



Id	
Question	1 Tr Window air conditioner consumes 1.5 kW energy, the condenser heat rejected would be
A	1.5 kw
B	2.5 kw
C	5.0 kw
D	4.5 kw
Answer	
Marks	1.5
Unit	1

Id	
Question	Refrigeration is based on the which law of thermodynamics
A	First Law
B	second law
C	zeroth law
D	NON
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	1 Ton of refrigeration is equivalent to
<b>A</b>	211 kJ/in
<b>B</b>	50 kJ/min
<b>C</b>	3.5 kJ/min
<b>D</b>	200kJ/min
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

Id	
Question	A refrigerator maintains -5 Deg Cel and rejects heat to the 30 Deg Cel ambient temp with COP of 3, the II law efficiency is
A	50%
B	39%
C	45%
D	60%
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	The usual refrigeration temperature of a domestic refrigerator is
A	-20 °C
B	-25 °C
C	-15 °C
D	-35 °C
Answer	
Marks	1.5
Unit	1

Id	
Question	The most preferred compressor in the household refrigerator is
A	Hermetically sealed
B	open type
C	Semi hermitical sealed
D	Non of the above
Answer	
Marks	1.5
Unit	1

Id	
Question	The most preferred expansion device in the household refrigerator is
A	Tx valve
B	capillary tube
C	Ejector
D	short tube orifice
Answer	
Marks	1.5
Unit	1



Id	
Question	Wet compression is preferred over dry compression with the refrigerant
A	NH3
B	R22
C	R12
D	R134a
Answer	
Marks	1.5
Unit	1

Id	
Question	Rating of the domestic refrigerator is of the order of
A	1TR
B	2 TR
C	0.1 TR
D	3 TR
Answer	
Marks	1.5
Unit	1

Id	
Question	In a refrigeration cycle the flow of refrigerant is controlled by
A	Expansion Valve
B	Compressor
C	Condenser
D	Evaporator
Answer	
Marks	1.5
Unit	1

Id	
Question	The expansion process in the throttling device of a refrigerator is
A	isentropic
B	isenthalpic
C	isobaric
D	isothermal
Answer	
Marks	1.5
Unit	1

Id	
Question	As the evaporator temperature decreases the COP of the VCS
A	Increases
B	decreases
C	remains same
D	NON
Answer	
Marks	1.5
Unit	1

Id	
Question	Accumulator is installed in between the
A	compressor and condenser
B	Condenser and expansion valve
C	Expansion valve and evaporator
D	Evaporator and Compressor
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	Efficiency of a Cranot engine is given as 80%. If the cycle direction be reversed what will be the value of COP of reversed Cranot cycle
<b>A</b>	0.25
<b>B</b>	0.8
<b>C</b>	0.5
<b>D</b>	0.4
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

Id	
Question	If the condenser temperature of a refrigeration plant is increased keeping evaporator temperature constant the compressor power required will be
A	decreases
B	increases
C	remains same
D	Non of the above
Answer	
Marks	1.5
Unit	1



Id	
Question	Effect of subcooling on COP of the refrigeration plant
A	decrease
B	increases
C	remains same
D	Non of the above
Answer	
Marks	1.5
Unit	1

Id	
Question	Provision of LHX in the refrigeration plant brings
A	only subcooling
B	only superheating
C	subcooling and superheating
D	evaporation
Answer	
Marks	1.5
Unit	1

Id	
Question	Decreasing the evaporator temperature keeping all other conditions same, the mass flow rate of refrigerant
A	increases
B	decreases
C	unalter
D	Non of the above
Answer	
Marks	1.5
Unit	1

Id	
Question	Colling water at inlet of the condenser of a refrigeration plant enters at 20 Deg cel and leaves at 25 deg cel. The refrigerant would be condensing at about
A	20 dec cel
B	25 dec cel
C	30 dec cel
D	NON
Answer	
Marks	1.5
Unit	1

Id	
Question	If the rating of a refrigeration system is 7,53,000 kJ/h, the tonnage of the system is
A	57.8 TR
B	50 TR
C	60 TR
D	56.5 TR
Answer	
Marks	1.5
Unit	1

Id	
Question	A reversed Carnot cycle operates on vapour in the two phase region. The work of steady flow compression is 4 kW, the work of steady flow expansion is 3 kW, heat rejected at high temperature is 4 kW. The COP and refrigerating capacity are respectively
A	3 and 6 kW
B	6 and 3 kw
C	4 and 3 kW
D	3 and 3 kW
Answer	
Marks	1.5
Unit	1

Id	
Question	The oil separator is incorporated in NH <sub>3</sub> vapour compression refrigeration system
A	after compressor
B	after condenser
C	after expansion valve
D	after eveporator
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	If the COP of a Ref system is 2 the HP per TR is
A	2.39
B	3.39
C	2.2
D	3.1
Answer	
Marks	1.5
Unit	1



Id	
Question	Increase in Superheat Horne leads to increse in
A	COP
B	Cooling Capacity
C	Power
D	Non of the above
Answer	
Marks	1.5
Unit	1

Id	
Question	Decrease the evaporator temperature leads to
A	Increase in power
B	decrease in power
C	increase in Ref Effect
D	Non of the above
Answer	
Marks	1.5
Unit	1

Id	
Question	Lubricant oil is used with R134a refrigerant is
A	Mineral oil
B	Synthetic oil
C	either one
D	Nonofthe above
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	The lubricating oil in a R22 vapour compression refrigeration system is
<b>A</b>	partially miscible with refrigerant
<b>B</b>	fully miscible with refrigerant
<b>C</b>	not miscible with refrigerant
<b>D</b>	non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	In a VCR System, the condition of refrigerant before entering the expansion or throttle valve is
<b>A</b>	Dry vapour
<b>B</b>	Wet vapour
<b>C</b>	Saturated vapour
<b>D</b>	Saturated liquid
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

Id	
Question	A heat pump working on a reversed Carnot cycle has a C.O.P. of 5. It works as a refrigerator taking 1 kW of work input. The refrigerating effect will be
A	2 kW
B	3 kW
C	4 kW
D	5 kW
Answer	
Marks	1.5
Unit	1

Id	
Question	In a refrigerating machine, heat rejected is _____ than heat absorbed
A	more
B	less
C	equal
D	Non of the above
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	With the condenser temperature $50^{\circ}\text{C}$ and evaporator temperature $-20^{\circ}\text{C}$ a VCS has the actual COP as 3.0 the second law efficiency of the system is
<b>A</b>	70%
<b>B</b>	75%
<b>C</b>	80%
<b>D</b>	83%
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1



<b>Id</b>	
<b>Question</b>	A VCS compressor offers a displacement flow rate as $0.036 \text{ m}^3/\text{s}$ . If the evaporator temperature decreases to $-35^\circ\text{C}$ ( $v = 0.1665 \text{ m}^3/\text{kg}$ ), the new mass flow rate of refrigerant would be
<b>A</b>	0.8934 kg/s
<b>B</b>	0.2164 kg/s
<b>C</b>	0.2 kg/s
<b>D</b>	insufficient data
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	A refrigeration system produces 30 kg/h of ice at 0 <sup>0</sup> C (hmelting = 335 kJ/kg) from water available at 25 <sup>0</sup> C. The tonnage of the system is
A	1.01
B	1.5
C	1.02
D	1.05
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	If the COP of a 1 TR window air conditioner is 2.5, the motor rating of the air conditioner would be
<b>A</b>	4.71 HP
<b>B</b>	2.5 HP
<b>C</b>	1.9 HP
<b>D</b>	2 HP
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	Lubricant oil used with hydrocarbon refrigerants is
<b>A</b>	Mineral oil
<b>B</b>	Synthetic oil
<b>C</b>	either one
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	Three Carnot refrigerators work with same temperature range of $-20^{\circ}\text{C}$ to $40^{\circ}\text{C}$ but different refrigerants; R12 , R744 and Air. Identify correct option
<b>A</b>	COP with R 12 is greater than COP with R744
<b>B</b>	COP with R 12 is greater than COP air
<b>C</b>	COP with R 12 is equal to COP with R744
<b>D</b>	COP with R744 is greater than COP with air
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	Effect of suction vapour superheat in a VCC is
A	increase in sp volume
B	decrease in sp work
C	no effect of sp work
D	Non of the above
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	Effect of suction vapour superheat in a VCC is
<b>A</b>	increase in sp work
<b>B</b>	decrease in sp volume
<b>C</b>	no effect of sp volume
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	Effect of suction vapour superheat in a VCC is
<b>A</b>	increase in discharge Temp
<b>B</b>	decrease in discharge Temp
<b>C</b>	no effect on discharge temp
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1



<b>Id</b>	
<b>Question</b>	The mass flow rate of 40 TR Ref system is with the sp ref effect as 157.45 kJ/kg
<b>A</b>	0.89 kg/sec
<b>B</b>	0.8 kg/sec
<b>C</b>	0.75 kg/sec
<b>D</b>	0.86 kg/sec
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	The mass flow rate of the refrigerant if the vol. eff. is 75% and sp volume and displacement volume flow rate are 0.1665 m <sup>3</sup> /kg and 0.036 m <sup>3</sup> /sec respectively
<b>A</b>	580 kg/hr
<b>B</b>	584.5 kg/hr
<b>C</b>	583.8 kg/hr
<b>D</b>	insufficient data
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	A 2 TR Ref system consumes 3 kw energy. If the condenser cooling water flow rate is 0.2 kg/sec at 30 deg cel, the outlet temp of water is
<b>A</b>	42 dec cel
<b>B</b>	40 deg cel
<b>C</b>	35 deg cel
<b>D</b>	insufficient data
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	provision of LP HP cut out in a Ref system to protect
A	Condenser
B	compressor
C	Expansion valve
D	Evaporator
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	Frost is defined as the
A	dust on the condenser
B	Ice on the evaporator
C	Condensate on doors
D	Non of the above
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	Short horizontal lines on pressure enthalpy chart show
<b>A</b>	constant temp lines
<b>B</b>	constant pressure lines
<b>C</b>	constant total heat lines
<b>D</b>	constant entropy lines
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	Superheating in a refrigeration cycle
A	increase COP
B	decrease COP
C	COP remains unaltered
D	unpredictable
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	The value of COP in a vapour compression cycle is usually
A	less than unity
B	more than unity
C	equal to unity
D	Non of the above
Answer	
Marks	1.5
Unit	1



<b>Id</b>	
Question	If the enthalpy at the inlet of the throttling device is 366 kJ/kg , enthalpy at the exit of the evaporator is 1200 kJ/kg and mass flow rate of refrigerant is 0.2 kg/sec, the Cooling capacity of the system is
A	50 TR
B	47.4 TR
C	47.8 TR
D	47.1 TR
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	In a conventional VCS expansion process takes place in
<b>A</b>	Throttling device
<b>B</b>	Expansion Turbine
<b>C</b>	either one
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	Over Load Protector is related to
A	compressor
B	condenser
C	Expansion Valve
D	Evaporator
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	Tubes used for RAC equipment are
A	Cu tubes
B	steel tubes
C	brass tubes
D	SS304 tubes
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	If the enthalpy at the inlet of the throttling device is 366 kJ/kg , enthalpy at the exit of the evaporator is 1200 kJ/kg , Cooling capacity of the system is 50 TR and sp work of compression is 200 kJ/kg, power required is
<b>A</b>	42 kW
<b>B</b>	44 kW
<b>C</b>	41 kW
<b>D</b>	40 kW
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	With the COP as 4, the ref effect in kW per kW of power input is
A	3.8 kW
B	4 kW
C	2 kW
D	insufficient data
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	With the COP as 4, the ref effect in TR per kW of power input is
A	1.13 TR
B	1 TR
C	1.5 TR
D	insufficient data
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	The temperature ratio $T_k/T_o$ is if the Carnot COP for cooling is 4
A	1.25
B	1.50
C	0.25
D	insufficient data
Answer	
Marks	1.5
Unit	1



<b>Id</b>	
<b>Question</b>	If the enthalpy at the inlet of the throttling device is 366 kJ/kg , enthalpy at the exit of the evaporator is 1200 kJ/kg and sp work of compression is 200 kJ/kg, power required per TR
<b>A</b>	1 kW/TR
<b>B</b>	0.84 kW/TR
<b>C</b>	0.7 kW/TR
<b>D</b>	insufficient data
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	For an ammonia system the pipe should be the following material
<b>A</b>	Brass
<b>B</b>	Copper
<b>C</b>	Cast steel
<b>D</b>	Aluminium
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	The most susceptible component of VCS with the presence of moisture is
A	compressor
B	condenser
C	Throttle valve
D	Evaporator
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	A receiver is fitted in a refrigeration plant in order to
<b>A</b>	Allow variation in load
<b>B</b>	conserve load
<b>C</b>	remove heat
<b>D</b>	reduce the compressor work
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	During off cycle the lubrication oil remains in
A	Condenser
B	compressor
C	Expansion valve
D	Evaporator
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	In the evaporator of a VCS refrigerant during refrigeration
<b>A</b>	boils
<b>B</b>	Evaporates
<b>C</b>	Condenses
<b>D</b>	Compresses
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	With the LHX if the degree of suction superheat is the order of 10 °C the degree of subcooling is
A	10 °C
B	Less than 10 °C
C	More than 10 °C
D	insufficient data
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	On p-h chart subcooling of the refrigerant is represented
<b>A</b>	inside saturation dome
<b>B</b>	outside saturation dome
<b>C</b>	any where inside or outside
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1



<b>Id</b>	
<b>Question</b>	On p-h chart suction superheating of the refrigerant is represented
<b>A</b>	inside saturation dome
<b>B</b>	outside saturation dome
<b>C</b>	any where inside or outside
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	While refrigeration the evaporator temperature from inlet to exit in actual VCS
A	remains constant
B	increases
C	decreases
D	Non of the above
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	Slope of the isentropic lines of NH <sub>3</sub> on P-h Chart compare to R134a
A	less
B	more
C	same
D	can not say
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	A Carnot refrigeration requires 70 kJ/min of work to produce 1 TR of refrigeration at $-40^{\circ}\text{C}$ . The COP of this refrigerator is
<b>A</b>	4
<b>B</b>	3
<b>C</b>	5
<b>D</b>	insufficient data
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	COP of Carnot Refrigerator is 5 and it produces 5 TR refrigeration. The work that will be done is
<b>A</b>	3.5 kW
<b>B</b>	5 kW
<b>C</b>	2.5 kW
<b>D</b>	insufficient data
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	For the same range of temperature the reversed Carnot cycles when working on Vapour as compound to gas gives
<b>A</b>	higher COP
<b>B</b>	lower COP
<b>C</b>	same COP
<b>D</b>	insufficient data
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	Subcooling is a process of cooling the refrigerant in VCR system takes place
<b>A</b>	after compression
<b>B</b>	before compression
<b>C</b>	before throttling
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
<b>Question</b>	The following data were obtained in VCR system. Enthalpy change in compression is 8 kJ/kg, heat rejected to cooling water of compressor jacket is 2 kJ/kg, refrigeration effect is 40 kJ/kg. The COP is
<b>A</b>	5
<b>B</b>	4
<b>C</b>	6.66
<b>D</b>	insufficient data
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1



<b>Id</b>	
Question	A VCS installed has 40 °C condensation temp. and -10 °C evaporator temp. Its capacity is 10 Tr. If evaporator temp is changed to +10 °C
A	its capacity increases
B	its capacity decreases
C	its capacity remains same
D	Non of the above
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	A VCS installed has 40 °C condensation temp. and -10 °C evaporator temp. Its capacity is 10 Tr. If evaporator temp is changed to +10 °C
A	its capacity increases
B	its capacity decreases
C	its capacity remains same
D	Non of the above
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	In a LiBr VAS (a) only condenser operates under Vacuum (b) only Evaporator operates under Vacuum
<b>A</b>	Both condenser and evaporator operates under vacuum
<b>B</b>	only condenser operates under Vacuum
<b>C</b>	only Evaporator operates under Vacuum
<b>D</b>	both condenser and evaporator operates with positive pressure
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	In a R22 - methane cascade refrigeration system
A	R22 used for high temp cascade
B	methane used for high temp cascade
C	it does not matter
D	Neither one
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	If the mass fraction of the solution delivered from absorber is 0.25 and the solution returns to the absorber is 0.62 of LiBr system, the circulation factor would be
<b>A</b>	0.82
<b>B</b>	0.67
<b>C</b>	0.29
<b>D</b>	0.56
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2



<b>Id</b>	
<b>Question</b>	In a cascade system the low temperature cascade consists water cooled condenser with the mass flow rate of water as 2 kg/s with the rise in temperature of the order of 15 °C. The cooling load of the high temperature cascade of this cascade system is under ideal conditions
<b>A</b>	120 kW
<b>B</b>	126 w
<b>C</b>	126 kW
<b>D</b>	126.5 kW
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	Aqua ammonia is used as refrigerant in the following type of refrigeration system
A	Compression
B	absorption
C	evaporation
D	Steam jet refrigeration
Answer	
Marks	1.5
Unit	2



<b>Id</b>	
<b>Question</b>	In LiBr VAS system the refrigerant water in the evaporator
<b>A</b>	Evaporates
<b>B</b>	Boils
<b>C</b>	Diffuse
<b>D</b>	Percolate
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	In electrolux VAS the refrigerant NH <sub>3</sub> in the evaporator
A	Boils
B	Diffuse
C	Expands
D	Compresses
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	In electrolux VAS the hydrogen travels in between
<b>A</b>	condenser and evaporator
<b>B</b>	Boiler and condenser
<b>C</b>	Evaporator and absorber
<b>D</b>	Absorber and Boiler
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	In LiBr VAS, strong solution travels in between
A	generator to absorber
B	Generator to condenser
C	Absorber to generator
D	Evaporator to absorber
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	In Aqua NH3 VAS strong solution travels in between
<b>A</b>	generator to absorber
<b>B</b>	Generator to condenser
<b>C</b>	Absorber to generator
<b>D</b>	Evaporator to absorber
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
<b>Question</b>	In compound compression system with flash intercooling the suction vapours to the second stage of compression normally are
<b>A</b>	Superheated
<b>B</b>	Wet
<b>C</b>	Dry saturated
<b>D</b>	Any of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	Adoption of compound VCS flash intercooling will be more benefecial with
A	R12 system
B	NH <sub>3</sub> system
C	same for both
D	unpredictable
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Compound compression is adopted for refrigeration system
A	to improve Vol eff.
B	to reduce sp. Mech work
C	To take care of large pr. Ratio
D	all of the above
Answer	
Marks	1.5
Unit	2



<b>Id</b>	
<b>Question</b>	In compound compression system with flash gas removal with cooling the suction vapours to the second stage of compression normally are
<b>A</b>	superheated
<b>B</b>	wet
<b>C</b>	dry saturated
<b>D</b>	Any of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
<b>Question</b>	The bank of the tubes at the back side of domestic refrigerator are
<b>A</b>	Condenser tube
<b>B</b>	evaporator tuebs
<b>C</b>	refrigerant cooling tubes
<b>D</b>	capillary tube
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	1

<b>Id</b>	
Question	Electrolux VAS operates with
A	two pressures
B	One pressure
C	Three pressures
D	Four pressures
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Temperature in the evaporator of the Electrolux VAS
A	Remains constant
B	Vary, increases from inlet to exit
C	Vary, increase from exit to inlet
D	cant predict
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Keeping the pressure ratio and inlet state same with the NH <sub>3</sub> and R134a refrigerants, the discharge temperature will be higher in case of
A	NH <sub>3</sub>
B	R134a
C	Same in both the cases
D	Can't predict
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	The most preferred refrigerant in ice plant is
A	NH3
B	R134a
C	R12
D	R22
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	Wet compression can be accommodated with
A	Reciprocating compressor
B	Centrifugal compressor
C	It does not matter
D	With both type of compressor
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	The Carnot refrigerator requires 1.5 HP per Ton of refrigeration to maintain a region at low temperature $-30^{\circ}\text{C}$ . The COP is
A	3.29
B	3.16
C	3.51
D	3.42
Answer	
Marks	1.5
Unit	1



<b>Id</b>	
Question	In a vapor compression refrigeration system, if expansion cylinder is used in place of throttle valve the COP will
A	increase
B	decrease
C	Will remain same
D	Can be predicted
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	The effect of superheating suction vapors in vapour compression refrigeration system using R12 theoretical results
A	Reduction in refrigeration capacity
B	Increase in refrigeration capacity
C	No effect on refrigeration capacity
D	None of the above
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	If the enthalpies at suction, discharge and after condensation are 190 kJ/kg, 210 kJ/kg and 80 kJ/kg, the COP of the cycle is
A	3.5
B	4.5
C	5.5
D	6.5
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
Question	In vapour compression refrigeration cycle the heat rejected at condenser is 65 kW and work done at compressor is 10 kW, the COP is
A	6.5
B	3.5
C	5.5
D	4.5
Answer	
Marks	1.5
Unit	1

<b>Id</b>	
<b>Question</b>	In a three evaporators and single compressor and single condenser system. The three evaporators are maintained at different temperatures but same refrigeration loads. For the two options i) individual expansion and back pressure valves ii) multiple expansion valve and back pressure valve system
<b>A</b>	mass flow rate for option i) is more than that for the option ii) in the lowest temperature evaporator
<b>B</b>	mass flow rate for option i) is less than that for the option ii) in the lowest temperature evaporator
<b>C</b>	mass flow rate for option i) is equal than that for the option ii) in the lowest temperature evaporator
<b>D</b>	none of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
<b>Question</b>	In a three evaporators and single compressor and single condenser system. The three evaporators are maintained at different temperatures but same refrigeration loads. For the two options i) individual expansion and back pressure valves ii) multiple expansion valve and back pressure valve system
<b>A</b>	mass flow rate for option i) is more than that for the option ii) in the highest temperature evaporator
<b>B</b>	mass flow rate for option i) is less than that for the option ii) in the highest temperature evaporator
<b>C</b>	mass flow rate for option i) is equal than that for the option ii) in the highest temperature evaporator
<b>D</b>	none of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	The mass flow rate in the second stage compressor of the Flash intercooling multi pressure system would be lowest keeping all the operating parameters same with
A	NH <sub>3</sub>
B	R12
C	R22
D	R134a
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	In a VAS if $T_{ev}$ is $-5^{\circ}\text{C}$ , generator temp is $95^{\circ}\text{C}$ and condenser cooling water temp at $30^{\circ}\text{C}$ , the max COP is
A	1.234
B	1.3525
C	2.3421
D	1.1243
Answer	
Marks	1.5
Unit	2



<b>Id</b>	
Question	In a VAS steam is used at 3 bar and 0.85 dry is used in generator and maintain $T_{ev}$ as $-10^{\circ}\text{C}$ while condenser is cooled by water at $30^{\circ}\text{C}$ . The max COP is
A	1.665
B	1.785
C	1.934
D	2.1
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Electrolux system of refrigeration has
A	Only one liquid pump
B	Only two liquid pump
C	No liquid pump
D	None of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Electrolux refrigeration has the following working substances
A	H <sub>2</sub>
B	NH <sub>3</sub> and H <sub>2</sub>
C	NH <sub>3</sub> , H <sub>2</sub> and water
D	NH <sub>3</sub> and water
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Reflux condenser is one of the part of
A	Libr VAS
B	NH <sub>3</sub> water VAS
C	CO <sub>2</sub> VCS
D	Non of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	Shaft work is required to run the VAS to produce 1 TR system compare to VCS
<b>A</b>	50 to 60% of required in VCS
<b>B</b>	20 to 30% of required in VCS
<b>C</b>	1 to 2% of required in VCS
<b>D</b>	None of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	Intercooling is achieved in multi pressure system
A	Only in external intercooler
B	Only in flash gas intercooler
C	Both A and B
D	None of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	In case of NH <sub>3</sub> flash intercooling system if the condenser temp is 35 °C and evaporator is at -25 °C, the flash gas intercooler pressure is
<b>A</b>	440 kPa
<b>B</b>	442 kPa
<b>C</b>	453 kPa
<b>D</b>	450 kPa
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	In case of NH <sub>3</sub> flash intercooling 250 kW cooling capacity system, if the condenser temp is 35 °C and evaporator is at -25 °C, the mass flow rate of refrigerant in evaporator is
A	0.204 kg/s
B	0.307 kg/s
C	0.105 kg/s
D	unpredictable
Answer	
Marks	1.5
Unit	2



<b>Id</b>	
Question	Cascading is being adopted to achieve
A	To achieve very low temperature
B	To achieve Moderately low temperature
C	To liquefy the gases
D	Both A and C
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	Pressure reducing device is used in multi evaporator pressures system
<b>A</b>	To reduce the high temp evaporator pressure to low temp evaporator pressure
<b>B</b>	To reduce condenser pressure to high temp evaporator pressure
<b>C</b>	To reduce the condenser pressure to low temp evaporator pressure
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	Intercooling in between the stages of multi stage compression
A	Reduces the work
B	Decrease the pressure ratio
C	Better mechanical balance
D	All of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	To operate a practical VAS it needs
A	Only heat energy
B	Only work energy
C	Both heat and work
D	Non of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	First law efficiency of the VCS compared to VAS for a given conditions is
<b>A</b>	Always less
<b>B</b>	Always more
<b>C</b>	Same for both
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	One of the practical application of multi pressure system VCS is
A	Double door refrigerator
B	Ice cream refrigerator
C	Milk chilling plant
D	Non of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	Weal solution returns from boiler to absorber in electrolux VAS by
<b>A</b>	Hydrostatic head difference
<b>B</b>	Density difference
<b>C</b>	diffusion
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	Hydrogen returns from absorber to evaporator in electrolux VAS due to
A	Density difference
B	Hydrostatic pressure difference
C	Diffusion
D	Non of the above
Answer	
Marks	1.5
Unit	2



<b>Id</b>	
Question	In a LiBr VAS if condenser operates at 40 °C, the generator pressure is
A	11.12 Kpa
B	6.21 kPa
C	7.38 kPa
D	unpredictable
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	In a LiBr VAS if evaporator operates at $10^{\circ}\text{C}$ , the absorber pressure is
A	1.12 Kpa
B	1.23 kPa
C	2.38 kPa
D	unpredictable
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	In a flash gas intercooling two stage VCS, the state of second stage vapors from flash chamber is
A	Usually saturated at flash gas chamber pressure
B	Usually saturated at condenser pressure
C	Usually saturated at evaporator pressure
D	Usually superheated at flash gas chamber pressure
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	If the mass flow rates of first stage and second stage compressors in a two stage flash intercooling VCS are $m_1$ and $m_2$ , respectively, the inlet flow rate in flash chamber is
A	$m_2/m_1$
B	$m_2 - m_1$
C	$m_1 - m_2$
D	$m_1/m_2$
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Which is not the component of VAS
A	Compressor
B	condenser
C	evaporator
D	Expansion valve
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	Water refrigerants at generates exit of a LiBr VAS is
<b>A</b>	Saturated at condenser pressure
<b>B</b>	Superheated at condenser pressure
<b>C</b>	Saturated at generator pressure
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	The heat rejected at evaporator condenser of two stage 2 TR cascade system with 3 kW power input in low stage cascade
A	10 kW
B	3 kW
C	7 kW
D	Non of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	If $-50^{\circ}\text{C}$ is maintained with ambient temperature $40^{\circ}\text{C}$ , the ideal coupling temp of a two stage cascade system is
A	$264^{\circ}\text{C}$
B	264 K
C	313 K
D	223 K
Answer	
Marks	1.5
Unit	2



<b>Id</b>	
Question	In two CO <sub>2</sub> NH <sub>3</sub> cascade system, CO <sub>2</sub> is used in
A	Low temperature cascade
B	High temp cascade
C	It does not make any difference
D	Intermediate temp
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	In the cascade system employed for manufacturing solid CO <sub>2</sub> , NH <sub>3</sub> is used in
<b>A</b>	High Temp Cascade
<b>B</b>	Low temp cascade
<b>C</b>	Medium temp cascade
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
<b>Question</b>	In a two stage flash gas by pass VCS, the number of condenser are
<b>A</b>	one
<b>B</b>	two
<b>C</b>	three
<b>D</b>	Non of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	A multi evaporator with an individual compressors VCS needs
A	One back pressure valve
B	Two back pressure valve
C	No back pressure valve
D	Any of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	<b>In a liquid subcooler of a multi pressure VCS</b>
A	Subcooling is done by discharging the hot gases in subcooler
B	Submerged the subcooler tubes in the liquid refrigerant
C	By exposing with air
D	Non of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	In a LiBr VAS the solution returns from the generator to absorber is
A	Strong solution
B	Weak solution
C	refrigerant
D	Non of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	The absorption process takes place in the absorber of the VAS is
A	Exothermic
B	endothermic
C	isothermal
D	Non of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	In a VAS, external cooling is done at
A	Only at condenser
B	Only at absorber
C	At both absorber and condenser
D	Non of the above
Answer	
Marks	1.5
Unit	2



<b>Id</b>	
Question	The volume per unit mass of the refrigerant vapours in case of LiBr VAS in comparison to aqua ammonia VAS is
A	Moderately higher
B	Significantly higher
C	Almost same
D	Non of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Purging term associated with the
A	Libr VAS
B	Aqua ammonia VAS
C	Cascade system
D	Evaporation system
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	Pressure reduction across the throttle valve in a Libr VAS is order of
<b>A</b>	10 -12 bar
<b>B</b>	1- 2 bar
<b>C</b>	0.1 to 0.5 bar
<b>D</b>	0.01 to 0.06 bar
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	In a Libr VAS as the condenser temperature increase for the given solution temperature the concentration of the strong solution
A	increases
B	decreases
C	Remains same
D	unpredictable
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Propane Refrigerant is classified as
A	Natural Refrigerant
B	HCFC
C	CFC
D	HFC
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	R134a Refrigerant is classified as
A	Natural Refrigerant
B	HCFC
C	CFC
D	HFC
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	R22 Refrigerant is classified as
A	Natural Refrigerant
B	HCFC
C	CFC
D	HFC
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	R12 Refrigerant is classified as
A	Natural Refrigerant
B	HCFC
C	CFC
D	HFC
Answer	
Marks	1.5
Unit	3



<b>Id</b>	
Question	NH <sub>3</sub> Refrigerant is classified as
A	Natural Refrigerant
B	HCFC
C	CFC
D	HFC
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	CO <sub>2</sub> Refrigerant is classified as
A	Natural Refrigerant
B	HCFC
C	CFC
D	HFC
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	The practical COP of a VAS always
A	Less than 1
B	More than 1
C	equal to 1
D	Can't say
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	In a VAS, the heat is being absorbed at
A	Only at evaporator
B	Only at condenser
C	Only at generator
D	Both A and C
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Crystallization is associated with the
A	LiBR VAS
B	Aqua ammonia VAS
C	VCS
D	All of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	In a Libr VAS as the solution temperature increase at the given condenser temperature the concentration of the strong solution
A	increases
B	decreases
C	Remains same
D	unpredictable
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	In a flash intercooling multi pressure VCS system
A	Only low stage vapours are cooled at an intermediate pressure
B	Only vapours are separated at an intermediate pressure
C	Both A and B
D	Neither A nor B
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	To get the higher advantage by adopting flash inetrcooling in VAS, the refrigerant should have
A	More steeped isentropic lines
B	Less steeped isentropic lines
C	It does not matter
D	unpredictable
Answer	
Marks	1.5
Unit	2



<b>Id</b>	
Question	To get the higher advantage by adopting flash inetrcooling in VAS, the refrigerant should have
A	High enthalpy of evaporation
B	Low enthalpy of evaporation
C	It does not matter
D	None of the above
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	The minimum number of evaporator are required to have Cascading multistaging VCS
A	two evaporator
B	three evaporator
C	Four evaporator
D	One evaporator
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	It is desirable to for the solution in the absorber of a VAS as per the
A	Ideal solution law
B	Positive deviation from Ideal solution law
C	Negative deviation from Ideal solution law
D	Can predict
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
<b>Question</b>	In a flash gas removal multi pressure system, flash gas is removed at
<b>A</b>	Intermediate pressure
<b>B</b>	Condenser pressure
<b>C</b>	Evaporator pressure
<b>D</b>	Any of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	2

<b>Id</b>	
Question	Mass fraction as 0.9 in a aqua ammonia solution implies
A	90% NH <sub>3</sub>
B	90% water
C	50% NH <sub>3</sub>
D	unpredictable
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	The type of lubrication oil is used in VAS is
A	Mineral oil
B	Synthetic oil
C	Either A or B
D	No oil is needed
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	In aqua ammonia VAS, enriching happens to
A	NH <sub>3</sub>
B	water
C	both
D	Lubrication oil
Answer	
Marks	1.5
Unit	2

<b>Id</b>	
Question	Reflux condenser is an integral part of which component of aqua ammonia VAS
A	Boiler
B	condenser
C	eveporator
D	absorber
Answer	
Marks	1.5
Unit	2



<b>Id</b>	
Question	According to ASHRAE standard 400 series is designated for
A	Methane based refrigerant
B	Zeotropes
C	Azeotropes
D	Organic compound
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	According to ASHRAE standard 500 series is designated for
A	Methane based refrigerant
B	Ethane based refrigerant
C	Azeotropes
D	Organic compound
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	Chemical formula of Refrigerant R22
A	$\text{CCl}_2\text{F}_2$
B	$\text{CH}_2\text{F}_2$
C	$\text{CCl}_2\text{F}_3$
D	$\text{CHClF}_2$
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	GWP of R22 compare to R12 is
A	Less
B	More
C	Equal
D	Can't say
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	ODP of the refrigerant R11 is
A	0.5
B	0.1
C	1
D	0.8
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	The best substitute for R12 refrigerant is
A	R134a
B	R502
C	R410A
D	R407C
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	The type of oil is used with CO <sub>2</sub> Refrigerant is
A	Mineral oil
B	Synthetic oil
C	Lube oil
D	No oil
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	NBP of the CO <sub>2</sub> Refrigerant is
A	-78.1 °C
B	-58.2 °C
C	-40 °C
D	31.2 °C
Answer	
Marks	1.5
Unit	3



<b>Id</b>	
Question	Major drawback of hydrocarbon Refrigerant is
A	Flammability
B	toxicity
C	High pressure
D	High ODP
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	R11 Refrigerant is classified as
A	Low pressure refrigerant
B	High pressure refrigerant
C	CFC
D	Both A and C
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	The refrigerant R134a is the
A	Methane derivatives
B	Zeotropes
C	Azeotropes
D	Ethane derivatives
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	According to ASHRAE standard 300 series is designated for
A	Cyclic organic Compound
B	Zeotropes
C	Azeotropes
D	Organic compound
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	According to ASHRAE standard 200 series is designated for
A	Propane based compound
B	Zeotropes
C	Azeotropes
D	Organic compound
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	According to ASHRAE standard 700 series is designated for
A	Methane based refrigerant
B	Zeotropes
C	Azeotropes
D	inorganic compound
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	According to ASHRAE standard 000 series is designated for
A	Methane based compound
B	Zeotropes
C	Azeotropes
D	Organic compound
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	According to ASHRAE standard R12 belongs to
A	A1
B	A2
C	B3
D	None of the above
Answer	
Marks	1.5
Unit	3



<b>Id</b>	
Question	According to ASHRAE standard R123 belongs to
A	B1
B	B2
C	B3
D	None of the above
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	According to ASHRAE standard NH <sub>3</sub> refrigerant belongs to
A	B1
B	B2
C	B3
D	None of the above
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
<b>Question</b>	According to ASHRAE standard R134a belongs to
<b>A</b>	A1
<b>B</b>	A2
<b>C</b>	A3
<b>D</b>	None of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	3

<b>Id</b>	
<b>Question</b>	According to ASHRAE standard R290 belongs to
<b>A</b>	A1
<b>B</b>	A2
<b>C</b>	A3
<b>D</b>	None of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	3

<b>Id</b>	
Question	The most suitable compressor with R11 refrigerant is
A	Centrifugal
B	Screw
C	Reciprocating
D	Rotary
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	R410a is the blend of
A	R32/R125
B	R22/R115
C	R12/R115
D	None of the above
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	R407C is the blend of
A	R32/125/134a
B	R12/125/134a
C	R32/115/134a
D	None of the above
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	R401A is a
A	Zeotropes
B	Azeotropes
C	Pure refrigerant
D	None of the above
Answer	
Marks	1.5
Unit	3



<b>Id</b>	
Question	R502 is a
A	Zeotropes
B	Azeotrops
C	Pure refrigerant
D	None of the above
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	Presence of number of Cl atoms in the refrigerant indicates
A	ODP
B	GWP
C	Flammability
D	Toxicity
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	Presence of number of H atoms in the refrigerant indicates
A	ODP
B	GWP
C	Flammability
D	Toxicity
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	Keeping all the operating conditions same the cooling capacity would be
A	High with R12 refrigerant
B	High with R22 Refrigerant
C	Same for both
D	Can't predict
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	The NBP of R11 in $^{\circ}\text{C}$ is
A	+ve
B	-ve
C	0
D	None of the above
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	HFC classified refrigerant keeps amount of chlorine atoms
A	1
B	2
C	0
D	Depends of type of HFC refrigerant
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	Refrigerant R12 as compared to R717 is
A	Costly
B	Cheap
C	Same cost
D	None of the above
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	Operating pressure of the refrigerants at the evaporator in the ascending order for any application are
A	R11, R12, R717, R22
B	R22, R717, R12, R11
C	R11, R12, R22, R717
D	R717, R22, R11, R12
Answer	
Marks	1.5
Unit	3



<b>Id</b>	
Question	High boiling point refrigerants are preferable suited for
A	Reciprocating compressor
B	Centrifugal compressor
C	Small screw type copressor
D	All of the above
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	Among the refrigerants namely R11, R12, R22 and R717, the ratio of specific heats is the highest for
A	R11
B	R12
C	R22
D	R717
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	Among the refrigerants namely R11, R12, R22 and R717, the latent heat of vaporization is the highest for
A	R11
B	R12
C	R22
D	R717
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	For a fixed pressure ratio the isentropic compressor work is the highest
A	R717
B	R12
C	R22
D	R134a
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	The refrigerant R290 stands for
A	$C_2H_4$
B	$C_3H_8$
C	$C_4H_{10}$
D	$(CH_2)_3CH$
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
<b>Question</b>	A good refrigerant should have
<b>A</b>	Low sh heat ratio
<b>B</b>	High latent heat
<b>C</b>	High thermal conductivity
<b>D</b>	All of the above
<b>Answer</b>	
<b>Marks</b>	1.5
<b>Unit</b>	3

<b>Id</b>	
Question	For high COP
A	Critical temperature in general should be low
B	Critical temperature in general should be high
C	Critical temperature insignificant
D	Critical pressure is important
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	The refrigerant R764 stands for
A	Ammonia
B	Carbon dioxide
C	Sulphur dioxide
D	Methyl chloride
Answer	
Marks	1.5
Unit	3



<b>Id</b>	
Question	It poses problem only if
A	Refrigerants are not miscible with oil
B	Refrigerants are completely miscible with oil
C	Refrigerants are partially miscible with oil
D	All of the above
Answer	
Marks	1.5
Unit	3

<b>Id</b>	
Question	Ammonia is used with
A	Reciprocating refrigerant compressor
B	Centrifugal refrigerant compressor
C	Axial flow refrigerant compressor
D	All of the above
Answer	
Marks	1.5
Unit	3