

Time: 3 Hours

Max. Marks: 80

Note:

QP-10067317

1. Q. No.1 is compulsory.
2. Attempt any three (03) out of the remaining questions.
3. All questions carry equal marks.
4. Draw neat Sketches/Diagrams, wherever necessary.

Q1. Solve the following:

20 marks

It is proposed to construct a Residential Bungalow as (G+1) R.C.C framed structure, on a plot of **100 m.X50 m.**, with **Floor-Floor height of 3.0 m.**

The following are the requirements:

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

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

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

Q2. Draw the following :

- A** Draw the Sectional Elevation of the building as designed and drawn in Q.1. - 10 Marks
- B** Draw-Foundation Plan & Section of one footing for building in Q.No.1 - 10 Marks

Q3. Solve the following :

20 Marks

Plan, Design and draw a **High School** , with the following facilities as (G+1) R.C.C framed structure. **Assume Floor-Floor height = 3.0 m.**

- (i) Entrance & Enquiry = 40 Sq.m
- (ii) Assembly Hall = 200 Sq.m
- (iii) Canteen = 60 Sq.m
- (iv) Principal's Cabin = 30 Sq.m
- (v) Class Rooms = 08 No. (Each 60 Sq.)
- (vi) Library= 60 Sq.m.
- (vii) LABS= 3 No. (Each 60 Sq.m)
- (ix) Computer Room = 60 Sq.m
- Store Room = 40 Sq. m.

Provide Common Toilets(separate for Boys & Girls), passages etc. as per the Bye-laws. Draw the following with a suitable scale:

- (a) **GROUND FLOOR PLAN** (with walls) - 15 Marks
- (b) **First Floor LINE Plan(Single Line Plan)** - 05 Marks

- Q4. Solve the following :** **10 marks each**
- A** Draw SITE PLAN & Roof Plan , you have proposed for Building in Q.No.1
 - B** Draw the Front Elevation for the building , you have proposed in Q.No.1
- Q.5 Solve the following :**
- A** Explain & Draw sketches for all types of STAIRCASES used for Residential & Public buildings. **-10 Marks**
 - B** Draw **One-Point Perspective** for a Building with (50 m.X 30 m. Overall dimensions). Provide Door on one side, windows on all sides. Assume the remaining data. **-10 Marks**
- Q6. Write Short Notes on the following** **(4x5 = 20)**
- A** Sun-path diagram & Wind-rose diagrams for Building Design , with sketches
 - B** Principles of Town Planning in a CITY
 - C** Slum Clearance & Re-Development of Buildings
 - D** Principles of Planning for Residential Buildings