

Assignment / Quiz

Introduction to Architecture and Town Planning

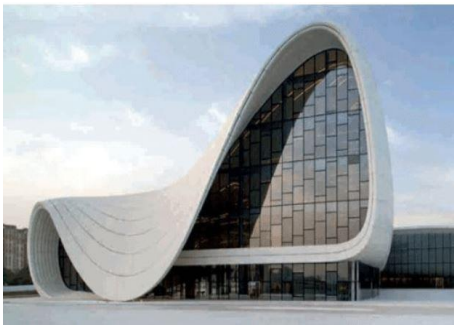
Total Marks: 30

Time Allowed: 6 Hours

NOTE:

Attempt All Questions. Each question carries 10 Marks

Q1: Explain the difference between buildings shown below in pictures and criticize it according to Principles of Design and Principles of Architecture. (CLO1-PO7)



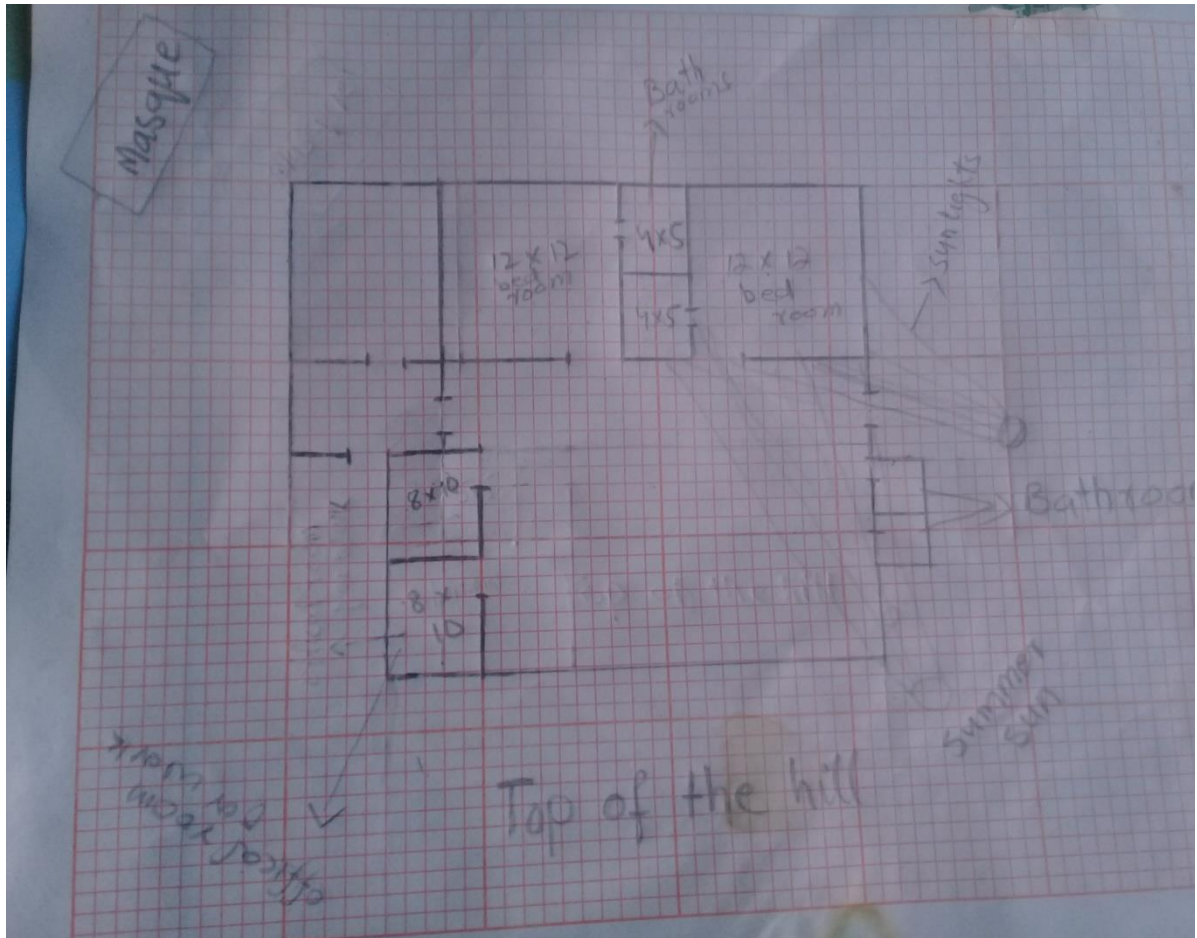
Ans: **Image 1 is the first image which is rounded, while image two is the second image which is sharp in edges.**

If we talk about the principles of design in 'image 1' firstly it has brilliant focus point by bending the structure that's why viewer want to see it. The 'image 2' also has an excellent focus point differently by creating sharp edges goes from thick area to thin. It is also pleasing to see. It navigates the viewers to see the overall structure. The beauty of this structure is it looks like an ear plain. The 'image 1' has considerable contrast which gives it a good look, and the 'image 2' has a perfect focus point without variation or a very little in the amount

Q2: Sketch/ Draw (free hand and not to scale) your existing house with all the details i.e. doors, windows etc. Explain the problems in its planning and describe solutions which could make the functionality of the building better. (CLO1-PO7)

Ans

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Explain Diagram

Most Right that looks out of the House plan	Kitchen
In The House, Back Side	2 Bed rooms with attached bathrooms
After the bed rooms	Exit Door which attach the kitchen also
Bottom Right side	2 rooms for official work
Middle left side	2 bathrooms

About Area

The area is the Bottom (daman) of the hill. Where the summer season is hard but due to river Indus it has most warm season also have with its peak. Most of the houses has not a proper design these constructed by local labors even a huge houses also.

House, Where it needs to improved

There many improvement needs regarding to principle of design but I will only explain the improvement due to which I can be warm in winter season and cool in the summer season Firstly the direction of house is the excellent due to which the sun light is perfect for relevant seasons. But it needs a brick wall at the back side to store thermal energy in summer. The rooms is also need to reduce ventilation as it has more than 10%. And the bathrooms has not any ventilation its need upto 5%. The bottom side rooms are good at ventilations and also the bathrooms at middle also has a ventilation which is almost done.

Q3: If you are designing a house in Peshawar, what techniques would you use to keep the building cool in summer without using electricity? Keep winter season in mind while choosing cooling techniques for a building in Peshawar. Give reason with the chosen techniques and support your answer with sketches. (CLO1-PLO7)

Ans: To make a cool structure in the winter season from Peshawar we should consider these strategies. Which can save very big amount of Electricity

1. Keep a valuable windows in your house recommended (5 to 10%)

Keeping windows is common approach. People try opening windows but the problem is hot air will be inside as much as the outside. If we need to keep the heat out we should consider a good insulation materials and well-positioned windows.

2. Use special pigment in paints

Use of special pigment in the paint is now a common way to keep the house fresh. It is usually used in roofs. Prevent solar radiation to enter the house. It can reduce more than 10% temperature. Use of high-performance solar glazing on windows can help with coating, which keeps the sun's heat outside but let the daylight in.

3. Use the effective building materials

Stone brick or concrete has the ability to absorb or release heat slowly due to thermal mass. Which can feel cooler. Which helps the house day time cooler and night time warmer.

