CONSTRUCTION INDUSTRY COUNCIL
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HONG KONG CONSTRUCTION INDUSTRY TRADE TESTING CENTRE
香港建造業工藝測試中心

Refrigeration/ Air-conditioning/ Ventilation Mechanic (Water System) Trade Test Written Test Mock Paper

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此文件關於空調製冷設備技工 (水系統) 技能測試 (大工) 技術知識測試 (筆試) 模擬試題。

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Disclaimer

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Refrigeration/ Air-conditioning/ Ventilation Mechanic (Water System) Trade Test Written Test Mock Paper

1. After the installation of chilled and cooling water pipes, _____ should be carried out.
   a. Hydrostatic test
   b. Air pressure test
   c. Oil pressure test
   d. Nitrogen pressure test

2. In general, in what units are the model capacities of fan coils being measured?
   a. Cubic feet/ second
   b. Litre/ hour
   c. Litre/ second
   d. Cubic feet/ minute

3. To align the pump and motor shaft, a _____ should be used.
   a. Dial indicator
   b. Water level gauge
   c. Measuring tape
   d. Tachometer

4. To check the concentricity of the pump and motor coupling, the correct measurement position is at _____ of the coupling.
   a. The centre
   b. The bottom
   c. The top
   d. Four points perpendicular to each other

5. For a pipe in the cooling water system, if other factors remain constant and the pipe diameter increases,
   a. The water velocity decreases
   b. The water velocity increases
   c. The water velocity remains constant
   d. The water velocity first decreases, then increases

6. Which of the followings should be used to connect filters and water pumps in a cooling water pipe?
   a. Oxyacetylene welding
   b. Electric welding
   c. Screw threads
   d. Flanges

7. In a centralised air conditioning system with multiple air handling units, chilled water is regulated through a:
   a. Two-way valve
   b. Three-way valve
   c. Check valve
   d. Expansion valve

8. If a two-way valve is used to control the cooling water flow in fan coils, which of the followings should be installed between the water supply and water return pipes of the water cooler?
   a. Expansion valve
   b. Three-way valve
   c. Manual bypass valve
   d. Differential pressure bypass control valve

Refrigeration/ Air-conditioning/ Ventilation Mechanic (Water System) Trade Test Written Test Mock Paper (Con't)

9. When the room temperature is 25°C, the return air temperature of fan coils should be at:
   a. 24°C - 27°C
   b. 18°C - 23°C
   c. 29°C - 32°C
   d. d. 15°C - 18°C

10. For fan coils with normal revolving speed and clean air filters, but the air flow is less, inspections should start with:
   a. Whether there are clogs in the drip tray
   b. Whether the valves are switched on
   c. Whether the voltage is insufficient
   d. Whether there is a blockage of coil fin

11. Which of the following types of pipe should not be used for condensate drain pipe?
   a. Black iron pipe
   b. Galvanised steel pipe
   c. PVC plastic pipe
   d. Galvanised steel pipe and PVC plastic pipe

12. When transporting air conditioning units, the reason of not to turn upside down or put on sides is:
   a. Prevent the lubricating oil in the compressor from leaking to other cooling components
   b. To avoid leakage of refrigerant
   c. To avoid leakage of lubrication oil
   d. To avoid fallen of accessories

13. To prevent the blockage of equipment, which of the followings will be installed at the pump inlet?
   a. Y-strainer
   b. Drier filter
   c. Check valve
   d. Relief valve

14. Bottle of refrigerant should be placed in:
   a. Shadowed and ventilated areas
   b. Adjacent to fire extinguisher
   c. Under sunlight, low humidity area
   d. Inside cold room

15. Cooling water pump should be installed:
   a. Between the water tower outlet and condenser inlet
   b. Between the condenser outlet and water tower inlet
   c. At the make-up water inlet of the water tower
   d. Any location

16. In general, which of the followings should be installed in cooling towers to control the flow of make-up water?
   a. Regulating valve
   b. Check valve
   c. Balance valve
   d. Float valve

Refrigeration/ Air-conditioning/ Ventilation Mechanic (Water System) Trade Test Written Test Mock Paper (Con't)

17. What is the minimum amount of "interest" as stated in Prevention of Bribery Ordinance?
    a. $100
    b. $200
    c. $500
    d. No limited amount

18. A person should be serious at work and should uphold work ethics, including:
    a. Appropriation of other's property
    b. Craving for personal interest and neglecting the damages dealt to others
    c. Accepting money and other advantages
    d. Integrity, be honest and responsible, keep moral principles. Never corrupt and accept illegal advantage.

19. When lifting heavy objects, which of the following methods is correct?
    a. Correct posture should be used. Workers should remain upright in their back.
    b. Ask for a heavier load each time to hasten the process
    c. Throw the object to higher places to strengthen the body
    d. Hasten the speed of work suddenly

20. What may happen if working under hot and humid environments for a long period?
    a. Heat stroke
    b. Temporary blindness
    c. Hunger
    d. Anaemia