

## PROVISIONAL ANSWER KEY

Question 108/2025/OL

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Exam: Welder

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Department State Water Transport

Question1:-What is the reason for clogging of the file?

A:-Lack of convexity

B:-Filing hard material

C:-Filing uneven surfaces

D:-Filing with excess pressure

Correct Answer:- Option-D

Question2:-The cutting angle of straight snip is \_\_\_\_\_

A:-60 degree

B:-70 degree

C:-75 degree

D:-87 degree

Correct Answer:- Option-D

Question3:-The pitch distance of a coarse pitch hacksaw blade is \_\_\_\_\_

A:-0.8 mm

B:-1.4 mm

C:-0.1 mm

D:-1.8 mm

Correct Answer:- Option-D

Question4:-What should be the distance between the tip of the cutting nozzle from the top surface of the plate to be cut?

A:-20 mm

B:-1 mm

C:-0.5 mm

D:-5 mm

Correct Answer:- Option-D

Question5:-In gas cutting, size of tip is selected for cutting of 8 mm thick mild steel plate is \_\_\_\_\_

A:-0.8 mm

B:-1.2 mm

C:-1.6 mm

D:-2.0 mm

Correct Answer:- Option-B

Question6:-Which is the method to control back fire while welding?

A:-Close the oxygen control valve first

B:-Close the acetylene control valve first

C:-Close regulator valve first

D:-Close HBP valve first

Correct Answer:- Option-A

Question7:-The temperature producing neutral flame is \_\_\_\_\_

A:-3200 degree

B:-3300 degree

C:-3100 degree

D:-3400 degree

Correct Answer:- Option-A

Question8:-A back fire is caused when the gas pressure setting is \_\_\_\_\_

A:-Low

B:-Medium

C:-High

D:-Closed

Correct Answer:- Option-A

Question9:-Name the type of flame used for welding of cast iron is \_\_\_\_\_

A:-Neutral flame

B:-Carburising flame

C:-Oxidising flame

D:-Reducing flame

Correct Answer:- Option-A

Question10:-The greatest amount of heat produced in an oxy-acetylene flame at \_\_\_\_\_

A:-Just ahead of inner cone

B:-Inner cone

C:-Outer envelope

D:-Outer cone

Correct Answer:- Option-A

Question11:-Which one of the following gas flame combination has the lowest

temperature?

A:-Oxy-acetylene

B:-Oxy-hydrogen

C:-Oxy-coal gas

D:-Oxy-LPG

Correct Answer:- Option-C

Question12:-The porous substance packed inside the acetylene cylinder is \_\_\_\_\_

A:-Plaster of Paris

B:-Sponge

C:-Long fibre asbestos

D:-Lime

Correct Answer:- Option-C

Question13:-Density of calcium carbide is \_\_\_\_\_

A:-2.22 to 2.26 g/cc

B:-3.32 to 3.27 g/cc

C:-4.22 to 4.36 g/cc

D:-1.22 to 1.26 g/cc

Correct Answer:- Option-A

Question14:-In acetylene gas purifier first compartment contains \_\_\_\_\_

A:-Filter wool

B:-Pumice stone

C:-Purifying chemical

D:-Ammonia

Correct Answer:- Option-B

Question15:-How many liters of gas can produce one kg of liquid oxygen?

A:-750 liters

B:-600 liters

C:-500 liters

D:-800 liters

Correct Answer:- Option-A

Question16:-The most widely used oxy-acetylene gas welding technique is \_\_\_\_\_

A:-Leftward welding technique

B:-Rightward welding technique

C:-Stringer bead technique

D:-Weave bead technique

Correct Answer:- Option-A

Question17:-The permissible value of reinforcement in groove and fillet welds is \_\_\_\_\_

A:-T/10

B:-T/20

C:-T/5

D:-T/25

Correct Answer:- Option-A

Question18:-The fuse plug fitted in the dissolved acetylene cylinder base will melt at a temperature of \_\_\_\_\_

A:-100°C

B:-150°C

C:-300°C

D:-80°C

Correct Answer:- Option-A

Question19:-The function of injector in low pressure blow pipe is \_\_\_\_\_

A:-High pressure oxygen draws low pressure acetylene and increase its velocity

B:-Decrease the velocity of oxygen equal to acetylene velocity

C:-To check the flow of oxygen

D:-Increase velocity of oxygen

Correct Answer:- Option-A

Question20:-The function of filler rod in gas welding is \_\_\_\_\_

A:-To obtain proper size of weld and to add additional elements

B:-To increase the fluidity

C:-To obtain penetration

D:-To obtain bead

Correct Answer:- Option-A

Question21:-Submerged arc welding flux is non-conductive when it is \_\_\_\_\_

A:-Hot

B:-Cool

C:-Dry

D:-Not clean

Correct Answer:- Option-B

Question22:-What should be the gap between the parts to be joined in submerged arc welding?

A:-0.5 mm

B:-0.8 mm

C:-1.2 mm

D:-1.8 mm

Correct Answer:- Option-B

Question23:-When thermit welding of copper conductors the process employs a semi-permanent crucible mould which is made of?

A:-Cast iron

B:-Carbon

C:-Copper

D:-Graphite

Correct Answer:- Option-D

Question24:-The thermit mixture contains \_\_\_\_\_

A:-5 parts of aluminium and 8 parts of iron oxide

B:-4 parts of aluminium and 5 parts of iron oxide

C:-6 parts of aluminium and 7 parts of iron oxide

D:-3 parts of aluminium and 4 parts of iron oxide

Correct Answer:- Option-A

Question25:-In which position electro slag welding generally done?

A:-Flat

B:-Horizontal

C:-Vertical

D:-Over head

Correct Answer:- Option-C

Question26:-In electro slag welding, electrode guided tube made up of \_\_\_\_\_

A:-Copper silver alloy

B:-Brass

C:-Beryllium copper alloy

D:-Stainless steel

Correct Answer:- Option-C

Question27:-Friction welding is a \_\_\_\_\_

A:-Solid state welding

B:-Liquid state welding

C:-Gaseous state

D:-Plasma state

Correct Answer:- Option-A

Question28:-Metal that cannot be welded by the friction welding is \_\_\_\_\_

A:-Stainless steel

B:-Copper

C:-Carbon steel

D:-Cast iron

Correct Answer:- Option-D

Question29:-One of the most widely used gas laser is \_\_\_\_\_

A:-Helium

B:-Xenon

C:-Argon

D:- $CO_2$

Correct Answer:- Option-D

Question30:-Which type of welding the work piece is melted and joined by narrow beam of intense monochromatic light?

A:-Laser beam

B:-Electron beam

C:-Flash butt welding

D:-Submerged welding

Correct Answer:- Option-A

Question31:-The speed of electrons in electron beam welding ranges from \_\_\_\_\_

A:-48000 kms/sec to 192000 kms/sec

B:-55000 kms/sec to 150000 kms/sec

C:-30000 kms/sec to 200000 kms/sec

D:-25000 kms/sec to 100000 kms/sec

Correct Answer:- Option-A

Question32:-In EBW, electron beam can be directed either downwards or deflected in any other direction within the vacuum chamber using \_\_\_\_\_

A:-Electron beam gun

B:-Transport system

C:-Electromagnetic lens

D:-Deflection coil

Correct Answer:- Option-D

Question33:-Rotating wheels are used as electrodes in this resistance welding is \_\_\_\_\_

A:-Spot

B:-Seam

C:-Projection

D:-Flash-butt

Correct Answer:- Option-B

Question34:-What is the angle of offset tip electrode used in spot welding?

A:-30°

B:-40°

C:-50°

D:-60°

Correct Answer:- Option-A

Question35:-Which method of resistance welding is used to attach the fasteners with the structural member?

A:-Spot

B:-Projection

C:-Seam

D:-Upset

Correct Answer:- Option-B

Question36:-Nick break test is done to find - \_\_\_\_\_

A:-Slag inclusion

B:-Excessive concavity

C:-Crack

D:-Undercut

Correct Answer:- Option-A

Question37:-Special non-destructive test is \_\_\_\_\_

A:-leak or pressure test

B:-stethoscopic test

C:-magnetic particle test

D:-visual inspection

Correct Answer:- Option-C

Question38:-A metal resists penetration, what property does it indicate?

A:-Malleability

B:-Ductility

C:-Brittleness

D:-Hardness

Correct Answer:- Option-D

Question39:-What is the code number given for pressure vessel manufacturing, exclusively for steel and steel alloy?

A:-P1 to P11

B:-P21 to P30

C:-P31 to P35

D:-P41 to P47

Correct Answer:- Option-A

Question40:-Which type of tests are conducted by WPS, to test welder's performance?

A:-Destructive test

B:-Non-destructive test

C:-X-ray test

D:-Gamma ray test

Correct Answer:- Option-A

Question41:-Which type of current is commonly used in plasma arc cutting process?

A:-DCEN

B:-DCEP

C:-AC

D:-DCRP

Correct Answer:- Option-A

Question42:-Clean compressed air used as the cutting gas; electrode used in plasma arc cutting is \_\_\_\_\_

A:-Hafnium

B:-Pure tungsten

C:-Thoriated

D:-Created

Correct Answer:- Option-A

Question43:-Which one of the following methods is not related to surfacing method?

A:-Oxy-acetylene method

B:-Grinding method

C:-TIG welding method

D:-SAW method

Correct Answer:- Option-B

Question44:-One of the typical advantages of hard facing for a worn-out metal is \_\_\_\_\_

A:-To increase labour cost

B:-To decrease the ductility

C:-The increase mechanical operating efficiency

D:-To decrease hardness

Correct Answer:- Option-C



Question45:-What is the pre-heated temperature of copper and copper alloys?

A:-200°C maximum

B:-300°C maximum

C:-350°C maximum

D:-450°C maximum

Correct Answer:- Option-A

Question46:-Welding is not done directly from the main supply because \_\_\_\_\_?

A:-It is costomery to use welding machine

B:-It is impractical to draw heavy current

C:-Its voltage keep fluctuating

D:-None of the above

Correct Answer:- Option-B

Question47:-What is defined as vertical position of groove welding?

A:-1G

B:-2G

C:-3G

D:-6G

Correct Answer:- Option-C

Question48:-In direct current electrode positive welding \_\_\_\_\_ of the total heat produced at the electrode?

A:-1/3

B:-2/3

C:-1/4

D:-1/2

Correct Answer:- Option-B

Question49:-Which among the joints are covered under fillet group?

A:-T joint, single V joint

B:-Single V joint, single U joint

C:-Corner joint, single U joint

D:-T joint, Corner joint

Correct Answer:- Option-D

Question50:-What is the purpose of presetting the plate while welding a T fillet joint?

A:-Control distortion

B:-Get good root penetration

C:-Control Arc blow

D:-Avoid Crater defect

Correct Answer:- Option-A

Question51:-What is the maximum length of a stub as per standard?

A:-10 mm - 20 mm

B:-20 mm - 30 mm

C:-30 mm - 40 mm

D:-40 mm - 50 mm

Correct Answer:- Option-D

Question52:-In MAG welding the  $CO_2$  is filled in the cylinder in the form of \_\_\_\_\_?

A:-Steam

B:-Gas

C:-Liquid

D:-Asaton

Correct Answer:- Option-C

Question53:-In  $CO_2$  welding, the groove angle for single V butt joint is \_\_\_\_\_ degree?

A:-70° to 75°

B:-65° to 70°

C:-55° to 60°

D:-40° to 45°

Correct Answer:- Option-D

Question54:-The deposition efficiency of MAG welding is defined as the rate of \_\_\_\_\_

A:-Weight of gas

B:-Weight of weld

C:-Weight of electrode

D:-Weight of parent metal

Correct Answer:- Option-B

Question55:-What is the effect in GMAW for welding with short stick out distance?

A:-Porosity in weldment

B:-Less spatter deposit in nozzle

C:-Arc blow in weldment

D:-More spatter deposit in nozzle

Correct Answer:- Option-D

Question56:-In GMAW, small lengths of electrode wire which stick through the root side of groove weld is known as \_\_\_\_\_?

A:-Whiskers

B:-Leg length

C:-Cretar

D:-Penetration

Correct Answer:- Option-A

Question57:-The material used to make gas nozzle in TIG welding process is \_\_\_\_\_?

A:-Mica

B:-Ceramic

C:-Copper and Copper alloy

D:-Backlit

Correct Answer:- Option-B

Question58:-In the following gases which is a monatomic gas?

A:-Carbon Dioxide

B:-Hydrogen

C:-Helium

D:-Oxygen

Correct Answer:- Option-C

Question59:-In TIG welding the high frequency unit is connected between \_\_\_\_\_?

A:-Work and torch

B:-Power source and work

C:-Torch and work

D:-Power source and torch

Correct Answer:- Option-D

Question60:-Higher duty cycle TIG welding torch is \_\_\_\_\_?

A:-Water cooled torch

B:-Air cooled torch

C:-Grease cooled torch

D:-Oil cooled torch

Correct Answer:- Option-A

Question61:-In TIG welding aluminium and magnesium metals are welded by \_\_\_\_\_?

A:-DC

B:-AC

C:-DC & AC

D:-None of these

Correct Answer:- Option-B

Question62:-One of the method of determination of polarity is Water Test, here the terminal with \_\_\_\_\_?

A:-More and quick arising bubbles indicate negative

B:-More and quick arising bubbles indicate positive

C:-Slow arising bubbles indicate negative

D:-Both 2 and 3

Correct Answer:- Option-A

Question63:-The imaginary line passing through the weld centre lengthwise is known as \_\_\_\_\_?

A:-Centre line

B:-Axis

C:-Face

D:-Weld slope

Correct Answer:- Option-B

Question64:-Which among the following is done to decrease the rate of cooling of welded job?

A:-Hard the job before welding

B:-Anneal the job before welding

C:-Reduce the current

D:-Preheat the job before welding

Correct Answer:- Option-D

Question65:-The defect Cold cracking in weld are due to \_\_\_\_\_?

A:-Presents of hydrogen in hardanable steel

B:-Function of chemical composition

C:-Insafficiant root gap

D:-Travel speed is more

Correct Answer:- Option-A

Question66:-What is the purpose of keeping a magnetic bridge on the top of the groove joint?

A:-Control Slag inclusion

B:-Control Distortion

C:-Control Arc blow

D:-Control Undercut

Correct Answer:- Option-C

Question67:-At the end of a weld beed, the electrode is moved backwards, gradually increases the electrode angle from  $70^\circ$  to  $90^\circ$ . This welding technique is followed to avoid \_\_\_\_\_?

A:-Undercut

B:-Distortion

C:-Crater defect

D:-Slag inclusion

Correct Answer:- Option-C

Question68:-Arc blow is a disturbance during welding, \_\_\_\_\_ system is free from 'Arc Blow'?

A:-DC reverse polarity welding

B:-AC welding

C:-Long arc welding

D:-DC straight polarity welding

Correct Answer:- Option-B

Question69:-In  $CO_2$  welding, \_\_\_\_\_ type arc welding machine used?

A:-AC constant current

B:-AC constant voltage

C:-DC constant current

D:-DC constant voltage

Correct Answer:- Option-D

Question70:-In backhand welding, the tip of the electrode points away from the direction of travel is also called \_\_\_\_\_ welding technique?

A:-Pulling

B:-Overhead

C:-Down hand

D:-Pushing

Correct Answer:- Option-A

Question71:-The distance between the end of the contact tube and the tip of the electrode is called \_\_\_\_\_?

A:-Leg length

B:-Arc length

C:-Stick out

D:-Throat thickness

Correct Answer:- Option-C

Question72:-In GMAW, Teflon liner is used for welding of \_\_\_\_\_?

A:-Stainless steel

B:-Copper

C:-Mild steel

D:-Aluminum

Correct Answer:- Option-D

Question73:-In  $CO_2$  welding, when the welding current is low \_\_\_\_\_ type metal transfer occurs?

- A:-Globular
- B:-Short circuit
- C:-Spray
- D:-Pulsed

Correct Answer:- Option-A

Question74:-Which type of shielding gas will produce smaller heat affected zone in TIG welding?

- A:-Carbon Dioxide
- B:-Helium
- C:-Argon
- D:-Nitrogen

Correct Answer:- Option-B

Question75:-In TIG welding, setting DCEN for Stainless steel welding, \_\_\_\_\_ is the angle of electrode tip?

- A:-40°
- B:-45°
- C:-50°
- D:-60°

Correct Answer:- Option-D

Question76:-Which type of wire brush is used to clean Aluminium sheets?

- A:-Carbon brush
- B:-Steel wire brush
- C:-Stainless steel wire brush
- D:-Aluminium wire brush

Correct Answer:- Option-C

Question77:-In TIG welding, \_\_\_\_\_ is used to show the volume of the inert gas allowed to go to the welding torch?

- A:-Flow meter
- B:-Pressure meter
- C:- $CO_2$  regulator
- D:-Argon regulator

Correct Answer:- Option-A

Question78:-In TIG welding, high frequency unit increases the frequency to \_\_\_\_\_?

- A:-2 to 4 million periods / second

B:-1 to 4 million periods / second

C:-3 to 5 million periods / second

D:-2 to 5 million periods / second

Correct Answer:- Option-A

Question79:-The type of electrode used for welding aluminium by TIG welding process is \_\_\_\_\_?

A:-Tungsten with 1 to 2%, thorium Oxide electrode

B:-Pure tungsten electrode

C:-Tungsten with 2% Ceriated electrode

D:-Tungsten with 2% Lanthanated electrode

Correct Answer:- Option-B

Question80:-In GTAW, nozzles are numbered to Indicate their size in 'mm'. What is the size of the nozzle in 'mm' if nozzle is numbered as 6?

A:-8 mm

B:-11 mm

C:-10 mm

D:-12.5 mm

Correct Answer:- Option-C

Question81:-Choosing a GTAW torch \_\_\_\_\_ is consider?

A:-A Type of current used for welding

B:-Material used for torch body

C:-Current carrying capacity

D:-Inert gas used for welding

Correct Answer:- Option-C

Question82:-In arc welding the length of arc is directly related to the \_\_\_\_\_?

A:-Current

B:-Voltage

C:-Resistance

D:-Speed

Correct Answer:- Option-B

Question83:-What type of electrode will you select for crack free weld?

A:-Low hydrogen electrode

B:-Deep penetration electrode

C:-Iron powdered electrode

D:-Contact electrode

Correct Answer:- Option-A

Question84:-What is the name of the type of joint for the symbol?



A:-Convex fillet

B:-Concave fillet

C:-Flash butt weld

D:-Flash single V butt weld

Correct Answer:- Option-B

Question85:-What is the effect of insufficient root gap in welding?

A:-Defects like Blow hole and porosity

B:-More chance of distortion

C:-More penetration will result

D:-Base metal not fused till the bottom of point

Correct Answer:- Option-D

Question86:-During welding, basemetal melted and a groove formed along the toe of the weld is called \_\_\_\_\_ defect?

A:-Undercut

B:-Reniforcement

C:-Lack of penetration

D:-Blow hole

Correct Answer:- Option-A

Question87:-Ohm's law states that \_\_\_\_\_?

A:- $I = VR$

B:- $I = R/V$

C:- $V = IR$

D:- $R = I/IV$

Correct Answer:- Option-C

Question88:-What does the third digit of AWS codification in E6013 represent?

A:-Type of current

B:-Type of welding position

C:-Type of tensile strength

D:-Type of covering

Correct Answer:- Option-B

Question89:-In GMAW, which one is delivering the shielding gas correctly to the shielding nozzle?

A:-Diffuser



B:-Contact tip

C:-Nozzle

D:-Contact tip holder

Correct Answer:- Option-A

Question90:-In GMAW a linear relationship exists between the rate at which the wire is fed in to the arc and the current required to melt it off to maintain a constant arc length. This is known as the \_\_\_\_\_ characteristic?

A:-Burn on

B:-Burn off

C:-DCSP

D:-DCRP

Correct Answer:- Option-B

Question91:-In GMAW wire reel drive motor draws the filler electrode wire from wire reel through \_\_\_\_\_ and feed it to the welding gun?

A:-Wire feed mass roller

B:-Wire feed line control

C:-Wire feed drive motor

D:-Wire feed pressure roller

Correct Answer:- Option-D

Question92:-During GMAW, on using  $CO_2$  as shielding gas, \_\_\_\_\_ gas is generated?

A:-Argon

B:-Helium

C:-Hydrogen

D:-Carbon monoxide

Correct Answer:- Option-D

Question93:-In  $CO_2$  welding, spray transfer requires \_\_\_\_\_?

A:-High current density

B:-High power

C:-High voltage density

D:-High pressure

Correct Answer:- Option-A

Question94:-The gas flow rate in the GTAW process depends upon \_\_\_\_\_?

A:-Supporting gas and diameter of nozzle

B:-Atmospheric gas and diameter of nozzle

C:-Shielding gas and diameter of nozzle

D:-Burning gas and diameter of nozzle

Correct Answer:- Option-C

Question95:-In TIG welding torch \_\_\_\_\_ is holding tungsten electrode?

A:-Adaptor

B:-Nozzle

C:-Electrode Cap

D:-Collet

Correct Answer:- Option-D

Question96:-When grinding a point on a thoriated tungsten electrode in which direction would be grinding marks run?

A:-Rotarywise

B:-Crosswise

C:-Lengthwise

D:-Parallelwise

Correct Answer:- Option-C

Question97:-Pure tungsten electrodes are identified with \_\_\_\_\_ marking?

A:-Green colour

B:-Orange colour

C:-Yellow colour

D:-Brown colour

Correct Answer:- Option-A

Question98:-What is the process of replacing the air in a pipe with argon gas that will not react with the root of the weld?

A:-Pouring

B:-Purging

C:-Pre filling

D:-Pool weld

Correct Answer:- Option-B

Question99:-In Thoriated tungsten electrode \_\_\_\_\_ percentage of thorium is present?

A:-0.5 to 1%

B:-2.3 to 3%

C:-1 to 2%

D:-3 to 3.5%

Correct Answer:- Option-C

Question100:-Nickel and Titanium welding \_\_\_\_\_ process is effective.

A:-Arc welding

B:-Gas welding

C:-MIG/MAG welding

D:-TIG welding

Correct Answer:- Option-D