

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV (NEW) EXAMINATION – WINTER 2018

Subject Code:2141908

Date:12/12/2018

Subject Name:Manufacturing Processes -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.

- Q.1** (a) Define terms: (1) Pattern (2) Core and (3) Core binder. **03**
(b) Enlist the patterns material and explain any two with their advantages and limitation. **04**
(c) Explain classification of manufacturing process. **07**
- Q.2** (a) What is indication of the black, red and yellow colour in patterns? **03**
(b) Why shrinkage allowances and machining allowance has been provided to the patterns? **04**
(c) Explain the properties of moulding sand. **07**
- OR**
- (b) Enlist various types of core. Explain any three cores with suitable sketch. **07**
- Q.3** (a) Explain suitable condition for achieving the satisfactory weld. **03**
(b) Explain electron beam welding process. **04**
(c) Discuss with neat sketch TIG welding process. State advantages and limitation. **07**
- OR**
- Q.3** (a) Enlist the various shielding gas. What is the purpose of shielding gas in welding? **03**
(b) Differentiate between the brazing and soldering. **04**
(c) Explain the friction welding process. States advantages and limitation. **07**
- Q.4** (a) What are the effects of recrystallization? **03**
(b) Explain the upsetting and drawing down operation with neat sketch. **04**
(c) Explain forward and backward extrusion process with suitable sketch. **07**
- OR**
- Q.4** (a) Explain following terms (1) Blanking (2) Piercing and (3) Coining. **03**
(b) How the tubes is manufacturing? **04**
(c) Distinguish hot working process and cold working process. **07**
- Q.5** (a) What is the role of chaplets in casting process? **03**
(b) Explain the vacuum thermoforming process. **04**
(c) Explain the blow moulding process with neat sketch. States the limitation of it. **07**
- OR**
- Q.5** (a) Why backing is required for core before use of it? **03**
(b) Write short notes on ceramic matrix composites. **04**
(c) Explain the compression moulding process. **07**
