

October 2018

Time – Three hours
(Maximum Marks: 75)

[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory. Answer any FOUR questions from the remaining in each PART – A and PART – B

(2) Answer division (a) or division (b) of each question in PART – C.

(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and 10 marks in PART – C.]

PART – A

1. What are the three stages of theory of shear?
2. Name the components of die set.
3. What are strippers?
4. What is corrugating in bending operation?
5. Name the stresses developed during bending.
6. Define draw beads.
7. Write about CNC turret press.
8. Name the different types of fine blanking tools.

PART – B

9. Give the classification of presses based on power supply.
10. Explain magazine feed mechanism.
11. Name the types of bending dies.
12. Write a note on bending operation done by using press brake.
13. What is air vent?
14. Write notes on reverse drawing dies.
15. Compare fine blanking with blanking.
16. What is the purpose of pilots?

[Turn over.....

PART - C

17. (a) Compare mechanical, hydraulic and pneumatic press.
(Or)
(b) List out the press working operation for producing blanks and explain each.
18. (a) Explain any three feeding mechanism for individual parts.
(Or)
(b) With neat sketches, explain progressing die design.
19. (a) Explain the construction and working principles of solid form die.
(Or)
(b) Write short notes on: (i) Bend radius (ii) Neutral axis (iii) Spring back.
20. (a) List out the defects in drawing and explain any four with neat sketches.
(Or)
(b) With neat sketch explain notching die.
21. (a) Sketch and explain the compound type fine blanking tool with sliding punch.
(Or)
(b) Explain in detail the seven steps to SMED.
