

Roll No.

Total Pages : 2

BT-2/M-14

8210

MANUFACTURING PROCESSES

Paper-ME-103-E

Time Allowed : 3 Hours] [Maximum Marks : 100

Note : Attempt five questions in all, selecting at least one question from each Unit. All questions carry equal marks.

UNIT-I

- 1. (a) What is an accident? Explain different types of accidents. What are the items to be kept in a first aid box? 10
- (b) What is production? Explain different types of production methods with examples. 10
- 2. (a) Give classification of properties of engineering materials and explain any five types of mechanical properties. 10
- (b) What are engineering materials? Give their classification. Explain composition, properties and applications of cast irons. 10

UNIT-II

- 3. (a) What is a pattern? With neat sketches explain different types of patterns. 10
- (b) What are the properties of moulding sand? Explain each property in detail. 10
- 4. Draw a neat sketch of Cupola. Label different zones and show, important parts. Explain its operation with reactions in each zone. What are the advantages and disadvantages of cupola? 20

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UNIT-III

- 5. (a) What is recrystallisation temperature? Explain the differences between hot working and cold working. 10
- (b) Write short notes on :
 - (i) Punching
 - (ii) Forming
 - (iii) Shearing. 10
- 6. (a) Explain the process of hot rolling and cold rolling with neat sketches. What type of products can be made by hot rolling? 10
- (b) What are objectives of good plant layout? Explain any one type of plant layout with a neat sketch. 10

UNIT-IV

- 7. (a) Draw a neat sketch of a lathe. What kind of operations can be done on a lathe? 10
- (b) Explain different types of chips. What are the mechanisms of chip formation? 10
- 8. (a) Briefly explain the welding defects and their remedies. 10
- (b) With neat sketches, explain different types of resistance welding. 10