1. Exercise : 10

2. Date : 12/01/2021

3. Title : Building Drawing (2D/3D).

4. Aim : To draw the orthographic multi-view projection of a building with sectioned view showing the construction details.

5. Software used: Autodesk AutoCAD 2021.

6. Introduction: Building drawing, Plan, Elevation and Sectional view:

Plan, Section and Elevation are different types of drawings used by architects to graphically represent a building design and construction. A plan drawing is a drawing on a horizontal plane showing a view from above. An elevation drawing is drawn on a vertical plane showing a vertical depiction.
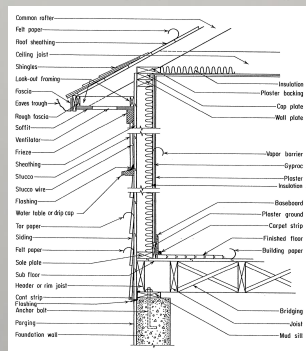
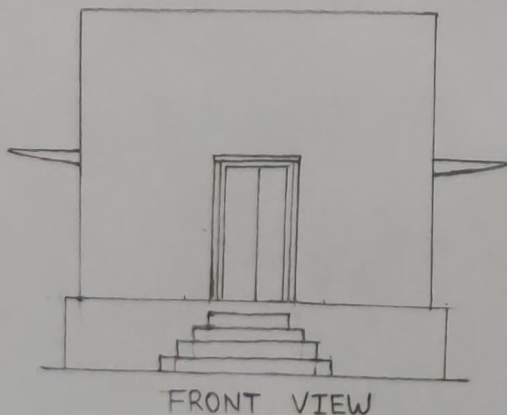| 6.1 Terminology (with sketch)	6.2 Real time example-Picture
Fig.	Fig.

7. Procedure (for solving question) : To draw a plan, elevation and sectional view of a building.

7.1 Question outline

7.2 Object : A Police-Outpost.

FRONT VIEW
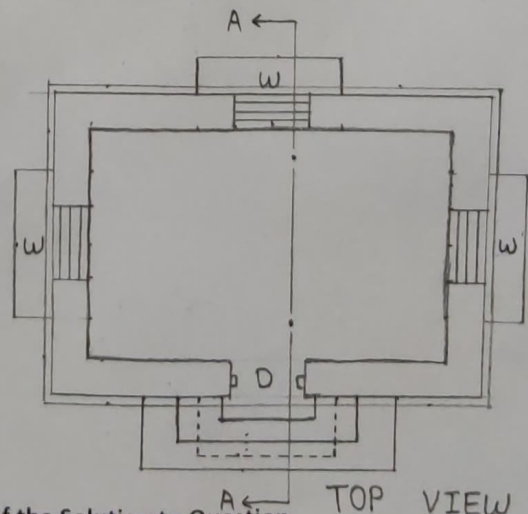
TOP VIEW

Fig. Free-Hand Sketch of the Solution to Question

7.3 Stepwise procedure:

Step 1. Building drawing in AutoCAD is possible only when it is drawn in three views (i.e. Front view, Top view and Sectional view).

② First, try drawing Top view of building drawing due to which, projecting lines above the axis, drawing Front view would be easy and then at the end, draw the sectional view.

③ Various commands are used to/for drawing the three-different views of building drawing, they are: "RECTANGLE", "OFFSET", "LINE", "TRIM", "ROTATE", "MOVE", "FILLET", "COPY", "MIRROR", "TEXT", "DIM", "HATCH" etc.

④ Also, different types of Hatching patterns are taken into consideration to denote different types of materials used while developing a building.

8. Commands used:

S.N.	Command	Use
1.	RECTANGLE	Used to draw a rectangle.
2.	LINE	Used to draw a line.
3.	COPY	Used to copy the objects.
4.	MOVE	Used to move object to a location.
5.	TRIM	Used to erase any undesired line.
6.	MIRROR	To get a mirror copy of objects.
7.	TEXT	Used to write text in the file.
8.	DIM	Used to write dimension of object.
9.	ROTATE	Rotate selected object by any angle.
10.	FILLET	Creates round transition between objects.
11.	OFFSET	Helps to copy any object at distance 'x'.

9. Result:

Thus, by the use of AutoCAD 2021 we are able to draw the sketch of building of desired type and due to this developer gets a clear idea of the model of building and how it is going to look.

Faculty Name		Date of Submission	
Signature		Marks	