

757

October 2016

Time – Three hours
(Maximum Marks: 75)

- [N.B: (1) Answer any FIVE questions in each PART - A and PART - B.
Q.No. 8 in PART - A and Q.No. 16 in PART - B are compulsory.**
- (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. Define pattern.
2. What is the use of core?
3. Name the two basic types of electrode.
4. Name any two non-destructive tests used in welding inspection.
5. Name the straight shank drill bit holding device.
6. Name any two methods of metal powder manufacturing.
7. What is the use of mandrel in lathes?
8. What is cold working?

PART - B

9. Explain the draft allowance.
10. Explain the balanced core with a sketch.
11. State any three functions of flux coating on a metal electrode.
12. Describe the function of a pressure regulator fixed on a gas cylinder.
13. State any three advantages of cold working.
14. What is infiltration in powder metallurgy?
15. Compare the steady rest with follower rest.
16. Define the terms precision and accuracy.

[Turn over.....]

PART - C

17. (a) With sketches explain the green sand moulding process.
(Or)
(b) Sketch and explain any three defects in castings.
18. (a) Sketch and explain any two types of resistance welding.
(Or)
(b) Sketch and explain the three types of gas flames.
19. (a) Explain any three press working operations with sketches.
(Or)
(b) Explain the various steps involved in powder metallurgy process.
20. (a) Sketch and explain the three types of chip breakers.
(Or)
(b) Sketch and explain the Geneva indexing mechanism.
21. (a) Explain any three drilling machine operations with sketches.
(Or)
(b) What is a comparator? Sketch and explain the pneumatic comparator.