

PROVISIONAL ANSWER KEY

Question 118/2023/OL

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Exam: Electrician- cum- Mechanic

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Department Medical Education

Question1:-What is the meaning of safety?

A:-To protect the work place

B:-Provide safe work environment

C:-Giving first aid treatment to the victim

D:-Freedom or protection from harm, danger, etc

Correct Answer:- Option-D

Question2:-Which artificial respiration method is to be performed to the victim with injuries in the chest, belly and mouth?

A:-Mouth to nose method

B:-Nelson;s arm lift back pressure method

C:-Mouth to mouth method

D:-Schafer's method

Correct Answer:- Option-A

Question3:-What is the goal of the occupational health safety?

A:-To maintain discipline

B:-To provide a safe work environment

C:-To co-operate with co-workers

D:-To keep the work place neat and clean

Correct Answer:- Option-B

Question4:-Which one is the example for mechanical hazard?

A:-No fencing

B:-Wrong design

C:-Noise

D:-Vibration

Correct Answer:- Option-A

Question5:-In which category of PPE, the respiratory protective equipment will belong?

A:-PPE 1

B:-PPE 3

C:-PPE 5

D:-PPE 7

Correct Answer:- Option-B

Question6:-Which type of safety sign is having circular shape with white colour symbol on the blue back ground?

A:-Warning signs

B:-Mandatory signs

C:-Prohibition signs

D:-Information signs

Correct Answer:- Option-B

Question7:-What is Smothering of fire?

A:-Adding the fuel element to the fire

B:-Removing the fuel element from the fire

C:-Isolating the supply of oxygen from fire

D:-Lowering the temperature of fire by using water

Correct Answer:- Option-C

Question8:-How can the fire as wood or clothes can be extinguished by using water?

A:-It can be passed to the middle of the fire

B:-It can be passed around the fire first and then to middle

C:-It must be sprayed on the top of the fire and then to its base

D:-It must be sprayed on the base of the fire and gradually move upwards

Correct Answer:- Option-D

Question9:-If the electric shocked victim is unconscious but is breathing, what immediate action to be taken?

A:-Report to your higher officials

B:-Send him to doctor without first aid treatment

C:-Loosen the clothing about the neck, chest and waist

D:-Call other persons to take away from the place

Correct Answer:- Option-C

Question10:-Which waste is used as a fuel for the Bio-gas power plant?

A:-Chemical waste

B:-Agricultural waste

C:-Waste produced from the water source

D:-Waste produced by the men and animal

Correct Answer:- Option-D

Question11:-How many number of electrons will move in one second for one ampere current through the conductor?

A:- 6.24×10^{15}

B:- 6.24×10^{18}

C:- 6.24×10^{16}

D:- 6.24×10^{17}

Correct Answer:- Option-B

Question12:-The measure of potential difference in the insulation layer can withstand without breaking down called as

A:-Flexibility

B:-Dielectric strength

C:-Breaking capacity

D:-Rupturing Capacity

Correct Answer:- Option-B

Question13:-How many valence electrons are in a copper atom?

A:-3

B:-4

C:-2

D:-1

Correct Answer:- Option-D

Question14:-When steady current (DC) passes through a solution of silver nitrate in water, deposits silver at the rate of 1.118 mg per second at the cathode is called

A:-Coulomb

B:-Ampere second

C:-International Ampere

D:-Conventional Ampere

Correct Answer:- Option-C

Question15:-What is the property of good conductor?

A:-Must have low specific resistance

B:-Must have high dielectric strength

C:-Must have low tensile strength

D:-Must have low melting point

Correct Answer:- Option-A

Question16:-The process, in which the tip of the soldering iron is coated with the solder is known as

A:-Surface soldering

B:-Applying the solder

C:-Wetting of soldering

D:-Tinning of soldering iron

Correct Answer:- Option-D

Question17:-What is the effect in resistance of the conductor, if its diameter is doubled?

A:-Increase to two times

B:-Increase to four times

C:-Decrease to half the value

D:-Decrease to 1/4th value

Correct Answer:- Option-D

Question18:-What is the name of imaginary lines which are perpendicular to the magnetic axis and passes through the centre of the magnet?

A:-Magnetic axis

B:-Magnetic lines

C:-Magnetic neutral axis

D:-Magnetic line of face

Correct Answer:- Option-C

Question19:-How the hard sulphation defect in lead acid battery can be rectified?

A:-Changing with new electrolyte

B:-Replacing with new electrodes

C:-By trickle charge

D:-Recharging the battery for short period at high current

Correct Answer:- Option-C

Question20:-What is the average value for voltage (V_{av}), if the maximum value is V_m ?

A:- $V_{av} = \sqrt{2}V_m$

B:- $V_{av} = 2V_m$

C:- $V_{av} = 0.707V_m$

D:- $V_{av} = 0.637V_m$

Correct Answer:- Option-D

Question21:-For which type of fire, the foam fire extinguisher is most suitable?

A:-Class 'A' fires

B:-Class 'B' fires

C:-Class 'C' fires

D:-Class 'D' fires

Correct Answer:- Option-B

Question22:-What is the expansion of ABC in first aid treatment?

- A:-Airway Bleeding Circulation
 - B:-Airway Breathing Carefulness
 - C:-Accident Breathing Carefulness
 - D:-Airway Breathing Circulation
- Correct Answer:- Option-D

Question23:-Which device in a control panel the operations in sequential control system?

- A:-Relays
 - B:-Timer
 - C:-Control Transformer
 - D:-Contactor
- Correct Answer:- Option-B

Question24:-B.O.P in DC Drive means

- A:-Bridge Operation Panel
 - B:-Basic Operation program
 - C:-Basic Operational Panel
 - D:-Bridge Operator program
- Correct Answer:- Option-C

Question25:-In Panel board, which device protect the motor from overload and over heating?

- A:-Rectifier
 - B:-Limit Switch
 - C:-Thermal relay
 - D:-Electromechanical relay
- Correct Answer:- Option-C

Question26:-The Diversity Factor helps to determine

- A:-Units generated
 - B:-Average Load
 - C:-Plant Capacity
 - D:-Average Demand
- Correct Answer:- Option-C

Question27:-220KV transmission line, voltage is economical for a distance of

- A:-22 KM
- B:-100 KM
- C:-400 KM
- D:-200 KM

Correct Answer:- Option-D

Question28:-Which turbine is used for low head and large discharge?

A:-Pelton turbine

B:-Francis turbine

C:-Kaplan turbine

D:-None of the above

Correct Answer:- Option-C

Question29:-The function of moderator in a nuclear reactor is

A:-to absorb the excess of neutrons

B:-to increase the energy of the neutrons

C:-to slow down the neutrons

D:-to slow down the electrons

Correct Answer:- Option-C

Question30:-Which control system is used for Eddy current drives?

A:-Slip controller

B:-Rectifier controller

C:-AC voltage controller

D:-DC chopper controller

Correct Answer:- Option-A

Question31:-What is IGBT in VF drive?

A:-Inverter switching device

B:-DC bus switching device

C:-Rectifier switching device

D:-Field supply switching device

Correct Answer:- Option-A

Question32:-How the contacts in a contactor can be engaged for working?

A:-By mechanical setting

B:-By manual setting

C:-By using bimetallic strip to change the position

D:-By operating electromagnet to change the position

Correct Answer:- Option-D

Question33:-In a DC generator, on doubling the supply frequency, the eddy current will

A:-Remain unaffected

B:-Become half of their former value

C:-Become four times of their former value

D:-Becomes two times of their former value

Correct Answer:- Option-C

Question34:-Brushes of a DC generator are always placed along the

A:-Geometric neutral axis

B:-Magnetic neutral axis

C:-Perpendicular to GNA

D:-Perpendicular to MNA

Correct Answer:- Option-B

Question35:-Which type of motor is used in elevators?

A:-Differentially compound motor

B:-Cumulatively compound motor

C:-Series motor

D:-Shunt motor

Correct Answer:- Option-B

Question36:-Speed control by variation of field flux result in

A:-Variable torque drive

B:-Variable power drive

C:-Constant torque drive

D:-Constant power drive

Correct Answer:- Option-D

Question37:-Armature reaction in a DC Generator increases with

A:-Supply voltage

B:-Field current

C:-Armature current

D:-Terminal voltage

Correct Answer:- Option-C

Question38:-The induction motor has lagging power factor during

A:-Starting only

B:-Running only

C:-Both starting and running

D:-At rest condition

Correct Answer:- Option-C

Question39:-The single phase series motor can operate on

A:-DC only

B:-AC only

C:-Both AC and DC

D:-None of the above

Correct Answer:- Option-C

Question40:-What is the cause for hunting effect in alternators?

A:-Running with fluctuation of speed

B:-Due to overload

C:-Due to continuous fluctuation in load

D:-Running without load

Correct Answer:- Option-C

Question41:-Which is high efficiency converter?

A:-Mercury arc rectifier

B:-Motor generator set

C:-Rotary converter

D:-SCR converter

Correct Answer:- Option-D

Question42:-Why the synchronous motor fails to run at synchronous speed?

A:-Defective pony motor

B:-Short in damper winding

C:-Insufficient excitation

D:-Open in damper winding

Correct Answer:- Option-C

Question43:-What is the characteristic of an ideal voltage amplifier with respect to the input and output impedance?

A:-Low input and high output impedance

B:-High input and high output impedance

C:-Low input and low output impedance

D:-High input and low output impedance

Correct Answer:- Option-D

Question44:-The current flowing through each diode of a bridge rectifier is equal to

A:-Half the load current

B:-twice the load current

C:-Same as the load current

D:-Four times the load current

Correct Answer:- Option-C

Question45:-Which electronic circuit generates A.C. signal without input?

A:-Filter circuit

B:-Oscillator circuit

C:-Amplifier circuit

D:-Rectifier circuit

Correct Answer:- Option-B

Question46:-Which is a passive component?

A:-Transistor

B:-Capacitor

C:-Diode

D:-Diac

Correct Answer:- Option-B

Question47:-What is the purpose of Diac in power control circuit?

A:-As rectifier

B:-For triggering

C:-As an oscillator

D:-For amplification

Correct Answer:- Option-B

Question48:-The internal power supply units of CPU is

A:-CVT

B:-UPS

C:-SMPS

D:-Stabilizer

Correct Answer:- Option-C

Question49:-Which type of transformer does not isolate the secondary?

A:-Auto transformer

B:-Potential transformer

C:-Current transformer

D:-Distribution transformer

Correct Answer:- Option-A

Question50:-A megabyte contains

A:-1000 KB

B:-1024 KB

C:-1024 Bytes

D:-500 Bytes

Correct Answer:- Option-B

Question51:-Why the load is disconnected before the offload tap changing operation of a transformer?

A:-To disconnect the tapings from neutral point

- B:-To disconnect the moving contact of the diverter
- C:-To avoid heavy sparking at the contact point
- D:-To provide an electrical isolation for the windings

Correct Answer:- Option-C

Question52:-Full form of USB

- A:-User Serial Bus
- B:-Universal Serial Battery
- C:-Universal Serial Bus
- D:-Universal Storage Battery

Correct Answer:- Option-C

Question53:-Which marking media takes more time for drying?

- A:-White wash
- B:-Prussian Blue
- C:-Copper Sulphate
- D:-Cellulose laquer

Correct Answer:- Option-B

Question54:-In a flexible hacksaw blade which portion is hardened

- A:-Back edge
- B:-Side
- C:-Teeth
- D:-Pin holes

Correct Answer:- Option-C

Question55:-The point angle for chipping mild steel is

- A:-55 degree
- B:-60 degree
- C:-45 degree
- D:-65 degree

Correct Answer:- Option-A

Question56:-The range of clearance angle in a drill

- A:-8 to 100 degree
- B:-3 to 5 degree
- C:-0 to 20 degree
- D:-8 to 12 degree

Correct Answer:- Option-D

Question57:-For which purpose a reamer is used

- A:-Drilling deep holes

B:-Enlarging and finishing previously drilled holes

C:-To remove burrs

D:-Thin sheet drilling

Correct Answer:- Option-B

Question58:-The least count of a vernier height gauge

A:-0.001 mm

B:-0.01 mm

C:-0.02 mm

D:-0.05 mm

Correct Answer:- Option-C

Question59:-Telescopic gauges are available in a set of

A:-7 nos

B:-8 nos

C:-5 nos

D:-2 nos

Correct Answer:- Option-C

Question60:-In a micrometer the anvil is made of

A:-Mild steel

B:-Cast iron

C:-Carbon steel

D:-Alloy steel

Correct Answer:- Option-D

Question61:-Which mechanism is used to convert the linear motion of the plunger in a Dial test indicator

A:-Rack and pinion

B:-Screw and nut

C:-Slotted link

D:-Magnetic

Correct Answer:- Option-A

Question62:-What is the zero reading of a 25-50 cm of an outside micrometer

A:-50 mm

B:-25 mm

C:-0 mm

D:-0.01 mm

Correct Answer:- Option-B

Question63:-The angle of a V thread

A:-30 degree

B:-29 degree

C:-60 degree

D:-50 degree

Correct Answer:- Option-C

Question64:-Which types of threads are used in Lead screw of machine tools?

A:-Square thread

B:-A thread

C:-Acme thread

D:-Withworth thread

Correct Answer:- Option-C

Question65:-In single start threads

A:-Lead is double the pitch

B:-Lead and pitch are equal

C:-Lead is half the pitch

D:-Pitch is double the lead

Correct Answer:- Option-B

Question66:-Bevelling the start of existing hole is called

A:-Counter sinking

B:-Boring

C:-Counter boring

D:-Spot facing

Correct Answer:- Option-A

Question67:-The distance a drill advances into the job in one complete revolution is known as

A:-Machine speed

B:-Cutting speed

C:-RPM

D:-Feed

Correct Answer:- Option-D

Question68:-What is the advantages of a Radial drilling machine

A:-Only small drill can be hold

B:-Spindle can be brought to any position

C:-Higher finish

D:-Coolant not required

Correct Answer:- Option-B

Question69:-Which one of the following is not the part of a Centre lathe

A:-Bed

B:-Head stock

C:-Feed rod

D:-Lead screw

Correct Answer:- Option-C

Question70:-Which materials is used to make lathe bed

A:-Cast iron

B:-Mild steel

C:-High alloy steel

D:-H S S

Correct Answer:- Option-A

Question71:-The included angle of live centre used in the lathe

A:-90 degree

B:-30 degree

C:-45 degree

D:-60 degree

Correct Answer:- Option-D

Question72:-The use of chip breaker in lathe is

A:-Align the tool

B:-Break the chips

C:-Increase tool life

D:-Unbreak the chips

Correct Answer:- Option-B

Question73:-In lathe machine face plate is held at

A:-Tool post

B:-Tail stock

C:-Lathe bed

D:-Head stock spindle

Correct Answer:- Option-D

Question74:-The size of a 3 jaw chuck is specified by

A:-Diameter of work that can be held

B:-Width of chuck

C:-Diameter of the body of chuck

D:-Size of each jaw

Correct Answer:- Option-C

Question75:-The sliding surface of the lathe bed are

A:-Annealed

B:-Case hardened

C:-Tempered

D:-Hardened

Correct Answer:- Option-B

Question76:-The method of facing to bring the work against the rotation of the cutter is

A:-Up milling

B:-Down milling

C:-Knurling

D:-Gang milling

Correct Answer:- Option-A

Question77:-The milling cutter having teeth only on periphery?

A:-End milling

B:-Plain or slab milling

C:-Side and face milling

D:-None of these

Correct Answer:- Option-B

Question78:-The operation of dividing the circumferences of a work its equally spaced division is

A:-Grooving

B:-Counter boring

C:-Indexing

D:-Counter sinking

Correct Answer:- Option-C

Question79:-Milling operation to produce surface on both side of a work by mounting two side milling cutter on the same arbor is

A:-Plain milling

B:-Straddle milling

C:-End milling

D:-Angular milling

Correct Answer:- Option-B

Question80:-Helical gear can be cut on following type of milling machine?

A:-Vertical milling machine

B:-Horizontal milling machine

C:-Universal milling machine

D:-Drum type milling machine

Correct Answer:- Option-C

Question81:-Milling cutter are mounted on a part called?

A:-Arbor

B:-Machine vice

C:-Over arm

D:-Dividend head

Correct Answer:- Option-A

Question82:-The standard taper using milling machine spindle is

A:-Morse taper

B:-Jarno taper

C:-Brown and sharp

D:-Metric taper

Correct Answer:- Option-C

Question83:-The ability of a material is to be drawn wire?

A:-Malleability

B:-Toughness

C:-Ductility

D:-Brittleness

Correct Answer:- Option-C

Question84:-The method of heat treatment to reduce internal stresses of a hardend tool is

A:-Annealing

B:-Tempering

C:-Normalising

D:-Case hardening

Correct Answer:- Option-B

Question85:-The strength of the bond is indicated by?

A:-Grit

B:-Grade

C:-Bond

D:-Structure

Correct Answer:- Option-B

Question86:-The grinding wheel used for grinding high tensil strength materials like steel?

A:-Aluminium Oxide

B:-Silicon Carbide

C:-Diamond

D:-Quartz

Correct Answer:- Option-A

Question87:-The removing of clogs and blunt abrasive grains from a grinding wheel is called

A:-Trueing

B:-Dressing

C:-Turning

D:-Grinding

Correct Answer:- Option-B

Question88:-In grinding wheel specification 35A54K6V9, the letter V indicates?

A:-Grit

B:-Bond

C:-Grade

D:-Structure

Correct Answer:- Option-B

Question89:-The alphabet E indicates which bond

A:-Resinoid bond

B:-Vitrified bond

C:-Rubber bond

D:-Shellac bond

Correct Answer:- Option-D

Question90:-Glazing in grinding wheel refers to

A:-Grinding wheel develops shining appearance

B:-Chips get clogged between abrasives

C:-Breakage of grinding wheel

D:-Grinding wheel imbalance

Correct Answer:- Option-A

Question91:-G04 is a code used for

A:-Linear interpolation

B:-Dwell time

C:-Work co ordinate system

D:-Incremental mode

Correct Answer:- Option-B

Question92:-Mode used in CNC to feed access manually is?

- A:-Jog mode
- B:-Handle mode
- C:-Auto mode
- D:-Edit mode

Correct Answer:- Option-A

Question93:-Function of M06 in part programming is?

- A:-Spindle stop
- B:-Tool change
- C:-Programme end
- D:-Coolant on

Correct Answer:- Option-B

Question94:-Which control system provided with feedback?

- A:-Open loop
- B:-Closed loop
- C:-Point to point
- D:-Coutouring

Correct Answer:- Option-B

Question95:-The axis moving up and down in VMC?

- A:-X
- B:-Y
- C:-Z
- D:-None of these

Correct Answer:- Option-C

Question96:-In the block G01X30ZF120S1000 F stands for?

- A:-Function
- B:-Feedback
- C:-Feed
- D:-Frequency

Correct Answer:- Option-C

Question97:-If tolerance is provided on the side of the basic dimension, it is called?

- A:-Allowance
- B:-Unilateral tolerance
- C:-Bilateral tolerance
- D:-Limit

Correct Answer:- Option-B

Question98:-The difference between the maximum and minimum sizes in

component manufacturing is?

A:-Clearance

B:-Allowance

C:-Tolerance

D:-Limit

Correct Answer:- Option-C

Question99:-The temperature at which oil catches the fire?

A:-Pour point

B:-Freezing point

C:-Flash point

D:-Fire point

Correct Answer:- Option-D

Question100:-Coolant used for machining cast iron?

A:-No coolant

B:-Kerozine

C:-Soluble oil

D:-Synthetic oil

Correct Answer:- Option-A