

Roll No.

3209

**B. Tech. 5th Semester (ME)
Examination – March, 2021**

MANUFACTURING TECHNOLOGY-I

Paper : PCC-ME-305-G

Time : Three hours] [Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equal marks.

2.5 × 6 = 15

1. Write about :

- (a) Cutting speed
- (b) Forward slip
- (c) Auto-collimator.
- (d) Working Principle of Capstan Lathe.
- (e) Purpose of gating system.
- (f) Brazing.

UNIT - I

2. Write about tool life relationship. Also discuss about Taylor equation of tool life. 15
3. Write about :
- (a) Economics of metal machining 8
 - (b) Power calculations in drills. 7

UNIT - II

4. Write about :
- (a) Theory of Forging 8
 - (b) Broaching Fixtures 7
5. (a) Discuss about micro and macro deviation. 8
- (b) Write about evaluation of surface finish. 7

UNIT - III

6. Discuss with neat sketches various operations that can be performed on milling machine. Also write about indexing in milling operation. 15
7. Write in detail about types of pattern and allowances. 15

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UNIT - IV

8. Explain the different welding defects and remedies in detail. 15
9. Write about :
- (a) Cold working processes 8
 - (b) Shearing and Punching. 7

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