

Seat No: _____

Enrollment No: _____

PARUL UNIVERSITY
FACULTY OF ARCHITECTURE & PLANNING
B.Arch Regular Winter 2021-22 Examination

Semester: 1

Subject Code: 01101102

Subject Name: Building Materials & Construction Technology – I

Date: 28-03-2022

Time: 10:00am to 1:00pm

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 Draw plan, section, elevation and isometric view of 1 brick thick wall in English bond and label all its parts. (10)

Q.2 Answer the following: (any 05) each of 04 marks (20)

- 1) Elaborate Bamboo as a construction material.
- 2) Explain the following: (any one)
 - a) Define Arch. Enlist and explain the any 03 types of Arches. (with sketches of their basic geometry)
 - b) State the classification of rocks. And mention the various types of stones.
- 3) Differentiate any one of the following:
 - a) Stone Masonry & Brick Masonry
 - b) Rammed earth construction technique & pressed brick earth construction technique
- 4) Define the following:
 - a) Lintel
 - b) Keystone
 - c) Header
 - d) Brick Bond
- 5) Enlist and draw the different types of Joinery between bamboos.
- 6) Define Brick. Enlist various types of bricks along with necessary sketches.

Q.3 Explain the following with relevant sketches: (any 05) (10)

- 1) Bull's eye arch
- 2) Queen closer & Squint Quoin
- 3) Lacing Course
- 4) Ashlar rock Masonry
- 5) Jambs
- 6) Lewis and Pins

Q.4 Answer the following: (any 02) (10)

- a) Elaborate the manufacturing process of brick, along with the drying process of brick.
- b) Draw / Sketch the Elevation & Plan (Odd and Even Courses) of the Double Flemish Bond.
- c) Differentiate between Wattle & Daub and Cob construction technique.
