

6624

BOARD DIPLOMA EXAMINATIONS

SEPTEMBER/OCTOBER-2020

DCE - FIFTH SEMESTER

ADVANCED CIVIL ENGINEERING TECHNOLOGIES

Time: 3 hours

Max. Marks: 80

PART – A

3 X 10 = 30

- Instructions:**
1. Answer **all** questions.
 2. Each question carries **Three** Marks.
 3. Answer should be brief and straight to the point and should not exceed Five simple sentences.

1. Define IoT and List out any two of key features.
2. State any three advantages of IoT?
3. State the components of GIS?
4. State any three differences between Pre tensioning and Post tensioning.
5. What is meant by Mechanical stabilization?
6. List any three applications of Geo mats.
7. What is prefabricated building?
8. State any three advantages of a prefabricated building?
9. Define
 - a) Magnitude
 - b) Focus
 - c) Epicenter
10. Briefly explain the terms Solar building and Solar energy.

PART – B

5 X 10 = 50

- Instructions:*
1. Answer any **Five** questions
 2. Each question carries **TEN** Marks.
 3. Answer should be comprehensive and Criteria for Valuation is the content but not the length of the answer.

11. Explain the applications of IoT in Smart Home.
12. What are the applications of GPS in Civil Engineering?
13. Explain the following Post tensioning systems. (2x5=10)
 - a) Freyssinet System.
 - b) Magnel Blaton System
14. a) What is Pre stressed Concrete? (2)
b) State any four advantages and four disadvantages of Prestressed Concrete. (8)
15. Explain the Construction methodology of reinforced anchored Earth wall.
16. a) What is the need for Pre Fabrication? (2)
b) What is the important of standardization and modularization in prefabrication? (8)
17. What is an earth quake? Explain the characteristics of earth quake.
18. Explain about the Roof top power generation systems.