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 – 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **13ME103** | **Duration :** | **3hrs** |
| **Sub. Name :** | **BASIC MECHANICAL ENGINEERING** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Explain with a neat sketch velocity compounded impulse turbine. | CO1 | **15** |
| b. | Write the difference between 4S engine and 2S engine. | CO1 | **5** |
| **(OR)** | | | | |
| 2. | a. | Explain the working principle of Cochran boiler with a neat sketch. | CO1 | **15** |
| b. | Represent diagramatically the strokes in four stroke diesel engine. | CO1 | **5** |
| 3. | a. | Explain with a neat sketch of a geothermal power plant. | CO2 | **15** |
|  | b. | What are the advantages of thermal power plants? | CO2 | **5** |
| **(OR)** | | | | |
| 4. | a. | Draw and explain the stress strain curve. | CO2 | **15** |
|  | b. | What are the applications of ferrous metals and alloys? | CO2 | **5** |
| 5. |  | Describe various steps in moulding process with neat diagrams. | CO3 | **20** |
| **(OR)** | | | | |
| 6. | a. | Explain the working principle of cupola furnace. | CO3 | **15** |
|  | b. | What a the tools used in forging process? | CO3 | **5** |
| 7. |  | Explain the concept of gas welding. | CO4 | **20** |
| **(OR)** | | | | |
| 8. | a. | Describe the working principle of drilling process. | CO4 | **15** |
|  | b. | Write various parts of milling machine. | CO4 | **5** |
|  | | **Compulsory:** |  |  |
| 9. |  | Draw a neat diagram of lathe machine and write the operations carried on it. | CO4 | **20** |

ALL THE BEST