

P P SAVANI UNIVERSITY

Fourth Semester of B. Tech. Examination

December 2022

SEME2050 Forming and Machining Process

24.11.2022, Thursday

Time: 01:00 p.m. To 03:30 p.m.

Maximum Marks: 60

Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

SECTION - I

- Q - 1 Define (Any Five) [05] CO BTL
- (i) Formability
- (ii) Hardness
- (iii) Ductility
- (iv) Forging
- (v) Lubricants
- (vi) Recrystallization
- (vii) Strain rate
- Q - 2 (a) Write down the classifications of forming process. [05]
- Q - 2 (b) What are the effects of metallurgical structure on metal forming? [05]
- OR
- Q - 2 (a) Write down the difference between hot rolling and cold rolling. [05]
- Q - 2 (b) What are the disadvantages of hot rolling over cold rolling operation? [05]
- Q - 3 (a) What are the differences between forging and extrusion process? [05]
- Q - 3 (b) Name various defects of forging operation. [05]
- OR
- Q - 3 (a) What are the various rolling parameters in rolling operation? [05]
- Q - 3 (b) Write down the principle of metal rolling process. [05]
- Q - 4 Attempt any one [05]
- (i) Name various sheet metal operations and state their applications.
- (ii) What are the different types of press tools?

SECTION - II

- Q - 1 Define (Any Five) [05]
- (i) Feed
- (ii) Lathe Bed
- (iii) 2 dimensional work of lathe
- (iv) Vertical Milling machine
- (v) Horizontal milling machine
- (vi) Slotter
- (vii) Sawing machine
- Q - 2 (a) Name various types of operation that can be performed using lathe machine. [05]
- Q - 2 (b) What are the different types of lathe machine? [05]
- OR
- Q - 2 (a) How plain turning lathes are different from simple purpose lathe? [05]

- Q - 2 (b) Write down the differences between horizontal and vertical lathe. [05]
 Q - 3 (a) Write down the differences between horizontal and vertical milling machine. [05]
 Q - 3 (b) Explain various operations that can be performed using milling machine. [05]
 OR
 Q - 3 (a) Write down various applications of drilling machine. [05]
 Q - 3 (b) Write down the various application of boring machines. [05]
 Q - 4 Attempt any one [05]
 (i) What is up-milling? Explain its advantages over down-milling.
 (ii) Write down the classifications of sawing machine.

CO : Course Outcome Number

BTL : Blooms Taxonomy Level

Level of Bloom's Revised Taxonomy in Assessment

1: Remember	2: Understand	3: Apply
4: Analyze	5: Evaluate	6: Create