

# C.U. SHAH UNIVERSITY

## Summer Examination-2017

**Subject Name: Building Planning**

**Subject Code: 4TE04BLP1**

**Branch: B.Tech (Civil)**

**Semester: 4**

**Date: 15/05/2017**

**Time: 02:00 To 05:00**

**Marks: 70**

**Instructions:**

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

- Q-1 Attempt the following questions: (14)**
- a) For residential building window are opening area should be minimum (1)**
    - (a) 5% of floor area
    - (b) 10% of floor area
    - (c) 20% of floor area
    - (d) 25% of floor area
  - b) As per NBC 2005 Hospitals are (1)**
    - (a) Business buildings
    - (b) Assembly buildings
    - (c) Institutional buildings
    - (d) Mercantile buildings
  - c) As per NBC 2005 the minimum width of stair case in residential buildings is (1)**
    - (a) 1.0m
    - (b) 1.2m
    - (c) 1.5m
    - (d) 1.8m
  - d) For better Roominess, the length to width ratio should be (1)**
    - (a) 1.2 to 1.5
    - (b) 1.8 to 2
    - (c) 1.5 to 1.7
    - (d) 2 to 4
  - e) What is the best prospects of kitchen (1)**
    - (a) North
    - (b) South
    - (c) East
    - (d) West
  - f) A building having GF and FF, which equation is right mathematically regarding F.S.I? (1)**
    - a) [GF Built-up Area/plot Area]
    - b) [FF Built-up Area /plot area]
    - c) [(GF+FF) Built-up Area /plot area]
    - d) [plot area/(GF+FF) Built-up Area]
  - g) A 300 m<sup>2</sup> plot of having 135 m<sup>2</sup> occupied at ground floor and 100 m<sup>2</sup> occupied at first floor. Calculate the F.S.I used in such construction. (1)**
    - (a) 0.50
    - (b) 0.78
    - (c) 1.00
    - (d) 2.00s
  - h) For obtaining better privacy in the room, where you supposed to locate door position? (1)**
    - (a) At Centre
    - (b) At 1/3 distance from wall
    - (c) At 2/3 distance from wall
    - (d) At Corner
  - i) Which is the best shape of room as per the privacy concern? (1)**
    - (a) Square
    - (b) Rectangular
    - (c) Circular
    - (d) Hexagonal
  - j) For the better human circulation in the building the staircase location should be at (1)**



- (a) Near to all room (b) Far away from all room  
 (c) Near to the kitchen (d) Near to the bed room
- k) Define Floor Area Ratio. (1)  
 l) What is perspective drawings? (1)  
 m) Define economy for principle of planning. (1)  
 n) Define flexibility for principle of planning. (1)

**Attempt any four questions from Q-2 to Q-8**

- Q-2 Attempt all questions (14)**  
 A State the requirements of a Post office building & draw its line plan. (7)  
 B What are the objectives of building by laws? (7)
- Q-3 Attempt all questions (14)**  
 A Briefly define and explain following: (7)  
 1) Built up area  
 2) Floor space index  
 B Explain Two Point Perspective drawing with suitable example. (7)
- Q-4 Attempt all questions (14)**  
 A Explain Building bye-laws for open area in building. (7)  
 B What are the advantages of using CAD systems to the design Engineer? (4)  
 C Explain the functions of local authority? (3)
- Q-5 Attempt all questions (14)**  
 A Explain the following terms for Perspective Drawings (8)  
 1) Eye Point  
 2) Vanishing Point(VP)  
 3) Eye Level  
 4) Angle of vision  
 B Explain off street parking. (6)
- Q-6 Attempt all questions (14)**  
 A Plan a residential building (and Draw only plan) in a plot of 220 (14)  
 Square meter  
 provide units like(i) drawing hall(ii)kitchen & dinning(iii)  
 Pooja room(iv)  
 Master Bed Room(v) Bed room(vi) Store (vii)Toilet. Also plan  
 Stair case  
 to go on first floor, provide only stair cabin on the first  
 floor. Building  
 should be on the ground floor only. Consider FSI 65 %.
- Q-7 Attempt all questions (14)**  
 A Plan a School building (Draw only plan) with the following (14)  
 details (i)  
 Principles office (ii) Clerks Office room (iii)Reception (iv) 8  
 Classes for 60  
 Students each (v) 3 Science laboratories (vi) 1 Library (vii) 1



staff Room

(viii) Water Room (ix) Toilet. Draw plan of the Building. Take three

laboratories and the Library on the First Floor. All other Units on the

Ground Floor. Take Size of the room as per normal Requirement of Educational Building.

**Q-8**

**Attempt all questions**

**(14)**

**A** Which are the Points to be Considered while Planning of

**(7)**

i. Residential Building

ii. Public Building

iii. Industrial Building.

**B** Explain the Role of Civil Engineer and Architect in Building Planning.

**(7)**

