

Seat No. **OCT-NOV 2025 WINTER EXAMINATION****1154 B.Tech. CBCS****Sub. Name: Building Design and Drawing****Sub. Code: 63348/79116/79404****Day and Date: Friday ,05-12-2025****Total Marks: 70****Time: 10:30 AM To 01:30 PM**

Instructions: 1. Assume suitable data wherever necessary and mention it boldly
 2. Draw neat labelled diagrams wherever necessary
 3. Figures to the right indicate full marks

Special Inst.: 1) Attempt any two questions from Q.1, Q.3 and Q.4
 2) Attempt any two question from Q.5, Q.6 and Q.7
 3) Q. 2 & Q. 8 are compulsory from section I & section II resp.

Q1) Answer all questions [7]

a. Explain the significance of Wind Diagram with neat sketch. [4]

OR

Explain principles of planning a building in detail (any four).

b. Explain factors affecting site selection of building. [3]

Q2) Attempt compulsory [21]

a. Design a G + 1 twin bungalow for two brothers (consulting Architect & Civil engineer) having plot size 35m X 30m .Maximum width of plot facing on 9.0m wide road on North side. Design a single bungalow for following data :

- i. Office with toilet :1
- ii. Living Room : 1
- iii. Kitchen & Dinning : 1
- iv. Store room : 1
- v. Utility : 1
- vi. Master Bed Room with attach toilet : 2 Nos
- vii. Children Bed Room : 1
- viii. Guest Bed Room : 1
- ix. Staircase
- x. Sanitary Block as per requirement

The necessary verandah, porch should be provided in the design.

Show North Direction

Draw with the scale 1:100

1. Draw detail plan of Ground Floor
2. Draw detail plan of First Floor
3. Draw Site plan

4. Give area statement

- Q3) Answer all questions** [7]
- a. Describe techniques used in low cost housing. [3]
- b. Explain Green Building rating systems in India. [4]
- OR
- Explain types of maintenance job of a building.
- Q4) Answer all questions** [7]
- a. Write a note on “ Aspect” as a principle of planning a building. [3]
- b. Explain concept Repairs & Rehabilitation of structures. [4]
- OR
- Explain significance of sun diagram with neat sketch.
- Q5) Answer all questions** [12]
- a. Explain in detail various traps used in drainage system. [6]
- b. Write in detail concept of Earthing [6]
- Q6) Answer all questions** [12]
- a. What is the necessity of ventilation and what are the factors affecting on ventilation? [6]
- b. State the necessity of air conditioning. Explain the components of A.C. [6]
- Q7) Answer all questions** [12]
- a. Enlist the various types of Paints and write its application methods. [6]
- b. Enlist the various types of Pointing with sketches. [6]
- Q8) Attempt compulsory all questions** [11]
- a. Differentiate between summer and winter air conditioning. [3]
- OR

What is Sound insulation & give the advantages of sound insulation?

- b.** Write a note on Defects in plastering. [4]
- c.** Write characteristics of Fire resisting materials. [4]

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (1154) B.Tech. CBCS (79116) Building Design and Drawing Part 2 SEM 4
- 2] (101) Bachelor of Engineering (79404) Building Design and Drawing Part 2 SEM 4
- 3] (101) Bachelor of Engineering (63348) Building Design & Drawing Part 2 SEM 4