

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2018****Subject Code:2150206****Date:20/11/2018****Subject Name:Automotive manufacturing****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.

- Q.1** (a) Write the difference between hot working and cold working process. **03**
(b) Explain rod drawing process and wire drawing process. **04**
(c) Explain forging operations. **07**
- Q.2** (a) State the use of simple die, compound dies and combination die. **03**
(b) Differentiate between forward extrusion and backward extrusion process. **04**
(c) Explain sheet metal operations. **07**
- OR**
- (c) State the benefits of strip layout and write short note on strip layout for sheet metal. **07**
- Q.3** (a) Define forming process, casting process and joining process. **03**
(b) State the function of fixtures, jigs, locating devices and clamping devices. **04**
(c) Explain 3-2-1 principle of location with neat sketch. **07**
- OR**
- Q.3** (a) List types of welding and draw the figure of TIG welding with notation. **03**
(b) List types of jigs and explain indexing jig **04**
(c) Explain working of Metal inert gas welding technique. **07**
- Q.4** (a) Write the difference between soldering and brazing techniques for joining process. **03**
(b) Explain working of quick acting nut. **04**
(c) Explain casting defects and its remedies. **07**
- OR**
- Q.4** (a) State the function of pattern, core and moulding sand used in casting process. **03**
(b) Explain pattern allowances. **04**
(c) Explain investment casting process. **07**
- Q.5** (a) Write short note on advanced manufacturing processes. **03**
(b) Draw the figure of Laser beam welding and SMAW **04**
(c) Explain working of cupola with neat sketch. **07**
- OR**
- Q.5** (a) Explain burnishing process for super finishing process. **03**
(b) State the function of riser, sprue, vent hole and gating system of casting. **04**
(c) Explain ECM machining process with neat sketch **07**
