

MAY 2017

30-05-17



Q.P. Code : 555101

(3 Hours)

[ Total Marks : 80

- N.B. :** (1) Question no. 1 is **compulsory**.  
 (2) Attempt any **three** questions out of remaining **five** questions  
 (3) Figures to right indicate full marks  
 (4) Assume suitable data if necessary

1. Write short note on any **four** of the following 20
  - (a) Rolling defects
  - (b) friction welding
  - (c) Blow moulding process.
  - (d) Tube drawing operation
  - (e) Pattern allowances
  
2. (a) With a neat sketch explain the principle and working of electroslag welding 8  
 process. Also discuss its advantages, limitations, and applications.  
 (b) Differentiate soldering and brazing. 6  
 (c) Describe the common types of forging hammers 6
  
3. (a) Write in brief the basic steps of powder metallurgy process. 8  
 (b) With a neat sketch explain Termit welding operation. 6  
 (c) Write short note on microstructure of welds. 6
  
4. (a) What is NDT. List various methods of NDT. Explain Die- penetrant method 8  
 of crack detection.  
 (b) With a neat sketch explain the working principle of plastic injection 6  
 moulding process.  
 (c) Write applications of powder metallurgy. 6
  
5. (a) Define weldability. Differentiate between TIG and MIG welding process. 10  
 (b) Describe ten types of casting defects with their remedies 10
  
6. (a) With the help of diagrams discuss the various type of cores used in sand 8  
 moulding process.  
 (b) Write short note on application of plastics in industries. 6  
 (c) Explain vacuum forming process of polymers. 6