CBSE Class 12 Air-Conditioning and Refrigeration 2007 - Set 113

Question Paper

Conducted by the Central Board of Secondary Education (CBSE)

Time Allowed: 3 Hours **Maximum Marks: 40**

General Instructions

(i) Attempt any five questions.

(ii) All questions carry 8 marks. Follow any internal choices given in the questions.

Questions

Note : Attempt any five questions. All questions carry equal marks.

1. Differentiate between all-air and all-water air-conditioning systems. What types of fans are used in an air-conditioning system ? On what basis is a particular type of fan selected ?

2. Explain the working of a unit air-conditioner. How is its capacity defined ?

3(a). Give the types of control devices, used in refrigeration and air-conditioning systems.

3(b). Explain the function of a modulating motor.

4. What are the considerations in the design and construction of ducts in an air-conditioning system ? What are the common duct-materials in use ?

5(a). What is the function of a relay in motors ?

5(b). Why are HP and LP cutouts provided in a refrigeration system ?

6. What monthly schedule would you draw for maintenance of an air-conditioning plant ?

7. Give the function of an expansion device in a refrigeration system. Mention the types of such devices used and their suitability.

8. Answer, in short, any ***two*** of the following : $2 \times 4 = 8$

8(i). How is air-conditioning carried out in winters ?

8(ii). What are the methods of distribution of conditioned air ?

8(iii). Explain the device used for humidity control.

8(iv). Explain a hermetically sealed compressor.

- End of Question Paper -