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

B.Tech II Year II Semester Regular Examinations October-2020
MANUFACTURING PROCESS
(Mechanical Engineering)

Time: 3 hours

Max. Marks: 60

PART-A

(Answer all the Questions 5 x 2 = 10 Marks)

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|----------|---|-----------|
| 1 | a What are the applications of casting? | 2M |
| | b Why flux is coated on filler rods? | 2M |
| | c How are seamless tubes produced? | 2M |
| | d Give the difference between punching and blanking. | 2M |
| | e List out the material for processing of plastics. | 2M |

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

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|-----------|---|-----------|
| | <u>UNIT-I</u> | |
| 2 | a Explain the various properties of moulding sand. | 5M |
| | b Sketch and explain different types of patterns used infoundry? | 5M |
| | OR | |
| 3 | a Explain stir-casting process with neat sketch. | 6M |
| | b What is the difference between pressurized and unpressurised systems? | 4M |
| | <u>UNIT-II</u> | |
| 4 | a Write short notes on Gas Tungsten Arc Welding & Gas metal Arc welding. | 6M |
| | b What are the essential steps in brazing operation? | 4M |
| | OR | |
| 5 | a What is thermite welding? What are the reactions take place in thermite welding? | 5M |
| | b Write short notes on submerged arc welding and write its applications? | 5M |
| | <u>UNIT-III</u> | |
| 6 | a Explain hot working process with applications & limitations. | 5M |
| | b What are the types of forging processes & characteristics of forging processes? | 5M |
| | OR | |
| 7 | a What are the methods used in rolling processes? What is skew rolling? | 6M |
| | b Define i) Cold spinning ii) Hot spinning iii) Wire drawing iv) Deep drawing. | 4M |
| | <u>UNIT-IV</u> | |
| 8 | a Explain the Stretch forming operations & its applications. | 6M |
| | b What are the characteristics of sheet metal? | 4M |
| | OR | |
| 9 | a What are the tools used in Shearing, bending, forming and drawing operations? | 5M |
| | b Explain the Magnetic pulse forming & peen forming operations. | 5M |
| | <u>UNIT-V</u> | |
| 10 | a Explain the polymerization & write types of polymerization? | 5M |
| | b Explain the working principles of Transfer Moulding. | 5M |
| | OR | |
| 11 | a Mention types of Plastics & Explain Injection moulding. | 5M |
| | b Explain the various methods of Bonding of Thermoplastics. | 5M |

END