

**Submission of Lab Manuals,
Course Materials,
50 MCQs, 30 short answer
questions and
20 descriptive questions**

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50 Multiple Choice Questions (MCQs)

1. Which of the following is a primary manufacturing process?
 - a) Turning
 - b) Welding
 - c) Casting
 - d) Rolling

2. In turning operations, the workpiece is:
 - a) Stationary
 - b) Rotating
 - c) Moving linearly
 - d) Oscillating

3. Which of the following is NOT a type of welding?
 - a) Arc welding
 - b) Gas welding
 - c) Forge welding
 - d) Milling

4. The process of reducing the thickness of a metal sheet by passing it through rollers is called:
 - a) Turning
 - b) Rolling
 - c) Welding
 - d) Drilling

5. A single point cutting tool is used in:
 - a) Milling
 - b) Turning

- c) Grinding
- d) Welding

6. Which of the following is a type of rolling mill?

- a) Two-high mill
- b) Three-high mill
- c) Four-high mill
- d) All of the above

7. In turning, the tool moves:

- a) Radially
- b) Axially
- c) Both radially and axially
- d) None of the above

8. Which welding process uses a consumable electrode?

- a) TIG welding
- b) MIG welding
- c) Gas welding
- d) Forge welding

9. The angle between the flank face and the cutting edge of a single point cutting tool is called:

- a) Rake angle
- b) Clearance angle
- c) Lip angle
- d) Helix angle

10. Which of the following is a defect in rolling?

- a) Waviness

- b) Cracks
- c) Lamination
- d) All of the above

11. The lathe machine is primarily used for:

- a) Turning
- b) Welding
- c) Rolling
- d) Grinding

12. Which of the following is a type of arc welding?

- a) TIG welding
- b) Gas welding
- c) Forge welding
- d) None of the above

13. In rolling, the reduction in thickness is achieved by:

- a) Compression
- b) Tension
- c) Shear
- d) Bending

14. The rake angle of a single point cutting tool is provided to:

- a) Reduce friction
- b) Increase strength
- c) Improve surface finish
- d) All of the above

15. Which of the following is a type of rolling defect?

- a) Edge cracks
- b) Alligating
- c) Waviness
- d) All of the above

16. In welding, the fusion zone is the area where:

- a) Base metal melts
- b) Filler metal melts
- c) Both base and filler metal melt
- d) None of the above

17. The process of joining two metal pieces by heating them to a molten state is called:

- a) Welding
- b) Turning
- c) Rolling
- d) Forging

18. Which of the following is a type of turning operation?

- a) Facing
- b) Taper turning
- c) Thread cutting
- d) All of the above

19. The tool used in turning operations is called:

- a) Single point cutting tool
- b) Multi-point cutting tool
- c) Abrasive tool
- d) None of the above

20. Which of the following is a type of welding defect?

- a) Porosity
- b) Slag inclusion
- c) Undercut
- d) All of the above

21. In rolling, the direction of material flow is:

- a) Longitudinal
- b) Transverse
- c) Both longitudinal and transverse
- d) None of the above

22. The angle between the face of the tool and the line perpendicular to the workpiece is called:

- a) Rake angle
- b) Clearance angle
- c) Lip angle
- d) Helix angle

23. Which of the following is a type of rolling mill?

- a) Two-high mill
- b) Three-high mill
- c) Four-high mill
- d) All of the above

24. The process of removing material from a workpiece using a rotating cutter is called:

- a) Turning
- b) Milling
- c) Welding
- d) Rolling

25. Which of the following is a type of welding process?

- a) Arc welding
- b) Gas welding
- c) Resistance welding
- d) All of the above

26. In turning, the depth of cut is the:

- a) Thickness of material removed
- b) Distance the tool moves
- c) Speed of the workpiece
- d) None of the above

27. Which of the following is a type of rolling defect?

- a) Edge cracks
- b) Alligating
- c) Waviness
- d) All of the above

28. The process of joining two metal pieces by heating them to a molten state is called:

- a) Welding
- b) Turning
- c) Rolling
- d) Forging

29. Which of the following is a type of turning operation?

- a) Facing
- b) Taper turning
- c) Thread cutting

d) All of the above

30. The tool used in turning operations is called:

- a) Single point cutting tool
- b) Multi-point cutting tool
- c) Abrasive tool
- d) None of the above

31. Which of the following is a type of welding defect?

- a) Porosity
- b) Slag inclusion
- c) Undercut
- d) All of the above

32. In rolling, the direction of material flow is:

- a) Longitudinal
- b) Transverse
- c) Both longitudinal and transverse
- d) None of the above

33. The angle between the face of the tool and the line perpendicular to the workpiece is called:

- a) Rake angle
- b) Clearance angle
- c) Lip angle
- d) Helix angle

34. Which of the following is a type of rolling mill?

- a) Two-high mill
- b) Three-high mill

- c) Four-high mill
- d) All of the above

35. The process of removing material from a workpiece using a rotating cutter is called:

- a) Turning
- b) Milling
- c) Welding
- d) Rolling

36. Which of the following is a type of welding process?

- a) Arc welding
- b) Gas welding
- c) Resistance welding
- d) All of the above

37. In turning, the depth of cut is the:

- a) Thickness of material removed
- b) Distance the tool moves
- c) Speed of the workpiece
- d) None of the above

38. Which of the following is a type of rolling defect?

- a) Edge cracks
- b) Alligatoring
- c) Waviness
- d) All of the above

39. The process of joining two metal pieces by heating them to a molten state is called:

- a) Welding

- b) Turning
- c) Rolling
- d) Forging

40. Which of the following is a type of turning operation?

- a) Facing
- b) Taper turning
- c) Thread cutting
- d) All of the above

41. The tool used in turning operations is called:

- a) Single point cutting tool
- b) Multi-point cutting tool
- c) Abrasive tool
- d) None of the above

42. Which of the following is a type of welding defect?

- a) Porosity
- b) Slag inclusion
- c) Undercut
- d) All of the above

43. In rolling, the direction of material flow is:

- a) Longitudinal
- b) Transverse
- c) Both longitudinal and transverse
- d) None of the above

44. The angle between the face of the tool and the line perpendicular to the workpiece is called:

- a) Rake angle
- b) Clearance angle
- c) Lip angle
- d) Helix angle

45. Which of the following is a type of rolling mill?

- a) Two-high mill
- b) Three-high mill
- c) Four-high mill
- d) All of the above

46. The process of removing material from a workpiece using a rotating cutter is called:

- a) Turning
- b) Milling
- c) Welding
- d) Rolling

47. Which of the following is a type of welding process?

- a) Arc welding
- b) Gas welding
- c) Resistance welding
- d) All of the above

48. In turning, the depth of cut is the:

- a) Thickness of material removed
- b) Distance the tool moves
- c) Speed of the workpiece
- d) None of the above

49. Which of the following is a type of rolling defect?

- a) Edge cracks
- b) Alligatoring
- c) Waviness
- d) All of the above

50. The process of joining two metal pieces by heating them to a molten state is called:

- a) Welding
- b) Turning
- c) Rolling
- d) Forging

30 Short Answer Questions

1. What is the primary purpose of a single point cutting tool?
2. Define the term "rake angle" in the context of cutting tools.
3. What is the difference between turning and milling?
4. Name three types of welding processes.
5. What is the function of a lathe machine in manufacturing?
6. Explain the term "depth of cut" in turning operations.
7. What is the purpose of rolling in metalworking?
8. Name two common defects in rolled products.
9. What is the difference between TIG and MIG welding?
10. What is the role of a coolant in turning operations?
11. Define the term "clearance angle" in cutting tools.
12. What is the difference between hot rolling and cold rolling?
13. Name three types of rolling mills.
14. What is the purpose of a flux in welding?
15. What is the difference between arc welding and gas welding?
16. Name three types of turning operations.
17. What is the function of a tailstock in a lathe machine?
18. What is the difference between a single point and a multi-point cutting tool?
19. What is the purpose of a chuck in a lathe machine?
20. Name three common welding defects.
21. What is the difference between facing and turning operations?
22. What is the purpose of a tool post in a lathe machine?
23. What is the difference between a two-high and a four-high rolling mill?
24. Name three types of welding joints.
25. What is the purpose of a steady rest in a lathe machine?
26. What is the difference between a roughing and a finishing cut in turning?
27. What is the purpose of a feed mechanism in a lathe machine?

28. Name three types of welding electrodes.

29. What is the difference between a single pass and a multi-pass weld?

30. What is the purpose of a lead screw in a lathe machine?

20 Descriptive Questions

1. Explain the working principle of a lathe machine.
2. Discuss the different types of welding processes and their applications.
3. Describe the process of rolling and its significance in metalworking.
4. Explain the geometry of a single point cutting tool.
5. Discuss the advantages and disadvantages of hot rolling and cold rolling.
6. Describe the different types of turning operations.
7. Explain the role of cutting fluids in machining processes.
8. Discuss the common defects in welding and their causes.
9. Describe the construction and working of a two-high rolling mill.
10. Explain the difference between TIG and MIG welding.
11. Discuss the factors affecting the selection of a cutting tool.
12. Describe the process of arc welding and its applications.
13. Explain the importance of rake angle and clearance angle in cutting tools.
14. Discuss the different types of rolling mills and their applications.
15. Describe the process of gas welding and its advantages.
16. Explain the role of a tailstock in a lathe machine.
17. Discuss the common defects in rolled products and their prevention.
18. Describe the process of thread cutting on a lathe machine.
19. Explain the difference between roughing and finishing cuts in turning.
20. Discuss the safety precautions to be taken during welding operations.