

24261

**B. Tech. 5th Semester (F) Scheme (ME)
Examination, December-2018**

MANUFACTURING TECHNOLOGY-II

Paper-ME-309-F

Time allowed : 3 hours]

[Maximum marks : 100

Note : Students are required to attempt any five questions. The students have to attempt first common question, which is compulsory and one question from each of the four sections.

1. (a) Built-up edges.
- (b) Principle of abrasive jet machining
- (c) Classification of NC system
- (d) Concept of group and family 5×4=20

Section-A

2. Explain Merchant cutting force circle and shear angle relationship in orthogonal cutting. 20
3. (a) Write about various types of tool wear. 10
- (b) Discuss effect of cutting fluid on tool life. 10

Section-B

4. Discuss the process of Ultrasonic machining. 20

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5. (a) What factors influence the design of jigs and fixtures? 10
- (b) Write about Location and Location devices. 10

Section-C

6. What are the different components of Direct Numerical Control (DNC) system? Explain its principle functions also. 20
7. Write about :
- (a) Two axes part programming for milling operations with examples. 10
- (b) Manual Part Programming. 10

Section-D

8. Discuss about :
- (a) Group Technology and its concept. 10
- (b) Working of Group Technology and its advantages. 10
9. Explain classification and coding of parts group technology (GT) Layout. Also give some benefits of using GT principles in production plants. 20