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] Expalin vaccum 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]