Question Bank

1 Explain role of computer in Design and Manufacturing?

2 Classify CNC machines tool on the basis of:

- ❖ Open –close loop type control system.
- ❖ Absolute and Incremental programming CNC machine system.

3 What are the different ways of defining circle, using geometry statements of APT language.

4 Discuss the component of CIM wheel in detail.

5 Explain Rotary and Linear encoders in detail with neat sketch

6 What is tool compensation? Explain tool length and cutter radius compensation.

7 What id Group technology ?Explain method of grouping parts into part family.

8 Explain the axes designation rules for machine tools employing area of the tools. Sketch axis designation in vertical and horizontal machine center.

9 Write a short note on recirculating ball screw used in CNC machines with sketch?

10 What is group technology? Differentiate between product layout and group technology layout.

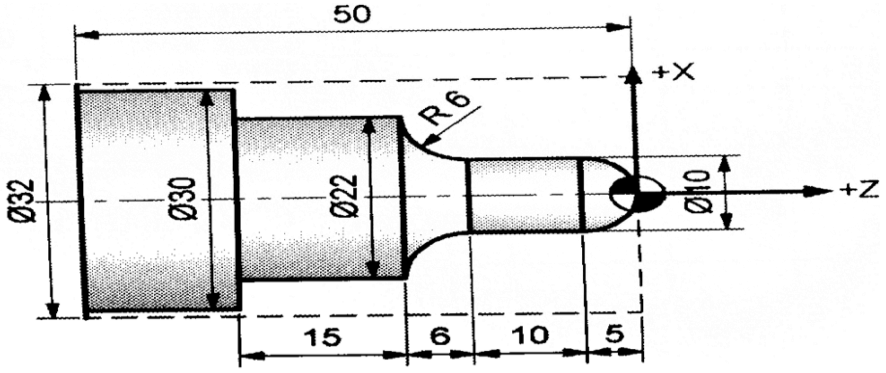
11 Describe computer integrated production management.

12 What are the basic components of CNC system? Briefly discuss each of them.

13 Explain with sketch the concept of composite job in GT and its use. What do you understand by “Key Machine” concept in GT?

14 Distinguish between variant and generative type CAPP stating their advantages

15 Write a manual part program for turning a job shown in **Figure** .Assume suitable data for speed, feed and depth of cut.



16 What is part classification and coding requirements in GT. Explain OPTIZ system of coding.

17 List the FMS layout and Explain each by using Sketch?

18 Explain types of basic Robot Configuration with neat sketch of work envelop?

19 Sketch and explain cylindrical and SCARA configuration of industrial robot, showing work envelope.

20 What are the different types of gripper used in robot? Explain any two in detail.

21 Enlist and explain different elements of a robot.

22 Which parameters are to be considered for robot specification and selection of robot? Explain in details.

23 Distinguish between variant and generative type CAPP stating their advantages.

24 What are the objectives of cellular manufacturing? Explain the different types of machine cell designs.

25 What are the objectives of FMS? Describe the various layouts used in FMS.

26 Describe with neat sketch AS/RS system used in FMS

27 List out types of AGV and Explain any one in detail.

28 What are the different types of drives used in Robot.

29 Discuss various applications of robots.

30 Explain various sensors and actuators used in robots.

31 Explain JIT technique used in auto industries.

32 Explain with neat diagram retrieval of CAPP.

33 Explain with neat diagram generative type CAPP.

34 Explain FMM,FMC,FMS by using sketch .