

## OIC - EW: COMPETENCE 4

### Operate Main and Auxiliary Machinery and Associated Control Systems

1	When a refrigeration compressor has developed a high head pressure as a result of a refrigerant overcharge, what should be done to compensate for or to correct this situation?			
	increase the amount of cooling water to the condenser	decrease the amount of cooling water to the condenser	raise the high pressure cut-out opening pressure	remove some refrigerant from the system
2	Which of the valves listed is normally closed when charging the refrigeration system through the high side?			
	Dehydrator inlet valve	Liquid line king valve	Suction line valve	Thermal expansion valve
3	Thermostatic expansion valves can be adjusted for which of the following?			
	suction pressure only	head pressure only	evaporator superheat only	suction pressure and box temperature
4	Refrigerant enters the condenser in what condition?			
	high pressure liquid	low pressure vap	high pressure va	low pressure liquid
5	If a liquid drying agent is used in a refrigeration system already equipped with a solid drying agent, the liquid drying agent will cause what type of reaction?			
	it will release the moisture already trapped in the solid drying agent	it will react violently with the solid drying agent	it will cause toxic gases to form in the refrigerated space	it will solidify the refrigerant oil in the compressor crankcase
6	In a two stage flash type evaporator, the brine overboard pump is vented directly to the:			
	saltwater heater shell	first stage distilling condenser	second stage flash chamber	air ejector condenser
7	Which of the following statements is correct concerning heat transfer?			
	Heat is given off from a high temperature region known as a heat sink.	Heat transfer surfaces are being layered with scale.	Impure distillate is being produced.	Shell vapor pressure is constantly decreasing.

8	During the operation of a five box refrigeration system, using a fixed capacity compressor, two additional boxes came on line with the two boxes already in the active cooling process. At the beginning of the cooling period for the two additional boxes, the operating conditions of the system would require the quantity (flow rate) of refrigerant to the compressor suction to do what?			
	remain the same, with a decrease in suction pressure	increase, while maintaining the previous suction pressure	remain the same with an increase in suction pressure	increase, with an increase in suction pressure
9	A refrigerant used in a mechanical refrigeration system should have which of the following characteristics?			
	High boiling point	High freezing poi	Low specific heat	Low boiling point
10	If a condenser coil of an air-cooled container refrigeration system becomes dirty and requires cleaning, what would be an acceptable method of cleaning?			
	'Binks' gun with weak acid solvent	high pressure water wash	copper wire rotary brush	All of the above
11	One of the primary steps in assisting someone who has been overcome by ammonia vapors is to do what?			
	loosen all clothing	provide the victim with smelling salts	rinse the affected area with water	give the patient plenty of fresh air
12	The heat removed from the refrigerant in the condenser of a refrigeration plant is known as what?			
	latent heat of expansion	sensible heat of condensation	heat of compress	all of the above
13	A one ton air conditioning system has which of the listed operating characteristics?			
	It forces 2,000 lbs. of refrigerant through the evaporator coil per day.	It forces 2,000 lbs. of air per hour across the evaporator coils	It has the cooling capacity equivalent to melting 2,000 lbs. of ice per day.	It has the cooling capacity equivalent to melting 2,000 lbs. of ice per hour.
14	An unloader is installed on an air compressor to:			
	bypass the high pressure stage to the low pressure stage on 100% of the air compressors in service	prevent excessive interstage pressure buildup	control compressor discharge pressure	remove all but the frictional load during starting

15	Cylindrical, replaceable silica gel core dehydrators installed in halocarbon refrigerant systems are typically arranged in what way?			
	so that the liquid enters at the top and leaves at the bottom when located vertically in the liquid line	so that the liquid enters at the bottom and leaves at the top when located vertically in the liquid line	horizontally if a liquid drying agent is also used	horizontally if the drying agent is calcium oxide
16	Excessive moisture being collected in the purge unit of a low pressure refrigeration system could indicate which probable condition?			
	leaking condenser or chiller tubes	low efficiency purge unit	dryer core needs replacement	improper charging of refrigerant
17	In a large refrigeration system having more than one evaporator, a king solenoid valve should be installed in what location?			
	just after the receiver	before the condenser	between the condenser and receiver	before the back pressure regulating valve
18	Increasing the moisture content of conditioned air is known as what?			
	moisturizing	dehumidification	dampening	humidification
19	The advantages of flash type evaporators, as compared to submerged tube type evaporators, include:			
	less internal corrosion because of lower brine density	higher temperature evaporation for lower salinity of the distillate produced	less hard scale formation in a flash evaporator	less feed water required for a flash evaporator
20	The rupture disc used on low pressure refrigerant storage containers is set for what pressure?			
	1 psig	5 psig	10 psig	15 psig
21	What is the color coding for a storage container of R-134a refrigerant?			
	green	grey	purple	light blue

22	Which of the fluids listed is normally used to condense the primary refrigerant in an indirect shipboard central air conditioning system?			
	Engine jacket water	Seawater or Fresh water	Sodium Nitrate br	Calcium Sulfate brine
23	Which refrigeration system will absolutely require the use of an oil separator located in the discharge line due to a lack of refrigerant oil miscibility?			
	R-401A	R-717 (ammonia)	R-134a	R-22

Seamankowitz.net