

**PARUL UNIVERSITY**  
**FACULTY OF ARCHITECTURE**  
**B. Arch, Winter 2017-18 Examination**

Semester: III

Date: 05/12/2017

Subject Code: 01101202

Time: 10:00 am to 1:00 pm

Subject Name: Building Materials and Construction Technology - III

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 Staircase. Draft or Sketch to a suitable scale; plan and section of a Dog-Legged staircase for a floor height of 3000mm. The width of the flight is 1000mm. Having a riser of 120 mm & tread of 350 mm. (10)

**Q.2** Answer briefly (any 5) (20)

**a. Fill in the blanks:**

- i. The unbroken series of steps between the landings is known as \_\_\_\_\_.
- ii. \_\_\_\_\_ is the intermediate horizontal framing member between the bottom and top rails in a framed door, where the lock is often fitted.
- iii. \_\_\_\_\_ is the vertical surface forming the front face of a step.
- iv. \_\_\_\_\_ is the horizontal platform or level area at the top of a flight of stairs, which may have another flight leading from it.

**b. Differentiate the following with necessary sketches**

- i. Dormer window and Gable Window
- ii. Push pull type rolling shutter and mechanical gear type rolling shutter.

**c. Define the terms:**

- i) Staircase    ii) Post    iii) Landing    iv) Lock rail

**d. Sketch the following:**

- i) Collapsible steel door    ii) Sliding door    iii) Double hung window    iv) Single hung window

**e. Explain the following:**

- i) Revolving door    ii) Folding door

**f. Write a short note on the following:**

- i) Sanitary fixtures    ii) Glazed paneled door

**Q.3** Answer the following in brief:(Any 5) (10)

- a. Sketch any 02 types of taps and washbasins.
- b. Enlist elements of door with schematic sketches.
- c. Explain water closets and its types.
- d. Define: Jamb and Stile
- e. Write brief note on S- traps.
- f. Mention the qualities of good concrete.

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

- a. Different types of staircases and its components, with neat sketches
- b. Mention the requirements of good staircase.
- c. PVC as a building material with its advantages and disadvantages.

