

Q. P. Code: 24188

**N.B.** A. Question no.1 is compulsory.

[Total Marks: 80 ]

B .Attempt any three questions out of remaining five questions

C. Figures to right indicates full marks

1. a) Classify various welding process. [5]
- b) Explain Rolling defects. [5]
- c) How is rod made by extrusion. [5]
- d) Compare transfer moulding and compression moulding. [5]
  
2. a) Differentiate the following: [10]
  - i) Pattern and core boxes.
  - ii) Wing core & hanging type of cores
- b) Discuss friction welding with its applications. [5]
- c) Differentiate between soldering & brazing. [5]
  
3. a) Explain rotary swaging with its sketch. [6]
- b) Describe Calendaring process for plastic with a neat labeled sketch. [6]
- c) Describe the basic steps of powder metallurgy process. Discuss applications, advantages and disadvantages of powder metallurgy. [8]
  
4. a) What is meant by Sintering. [5]
- b) Differentiate between core and core print. [5]
- c) What is meant by riser? State the functions of riser. [5]
- d) Differentiate between TIG & MIG welding. [5]

5. a) List the different NDT methods? Explain ultrasonic process method of inspection. [8]
- b) Explain with neat sketch "Radiographic Non-destructive test" [6]
- c) Explain vacuum forming process of polymers. [6]
6. a) With neat sketch explain the working principle of plastic injection moulding process. [5]
- b) Write Short note on following: [10]
- i) Centrifugal casting.
  - ii) Transfer moulding process
- c) What is meant by forging? Differentiate closed and open die forging. [5]