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Roll No

ME-114**B.E. (All Branches), I Year II Semester**

Examination, June 2016

**Choice Based Credit System (CBCS)
Fundamentals of Mechanical Engineering****Time : Three Hours****Maximum Marks : 60**

Note : i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Write brief description of lathe machine and its components.
b) What are the different types of welding methods employed in Engineering?
2. a) With the help of PV diagram explain diesel cycle.
b) Draw neat sketch of thermal power plant, showing its components and proper layout. Also write function of each component.
3. a) Explain following Gear terminology
i) Module
ii) Pitch Circle
iii) Pressure Angle
b) How can profile helps to achieve definite follower motion explain with suitable example?

4. a) Explain function of boiler mountings.
b) Explain working of domestic refrigerator considering all thermodynamic processes involved and function of all components.
5. a) Explain two statements of second law of thermodynamics.
b) What are the different methods of heat transfer? Write Fourier's law of heat conduction.
6. a) What is Fatigue failure? How does it happens?
b) Define Hardness and explain rockwell hardness test.
7. a) Explain sequence of operations take place during working of SI engine.
b) Draw and explain stress strain diagram for ductile material.
