

# Architectural Engineering Interview Questions

## Q1. What is architectural design?

Architecture design is a concept that emphasizes elements or components of a structure. An architect is the one responsible for the said architectural design. Architects create a coherent and functional structure by working with elements and space. The architectural design focuses on the function and aesthetic of the structure.

## Q2. Why do you choose your career as an architectural engineer?

## Q3. What do you understand by structural engineering?

Structural engineering is the branch of civil engineering which focuses on designing a structure that can withstand the stress and pressure of the environment. The main purpose of structural engineering is to build a structure safe, stable, and secure until it is in use. It is the duty of structural engineers that buildings or bridges don't collapse. In structural engineering, engineers are trained to design man-made structures. They are taught to calculate stability, strength, and rigidity.

## Q4. What was your biggest disappointment as an architectural engineer?

The disappointment is not with the career but is from the dream. Most of the architectural schools set unreasonably high expectations for their students to expect a life of fame and money. They trained you that architecture is all about you and it revolves all around you. But in my opinion, it's better to teach the responsibility an architecture has to handle. Architecture should be focused on the lives and safety of the people. They shouldn't forget that they are building someone's dream. It is a huge responsibility that cannot be carried by any other person and an architect should be proud of this.

## Q5. What are standard views used in architectural drawing?

- **Floor plan:** The most fundamental architectural diagram is a floor plan. It is the view from the front that shows the arrangement of spaces at a particular level of the building. In other words, it is a horizontal cut through the building which shows walls, door opening, windows, and other features at that level.
- **Site plan:** A site plan shows the whole context of a building or a group of buildings. It introduced the property boundaries and means of access to the site. It also shows the nearby structure to analyze whether the building is relevant to the design or not.
- **Elevation:** An elevation is a view of a structure from one side. It is the most fundamental view to represent the external appearance of the building. It represents the front side of the building
- **Cross-section:** A cross-section is a section that cuts the building vertically in the same way as a floor plan but with a change in axis.

Other standard views are detailed drawing and isometric and axonometric projections.

### **Q6. What are HVAC systems?**

HVAC refers to Heating, Ventilation, and Air conditioning. This system is designed to provide heating and cooling to the buildings. This system is implanted in almost every single-family home, submarines and commercial buildings, etc. HVAC use the outside air to improve the air quality inside the structure. As we know, ventilation is the process of exchanging air within a space. This is used to provide better air quality and also facilitate the removal of smoke, moisture, odors, heat, airborne bacteria, gases, etc. It also helps in controlling temperature and oxygen replenishment.

### **Q7. What is Isometric and axonometric projections?**

Isometric projection or isometric drawing is a method to represent the three-dimensional object in two dimensions in technical and engineering drawing. This method is used by technical illustrators, engineers, and architects. In this projection, the angle between any two axes is 120 degrees.

Axonometric projection is a method used to create a pictorial drawing of an object. The angle between the lines of sight and plane of projection is 90 degrees, and the object is rotated around its axes to show multiple sides.

### **Q8. What is an isometric view in engineering drawing?**

In engineering drawing, an isometric view can be obtained by selecting the viewing direction in such a way that the angles between the projections of the three axes are all the same i.e., 120°.

### **Q9. What are advantages of scan to BIM?**

- One of the major advantages of scan is that it improves communication, transparency, and collaboration.
- It also permits more reliability and quality assurance.
- It also reduces the cost of construction
- The scan allows project alteration and faster decision making.
- Scan also assists the project in better sustainability throughout the building process.
- Using scans throughout the project eliminates costly mistakes.

### **Q10. What are major architectural flaws still built into modern buildings?**

### **Q11. Why are architectural drawings required to support planning approval?**

### **Q12. What are the best architectural patterns in India?**

**Q13. What should be the maximum span for beam in building construction?**

A double ply beam can span equal to its depth in inches. For ex, a double 2x12 beam can span 12 feet;a 2x10 can span 10 feet and so on.

**Q14. What is the difference between a courtyard and an atrium?**

Courtyards are the outdoor space which contains indoor elements like a place to sit or cook. Atrium term is used to represent a piece of outdoor to an indoor place.

**Q15. What is difference between reaction and resistance?**

**Q16. What are the finest examples of Art Deco in architecture?**

The finest example of Art Deco in architecture is the Chrysler Building. It is recognized by many architects as one of the finest buildings. The crown of the building is an example of Art Deco architecture.

**Q17. What is a superstructure in building construction?**

In buildings, Superstructure is a structural part that is above the ground level i.e., between ground level and plinth. It is constructed by using materials such as timber, steel, and concrete. This is composed of upper floors, windows, external wall opening, stairs, internal walls, lintel, parapet, sunshade, etc. The superstructure serves the purpose for its intended use.