Question Bank

Ch-1 Basic machine Tool and Metal Cutting Principles

1.Give the Classification of Machining Processes and Also discuss the major factors influence the selection of a suitable machining process.

2.What is Tool Signature and Tool Geometry? Explain importance of tool angles for single point cutting tool.

3.State the desirable property of cutting fluids. Derive the expression for shear angle and chip thickness ratio.

Ch-2 Metal Cutting Lathes

1 List out type of lathe machine.
2 Back rake angle.
3 What is use of lead screw in lath machine?
4 Application of Drill machines.
5 Types of drive in lath machine.
6 What is Grooving?
7 Describe Turning operation in Lathe Machine.
8 Machine tool classification.
9 What tool signification and tool geometric .Explain importance of tool angles for the single point cutting tool?
10 Explain Tail Stock.
11 Manufacturing process classification.
12 What is different between engine lathe and turret late?
13 Classify drills machine.
14 A knurling operation set up.
15 Explain nomenclature of twist drill with neat sketch
16 Taper turning by swiveling compound rest.
17 Type of Steady rest.
18 Explain different lathe Chuck with neat sketch.
19 State the purpose of each part on lathe:
(1) Face Plate, (2) Lead screw,(3)Steady rest, (4) Chasing dial, (5) Mandrel, (6) Split nut and (7) Tail stock.
20 Write a short note on “Turret Lathe”
21 Enlist various operations carried out on drilling machine. Also explain

Tapping, Trepanning and Countersinking

22 Explain Radial drilling machine with neat sketch.

23 Describe Turning operation in Lathe Machine. Also discuss Shoulder Turning and Eccentric Turning with neat sketch.

24 Explain size of Lathe. Also describe various types of Lathes along with their applications and general specifications.

Ch-3 Drilling Machine

1. Classifies twist drill. Explain nomenclature of twist drill with neat sketch.
2. List out the various operation carried out on drilling machine. Explain any four.
3. List various types of drilling machine and explain with a neat sketch gang drilling machine.
4. List the work holding devices used for holding work on a drilling machine and explain with neat sketch any three.
5. Explain Radial drilling machine with neat sketch.
6. Enlist various operations carried out on drilling machine. Also explain Tapping, Trepanning and Countersinking
7. Explain nomenclature of twist drill with neat sketch

Ch-4 Boarding Machine

1. Discuss Horizontal boring machine with a neat sketch.
2. With help of neat sketch explain vertical boring machine and stat function of its part.
3. What do you mean by precision boring machine? Explain their characteristics features.
4. Classify boring machine. Explain horizontal boring machine & jig boring machine with neat sketch.
5. Give the comparison between boring and reaming. Also describe Precision boring machine with neat sketch

Ch-5 Milling Machine

1. What is indexing? Explain and discuss various type of Indexing.
2. What you understand by (1)Gang milling,(2)Straddle milling and (3)String Milling?
3. Different between up milling and Down milling.
4. Give classification of milling machine.
5. Explain method of mounting and application of the following cutters used on milling machine: (1) End mills, (2) Slitting saws and (3) Slab milling cutter.
6. Explain how you will check the following on milling machine: (1)Central T-slot square with arbor (2) Work table parallel with arbor rising towards over arm.
7. Explain up-milling and down-milling. List down the advantage of up milling.
8. Explain universal milling machine with neat sketch.
9. Write classification of milling machine. Explain principal parts of column & knee type horizontal milling machine with neat sketch

Ch-6 Planer, Shaper and Slotters.

1. Explain Shaper feed mechanism with neat sketch.
2. Draw a neat sketch of a planer and label its various parts.
3. Explain function of principal part of slotters.

Ch-7 Sawing and Broaching Machines.

1. What are the advantages, limitation and application of broaching? Explain "Pull broaching" and "Push broaching".
2. Write a short note on : "Band Sawing Machine"

Ch-8 Grinding Machine and Abrasives

1. How grinding wheel is specified? Explain in detail.
2. What is an abrasives? How are abrasive classified? Enlist and explain various abrasive used in grinding wheels.
3. Explain truing and dressing of grinding wheels.