

Student Exam No. \_\_\_\_\_

**GANPAT UNIVERSITY**

**B. Tech. Semester: 4<sup>th</sup> Civil Engineering**  
**Regular Examination April - June 2015**  
**Building Construction (2CI403)**

**Time: 3 Hours**

**Total Marks: 70**

**Instruction:** 1. Figures to the right indicate marks.  
2. Answer to the two sections must be written in separate answer book.

**SECTION - I**

- Q1** A Write a note on various components of a building along with their sketch. 4
- B Explain in brief various methods of boring for sub-soil exploration. 6
- C Differentiate between Shallow foundation and Deep foundation 2
- OR**
- Q1** A List out the various types of loads coming on structure. Differentiate between live load and dead load. 4
- B What do you understand by Geo-physical methods? Explain in brief seismic refraction method with neat sketch. 6
- C Explain the direct method of ground investigation. 2
- Q2** A What are the requirements of good foundation? Explain different types of foundations. 5
- B Write a short note on different types of bonds in masonry construction. 4
- C Give the difference between PCC and RCC? Give their uses. 3
- OR**
- Q2** A What are the causes of failure of foundation? Explain lateral movement of sub-soil with its remedial measure. 5
- B Describe with neat sketches Ashlar Masonry and its types. 4
- C Define Precast and cast in situ concrete. 3
- Q3** A Describe with neat figures (elevation only) the following : 5
- i. Louvered Door
  - ii. Glazed or Sash Doors
  - iii. Battened, Braced, Framed & Ledged Door
  - iv. Gable Windows
  - v. Bay Windows

- B Write a short note on: (Any three) 6
1. Lifting devices for stones.
  2. Sub-soil moisture movement.
  3. Reinforced brick masonry.
  4. Cavity wall.

SECTION - II

- Q4 A Write short note on R.C.C stair with sketch. 5
- B Draw a plan and section of Quarter turn stairs with landing and winder. 2
- C Explain with the help of neat sketches, jack arch flooring 5

OR

- Q4 A Explain the method of laying the rubber and glass flooring. 3
- B State briefly the requirement of good stair case. 4
- C Plan a stair case for a residential building in which the vertical distance each floor is 3.6mt. The size of stair hall is limited to 2.5m x 5 m. 5

- Q5 A Write short notes on Couple close roof. 3
- B Write short note on Composite roof truss. 3
- C Explain the method of three coats, two coats and one coat for cement sand plaster. 6

OR

- Q5 A Describe the constituents of paint. 5
- B State briefly the essential requirement of a good roof. 2
- C Write short notes on Collar beam roof and Truncated roof truss. 5

- Q6 A What do you understand by underpinning? Describe in brief pit method. 5
- B Explain in brief the factors that affect the selection of floors material. 5
- C Define scaffolding. 1

END OF PAPER