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**Question Paper Code : X 10140**

B.E./B.Tech. DEGREE EXAMINATIONS, NOV/DEC 2020 AND APRIL/MAY 2021  
Second Semester

Electrical and Electronics Engineering

BE 8252 – BASIC CIVIL AND MECHANICAL ENGINEERING

(Common to Electronics and Instrumentation Engineering/Environmental Engineering/Instrumentation and Control Engineering/Material Science and Engineering/Safety and Fire Engineering/Bio Technology/Food Technology/Pharmaceutical Technology, Biotechnology and Biochemical Engineering)

(Regulations 2017)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. List any four Specialized sub disciplines in civil engineering.
2. Mention the role of Production Engineering.
3. What is surveying ?
4. What is Back sight ?
5. What are the objectives of Shallow Foundation.
6. List the uses of Stone masonry.
7. What is IC Engine ?
8. What is the use of Moderators.
9. What is Refrigeration ?
10. What are the applications of Air conditioning.



**PART – B**

**(5×13=65 Marks)**

11. a) Explain in detail the importance about Structural Engineering and Transportation Engineering.

(OR)

b) Explain in detail the importance about Automobile Engineering and Transportation Engineering.

12. a) Record the objectives of surveying. And list the features about Plane surveying and Geodetic Surveying.

(OR)

b) Recall the qualities of good building stones along with the types of cements (any three).

13. a) Explain about the methods to improve bearing capacity. And summarize the factors affecting the bearing capacity.

(OR)

b) Explain about the various type of flooring in detail.

14. a) Explain in detail about the construction and working principle of four stroke petrol Engine with detail diagram.

(OR)

b) Explain in detail about the construction and working principle of two stroke petrol Engine with suitable diagram.

15. a) Explain in detail about the Vapour absorption refrigeration system in detail diagram.

(OR)

b) Explain in detail about the split type room Air conditioner.

**PART – C**

**(1×15=15 Marks)**

16. a) Explain the working principle of Hydro Electric Power plant for the generation of power.

(OR)

b) Explain the working principle of Diesel Power plant to the industry with detailed layout.

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