

Seat No: _____

Enrollment No: _____

PARUL UNIVERSITY
FACULTY OF ARCHITECTURE & PLANNING
B.Arch. Winter 2018-19 Examination

Semester: 5

Subject Code: 01101302

Subject Name: Building Materials & Construction Technology- V

Date: 10/12/2018

Time: 02:00 pm to 05:00 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** Enlist types various types of deep foundation and shallow foundation. Sketch any three types of shallow foundation and explain the situation where they can be used. **(10)**
- Q.2** Attempt any five out of the following six. **(20)**
1. Define the following:
 - a) Thermal Insulation
 - b) Total Thermal Resistance
 - c) Semi- Gravity Retaining wall
 - d) Convection
 2. Explain one-way and two-way slabs with relevant sketches.
 3. Explain the safety measures to be taken during building construction.
 4. Write a short note on Anti-termite treatment.
 5. Explain steel as a building material.
 6. Give a difference between Raft Foundation and Grillage foundation.
- Q.3** Explain the following: (any five) **(10)**
- a) Column to Column connection of Precast Elements.
 - b) Disadvantages of Waffle slab.
 - c) Lacing & Bracing
 - d) Causes of Dampness in a building.
 - e) Column to Footing connection in steel structure.
 - f) Explain the composition of RCC & PCC.
- Q.4** Answer any two out of the following three **(10)**
- a) Sketch any two types of Retaining wall
 - b) Define Vault. Enlist and Sketch types of Vaults.
 - c) Explain the importance of curing in concrete structures.