Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **14ME2005** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MACHINING PROCESSES** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | List the difference between orthogonal and oblique cutting with neat sketch. | CO1 | 10 |
| b. | Describe the characteristics and state the applications of the commonly used cutting tool materials. | CO1 | 10 |
| **(OR)** | | | | |
| 2. | a. | Explain the functions, desirable properties and types of cutting fluids used in metal cutting. | CO1 | 10 |
| b. | Draw a comparison table for different types of chip with neat sketch. | CO1 | 10 |
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| 3. | a. | With the required sketch, explain the operations that can be performed on a lathe. | CO2 | 10 |
| b. | Explain the construction and working of Shaper. | CO2 | 10 |
| **(OR)** | | | | |
| 4. | a. | Explain the constructional features and specifications of centre lathe with neat sketch. | CO2 | 10 |
| b. | Explicate the nomenclature of a single point cutting tool with a neat sketch in detail. | CO3 | 10 |
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| 5. | a. | What are the types of milling machine? Explain anyone of them with neat sketch. | CO2 | 10 |
| b. | List the hole making operation and explain them with suitable sketches. | CO3 | 10 |
| **(OR)** | | | | |
| 6. | a. | Describeconstructional features and functioning of broaching tool*.* Also list out its applications. | CO3 | 10 |
| b. | How are milling cutters classified? Explain with neat sketches the various types of cutters used in milling. | CO2 | 10 |
|  |  |  |  |  |
| 7. | a. | Write short notes on;  (i) Honing (ii) lapping (iii) super finishing  (iv) polishing (v) buffing. | CO2 | 10 |
| b. | Explain with neat sketch: various shapes and sizes of grinding wheel used in manufacturing. | CO3 | 10 |
| **(OR)** | | | | |
| 8. | a. | Clarify the following in detail with neat sketches:  (i) Gear shaping (ii) Gear hobbing. | CO2 | 10 |
| b. | Explain the designation and selection of a grinding wheel. | CO3 | 10 |
|  | | **Compulsory**: |  |  |
| 9. | a. | State Abrasive Jet Machining. Explicate its construction and working with suitable sketch. | CO2 | 10 |
| b. | What is EDM? Explain the construction and working of EDM machine with suitable sketch. | CO2 | 10 |