AMP – 22439 Question Bank

CH1
1. Define forging.
2. Define term 'Forgeability'.
3. Classify forging processes.
4. Compare drop forging and press forging process.
5. Describe the forging sequence for manufacturing connecting rod.
6. Describe forging sequence for production of spanner.
7. Write forging sequence for manufacturing of camshaft.

CH2
1. Classify press and give their application.
2. List four automotive components manufactured by Press Work.
3. Enlist any four press operations.
4. Enlist die accessories and state function of each of them.
5. Draw a neat labelled sketch of fly press.
6. Name different types of presses used in industry. Draw labelled diagram of 'Standard Die Set'.
7. Explain with sketch construction and application of progressive die.
8. Explain constructional features of compound die with neat sketch.
9. Sketch and describe the following press operations: (i) Punching (ii) Shearing and (iii) trimming

CH3
1. List four advantages of Welding.
2. Classify welding process.
3. List factors depend on weldability.
4. State factors affecting selection of welding process.
5. State the use of filler and flux materials in welding.
6. Explain oxy-acetylene welding process.

CH4
1. Enlist four factors affecting selection of cleaning process.
2. Describe with sketch the surface treatment process used to built-up worn-out metal components of automotive engines.
3. Name four surface coating processes.
4. List various surface cleaning processes. Explain any one of them.
5. List any four factors affecting on selection of surface finishing processes. List application of lapping, honing, buffing and burnishing.

CH5
1. List advantages of CNC machine over conventional machines.
2. Compare absolute with incremental coordinate system.
3. Write the procedure for developing part programming for CNC.
4. State significance of ISO codes in CNC.
5. Sketch axis orientation for VMC and CNC lathe.
6. Describe Absolute and Incremental co-ordinate system with suitable example.
7. Explain any four reference positions used on CNC machines with suitable example.
8. Justify use of tool inserts. State the materials used for inserts. Identify the parameters of insert designated as: C – N – M – G – 12 – 04 – 08 as per ISO.

9. Develop a part program to manufacture a component as shown in Fig. 1 on a CNC lathe machine
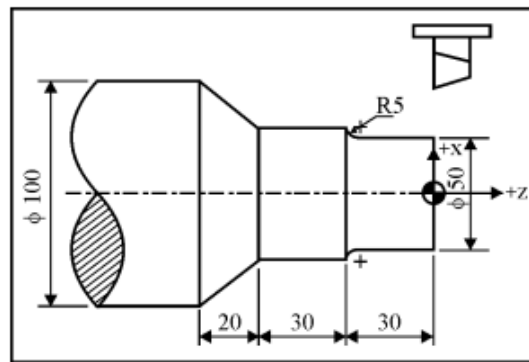

Fig.1

10. State functions of ATC. Develop a part program to manufacture a component as shown in Fig. 2 on CNC lathe machine.
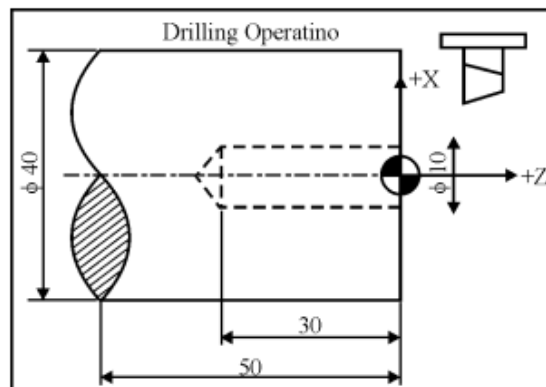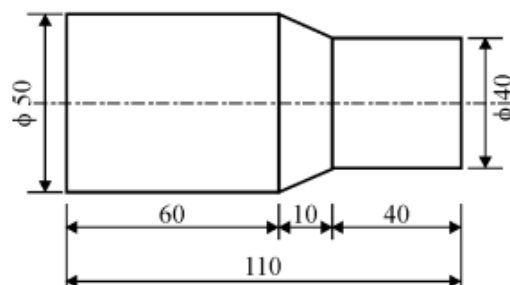

Fig. 2

11. Prepare the part program for the given work piece Fig. No. 3, on Turning Centre (CNC lathe) using ISO codes. Assume suitable data.

All dimensions are in mm.

Fig 3

12. Prepare the part program for given work piece fig. No. 4, on VMC using ISO codes. Assume suitable data.
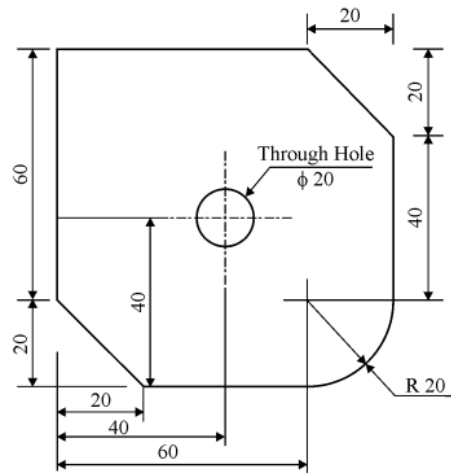
20

20

60

Through Hole
φ 20

40

40

40

20

20

20

40

60

R 20

Plate Thickness is 25 mm.   All dimensions are in mm.   Fig. 4