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 – April/May– 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. | Explain the working of 4 stroke petrol engine with neat sketch. | CO1 | 12 |
| b. | Differentiate between Spark Ignition (SI) and Compression Ignition (CI) Engines. | CO1 | 8 |
| (OR) | | | | |
| 2. | a. | Explain the working principle of two stroke diesel engine with a neat sketch and mention the advantages and disadvantages. | CO1 | 10 |
| b. | Discuss in detail about the vapour compression refrigeration system with neat sketch. | CO2 | 10 |
| 3. | a. | Explain the split air conditioning system with neat sketch. | CO2 | 12 |
|  | b. | Describe the working of centrifugal pump with neat diagram. | CO2 | 8 |
| (OR) | | | | |
| 4. | a. | Explain in detail about the Reciprocating pump with neat sketch. List the applications. | CO2 | 12 |
|  | b. | Describe window air conditioning with neat diagram. | CO2 | 8 |
| 5. |  | Explain the working principle of a steam power plant with neat sketch. | CO1 | 20 |
| (OR) | | | | |
| 6. | a. | Briefly explain the hydroelectric power plant with neat sketch. List the advantages and disadvantages. | CO1 | 10 |
|  | b. | Describe in detail about the wind power plant with neat sketch. Mention the advantages and disadvantages. | CO1 | 10 |
| 7. |  | Briefly explain about the moulding process with neat sketch | CO3 | 20 |
| (OR) | | | | |
| 8. |  | Discuss about the gas welding with neat sketch classifying the flames. | CO3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Describe the working of forklifter used in industries. | CO3 | 10 |
|  | b. | Explain any two types of hoists with schematic diagram. | CO3 | 10 |

ALL THE BEST