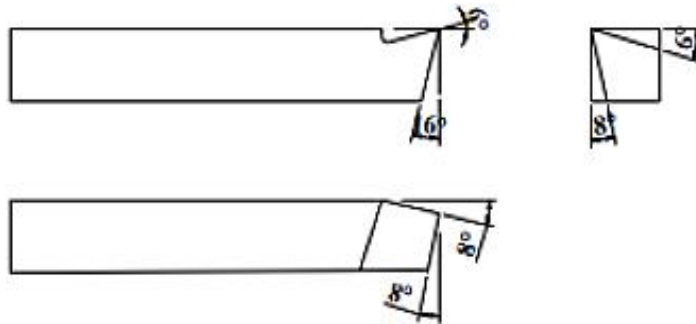(A) Grind a plain surface using surface Grinder.

(B) Using canned cycle create a part program for a drilling operation in the VMC.
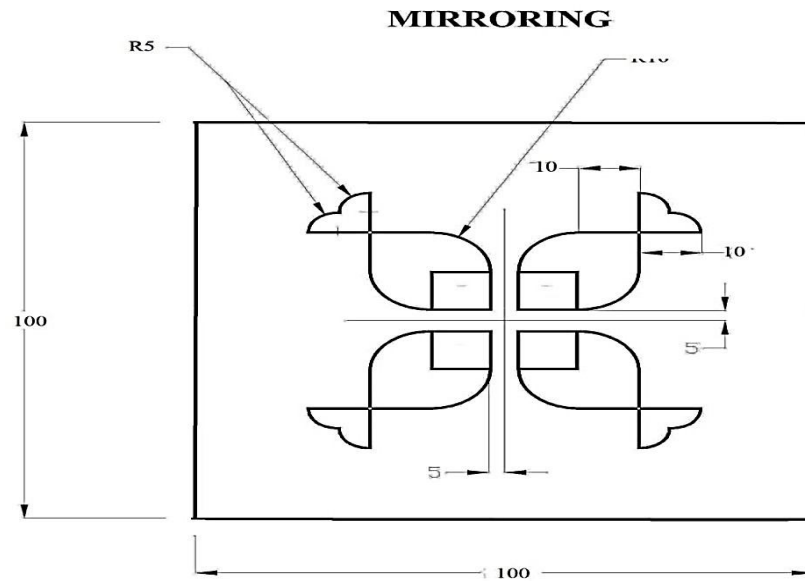

ALL DIMENSIONS ARE in mm.

5.

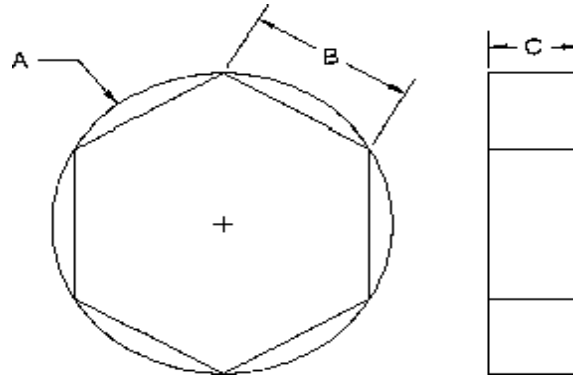(A) Make a turning tool using a tool and cutter grinder

(B) Using subprogram create a part program and produce the component in the VMC.

MIRRORING

ALL DIMENSIONS ARE IN "mm"

6. (A) Make a hexagonal shape component using the shaper machine from the given work piece.

(B) Model the given engineering component and print using a 3Dprinter.- Geneva Wheel

Allocation of Marks

Sl. No	Description	Marks
1.	Aim &Tools required Part(A&B)	10
2.	Preparation/Procedure Part (A&B)	20
3.	Operation/Machining/Dimensions Part(A&B)	40
4.	Surface Finish	10
5.	Finish/Output	10
6.	Viva Voce	10
	Total	**100**