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Question Paper Code : 57021

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 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 × 2 = 20 marks)

1. Name the few types of cements used in construction.
2. What is meant by surveying?
3. State the purpose of dams.
4. List the different types of bonds in brick masonry.
5. How turbines are classified?
6. Mention any four types of power plants.
7. State any five differences between two stroke and four stroke cycle engine.
8. List the important parts of diesel engine power plant.
9. What are factors which affect the comfort air-conditioning?
10. Define tonne of refrigeration.

PART B — (5 × 16 = 80 marks)

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

Or

(b) Classify bricks and state its characteristics and uses of each one of them.

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 of Thermal (steam) power plant.

Or

(b) Explain the working principle of a single acting reciprocating pump with help of a line sketch.

14. (a) Explain the working principle of four stroke cycle diesel engine with neat sketch.

Or

(b) Discuss the working of two stroke cycle petrol engine with help of neat sketch.

15. (a) Explain the Domestic Refrigerator with neat sketch.

Or

(b) Explain the vapour compression refrigeration system with neat sketch. Compare it with absorption system.
