

**B.Tech. 4th Semester (ME) F-Scheme Examination,  
May-2018  
MANUFACTURING TECHNOLOGY-I  
Paper-ME-202-F**

Time allowed : 3 hours ] [ Maximum marks : 100

*Note : Question No. 1 is compulsory. Students have to attempt five questions in total, at least one question from each section.*

1. (a) What is the geometry of twist drills ? 5
- (b) What is the principle of location ? 5
- (c) What is the inspection and Quality control ? 5
- (d) What is the cold working ? 5

**Section-A**

2. What are the different types of chips and their characteristics ? Also explain the mechanics of chips formation. 20
3. (a) What are the different elements of machining cost ? 10
- (b) What is the Taylor equation of tool life ? 10

**Section-B**

4. (a) What are different locating and clamping devices ? 10

- (b) What are different factors influencing the surface finish ? 10
5. (a) What is the theory of forging ? 10
- (b) Discuss the micro and macro deviation. 10

**Section-C**

6. (a) Discuss the gating system. 10
- (b) What are different constructional features of milling machine ? 10
7. (a) What are different types of pattern ? 10
- (b) What are different sand casting defects and remedies ? 10

**Section-D**

8. (a) Explain the different welding defects and remedies in detail. 10
- (b) Discuss the electro slag welding. 10
9. Write short note on the following :
  - (i) TIG welding
  - (ii) Friction welding 20