

Seat No: _____

Enrollment No: _____

PARUL UNIVERSITY
FACULTY OF ARCHITECTURE & PLANNING
B.Arch. Winter 2019-20 Examination

Semester: 5

Subject Code: 01101302

Subject Name: Building Materials & Construction Technology- V

Date: 02/12/2019

Time: 10:00 am to 01:00 pm

Total Marks: 50

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever required.
4. Draw suitable sketches wherever required.

Q.1 Define Deep and Shallow Foundation. Enlist various types of Deep and Shallow Foundation. Sketch any three types of Shallow Foundation and explain the topography where both of them can be constructed. **(10)**

Q.2 Attempt any five out of the following six. (20)

1. Define the Following;

- a) Welding b) Foundation c) Conductance d) Bolting

2. Explain the following:

- a) Thermal Insulation b) Total Thermal Resistance c) Semi- Gravity Retaining wall d) Convection

3. Enlist and Explain the various types of slabs with relevant sketches.

4. Mention and explain the types of Anti-termite treatment.

5. Give a difference between Raft Foundation and Grillage foundation.

6. Explain the physical properties of steel by comparing it with timber and concrete.

Q.3 Explain the following: (any five) (10)

- a) Causes of Dampness in a building.
- b) Beam to Beam connection in steel structure.
- c) Composition of RCC & PCC.
- d) Thermal Resistance.
- e) Disadvantages of Waffle slab.
- f) Lacing & Bracing

Q.4 Answer any two out of the following three. (10)

- a) Define Vault. Enlist and Sketch types of Vaults.
- b) Enlist various types of deep foundation and shallow foundation.
- c) Sketch any two types of Retaining wall