

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- VII (New) EXAMINATION – WINTER 2019

Subject Code: 2172003

Date: 28/11/2019

Subject Name: Manufacturing Technology - II

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

MARKS

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|------------|--|-----------|
| Q.1 | (a) What is extrusion? Explain any one method with neat sketch. | 03 |
| | (b) Classify types of pattern. Explain Any two with neat sketch. | 04 |
| | (c) Write a short note on 'Submerged Arc Welding'. | 07 |
| Q.2 | (a) Explain Concept of direct and indirect measurement. | 03 |
| | (b) Differentiate between jigs and fixtures. | 04 |
| | (c) Explain Investment casting with advantages, disadvantages and also application. | 07 |
| OR | | |
| | (c) What are the common defects of casting? State their causes and remedies. | 07 |
| Q.3 | (a) List out pattern allowances. Explain any two allowances. | 03 |
| | (b) Compare TIG and MIG welding. | 04 |
| | (c) What is 'Taylor's principle of gauge design'? Explain giving neat sketches and example. | 07 |
| OR | | |
| Q.3 | (a) List out types of gates. Explain any two gates in detail. | 03 |
| | (b) Write down difference between cold working and hot working. | 04 |
| | (c) Show the procedure for measuring angle using sine bar with neat sketch and related equation. | 07 |
| Q.4 | (a) Explain drawing process and list down types of drawing operations. | 03 |
| | (b) What are the different forging operations? Explain any one with neat sketch. | 04 |
| | (c) Write a short note on AJM. | 07 |
| OR | | |
| Q.4 | (a) Explain the function of riser in gating system with sketch. | 03 |
| | (b) Explain welding process parameters and its effect | 04 |
| | (c) Explain the working of EDM with neat sketch. | |
| Q.5 | (a) Explain Piercing process with neat sketch. | 03 |
| | (b) Explain two important principles of Jigs and fixture design giving neat sketches | 04 |
| | (c) Briefly explain the effect of moisture content on molding sand parameters such as strength, permeability and hardness. | 07 |
| OR | | |
| Q.5 | (a) Explain spinning operation of sheet metal with neat sketch | 03 |
| | (b) Write a short note on Gas Welding with necessary sketches. | 04 |
| | (c) Explain the different types of clamps used in jigs and fixtures | 07 |
