

Ductman Interview Questions and Answers

Ductman Interview Questions and Answers: In this article, we are going to provide some of the important and frequently asked Ductman Interview Questions and Answers for freshers and experienced candidates. Ductman Interview Questions and Answers pdf file download Below.

Ductman Interview Questions and Answers List

Q) What is meant by Duct?

A) The general types of ductwork systems and their equipment of those systems for giving air conditioning. The distributed air should be clean, supply the exact quantity of ventilation and absorb proper heat to cool the space of conditioned. Delivering air to the conditioned space, and required air carriers which are known as ducts.

The ducts are runs on the method of difference of air pressure. If a differential pressure exists, the air will flow from a high-pressure area to a low-pressure area. The bigger this difference happens, the more the air will flow quickly to the area of low pressure.

Q) How ducts are generally useful and their classifications?

A) Ducts have 3 major classifications, there are:

- i) Conditioned air duct: The air-conditioned ducts carry the air-conditioned from the air conditioner and it supplies it to the area condition.
- ii) Recirculating air ducts: The re-circulating air ducts take air from the space conditioned and supply it back into the air conditioner system.
- iii) Fresh air ducts: It brings the fresh air into the system of air conditioning from the outer side of the space conditioned.

Ducts are generally useful for carrying the air area of square, round or rectangular shapes. On the basis of air handled volume per perimeter distance, the round duct is efficient more. In that case, the less material is useful for the same capacity as shapes of the rectangular or square duct.

Q) What is the Duct system?

A) There are four types of Duct systems, they are:

- i) SAD - Supply air duct
- ii) RAD - Return air duct
- iii) EAD - Exhaust air duct
- iv) FAD - Fresh air duct

Q) How many types of Duct shapes and what are there?

A) There are 4 types of duct shapes, they are:

1. Spiral duct
2. Square duct
3. circular duct
4. Rectangular duct

Q) What are the Duct Materials and how many types?

A)

- Aluminum
- Black iron
- Galvanized Iron
- Stainless steel, etc

Q) How do you define Head loss in duct system?

A)

- For Industrial 0.1' to 0.16' water / 100 feet
- For Residences 0.04' to 0.07' water / 100 feet
- For Commercial 0.07' to 0.1' water / 100 Feet

Q) How can we mention the thickness of the duct sheet?

A) By its Gauge

Q) What is the duct ratio of height and width of duct?

A) Aspect Ration and it is basically suggested for sizing of the duct of 1 to 4.

Q) By which connector, the duct can connect with equipment?

A) The flexible connector helps to connect the duct to the equipment

Q) What are the methods of Duct Design?

A) There are total 3 methods of duct design there are:

1. Static Regain method
2. Reduction velocity Method
3. Equal Friction method

Q) Explain the Reduction of Velocity technique in Duct Design?

A) Following are the Reduction of velocity technique method details:

- Plenum Boxes are 500 FPM
- The velocity of dropper or collar up to 300 to 500 FPM
- The velocity of the Branch duct is up to 750 to 900 FPM
- The velocity of the Main Duct is up to 1200 to 1500 FPM
- The velocity of FPM is volume / Area (square feet)

Q) Explain the Equal friction technique in Duct Design?

A) The equal friction method considers the complete ducting can handle the loss of some friction. up to 0.08' water / 100 feet

Q) What are the Diffusers, Registers, and Grilles in Duct design?

A) Room openings to ducts have various devices which manage the airflow and maintain big objects outer side of the duct. All these devices are known as Diffusers, Registers, and Grilles.

a) Diffusers - Fan shape (It delivers airflow into the area), In many types of diffusers, duct air mixes with some area air.

b) Grilles - It handles the distance, height, quantity of air, and flow of air throw. Grilles can create some airflow resistance. The reason behind the noise reduction and cross-sections are generally expanded at the grille is the cross-section of grille pieces blocking up to 30 % of the air. It has many designs.

Q) How many types of duct materials?

A)

1. Spiral Air duct
2. Aluminum foil flexible duct
3. Oval duct
4. Special shape duct
5. Flexible insulation duct
6. 90 Degrees Bend duct
7. 90 Degrees Stamping duct
8. Bend duct
9. Rectangular duct
10. Reducer duct
11. Lateral Tee
12. Spiral Insuaktion duct
13. Square and Round duct
14. 45 degrees Bend duct
15. STraight Tee

Q) What are the types of joints used in Duct?

A)

- a) Slip joint
- b) Drive Joint
- c) Flange Joint

Q) What are the Materials used for Ducting and explain them?

A)

i) Galvanized mild steel: This GI material is a widely used material in ducting fabrication, Cheap at cost, and also mostly used in all applications. The Galvanized mild steel fabricated with all the ducting shapes.

ii) Aluminum: At a rusted spot, the bacterial growth. By providing the rise of bacterial growth, The galvanized mild sheet gets rust. This case is not considered much because humans have sufficient bacteria resistance. Aluminum Material ducting is very often used in hospitals because

it is rust-proof and also lightweight material. In general conditions, AL Ducting is uneconomical and redundant.

iii) Pre Insulated Material: PI ducting is made up of phenolic foam panel and Polyurethane with AL ducting faces both sides of thickness which varies about 25 micrometers to 200 Micrometer. Pre-insulated ducting is used widely because it is lightweight and the PI ducting fabrication takes very low time.

iv) Fabric Material Ducting: Fabric Material ducting is round, semi-round, or quarter round ducting which is made up of lightweight fabric material, not like other ducting materials. The fabric material is used when delivering supplies of heated or cooled air. This material is commonly used nowadays because of its, flexibility, no insulation is required, and mounting.

Q) What are the types of Duct Design Methods?

A) The ductworks in HVAC systems sizes can be done by the following methods:

- i) Velocity Method
- ii) Static Pressure Recovery Method
- iii) Equal Friction Method

Q) How to Balance the system in Ducting?

A) Generally, balancing the system means the size of the ducts and also adjustment of dampers to make sure every room gets the accurate quantity of air. By following some methods, we can balance a system in ducting.