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

**B.Tech II Year II Semester Supplementary Examinations July-2021**

**MANUFACTURING TECHNOLOGY**

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 60

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

**UNIT-I**

- 1 a What do you understand by external hot tears? How they are caused? 6M  
b Sketch and explain different types of patterns used in foundry. 6M

**OR**

- 2 a What are the different pattern allowances? Explain with neat sketch. 6M  
b Explain the various properties of moulding sand. 6M

**UNIT-II**

- 3 a Write short notes on submerged arc welding and write its applications. 6M  
b Write short note on Heat Affected Zone (HAZ) in welding. 6M

**OR**

- 4 a What are the essential steps in brazing operation? 6M  
b What is weld decay and how it can be prevented? 6M

**UNIT-III**

- 5 a Explain hot working process with, applications & limitations 6M  
b What is open, impression die forging? Give its processes. 6M

**OR**

- 6 a Explain cold working process with an example, its processes used 6M  
b What are the characteristics of rolling processes? 6M

**UNIT-IV**

- 7 a What are the types of shearing? 6M  
b Sketch & explain the Drawing operation. 6M

**OR**

- 8 a What is Metal pinning? And Explain. 6M  
b Write about Peen forming Operations & applications. 6M

**UNIT-V**

- 9 a Explain the structure of thermo plastic and thermosetting plastics. 6M  
b Explain the various methods of Bonding of Thermoplastics 6M

**OR**

- 10 a Explain briefly about calendaring with neat sketch 6M  
b State how joining and machining of plastics are carried out. 6M

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