

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) - EXAMINATION – SUMMER 2017****Subject Code: 2150206****Date: 03/05/2017****Subject Name: Automotive manufacturing****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.

MARKS

| | | |
|------------|--|-----------|
| Q.1 | Short Questions | 14 |
| | 1 Define grinding. | |
| | 2 Define application of forging. | |
| | 3 What is cupola? | |
| | 4 Explain any one application of Gas tungsten arc welding. | |
| | 5 Define lapping. | |
| | 6 What is swaging? | |
| | 7 Why Die-casting is used in manufacturing? | |
| | 8 Give full name of PAM. | |
| | 9 Define powder coating. | |
| | 10 Define the term milling. | |
| | 11 What is use of jig and fixture? | |
| | 12 Is burnishing a joining process? | |
| | 13 What is the meaning of brazing? | |
| | 14 Define buffing. | |
| Q.2 | (a) Explain stretch forming. | 03 |
| | (b) Enlist drawing processes and describe any one. | 04 |
| | (c) Describe sheet metal cutting operations. | 07 |
| | OR | |
| | (c) Explain the chassis frame components with sketch. | 07 |
| Q.3 | (a) Write a note on green sand moulding. | 03 |
| | (b) Enlist hot working processes and describe any one. | 04 |
| | (c) Describe about carbon dioxide moulding. | 07 |
| | OR | |
| Q.3 | (a) Write any four casting design considerations. | 03 |
| | (b) Enlist types of jig post and brief any one of it. | 04 |
| | (c) Explain Difference between hot rolling and cold rolling. | 07 |
| Q.4 | (a) Explain materials are used in manufacturing. | 03 |
| | (b) Explain TIG welding. | 04 |
| | (c) Explain about grinding fixtures. | 07 |
| | OR | |
| Q.4 | (a) Write a note on electro-beam welding. | 03 |
| | (b) Explain shell moulding. | 04 |
| | (c) Explain plasma arc cutting process. | 07 |
| Q.5 | (a) Write a note on core making. | 03 |
| | (b) Enlist casting defects and describe any one. | 04 |
| | (c) Explain centrifugal casting process. | 07 |
| | OR | |

- Q.5** (a) Discuss elastic deformation of metal. **03**
(b) Which are the super finishing processes? Explain any one in brief. **04**
(c) Discuss about the use of ECG and USM. **07**

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