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## Question Paper Code: 90064

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER / DECEMBER 2019 Second Semester

Electrical and Electronics Engineering
BE8252 – BASIC CIVIL AND MECHANICAL ENGINEERING

Common to: Electronics and Instrumentation Engineering/Environmental Engineering/Instrumentation and Control Engineering/Material Science and Engineering/Bio Technology/B.Tech. Food Technology/Pharmaceutical Technology (Regulations 2017)

Time: Three Hours

Maximum: 100 Marks

## Answer ALL questions

PART - A

 $(10\times2=20 \text{ Marks})$ 

- 1. List the major specializations of Civil Engineering.
- 2. List the specialized sub disciplines in Mechanical Engineering.
- 3. Classify surveying based upon the instruments used.
- 4. Write the dimension of a standard brick.
- 5. Define safe bearing capacity of soil.
- 6. Name the operations involved in the sewage treatment process in flow chart.
- 7. List some Power Stations in Tamil Nadu.
- 8. Differentiate between turbine and pump.
- 9. Differentiate between Refrigeration and Air Conditioning.
- 10. Sketch the layout of Domestic Refrigerator.

PART – B

(5×13=65 Marks)

11. a) Discuss about Civil Engineering contributions to the welfare of Society.

(OR)

b) Detail about Mechanical Engineering contributions to the welfare of Society.



12. a) Explain in detail with neat sketch about Simple levelling and Differential levelling.

(OR)

- b) Explain the different types of cement and its uses.
- 13. a) List out the different types of Shallow foundation and explain them.

(OR)

- b) Compare Brick and Stone masonry.
- 14. a) Describe about the Four Strokes of the Petrol Engine.

(OR)

- b) Describe the working principle of Reciprocating pump with neat sketch.
- 15. a) Describe the problems in the Vapour Compression Cycle.

(OR)

b) Compare Window and Split type room air conditioner with pros and cons.

PART - C

(1×15=15 Marks)

16. a) Explain the methods adopted to compact the concrete.

(OR)

b) With neat sketch explain any one type of dam which is present in Tamil Nadu.