

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2024****Subject Code:3152510****Date:18-05-2024****Subject Name:Manufacturing Technology - II****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

|            |                                                                                      | <b>MARKS</b> |
|------------|--------------------------------------------------------------------------------------|--------------|
| <b>Q.1</b> | <b>(a)</b> What is manufacturing process?                                            | <b>03</b>    |
|            | <b>(b)</b> Write classification of manufacturing processes.                          | <b>04</b>    |
|            | <b>(c)</b> Enlist the types of pattern, and explain any one pattern in detail.       | <b>07</b>    |
| <b>Q.2</b> | <b>(a)</b> Which material are used for patterns?                                     | <b>03</b>    |
|            | <b>(b)</b> Write the sand additives material name.                                   | <b>04</b>    |
|            | <b>(c)</b> Write a properties of moulding sand.                                      | <b>07</b>    |
|            | <b>OR</b>                                                                            |              |
|            | <b>(c)</b> Explain different types of moulding sand.                                 | <b>07</b>    |
| <b>Q.3</b> | <b>(a)</b> Define: (1) Gate (2) Runner                                               | <b>03</b>    |
|            | <b>(b)</b> Write the types of casting defect.                                        | <b>04</b>    |
|            | <b>(c)</b> Explain LASER Beam Welding process in detail.                             | <b>07</b>    |
|            | <b>OR</b>                                                                            |              |
| <b>Q.3</b> | <b>(a)</b> Classify the welding process.                                             | <b>03</b>    |
|            | <b>(b)</b> Explain Spot Welding process.                                             | <b>04</b>    |
|            | <b>(c)</b> Explain Tungsten Inert Gas (TIG) welding process in detail.               | <b>07</b>    |
| <b>Q.4</b> | <b>(a)</b> Define : Squeezing, Blanking                                              | <b>03</b>    |
|            | <b>(b)</b> Explain Wire drawing processes.                                           | <b>04</b>    |
|            | <b>(c)</b> Write the name of defects in welded joints and explain any one in detail. | <b>07</b>    |
|            | <b>OR</b>                                                                            |              |
| <b>Q.4</b> | <b>(a)</b> What is forging ?                                                         | <b>03</b>    |
|            | <b>(b)</b> What is Piercing in Metal shaping process?                                | <b>04</b>    |
|            | <b>(c)</b> Explain direct or forward extrusion process with neat sketch.             | <b>07</b>    |
| <b>Q.5</b> | <b>(a)</b> What is use of plasticizers in plastics?                                  | <b>03</b>    |
|            | <b>(b)</b> Write the General Properties of Plastics.                                 | <b>04</b>    |
|            | <b>(c)</b> Explain injection moulding process for plastics.                          | <b>07</b>    |
|            | <b>OR</b>                                                                            |              |
| <b>Q.5</b> | <b>(a)</b> What is buffing ?                                                         | <b>03</b>    |
|            | <b>(b)</b> Explain Lapping finishing process.                                        | <b>04</b>    |
|            | <b>(c)</b> Explain powder coating process.                                           | <b>07</b>    |

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