



50858



12. a) Enumerate the principle of operation, advantages and limitations of laser beam welding. (13)
- (OR)
- b) i) Explain the mechanism of metal transfer in MIG welding. (7)
- ii) Sketch and explain the process of thermit welding. (6)
13. a) i) Enumerate with neat sketches any three operations that can be performed on lathe. (6)
- ii) Describe with neat sketch the principle of ultrasonic machining. (7)
- (OR)
- b) Explain the different methods of indexing commonly used in a milling machine. (13)
14. a) Explain the working principle of the following processes.
- i) Compression moulding. (6)
- ii) Injection moulding. (7)
- (OR)
- b) i) Describe with neat sketch the principle of ultrasonic welding of plastics. (8)
- ii) Describe the process of rotational moulding as used for producing plastic components. (5)
15. a) Enumerate the principle steps involved in powder metallurgy process with neat sketch. (13)
- (OR)
- b) Write the principle and applications of following processes
- i) Rolling. (4)
- ii) Spinning. (4)
- iii) Forging. (5)

PART - C

(1×15=15 Marks)

16. a) Explain the process of powder metallurgy for producing an self lubricating gear used in transmission system of an automobile. (13)
- (OR)
- b) Describe the welding defects in manufacturing with examples. (7)