

MEM32 Manufacturing Technology - I

219 /

REG. NO

OCTOBER 2021

Time: Three hours

Maximum Marks: 75

- Note:
1. Answer ALL the questions in PART-A (1 mark each)
 2. Answer any ONE question from each unit in PART-B (3 marks each)
 3. Answer any ONE question from each unit in PART-C (10 marks each)
 4. The question paper contains TWO Pages

PART-A (1x10=10)

1. Define Pattern.
2. What is gravity die casting?
3. Mention any two applications of ultrasonic welding.
4. List any two limitations of oxy-acetylene welding.
5. Draw simple sketch of curling press working operation.
6. What is roll forging?
7. What are the applications of lathe?
8. Draw the sketch of tail stock.
9. What is a flat drill?
10. List the types of sine bar.

PART-B (3x5=15)

UNIT-I

11. List out the properties of moulding sand.
12. State the defects occur in casting.

UNIT-II

13. What are the merits of Thermit welding?
14. List any three differences between soldering and brazing.

UNIT-III

15. What are the applications of powder metallurgy?
16. Explain notching with simple sketch.

UNIT-IV

17. What are the types of head stock mechanism?
18. What is chip breaker? List its types.

UNIT-V

19. Explain spot facing operation with simple sketch.
20. Explain the merits of pneumatic comparators.

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PART-C (10x5=50)

UNIT-I

21. State the types of pattern. Explain any three of them.
22. Explain Iron-carbon diagram, with a neat sketch.

UNIT-II

23. Explain TIG welding process.
24. Explain Laser beam welding with neat sketch.

UNIT-III

25. Explain design rule for the powder metallurgy process.
26. Discuss about hot working and cold working with neat sketch.

UNIT-IV

27. Differentiate between turret lathe and capstan lathe.
28. What are the different methods of taper turning? Explain any one method.

UNIT-V

29. With neat sketch, explain radial drilling machine.
30. Explain the principle and construction of (i) steel rule (ii) combination set.
