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B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

May 2023 Semester End Main Examinations

Programme: B.E.

Branch: Aerospace Engineering

Course Code: 22AS3PCMNT

Course: Manufacturing Technology

Semester: III

Duration: 3 hrs.

Max Marks: 100

Date: 19.05.2023

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I

- | | | | |
|---|----|--|---|
| 1 | a) | Describe the types of manufacturing process. | 6 |
| | b) | Illustrate about pattern allowances with appropriate sketches. | 8 |
| | c) | Illustrate about the casting defects with remedies. | 6 |

UNIT - II

- | | | | |
|---|----|--|----|
| 2 | a) | Describe with a neat sketch hot rolling process. | 10 |
| | b) | Differentiate between hot rolling & cold rolling process & also list the advantage & disadvantage of cold rolling process. | 10 |

OR

- | | | | |
|---|----|---|----|
| 3 | a) | With a neat sketch illustrate the stretch forming process. | 10 |
| | b) | Explain the principle & working of diffusion welding along with its advantages. | 10 |

UNIT - III

- | | | | |
|---|----|---|---|
| 4 | a) | Illustrate the nomenclature of single point cutting tool with a neat sketch. | 7 |
| | b) | Explain about orthogonal cutting & oblique cutting with appropriate sketches. | 7 |
| | c) | Outline the types of cutting fluids. | 6 |

OR

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

- 5 a) Explain with a neat sketch ultrasonic machining process & also list its disadvantages. **10**
- b) Illustrate with a neat sketch plasma arc machining process & state its advantages. **10**

UNIT - IV

- 6 a) Explain the principle of CNC machine along with its application & advantages. **10**
- b) With a neat sketch explain direct material deposition technique. **10**

UNIT - V

- 7 a) Describe the gear manufacturing process by powder metallurgy process. **10**
- b) Illustrate about gear manufacturing process with a neat diagram. **10**

B.M.S.C.E. - ODD SEM 2022-23