

- N.B. :** (1) Question No. 1 is **compulsory**.
 (2) Answer any **four** questions from the **remaining**.
 (3) **All** questions carry **equal** marks.

1. It is proposed to construct an Apartment building as (G +1) storied R.C.C. framed structure in a public sector township (Residential). **20**

Each floor consists of type-A and Type-B apartments.

Following is the carpet area requirements for each apartment.

Type – A		Type – B	
Living Room	= 22 m ²	Drawing Room	= 18 m ²
Master's Bed Room (With AT)	= 18 m ²	Kitchen-cum-Dining	= 15 m ²
Bed Room	= 15 m ²	Bed Room	= 14 m ²
Guest Room	= 14 m ²		
Kitchen	= 10 m ²		
Dining	= 12 m ²		

Assume floor to floor height as 3.3 m. Provide Toilets, passages, staircase etc. as (as) per building Bye-laws and Regulations, in each Apartment.

The above building is to be planned on a plot size of 25 m × 20 m.

Draw the following according to some suitable scale.

- (a) Ground Floor Plan.

2. (a) Draw the site plan for the above planned building in *Question No. 1*. **10**
 (b) Draw the detailed Foundation Plan and section one footing for the building in *Question No. 1*. **10**
3. Draw the longitudinal sectional elevation for the building you have proposed in *Question No. 1*. **20**
4. (a) Draw the Front Elevation for the building you have proposed in *Question No. 1*. **12**
 (b) Draw the detailed Roof Plan and section of the Terrace for the building you have proposed in *Question No. 1*. **8**
5. (a) Draw the Plan, Elevation and section of the Half-panelled and Half-Glazed Door, assuming the Door Size as 1.2 m × 2.0 m. **10**
 (b) Draw the detailed sectional Elevation for a Queen Post Roof Truss, showing all the parts and elements of the Truss clearly, assuming clear span between two walls of 10.5 m. **10**

6. (a) Write detailed notes on “Principles of Planning” used in Planning of Residential Buildings. 10
- (b) Write notes on the following with neat sketches.
- (i) Sun Path Diagram 5
 - (ii) Wind Rose Diagram (Circulation Diagram) 5
7. (a) Draw the plan and section of a Pitched roof for a Hall measuring 15 m × 12 m. 10
(assuming it as load bearing structure).
- (b) Write short notes on the following :-
- (i) Building Bye-laws and Regulations 5
 - (ii) Zoning Regulations. 5
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