Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 91661

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2019
Second Semester
Electrical and Electronics Engineering
GE 6251 – BASIC CIVIL AND MECHANICAL ENGINEERING
(Common to : Electronics and Instrumentation Engineering/Instrumentation and Control Engineering)
(Regulations – 2013)

Time : Three Hours | Maximum : 100 Marks

Answer ALL questions

PART – A (10×2=20 Marks)

1. Name any two properties of good cement.
2. What are the objectives of surveying ?
3. Differentiate between shallow and Deep foundation.
4. What are the qualities of good brick ?
5. Write any two merits and demerits of thermal power plant.
6. What is the function of electro-static precipitator ?
7. What is Ignition delay period ?
8. What is called direct injection type of combustion chamber ?
9. Define refrigerating effect.
10. What are the desirable properties of a refrigerant ?

PART – B (5×16=80 Marks)

11. a) i) What are the various types of bricks based on quality ? (6)

ii) What are the sources of sand ? State the properties of good sand. What are the functions of sand in mortar ? (10)

(OR)

b) Explain about different types of levelling and its limitations. (16)

12. a) What do you understand by the term foundation ? Draw sketches to show various types of foundations. **(16)**

(OR)

b) i) Explain various kinds of rubble masonry with sketches. **(10)**

ii) Write short notes on column and its types. **(6)**

13. a) What is the necessity of compounding of steam turbines ? List the different types of compounding. Explain any one type of compounding with neat sketches. **(16)**

(OR)

b) Explain the working principle of a Nuclear power plant with neat sketch. **(16)**

14. a) Compare Two-Stroke and Four-Stroke engine. **(16)**

(OR)

b) With neat sketch explain the working principle of four stroke Diesel engine. **(16)**

15. a) Explain with line diagram the working of vapour compression refrigeration system. **(16)**

(OR)

b) The capacity of a refrigerator is 200 TR when working between – 6°C and 25°C. Determine the mass of ice produced per day from water at 25°C. Also find the power required to drive the unit. Assume that the cycle operates on reversed Carnot cycle and latent heat of ice is 335kJ/kg. **(16)**

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