

PROVISIONAL ANSWER KEY

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Question1:-Which extinguishes the fire of flammable liquids ?

- A:-Water
- B:-Air
- C:-CO₂
- D:-Oil

Correct Answer:- Option-C

Question2:-The best way of avoiding accidents is by

- A:-Doing work in ancient way
- B:-Doing work in one's own way
- C:-Observing safety rules related to job, machine and work place
- D:-Using safety equipment

Correct Answer:- Option-C

Question3:-What is smothering in fire extinguishing ?

- A:-Pouring of CTC
- B:-Flashing with dry powder
- C:-Use water to low temperature
- D:-Stop the supply of oxygen

Correct Answer:- Option-D

Question4:-An outside micrometer has a negative error. The correct reading can be taken by

- A:-Adding the negative error in the actual reading.
- B:-Deducting the negative error from the actual reading
- C:-Adding twice the negative error in the actual reading.
- D:-Deducting twice the negative error from the actual reading.

Correct Answer:- Option-A

Question5:-Which type of taper is provided in the drill shank ?

- A:-Pin taper
- B:-Metric taper
- C:-Morse taper
- D:-Jerno taper

Correct Answer:- Option-C

Question6:-Why the cutting faces of files are slightly bellied on lengthwise ?

- A:-Get proper grip over workpiece
- B:-Filing flat surfaces is made easier
- C:-Permit clearance between file face and the workpiece
- D:-Ensure more pressure on workpiece while filing

Correct Answer:- Option-B

Question7:-Which one of the following sheets is used for making highly corrosive acid tanks ?

- A:-Black iron sheets
- B:-Galvanised iron sheets
- C:-Stainless steel sheets
- D:-Lead sheets

Correct Answer:- Option-D

Question8:-What is the use of feeler gauge ?

- A:-Check the width
- B:-Check the height
- C:-Check the length
- D:-Check the gap between the mating parts

Correct Answer:- Option-D

Question9:-Which type of screw threads are rounded at the crest and root ?

- A:-B.A. thread
- B:-B.S.F. thread
- C:-B.S.W. thread
- D:-A.C.M.E. thread

Correct Answer:- Option-B

Question10:-Which tool is used for trimming the edges of a sheet metal cylinder ?

- A:-Straight snips
- B:-Bent snips
- C:-Tube cutter
- D:-Scissors

Correct Answer:- Option-B

Question11:-The diode used for voltage regulation is

- A:-Rectifier diode
- B:-Zener diode
- C:-Signal diode
- D:-Varicap diode

Correct Answer:- Option-B

Question12:-Which tool is used for bending, seaming and forming of sheet metal ?

- A:-Bench vice
- B:-Hand vice
- C:-Stakes
- D:-Shear

Correct Answer:- Option-C

Question13:-One of the functions of electrode coating is

- A:-To increase welding current
- B:-To stabilize the arc
- C:-To prevent rusting
- D:-To control arc temperature

Correct Answer:- Option-B

Question14:-The correct flame for preheating before cutting is

- A:-Oxidizing flame
- B:-Neutral flame
- C:-Carburizing flame
- D:-Slightly carburizing flame

Correct Answer:- Option-B

Question15:-What is the tool used to remove slag from the welding ?

- A:-Tongs
- B:-Chipping hammer
- C:-Cross pean hammer
- D:-Ball pean hammer

Correct Answer:- Option-B

Question16:-Which motor has the least starting torque ?

- A:-CSIR

B:-CSR

C:-RSIR

D:-PSC

Correct Answer:- Option-C

Question17:-The squirrel cage three phase induction motor is started by

A:-DOL starter

B:-Star Delta starter

C:-Both (1) and (2)

D:-Stator-Rotor starter

Correct Answer:- Option-C

Question18:-Which electronic component is the voltage regulator ?

A:-Zener diode

B:-Transistor

C:-Triac

D:-Diac

Correct Answer:- Option-A

Question19:-Which gas is produced by the chemical reaction of carbide and water ?

A:-Oxygen

B:-Nitrogen

C:-Acetylene

D:-Carbondioxide

Correct Answer:- Option-C

Question20:-A flaring tool consist of

A:-Flaring block and yoke

B:-Flaring cone and block

C:-Flaring bush and cone

D:-Flaring cone and yoke

Correct Answer:- Option-A

Question21:-The size of tube cutter can be specified by

A:-Length of tube cutter

B:-Cutting wheel size

C:-Maximum diameter of tube which it can cut

D:-Cutting wheel thickness

Correct Answer:- Option-C

Question22:-A lever type tube bender can form bends up to

A:-90°

B:-135°

C:-45°

D:-180°

Correct Answer:- Option-D

Question23:-Pinching tool is used for

A:-Enlarging copper tube ends

B:-Remove burrs from tube end

C:-Sealing or closing the copper tubes

D:-Fixing copper tubes in swaging tool

Correct Answer:- Option-C

Question24:-Heat required to increase the temperature of 1 gram of water by 1 degree centigrade is called

A:-Calorie

B:-BTU

C:-CHU

D:-None of these

Correct Answer:- Option-A

Question25:-The boiling point of water in Fahrenheit scale is

A:-100°

B:-232°

C:-212°

D:-32°

Correct Answer:- Option-C

Question26:-The freezing point of mercury is

A:-- 45°C

B:-- 39°C

C:-- 4°C

D:-- 20°C

Correct Answer:- Option-B

Question27:-The heat required for changing the state of any object without changing its temperature is called

A:-Sensible heat

B:-Latent heat

C:-Specific heat

D:-None of these

Correct Answer:- Option-B

Question28:-Which thermodynamic law presents the concept of temperature ?

A:-Zeroth law

B:-First law

C:-Second Law

D:-Third law

Correct Answer:- Option-A

Question29:-Dry ice is

A:-Solid carbon dioxide

B:-Solid nitrogen

C:-Solid hydrogen

D:-Solid oxygen

Correct Answer:- Option-A

Question30:-The liquid refrigeration system is also called

A:-Chemical refrigeration system

B:-Expandable refrigeration system

C:-Water vapour system

D:-Both (1) and (2)

Correct Answer:- Option-D

Question31:-In vapour absorption system which energy is used ?

A:-Mechanical energy

B:-Heat energy

C:-Chemical energy

D:-Potential energy

Correct Answer:- Option-B

Question32:-The cylinder volume between TDC and BDC is known as

A:-Clearance volume

B:-Total volume

C:-Swept volume

D:-All of these

Correct Answer:- Option-C

Question33:-A centrifugal compressor is also called

- A:-Turbo compressor
- B:-Radial compressor
- C:-Scroll compressor
- D:-Both (1) and (2)

Correct Answer:- Option-D

Question34:-An example of dynamic compressor is

- A:-Rotary vane compressor
- B:-Reciprocating compressor
- C:-Rotary scroll compressor
- D:-Centrifugal compressor

Correct Answer:- Option-D

Question35:-Rotary screw compressor is used for industrial and commercial applications with a capacity range of

- A:-5 to 10 tons
- B:-20 to 750 tons
- C:-11 to 15 tons
- D:-Above 1000 tons

Correct Answer:- Option-B

Question36:-The size of the gasket specified by its

- A:-Material
- B:-Thickness
- C:-Strength
- D:-Both (1) and (3)

Correct Answer:- Option-B

Question37:-The main disadvantage of water cooled condenser is

- A:-Expensive
- B:-Low heat transfer rate
- C:-Used in low capacity plants
- D:-They have fans mounted in them

Correct Answer:- Option-A

Question38:-The condenser both air and water used as cooling medium is

- A:-Evaporative condenser
- B:-Plate type condenser
- C:-Shell and coil condenser
- D:-Shell and tube condenser

Correct Answer:- Option-A

Question39:-The efficiency of condenser increases due to

- A:-De scaling
- B:-Scaling
- C:-Painting
- D:-Both (2) and (3)

Correct Answer:- Option-A

Question40:-In natural cooling tower, its sides are

- A:-Closed
- B:-Opened
- C:-Partially opened
- D:-None of these

Correct Answer:- Option-B

Question41:-In hard water the calcium carbonate contents is

- A:-Less than 60 PPM

- B:-120 to 180 PPM
- C:-More than 180 PPM
- D:-60 to 120 PPM

Correct Answer:- Option-B

Question42:-The difference between the cooling tower water inlet and outlet temperature is known as

- A:-Approach
- B:-Blow down
- C:-Range
- D:-Efficiency

Correct Answer:- Option-C

Question43:-Thermostatic expansion valves are generally set for a super heat of around

- A:-10 to 15°C
- B:-0 to 3°C
- C:-4.4 to 5.5°C
- D:-16 to 20°C

Correct Answer:- Option-C

Question44:-In which type of expansion valve has high efficiency ?

- A:-Capillary Tube
- B:-Automatic expansion valve
- C:-Hand expansion valve
- D:-Thermostatic expansion valve

Correct Answer:- Option-D

Question45:-The location of an expansion valve in a system is

- A:-Between condenser and drier
- B:-Between compressor and condenser
- C:-Between evaporator and accumulator
- D:-Between liquid receiver and evaporator

Correct Answer:- Option-D

Question46:-The evaporator is also known as

- A:-Chilling coil
- B:-Freezing coil
- C:-Cooling coil
- D:-All of the above

Correct Answer:- Option-D

Question47:-The evaporator which is used in high capacity refrigeration systems is

- A:-Dry expansion evaporator
- B:-Plate surface evaporator
- C:-Flooded evaporator
- D:-Bare tube evaporator

Correct Answer:- Option-C

Question48:-Which process is done first in split AC for shifting from one place to another ?

- A:-Flushing
- B:-Evacuation
- C:-Pump down
- D:-Vacuumisation

Correct Answer:- Option-C

Question49:-A compressor coupled to a motor externally is called

- A:-Sealed compressor
- B:-Semi sealed compressor
- C:-Open type compressor

D:-None of the above

Correct Answer:- Option-C

Question50:-The device which divides the high pressure side and the low pressure side of a refrigerating system is known as

A:-Condenser

B:-Evaporator

C:-Receiver

D:-Expansion device

Correct Answer:- Option-D

Question51:-The leakage in a refrigeration system using ammonia is detected by

A:-Halide torch

B:-Sulphur sticks

C:-Soap and water

D:-All of these

Correct Answer:- Option-B

Question52:-One ton of refrigeration is equal to

A:-2880,000 BTU/hr

B:-20,000 BTU/hr

C:-12,000 BTU/hr

D:-200 BTU/hr

Correct Answer:- Option-C

Question53:-The undesirable property of a refrigerant is

A:-Non toxic

B:-Non flammable

C:-Non explosive

D:-High boiling point

Correct Answer:- Option-D

Question54:-The conditioned air supplied to the room must have the capacity to take up

A:-Room sensible heat load only

B:-Room latent heat load only

C:-Both room sensible heat and latent heat loads

D:-None of the above

Correct Answer:- Option-C

Question55:-Thermostatic expansion valve is used to maintain

A:-Constant degree of superheat

B:-Constant degree of sub-cooling

C:-Constant degree of superheat and sub-cooling

D:-None of these

Correct Answer:- Option-A

Question56:-In a refrigeration system, why are expansion devices located closer to the evaporator ?

A:-To avoid the flow of refrigerant

B:-To minimize the heat gain

C:-To ease the flow of refrigerant

D:-To maximize the heat gain

Correct Answer:- Option-B

Question57:-The window type AC is installed slight slanting at the back. What is the reason for doing so ?

A:-To get more air flow on condenser surface

B:-To minimize sound level due to vibration

C:-To make condensate water flow into the drain pipe

D:-To get more cooling effect inside the room

Correct Answer:- Option-C

Question58:-What type of compressor motor is used in inverter split AC ?

- A:-Constant speed compressor motor
- B:-Centrifugal compressor motor
- C:-Open type compressor motor
- D:-Variable speed motor

Correct Answer:- Option-D

Question59:-Which of the following is not an advantage of capillary tube ?

- A:-The cost of capillary tube is less
- B:-A high starting motor is not required
- C:-No receiver is needed
- D:-A capillary tube designed for a specific condition will also work efficiently for other conditions

Correct Answer:- Option-D

Question60:-The CSIR wiring of visible cooler has no

- A:-Starting capacitor
- B:-Running capacitor
- C:-Relay
- D:-OLP

Correct Answer:- Option-B

Question61:-What is the value of starting capacitor used for 1.5 TR capacity window AC ?

- A:-40 to 60 MFD
- B:-80 to 100 MFD
- C:-130 to 160 MFD
- D:-150 to 160 MFD

Correct Answer:- Option-B

Question62:-What is the cause for water cooler runs continuously ?

- A:-Outside low temperature
- B:-Poor insulation
- C:-Correct charge
- D:-Less water consumption

Correct Answer:- Option-B

Question63:-Separate thermostats are used in split AC units of the type

- A:-Ductable split unit
- B:-Multi split unit
- C:-Ceiling mounted unit
- D:-Floor mounted unit

Correct Answer:- Option-B

Question64:-Which of the following statement is wrong ?

- A:-The value of C.O.P. is always greater than one
- B:-In a vapour compression system, the condition of refrigerant before entering the compressor is dry saturated vapour
- C:-The space between the saturated liquid line and saturated vapour line, in a pressure enthalpy chart, is wet vapour region
- D:-None of the above

Correct Answer:- Option-D

Question65:-Materials form deposits inside the condenser water tubes is called

- A:-Water rusting
- B:-Water corrosion
- C:-Water fouling
- D:-Water failing

Correct Answer:- Option-C

Question66:-Why are ice cans made tapered in height ?

- A:-To reduce weight

- B:-To facilitate dumping
 - C:-To improve appearance
 - D:-All of the above
- Correct Answer:- Option-B

Question67:-What is the gas used in ice plants ?

- A:-Nitrogen
 - B:-Ammonia
 - C:-Laughing gas
 - D:-All of the above
- Correct Answer:- Option-B

Question68:-The most common insulating material used in deep freezer is

- A:-PUF
 - B:-Thermocool
 - C:-Cork
 - D:-Glass wool
- Correct Answer:- Option-A

Question69:-Which type of evaporator is used in household refrigerators ?

- A:-Frosting evaporator
 - B:-Defrosting evaporator
 - C:-Non-frosting evaporator
 - D:-Non-corrosive evaporator
- Correct Answer:- Option-A

Question70:-What is Air Conditioning ?

- A:-Air conditioning is the process of adding heat and increasing the humidity
 - B:-Air conditioning is the process of removing heat and controlling the humidity of air in a closed space
 - C:-Air conditioning is the process of controlling air moisture in an open area by adding heat
 - D:-None of the mentioned
- Correct Answer:- Option-B

Question71:-Which of the following is not a factor affecting the capacity of evaporator ?

- A:-Velocity of refrigerant
 - B:-Thickness of the evaporator coil wall
 - C:-Material
 - D:-Evaporator pressure
- Correct Answer:- Option-D

Question72:-The grill of an air conditioner should be washed with

- A:-Carbon tetrachloride
 - B:-Petrol
 - C:-Soap solution
 - D:-Hydrochloric acid
- Correct Answer:- Option-C

Question73:-Which arrangement avoids cooling water overflow in storage type water cooler ?

- A:-Bubbler
 - B:-Faucet
 - C:-Float
 - D:-Tap
- Correct Answer:- Option-C

Question74:-In a vapour compression cycle the condition of refrigerant is saturated liquid

- A:-After passing through the condenser
- B:-Before passing through the condenser
- C:-After passing through the expansion throttle valve

D:-Before entering the expansion valve

Correct Answer:- Option-A

Question75:-Which component is used to maintain the brine solution temperature evenly in a Ice candy plant ?

A:-Humidistat

B:-Blower

C:-Agitator

D:-Fan

Correct Answer:- Option-C

Question76:-In an Ice plant where the refrigerant after condensation is stored ?

A:-Accumulator

B:-Liquid receiver

C:-Evaporator

D:-Expansion device

Correct Answer:- Option-B

Question77:-Brine solution is the mixture of

A:-Calcium chloride and water

B:-Calcium carbonate and water

C:-Calcium hydroxide and water

D:-Calcium silicate and water

Correct Answer:- Option-A

Question78:-How the walk in coolers wall panels are connected ?

A:-Through gasket

B:-Through ceiling panels

C:-Through wood panel

D:-Through in build lock

Correct Answer:- Option-D

Question79:-Which indication gives if the red bulb blinking outside the cold room ?

A:-Door is left open

B:-Compressor has tripped

C:-Someone is locked inside

D:-Decrease in refrigerant level

Correct Answer:- Option-C

Question80:-Which electrically operated valve is used in cold storage plants ?

A:-Service valve

B:-King valve

C:-Butterfly valve

D:-Solenoid valve

Correct Answer:- Option-D

Question81:-Why the relative humidity is kept above 90% in cold storage plants storing vegetables ?

A:-To prevent moisture loss

B:-To improve moisture loss

C:-To reduce weight

D:-To increase weight

Correct Answer:- Option-A

Question82:-Specific humidity is also called

A:-Saturation humidity

B:-Absolute humidity

C:-Humidity ratio

D:-Relative humidity

Correct Answer:- Option-C

Question83:-Wet bulb temperature of air whose relative humidity is 100% will be

- A:-Equal to dew point temperature
- B:-Greater than dew point temperature
- C:-Less than dew point temperature
- D:-More or less depending dry bulb temperature

Correct Answer:- Option-A

Question84:-What is Room Sensible Heat Factor (RSHF) ?

- A:- $RLH / (RSH+RLH)$
- B:- $RSH/(RSH+RLH)$
- C:- RSH/RLH
- D:- RLH/RSH

Correct Answer:- Option-B

Question85:-Standard atmospheric pressure is

- A:-101.325 bar
- B:-10.1325 bar
- C:-1.03325 bar
- D:-1.01325 bar

Correct Answer:- Option-D

Question86:-What is one of the daily routine maintenance in a central Ac plant ?

- A:-Cooling tower sump cleaning
- B:-Descaling of condenser
- C:-Checking of refrigerant level, cold air temperature
- D:-Liquid line drier cleaning

Correct Answer:- Option-C

Question87:-In summer air conditioning the process is

- A:-Sensible cooling
- B:-Cooling and dehumidification
- C:-Heating and humidification
- D:-Cooling and humidification

Correct Answer:- Option-B

Question88:-Which controls the refrigerant flow in a package AC unit ?

- A:-Thermostat
- B:-King valve
- C:-Evaporator
- D:-Expansion valve

Correct Answer:- Option-D

Question89:-VRV stands for

- A:-Variable Refrigerant value
- B:-Variable Recirculated Value
- C:-Variable Recirculated Volume
- D:-Variable Refrigerant Volume

Correct Answer:- Option-D

Question90:-Glass wool is an example for

- A:-Flake insulation
- B:-Fibrous insulation
- C:-Granular insulation
- D:-Cellular insulation

Correct Answer:- Option-B

Question91:-Which type of duct requires least material for carrying air ?

- A:-Circular

B:-Rectangular

C:-Square

D:-Trapezoidal

Correct Answer:- Option-A

Question92:-AHU stands for

A:-Air Humidity Unit

B:-Air Humidity Utility

C:-Air Handling Unit

D:-Air Having Unit

Correct Answer:- Option-C

Question93:-The ducts are mostly made by

A:-Iron sheet

B:-Glass

C:-Wood

D:-Galvanized Iron sheet

Correct Answer:- Option-D

Question94:-The space between the main ceiling and false ceiling is referred as

A:-Damper

B:-Diffuser

C:-Plenum

D:-Ventilator

Correct Answer:- Option-C

Question95:-In HEPA filter, what stands for HEPA ?

A:-Height Efficient Particular Air

B:-High Efficiency Particulate Air

C:-Height Efficient Pre Air

D:-High Efficiency Prior Air

Correct Answer:- Option-B

Question96:-In an electronic filter the air is filtered by passing through a

A:-Electromotive field

B:-Electrodynamic field

C:-Electromagnetic field

D:-Electrostatic field

Correct Answer:- Option-D

Question97:-Which filter removes smoke and other odours ?

A:-Electronic filter

B:-Fine filter

C:-Coarse filter

D:-Pre filter

Correct Answer:- Option-A

Question98:-The condenser of car AC is

A:-Evaporative cooled

B:-Water cooled

C:-Air cooled

D:-Both air cooled and oil cooled

Correct Answer:- Option-C

Question99:-For what purpose dye is adding to the car AC system with refrigerant ?

A:-To lubricating the compressor

B:-To identify gas leak

C:-For easy refrigerant flow

D:-For better cooling

Correct Answer:- Option-B

Question100:-The refrigerant used in automobile AC is

A:-R134A

B:-R600A

C:-R717

D:-R290

Correct Answer:- Option-A