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 :** | **16ME1001** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MECHANICAL MACHINES AND SYSTEMS** | **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. | Briefly explain about the four stroke petrol engine with neat sketch. | CO 1 | 14 |
| b. | What are the main parts of an IC Engine? | CO 1 | 6 |
| (OR) | | | | |
| 2. | a. | Discuss in detail about the vapour compression system with neat diagram. | CO 2 | 14 |
| b. | Differentiate between two stroke and four stroke engines. | CO 1 | 6 |
|  |  |  |  |  |
| 3. | a. | Briefly explain about the split air conditioning with neat sketch. | CO 2 | 12 |
|  | b. | Write short notes on reciprocating pump with neat diagram. | CO 2 | 8 |
| (OR) | | | | |
| 4. | a. | Explain in detail about the centrifugal pump with neat sketch. List out the applications. | CO 2 | 12 |
|  | b. | Write short notes on window air conditioning with a neat diagram. | CO 2 | 8 |
|  |  |  |  |  |
| 5. |  | Explain the working principle of a diesel power plant with neat sketch. | CO 1 | 20 |
| (OR) | | | | |
| 6. | a. | Briefly explain about the nuclear power plant with neat sketch. List out the advantages and disadvantages. | CO 1 | 10 |
|  | b. | Describe in detail about the solar power plant with neat sketch. Mention the advantages and disadvantages. | CO 1 | 10 |
|  |  |  |  |  |
| 7. | a. | What are thedifferent patterns used in casting process and explain the moulding process with neat sketch. | CO 3 | 12 |
|  | b. | Describe in detail about the drilling machine with neat sketch. | CO 3 | 8 |
| (OR) | | | | |
| 8. |  | Briefly discuss about the cupola furnace with neat sketch | CO 3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Write short notes on forklifter used in industries. | CO 3 | 10 |
|  | b. | Classify and explain about the different types of cranes. | CO 3 | 10 |

ALL THE BEST