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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)

**B.Tech II Year II Semester Supplementary Examinations July-2022**

**MANUFACTURING TECHNOLOGY**

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

- 1 a With neat sketch explain investment casting process and give its applications. L2 6M  
b What do you understand by cold cracks and warpage? What are the remedies for them? L2 6M

**OR**

- 2 a Discuss the relative advantages and disadvantages of various types of furnaces used in foundry shops. L4 6M  
b What do you understand by external hot tears? How they are caused? L2 6M

**UNIT-II**

- 3 a What are the common welding troubles; causes and remedies for them? What are the qualities of flame used for welding? How can you? L4 8M  
b Explain the working of spot welding briefly. L2 4M

**OR**

- 4 a Write short notes on electro slag welding. L2 7M  
b Compare TIG and MIG welding processes. L4 5M

**UNIT-III**

- 5 a Explain hot working process with, applications & limitations. L4 6M  
b What are the characteristics of forging processes? Write Processes used. L4 6M

**OR**

- 6 a What are the characteristics of extrusion processes? Write Processes used. L2 5M  
b What is shape rolling process? L2 7M

**UNIT-IV**

- 7 a Explain Bending operations with a suitable sketches. L4 6M  
b What is Metal pinning? Explain. L2 6M

**OR**

- 8 a Differentiate drawing & Deep Drawing Operations. L4 6M  
b Classify the types of presses used in drawing operations. L2 6M

**UNIT-V**

- 9 a Explain the structure of thermo plastic and thermosetting plastics. L4 6M  
b What are the major considerations in the design of plastic parts? L2 6M

**OR**

- 10 a State how joining and machining of plastics are carried out. L2 6M  
b Explain the working principles and application of Blow Moulding. L4 6M

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