1054

Code : 15CE35D

Register Number | | | | | | | |

III Semester Diploma Examination, Nov./Dec. 2017

BUILDING PLANNING & DRAWING

Time : 4 Hours] **[Max. Marks : 100**

Note : (i) Answer **all** the questions.
(ii) Assume suitable data wherever necessary.
(iii) Drawing should be neat and fully dimensioned.

PART – A
(Compulsory)

Answer any **five** questions : **5 × 2 = 10**

1. Why rectangular shape of the room is preferred in building ?

2. Mention the advantages of the site on the top of a hill or on the slope of a hill.

3. Explain how the buildings are to be oriented in the following division of India :
   (a) Hot Arid Zone
   (b) Hot Humid Zone

4. Why the colour of walls, roofs, doors and windows should be lighter ?

5. What is the meaning of Roominess and what is the desired value ?

6. State the various factors influencing the building plan.

7. What is the difference between Key plan and Site plan ?

8. What is the minimum and maximum height of parapet wall and compound wall respectively ?

[Turn over

PART – B

9. Draw the following diagrams to a scale of 1 : 100 :
   (a) Site plan by applying local building Bye-laws.
   (b) Single line diagram for a residential building providing suitable room dimensions.

   Site No. – 17
   Site Dimension – 9 m × 15 m
   Orientation :
   North – 9 m road
   East – Site No. 16
   West – Site No. 18
   South – Site No. 49
   Building Coverage 75% **10 + 10 = 20**

10. The line diagram shown in the figure-1 for a proposed Residential Building with clear dimensions between inside walls. Draw to a scale of 1 : 50 the following views :
   (a) Plan at Still Level **20**
   (b) Section @ ABC **20**
   (c) Front Elevation **10**

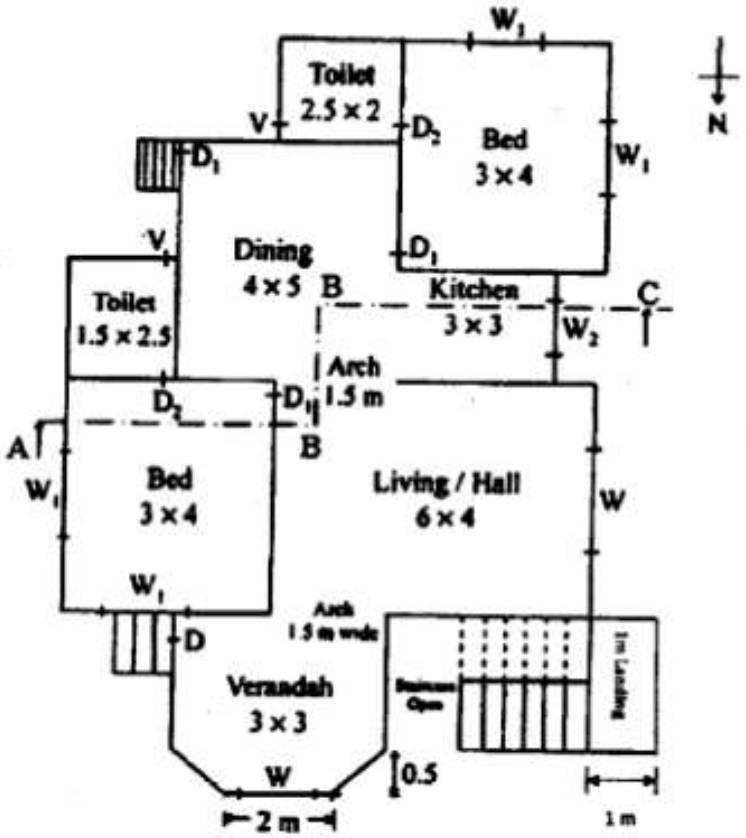

Fig.-1

Drawing not to scale and all dimensions are in "m"

Construction details and specifications are as follows :

Foundation : 900 mm wide & 1000 mm deep with concrete bed 1 : 4 : 8, 200 mm thick and two courses of size stone masonry in CM 1 : 8, 400 mm depth of each course.

Basement : Dressed size stone masonry in CM 1 : 6, 450 mm wide 600 mm depth includes 150 mm PCC 1 : 3 : 6.

Super Structure :

BBM in CM 1 : 6 of 230 mm thick for all walls

Sill 100 mm thick of PCC 1 : 3 : 6

RCC Lintel 200 mm thick of CC 1 : 2 : 4

RCC Chejja 600 mm wide, 150 mm thick at support and 100 mm thick at end

RCC roof slab 150 mm thick of CC 1 : 2 : 4 at 3000 mm ceiling height

WPC 100 mm thick average

Granite flooring 20 mm thick over a CC 1 : 4 : 8 bed of 100 mm thick

BBM in CM 1 : 6 Parapet wall of 150 mm thick, 600 mm height

Steps : Provide Suitable rise and tread

Schedule of Openings for Doors, Windows and Ventilators

Opening	Size
D	1100 × 2100 mm
D1	1000 × 2100 mm
D2	900 × 2100 mm
W	1800 × 1200 mm
W1	1500 × 1200 mm
W2	1200 × 750 mm
V	900 × 600 mm

PART – C

11. Draw the sanitary layout for the given line diagram of the building show in fig. 1. **20**

OR

Draw the plan of shallow well Rain Water Harvesting Method for the given line diagram of the Building show in fig.-1.