Reg. No. :

Question Paper Code : 97082

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2014.

Second Semester

Electrical and Electronics Engineering

GE 6251 — BASIC CIVIL AND MECHANICAL ENGINEERING

(Common to Electronics and Instrumentation Engineering, Instrumentation and Control Engineering)

(Regulation 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — $(10 \times 2 = 20 \text{ marks})$

- 1. What are different types of steel?
- 2. What is meant by levelling?
- 3. Define elasticity.
- 4. List the different types of bonds in brick masonry.
- 5. Mention any three parts of steam power plants.
- 6. How turbines are classified?
- 7. Define boiler.
- 8. Name the cooling systems used for I.C engine.
- 9. What are factors which affect the comfort air-conditioning?
- 10. Define COP.

PART B — $(5 \times 16 = 80 \text{ marks})$

11. (a) Describe the different types of Concrete.

Or

(b) Explain the classification, qualities and constituents of a brick.

12. (a) What do you understand by a foundations? Draw sketches to show various types of shallow foundations.

Or

- (b) What are the factors influencing the selection of dams? Explain with neat diagram any one type of dam.
- 13. (a) Explain with a neat sketch about a Thermal (steam) power plant.

Or

- (b) Explain the working principle of a single acting reciprocating pump with help of a line sketch, naming all main parts.
- 14. (a) Differentiate between two stroke and four stroke engines.

Or

- (b) Explain with neat sketch of Diesel power plant.
- 15. (a) Explain with neat sketch of Domestic Refrigerator.

Or

(b) Describe with help suitable diagram, vapour compression refrigeration system.