

Seat No: _____

Enrollment No: _____

PARUL UNIVERSITY
FACULTY OF ARCHITECTURE

B.Arch Supplementary Examination, Summer 2015-16

Semester: 1

Date: 02/05/2016

Subject Code: 01101102

Time: 10:00AM to 1:00PM

Subject Name: Building Materials & Construction Technology-I

Total Marks: 50

Instructions:

1. Each section carries 25 marks.
2. **Q1 & Q2** are compulsory questions in each section.
3. Only one question has to be attempted out of **Q3** and **Q4** in each section.
4. Figures to the right indicate full marks.
5. Write separate sections on separate answer sheets.

SECTION: A

- Q:1** What is stone masonry? Enlist any five types of stone masonry. Draw / draft - Elevation and Section of 350 mm thick irregular coursed rubble wall, having height as 1500mm & Width 1000mm. (10)
- Q:2** (a) Give classification of bricks. And explain the factors affecting the qualities of bricks. (5)
- (b) Write characteristic features, advantages and disadvantages of Bamboo as a potential building material. (5)

OR

- Q:3** (b) Draw and label any five true arches. (5)
- Define each the following: (5)
- a. Arch, b. Lintel, c. Masonry, d. Stonework, e. Bond

OR

- Q:4** Enlist various types of Mud Construction Techniques – Explain any two with suitable sketches. (5)

SECTION: B

- Q:1** What is Brickwork? Draw / Sketch the Elevation, Plan (Odd and Even Courses) & Isometric view of the following: (10)
- a. English Bond
- b. Double Flemish Bond.
- Q:2** (a) Differentiate the following: (5)
1. Sun dried bricks v/s burnt bricks
2. Brick masonry v/s stone masonry
- (b) Explain the following: (5)
1. The manufacturing process of brick.
2. Explain the classification of rock & enlist the types of stones.

OR

- (b) Enlist types of brick bonds and explain single Flemish bond in detail. (5)
- Q:3** Fill in the blanks: (5)
- a. _____ is the arch having semicircular intrados.
- b. A brickwork bond having alternate courses of headers and stretchers is called _____.
- c. _____ is the arch having horizontal intrados.
- d. A row of bricks, stones or blocks which form a horizontal band in masonry walling construction, either one brick or stone high, or of uniform height is _____.

- known as _____.
- e. A _____ is a pointed arch having two centers and usually equal radii.

OR

Q:4 Enlist and draw the different types of Joinery between bamboos. **(5)**