

Code: ME4T5

**II B.Tech - II Semester – Regular/Supplementary Examinations –  
April 2019**

**PRODUCTION TECHNOLOGY  
(MECHANICAL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

Answer *all* the questions. All questions carry equal marks

11 x 2 = 22 M

1.

- a) Mention the applications of casting process.
- b) List out various types of patterns.
- c) Write gating ratio in case of pressurized and non-pressurized gating systems.
- d) Differentiate hot chamber die casting and cold chamber die casting.
- e) List out various casting defects.
- f) Define Submerged arc welding.
- g) Mention different types of welded joints.
- h) Define Extrusion.
- i) Differentiate hot and cold spinning.
- j) Explain transfer molding.
- k) Compare thermo plastics with thermo setting plastics.

PART – B

Answer any **THREE** questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Define pattern and explain different pattern allowances. 8 M
- b) Explain the steps involved in sand casting process. 8 M
3. a) Explain different types of centrifugal casting processes with neat sketch. 6 M
- b) Write short notes on the following:  
(i) Investment casting. (ii) CO<sub>2</sub> moulding. 10 M
4. a) Explain gas welding process and different types of flames used with neat diagram. 8 M
- b) Differentiate destructive and non-destructive testing of welds. 8 M
5. a) Explain wire drawing process with a neat diagram. 8 M
- b) How do you provide clearance in case of punching and blanking operations? 8 M

6. a) Explain different types of polymers and how do they differ from elastomers? 8 M

b) Differentiate between injection moulding and blow moulding process. 8 M