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

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**End Semester Examination – Nov/Dec – 2018**

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| --- | --- | --- | --- |
| **Code :** | **13ME103** | **Duration :** | **3hrs** |
| **Sub. Name :** | **BASIC MECHANICAL ENGINEERING** | **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. | Summarize the working of a steam engine. | CO1 | 8 |
| b. | Recall the working of a Cochran Boiler. | CO1 | 12 |
| (OR) | | | | |
| 2. | a. | Recall the working of a Babcock and Wilcox boiler. | CO1 | 12 |
| b. | Compare two stroke and four stroke engines. | CO1 | 8 |
|  | | | | |
| 3. | a. | Illustrate the working of a hydro electric power plant. | CO1 | 13 |
| b. | Recall the working of a Solar power plant. | CO1 | 7 |
| (OR) | | | | |
| 4. | a. | Illustrate the working of a diesel power plant. | CO1 | 13 |
| b. | Recall the working of a tidal power plant. | CO1 | 7 |
|  | | | | |
| 5. | a. | Outline stress strain curve of ductile materials. | CO1 | 14 |
| b. | Summarize the various types of loads. | CO1 | 6 |
| (OR) | | | | |
| 6. | a. | Outline composition and properties of any three non ferrous alloys. | CO1 | 15 |
| b. | Recall the importance of composite materials. | CO1 | 5 |
|  | | | | |
| 7. | a. | Summarize the advantages of casting. | CO1 | 6 |
| b. | Illustrate arc welding process. | CO1 | 14 |
| (OR) | | | | |
| 8. | a. | Summarize various steps in moulding process. | CO1 | 8 |
| b. | Illustrate gas welding process. | CO1 | 12 |
|  | | | | |
|  | | **Compulsory**: |  | |
| 9. | a. | Illustrate the working principles of a lathe. | CO1 | 14 |
| b. | Summarize the importance of CNC machines. | CO1 | 6 |