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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec - 2017**

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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. | Define tool life. Explain it with Taylor’s tool life equation. | CO1 | 10 |
|  | b. | A tool life of 80 mins. is obtained at a cutting speed of 30 mpm and 8 minutes at 60mpm. Determine the i) tool life equation ii) cutting speed for a tool life of 4 min. | CO1 | 10 |
| (OR) | | | | |
| 2. |  | In orthogonal cutting, the feed is 1.25mm/rev and chip thickness after cutting is 2mm. shear strength is 6000 kg/cm2. Width of cut is 10mm with 10° rake angle, cutting speed and co-efficient of friction are 30m/min and 0.9 respectively. Determine i) Chip thickness ratio ii) Shear angle iii) friction angle iv) shearing force | CO1 | 20 |
| 3. |  | Explain the methods of cutting fluid applications during Machining. | CO1 | 20 |
| (OR) | | | | |
| 4. |  | With the required sketch, explain the operations that can be performed on a lathe. | CO2 | 20 |
| 5. |  | Explain the construction and working of Shaper. | CO2 | 20 |
| (OR) | | | | |
| 6. |  | What are the types of milling machine? Explain anyone of them with neat sketch. | CO2 | 20 |
| 7. |  | List the hole making operation and explain them with suitable sketches. | CO2 | 20 |
| (OR) | | | | |
| 8. |  | Explain with neat sketch: various shapes and sizes of grinding wheel used in manufacturing. | CO3 | 20 |
| **Compulsory:** | | | | |
| 9. |  | What is EDM? Explain the construction and working of EDM machine with suitable sketch. | CO3 | 20 |

ALL THE BEST