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



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

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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 a four-stroke Petrol engine with suitable sketches. | CO1 | 14 |
| b. | State the difference between two stroke engine and four stroke engine. | CO1 | 6 |
| **(OR)** | | | | |
| 2. | a. | Explain with a neat sketch, the working of vapour absorption Refrigeration system. | CO2 | 14 |
| b. | State the difference between vapour compression refrigeration and vapour absorption refrigeration. | CO2 | 6 |
|  |  |  |  |  |
| 3. |  | Explain the working of centrifugal pump with suitable sketch and list the different types of casings. | CO2 | 20 |
| **(OR)** | | | | |
| 4. |  | Explain the working of reciprocating pump with suitable sketch and list its advantages and disadvantages. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | With a neat sketch, explain the working of thermal Power plant and list its limitations. | CO1 | 20 |
| **(OR)** | | | | |
| 6. |  | Discuss the working of a solar power plant with an aid of a neat sketch and list the limitations of solar energy. | CO1 | 20 |
|  |  |  |  |  |
| 7. |  | Draw a neat sketch of cupola furnace and explain how cast iron is produced. | CO3 | 20 |
| **(OR)** | | | | |
| 8. |  | Define the term welding and explain the gas welding process with a neat sketch and also define the various terminologies associated with a typical weld. | CO3 | 20 |
|  | | **Compulsory**: |  |  |
| 9. |  | With a neat sketch, explain the principle parts and working of a lathe machine. | CO3 | 20 |