Code No: **20ME3T03**

R20

II B. TECH I SEMESTER REGULAR EXAMINATIONS, MARCH - 2022
PRODUCTION TECHNOLOGY
(MECHANICAL ENGINEERING)

Time: 3 Hours **Max. Marks: 70**

Note: Answer **ONE** question from each unit **(5 × 14 = 70 Marks)**

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UNIT-I

1. a) Define pattern allowance and explain different pattern allowances with neat sketches. [7M]

   b) Explain the working principle of investment casting with neat sketch [7M]

(OR)

2. a) Define core and explain different types of cores with neat sketches. [7M]

   b) Explain the advantages, disadvantages and applications of casting process [7M]

UNIT-II

3. a) Differentiate hot and cold working process. [7M]

   b) Explain about different types of forging operations with neat sketches. [7M]

(OR)

4. a) Explain the rolling process and variety of products obtained during rolling. [7M]

   b) With the help of neat sketches explain extrusion Processes. [7M]

UNIT-III

5. a) Explain all the basic tools of sheet metal work with neat sketches. [7M]

   b) Write a short note on (i) Spinning, (ii) Bending [7M]

(OR)

6. a) Explain the effect of shear on maximum load on punch. [7M]

   b) Explain (i) Contoured blanks (ii) Parallel blank edges [7M]

UNIT-IV

7. a) Explain about TIG and MIG welding techniques. Give the applications of each. [7M]

   b) Explain the Working Principle of Oxy-Acetylene Welding with neat sketch. [7M]
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(OR)

8. a) What are the kinds of joints that are normally employed for welding processes? Show their sketches. [7M]

   b) Explain forge welding and resistance welding processes and give their applications. [7M]

UNIT-V

9. a) Explain the Principle of electro hydraulic forming process with neat sketch. [7M]

   b) With flow diagram indicate various operations involved in powder metallurgy processing [7M]

(OR)

10. a) Describe the processes briefly (i) Sizing, (ii) Coining [7M]

    b) Explain sintering process in powder metallurgy. [7M]

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