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

B.Tech IV Year I Semester Supplementary Examinations November-2020

METAL FORMING PROCESS

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a** Write short notes on the following: **8M**
 i) Recrystallization
 ii) Grain Growth
- b** Discuss any four important differences between the cold working and hot working process. **4M**

OR

- 2** Explain in detail about the concept of Theory of Plasticity? **12M**

UNIT-II

- 3 a** Explain the Closed Die forging with a neat sketch. **6M**
b What are the applications and limitations of Rolling process? **6M**

OR

- 4** What is Rolling? Explain the types of rolling mills with neat sketches. **12M**

UNIT-III

- 5** What is Extrusion? Discuss the forward & backward extrusion process with the help of neat sketches. **12M**

OR

- 6 a** Discuss about mechanics of hot and cold extrusion process. **7M**
b Write short notes on the defects in extruded products. **5M**

UNIT-IV

- 7** Write about the following: **12M**
 i) Bending
 ii) Forming
 iii) Cup Drawing
 iv) Tube Drawing

OR

- 8** Explain the working principal of metal spinning operation with a neat diagram. **12M**

UNIT-V

- 9** Describe the working principle of selective laser sintering technique with neat sketch. **12M**

OR

- 10** With neat sketches, explain the injection moulding and blow moulding processes. **12M**

*** END ***