

SAMPLE PAPERS
DIPLOMA THIRD SEMESTER EXAMINATION 2025 (JUT)
BUILDING DRAWING USING CAD
DIPLOMA WALLAH

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Full Marks: 70 marks | Time: 3 Hours

Instructions:

- Question No. 1 is compulsory.
 - Answer any **FOUR** questions from the remaining (Q.2 to Q. 7 marks).
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Q.1 Multiple Choice Questions (Compulsory)

1. The standard size of an A0 drawing sheet is:
 - a) 594 x 841 mm
 - b) 841 x 1189 mm
 - c) 420 x 594 mm
 - d) 210 x 297 mm
2. A "Gully Trap" is provided at:
 - a) The junction of a roof drain and wall
 - b) The junction of a house drain and a street sewer
 - c) Inside the bathroom
 - d) The bottom of a waste pipe (disconnecting from drain)
3. Which command is used to fill a closed area with a pattern?
 - a) FILL
 - b) HATCH
 - c) PAINT
 - d) COLOR
4. The minimum height of a parapet wall is typically:
 - a) 0.5 m
 - b) 1.0 m
 - c) 1.5 m

- d) 2.0 m
5. In CAD, what does the 'Explode' command do?
- a) Deletes the object
 - b) Breaks a compound object into simple parts
 - c) Zooms the view
 - d) Joins lines
6. For good acoustics, a hall must avoid:
- a) Sound reflection
 - b) Echoes and Reverberation
 - c) Absorption
 - d) Curtains
7. The shortcut key for the "Move" command is:
- a) M
 - b) MO
 - c) MV
 - d) MM

Q.2

- (A) What are the standard dimensions and requirements for a Kitchen, Bathroom, and Staircase as per NBC? (7 Marks)
- (B) Explain the following terms: (i) Super Built-up Area (ii) Lighting & Ventilation Norms. (7 Marks)

Q.3

- (A) Site Selection: How does site selection differ for a Residential Building vs. a Commercial Building? (7 Marks)
- (B) Explain the importance of Orientation in building planning with the help of a Sun Path Diagram. (7 Marks)

Q.4

- (A) Explain the function and procedure for the following AutoCAD commands: (i) CIRCLE (ii) ARRAY (iii) COPY. (7 Marks)
- (B) Explain the use of Object Snap (OSNAP). Why is it crucial for accurate drafting? (7 Marks)

Q.5

- (A) Fire Safety: What are the general requirements for fire safety in a multi-story building? (7 Marks)
- (B) Explain the different types of Pipes (GI, PVC, CI) used in construction and their specific uses. (7 Marks)

Q.6

(A) Perspective Drawing: Define (i) Picture Plane (ii) Cone of Vision (iii) Vanishing Point. Use sketches. (7 Marks)

(B) Explain the procedure to prepare an Electrical Layout for a 2BHK flat. (7 Marks)

Q.7 Write Short Notes on (Any 4):

(4 × 3.5 Marks = 14 Marks)

- (A) Principles of Circulation
 - (B) Difference between Window AC & Split AC
 - (C) Conventional Signs for Glass & Wood
 - (D) FSI (Floor Space Index)
 - (E) Building Automation System
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✓ **SOLUTIONS (Paper 3)**

- **MCQ Key:** 1.(b), 2.(d), 3.(b), 4.(b), 5.(b), 6.(b), 7.(a)