

MAX MARKS: 80

Note- 1. Question No.1 is compulsory

2. Attempt any **THREE** out of **FOUR** question.
3. Assume any data suitably, if required.

Q1. Solve any One out of Two

20 marks each

A It is proposed to construct a Residential Bungalow as (G+1) R.C.C framed structure on a plot of 50 m. X 55 m. with Floor-Floor height of 3.5 m. The following are the requirements:

- (i) Living Room = 22 Sq.m.
- (ii) Drawing Room = 20 Sq.m.
- (iii) Master's Bed Room (with A.T) = 20 Sq.m.
- (iv) Kitchen = 12 Sq.m.
- (v) Dining = 16 Sq.m.
- (vi) Bed Room = 16 Sq.m.
- (vii) Guest Room = 14 Sq.m.
- (viii) Pooja Room = 12 Sq.m.

Provide Toilets, passages etc. as per the Bye-laws. Draw the following with a suitable scale:

- (a) Draw the **Ground Floor plan** - 15Marks
- (b) Draw the **line plan** of the first floor. - 05 Marks

B It is proposed to construct a Residential Bungalow as (G+1) R.C.C framed structure with the following requirements.

- a) Living Room - 24 m²
- b) Master Bedroom with A.T - 20 m²
- c) Bed Room - 18 m²
- d) Kitchen - 12 m²
- e) Dining Area - 14m²
- f) Guest Room - 15 m²

Provide entrance porch for vehicle parking, veranda, staircase, passage and sanitary units as per bye-laws.

Assume floor-to-floor height -3.3 m.

- i) Draw the **Ground Floor plan**. - 15Marks
- ii) Draw the **line plan** of the first floor. - 05 Marks

Q2. Solve any Two out of Three

10 marks each

- A Draw the Front Elevation of the building as designed and drawn in Q.1.
- B Draw the Sectional Elevation of the building as designed and drawn in Q.1. passing through at least one staircase and one sanitary unit.
- C Explain various types of Staircases with proper sketches.

Q3. Solve any Two out of Three

10 marks each

- A Plan, Design and draw a separate LIBRARY building in a College with the following facilities as (G+1) R.C.C framed structure.

(Floor-Floor height = 3.6 m.).

- (i) Entrance & Enquiry = 50 Sq.m
- (ii) Main Book Section = 100 Sq.m
- (iii) Reference Book Section = 100 Sq.m
- (iv) Newspapers & Magazines = 30 Sq.m
- (v) Dining = 10 Sq.m.
- (vi) T.V & Audio Room = 30 Sq.m.
- (vii) Librarian's Room = 60 Sq.m.
- (viii) Store Room = 50 Sq.m
- (ix) Book Binding Room = 50 Sq.m
- (x) Internet Facility = 40 Sq.m

Provide Toilets, passages etc. as per the Bye-laws. Draw the following with a suitable scale:

- (a) GROUND FLOOR PLAN (with walls) - 10Marks
- B Draw SITE PLAN for the building, you have proposed in Q.No.3-A - 10Marks
- C Draw the Front Elevation for building in Q.No.3-A - 10Marks

Q4. Solve any Two out of Three

10 marks each

- A Draw Foundation Plan & details of one Footing for the building, you have proposed in Q.No.1
- B Draw a 2-Point perspective for the building, you have proposed in Q.No.1
- C Explain the Principles of Planning for Residential Buildings.

Q5. Write Short Notes , with proper explanation on any Four

(4x5=20)

- A Principles of town planning
- B Green building
- C Development plan
- D Computer aided drawing
- E Green building
- F sun-path diagram/wind-rose diagram