

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 Land Clearance.
2. What is die space?
3. Write a note on hopper feed?
4. What is a pilot?
5. Define bending.
6. What is coining?
7. What is draw ratio?
8. List some defects of drawing.
9. What is the function of V ring?
10. Write the expansion of QDC.

**PART-B** (3x5=15)

UNIT-I

11. How presses are classified according to their function?
12. State the operations for producing blanks.

UNIT-II

13. What is reeling mechanism in press?
14. What are the nomenclature of die components?

UNIT-III

15. Define Spring back.
16. What is Bulging Dies?

UNIT-IV

17. What are the variables affecting the metal flow during drawing operations?
18. State any two dies for secondary operation.

UNIT-V

19. What are the drive system used in Fine Blanking machine?
20. What is counter force?

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PART-C (10x5=50)

UNIT-I

21. Explain with neat sketch the construction and working of a common mechanical press.
22. Explain Trimming and Swaging.

UNIT-II

23. Explain Hitch Feed with neat sketch.
24. Explain the various Die components with neat sketch.

UNIT-III

25. Explain metal movement in Bending.
26. Describe briefly the common forming operation in press.

UNIT-IV

27. How Shallow drawing performed in press with neat sketch.
28. Explain shear form die with pressure pad.

UNIT-V

29. Sketch and explain a compound type fine blanking tool.
30. Explain the steps of SMED.

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