Seat No:_____ **Enrolment No:_____**

PARUL UNIVERSITY

FACULTY OF ARCHITECTURE

B. Arch. Winter 2021-22 Examination

Semester: 2 **Date: 27/09/2021**

Subject Code: 01101152 **Time: 10:00am to 1:00pm**

Subject Name: Building Materials and Construction Technology-II **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 State the purpose of attached piers. Draw alternate courses of 1bk wall attached with 1 bk pier in English and double Flemish bond**.** **(10)**

Q.2 Attemp**t any 5** out of 6: **(20)**

A. Define the following :

i) Eaves

ii) Hip

iii) Valley

iv) Rafter

B. Answer the following:

i) Explain timber first floor in detail with sketches.

ii) Explain types of lengthening and widening joints in timber construction.

C.Explain various applications of the following in building construction:

i) Metal ii) Paints

D. Sketch the following:

i) Wall Plate ii) Batten iii) Collar beam roof iv) Lean to roof

E.Explain briefly with sketches:

i) Types of Roofs ii) Any 2 types Arches

F.Answer the following:

i) Enlist various types of Timber Joinery.Explain and Draw any two typologies of joinery.

Q.3 Answer briefly with sketches **(Any 5) :** **(10)**

a) Mortise Joints
b) Tenon Joints
c) Close Couple Roof
d) Dove tail Joints
e) Briddle Joint
f) Cogged Joint

Q.4 Explain the following **(Any 2)** **(10)**

a) Explain in detail two types of foundation with sketches.
b) What do you understand by a squint junction? Draw typical sketches showing squint junction of 1 ½ bk external wall and 1bk internal wall in (A) English bond
c) Draw footing elevation, isometric and alternate footing courses of brick pier.