

Mid term Assignment/Quiz



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Subject

**Architecture and town
planning**

Program

BS(Civil)

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**IQRA NATIONAL UNIVERSITY
PESHAWAR**

Q1: Take any building from internet, put its picture in Microsoft Word and explain its positive and negative points according to the principles of design. What could be done to make the building more attractive? Answer must be at least 200 words.

ANS

Frank iloyd wright's facling water



Positives point:

1. The house looks and feels like it grew out at the environment around it. The stone and concrete massing of the house is really beautiful.
2. It is not a huge house and it is not elaborate but it inspires awe by being so organic as Frank Lloyd Wright might put it.
3. The frameless corner windows are very cool.
4. The fireplace in the living room is a neat design.
5. The steps down to a landing at stream level just before where the water flows over a small falls are pretty awesome.
6. The property is very secluded.

Negative points:

The ceiling are low with all of the tree around and the stream running below moisture is an issue the cantilever balconies have had trouble with cracking and sagging (supposedly) Mr wright thought he knew better that his engineers and did not put in enough rain forcing the spring- field water in the pool at the guest house is really cold. The property is very secluded.

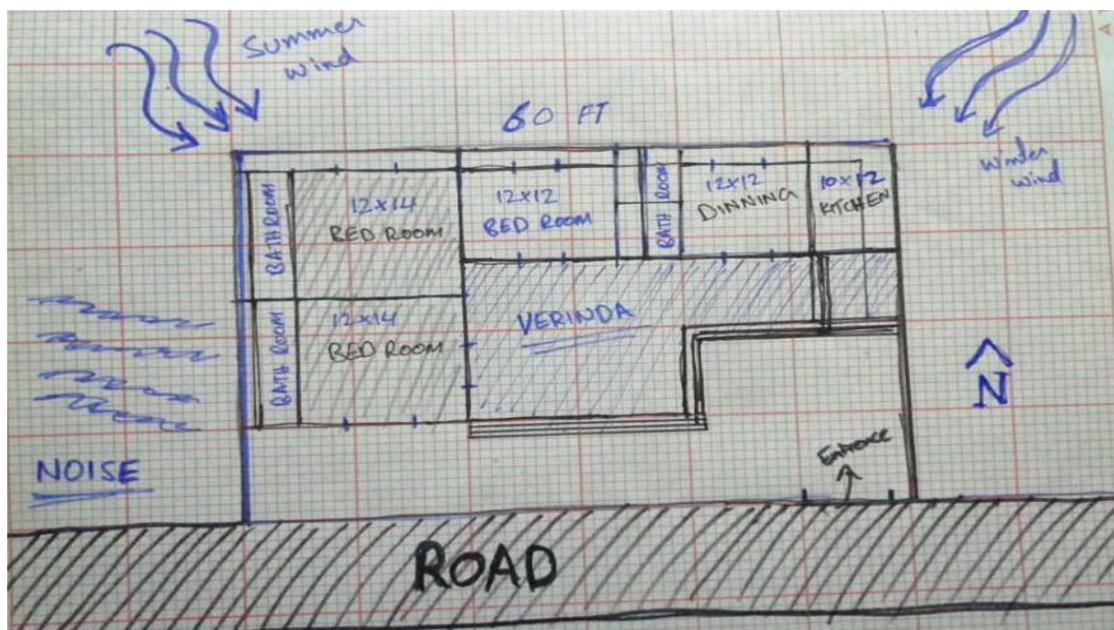
Frank iloyd wright's economical usonian homes built in the 1930's. All of which included heated floors it is not simple, elegant, and efficient improvement included mar modern houses.

It may be danger in flood.

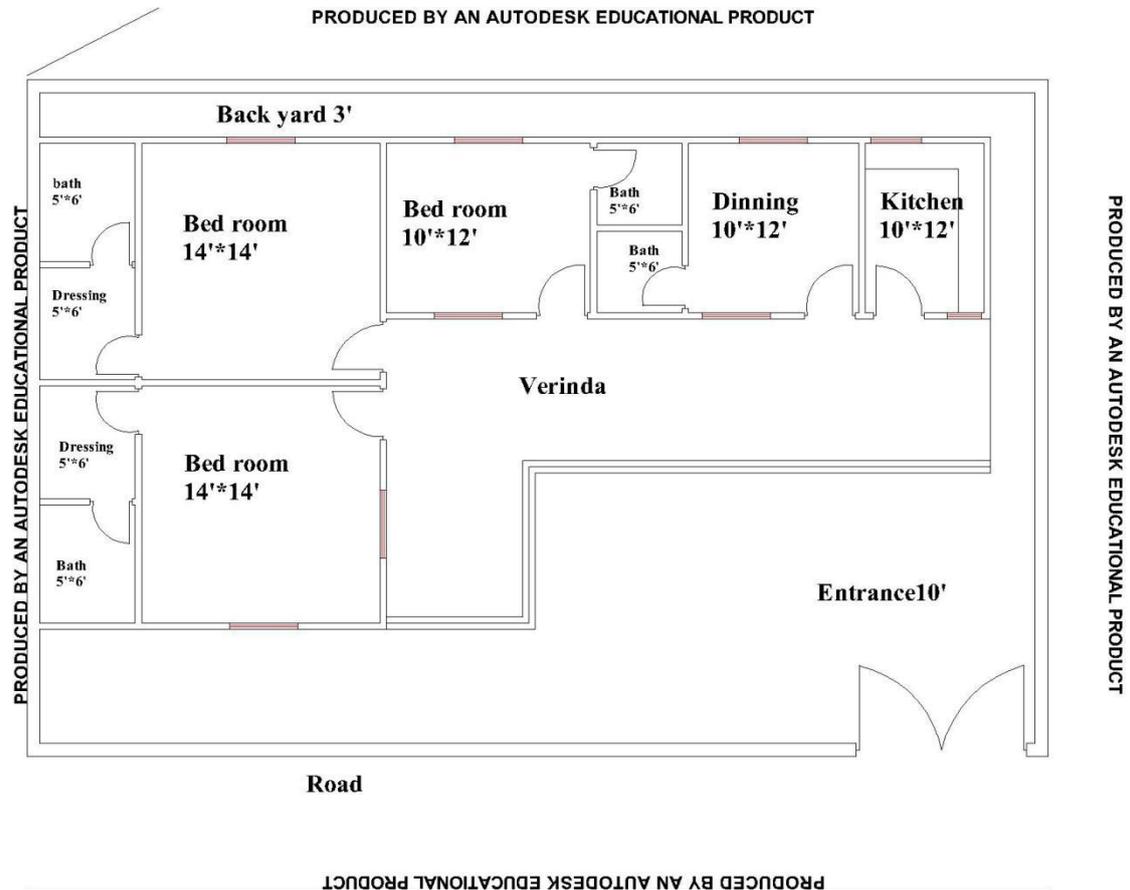
Q2:Design and sketch an ideal single storey house on the site shown below. The design should be free hand and can be drawn on graph paper. If a graph paper is not available then make a grid of 5'x5' on a separate white A4 size paper. The house should be naturally ventilated and have natural lighting. Also, it should be free of noise. The site is located in Peshawar. Label or explain the Plan neatly.

Ans

On graph paper



I draw this in auto-cad to explain it better.



Explanation:

1. Walls:

All the exterior walls are 9 inches.
The interior walls are 4.5 inch

2. Bed rooms:

There are three bed rooms

➤ Bed room1

Size 14'*14'

Which is ventilated by a window of 4' feet,
With attached bath and dressing of 5'*6' area.

➤ Bed room2:

Size 14'*14' area,

Two windows of 4' feet,
Attached bath and dressing of 5'*6' area.

➤ **Bed room3:**

Size 10'12' area,
Two windows of 4' feet,
Attached bath of 5'*6'

3. Dinning:

Size 10'*12'
Two windows of 4'
Attached Bath of 5'*6'.

4. Kitchen:

Size 10'*12'
Two windows (1). 2feet (2).3feet.

5. Veranda:

8' feet wide veranda is provide to avoid direct sun light of summer season.

6. Back yard:

A 3' feet of wide back yard is provided for proper ventilation.

7. Drainage:

All the sewage pipe is collected at the north-east corner and then drop to open drainage.

8. Noise and smell:

The house will be free of noise and smell because the bath are provided at that side to prevent these things.

Q3: Select a site at the place where you live. Do Micro site analysis of Site and make its sketch on another A4 paper and write about it in detail. You can take your own lawn as a site for analysis or any other site in the neighborhood. Additionally, make a solar path diagram for your area on a separate piece of paper to find the exact sun angles for both winter and summer. Watch videos on YouTube to understand and make Solar Path diagram. Use these sun angles to make a rough sketch of a room. Show window height, type of fixed sun shade used, angle and height of shade as well as its depth and width by keeping sun angles in mind. The purpose for the sketch is to show how winter sun is allowed and summer sun is blocked.

ANS

I select a site at mingora here let I want to build a building And I want micro site analysis of this place.



Micro site analysis

The site visit is one of the first things in the design process. After the completion of a site visit, a detailed site analysis has to be done so as to really grasp the features of the site, which will be very important during the design. Here are some of the points one must pay attention during the site visit as well as during the site analysis and study -

1. Location –

This is the first thing that we can do. thus the blue shaded area is our site. Its located in Mingora the site is near the road, hospital and university and many other facilities are here.

2. Orientation –

The orientation of the site plays a very important role in siting of the building. Site is east facing, to lift building, ground at right back houses

3. Soil type & condition –

Soils vary from place to place. The soil of the site is hard having safe load bearing capacity, we can design here any storey building here.

4. Topography –

site is Located in the smooth surface having no up and down not in a hilly area

5. Vegetation & natural features –

In the site there is no natural feature and vegetation because the site is in the urban area.

6. Precipitation & Hydrology –

The average annual rainfall, often measured 2.7 inches, during 31 days centered around march 18 (data taken from Google)

And drainage is also good enough, but the water table of this area is very deep upto 400 feet and this is good for stability of the structure

7. Infrastructure facilities –

This refers to the services present in the location. The major things to be considered are the water supply, drainage connection, waste disposal, electricity supply etc. These are important while planning the zoning in the site.

8. Surrounding landuses & buildings –

It is commercial area because the site is in the city here we only design commercial building like hotel,shops,school etc.

9. Prominent Vision lines / Visual linkages –This becomes a very important element in the design process. The views to the site as well as the views from the site are to be carefully considered while designing.

10. Locally available resources -

Here every thing is available except material for construction so the construction of building is economical.

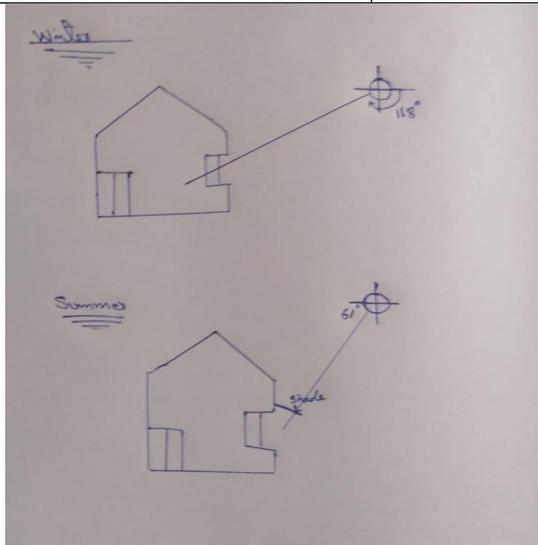
11. Temperature & Sun path –

This data is taken from (timeanddate.com) at Google this data is only applicable for mingora.

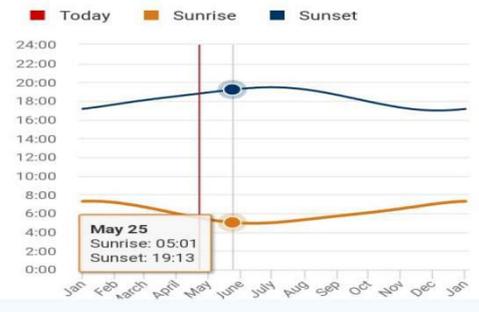
January	Sun Rise		Sun set	
	Time	Angle	Time	Angle

1to 30	7:17	118	17:9	242
	7:10	111	17:37	249

July 1to 31	Sun Rise		Sun set	
	Time	Angle	Time	Angle
	5:01	61	19:18	244
	5:19	67	19:13	293



Interactive graph with the sunrise and sunset times and the day length during the year 2020, Mingora



Fixed sun shade Two feet fixed sun shade will be okay.