

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Summer 2019-20 Examination

Semester: 3**Subject Code: 203104201/03104201****Subject Name: Computer Aided Civil Engineering Drawing****Date: 25-11-2019****Time: 2:00pm to 4:30am****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Attempt Q 3 and Q.4 A in drawing sheet.
3. Figures to the right indicate full marks.
4. Make suitable assumptions wherever necessary.
5. Start new question on new page.

Q.1 Objective type questions (Each carries one mark)**(15)**

1. The minimum Plinth Height for a residential building should be _____ m
2. The recommended aspect of kitchen is _____.
3. The laws framed by local authority and governing construction in any town or city are known as _____
4. The minimum thickness of external wall as per bye-laws is _____m.
5. For vertical circulation _____ is provided in residential buildings.
6. External privacy can be achieved by providing
a. Compound wall b. Planting trees c. Screen wall d. all options
7. Horizontal circulation in buildings can be achieved by
a. Staircase b. Passage c. Lifts d. None of these
8. The ideal grouping is _____.
a. Bedroom and Toilet, b. Drawing room and Kitchen,
c. Bedroom and Store, d. Bedroom and Kitchen
9. The preferred height for parapet wall is
a. 0.5 m b. 1.2 m c. 2.0 m d. 3.0 m
10. Maximum size of the riser of step for residential building is
a. 19 cm b. 30 cm c. 25 cm d. 40 cm
11. Define FSI
12. What is full form of NBC
13. Draw the symbol for brick masonry
14. Which software is used for drafting and drawing in Civil Engineering?
15. Define plinth

Q.2 Answer the following questions. (Attempt any three)**(15)**

- A) Enlist principles of planning and explain any one.
- B) List various types of bonds used in brick masonry walls, and explain anyone with the help of a neat sketch.
- C) What is bye-law? State principles underlying building bye-laws
- D) Define- Station point, Picture plane, Ground line, Horizon line, cone of vision

Q.3 A) Draw ground floor plan of residential building in a plot area of 200 m² for family of 4 persons with Kitchen, Drawing room, Bed room, Master bed room, Study room and Verandah. Assume FSI to be 1.2 and ground coverage as 0.6. Take suitable scale and show all calculations and dimensions. **(07)**

B) For the ground floor plan drawn in Question 3. A, draw front elevation of the building only showing ground floor. Take suitable scale and show all dimensions. **(08)**

OR

B) For the ground floor plan drawn in Question 3. A, draw sectional elevation of the building passing through staircase, showing only ground floor. Take suitable scale and show all dimensions. **(08)**

Q.4 A) Draw a line diagram for ground floor of a bank. Take size of units, according to general requirements of public building. **(07)**

OR

A) Draw a line diagram for ground floor of Primary Health Centre for Village. Take size of units, according to general requirements of public building. **(07)**

B) Discuss advantages and disadvantages of perspective drawing. Differentiate between one-point and two-point perspective. **(08)**