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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)  
**B.Tech II Year II Semester Regular and Supplementary Examinations May 2019**  
**MANUFACTURING TECHNOLOGY**  
(Mechanical Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)**UNIT-I**

- 1 a** Describe the following types of sands:  
i)Green sand ii)Dry sand iii)Loam sand iv)Facing sand  
v)Backing sand and vi)Parting sand 6M
- b** What is gating ratio? What is the difference between pressurized and unpressurised systems? 6M

**OR**

- 2 a** Describe the defects in casting. 6 M
- b** Explain the various properties of moulding sand. 6 M

**UNIT-II**

- 3 a** Compare TIG and MIG welding processes. 6M
- b** Explain the working of oxy acetylene gas welding. 6M

**OR**

- 4 a** Explain the classification of welding processes briefly. 6 M
- b** Write short note on Heat Affected Zone (HAZ) in welding. 6 M

**UNIT-III**

- 5** Explain hot working process in detail. Also write applications, limitations, advantages and disadvantages. 12 M

**OR**

- 6 a** What are the characteristics of rolling processes? 6 M
- b** What are the examples of components produced in rolling processes? 6 M

**UNIT-IV**

- 7 a** Explain Bending operations with suitable sketches. 6 M
- b** Sketch and explain the Drawing operation. 6 M

**OR**

- 8 a** What is Super plastic forming & explain. 6 M
- b** Write detailed notes on Micro forming Operations. 6 M

**UNIT-V**

- 9** Explain the working principles and application of compression moulding. 12 M

**OR**

- 10 a** Explain the various methods of Bonding of Thermoplastics. 6 M
- b** Differentiate thermo plastics and thermo settings. 6 M

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