FINAL ANSWER KEY

80/2022/OL Question Paper Code: Category Code: 142/2021 Exam: Mechanical Draughtsman 29-09-2022 Date of Test Department Travancore Cochin Chemicals Limited Alphacode Α Question1:-Which of the following statement is/are correct about isometric axex and isometric planes?

(i) The principle axes of the imaginary cube, when it is in isometric position is known as isometric axex.

(ii) Three mutually perpendicular planes which are equally inclined to VP or any other plane which is parallel to any of the above planes is A:-Only (i) B:-Only (ii) C:-All of the above (i and ii) D:-Both (i and ii) are not correct Correct Answer:- Option-C Question2:-Which of the following statement is/are correct about Perspective projection?

(i) Avertical transparent plane on which the perspective view is obtained is known as Picture plane.

(ii) Perspective projection is the pictorial view of an object as seen by the human eye.

(iii) The line of intersection of the picture plane and the central plane is known as Ground line. A:-Only (i) B:-Only (ii) C:-All of the above (i, ii and iii) D:-Only (i and ii) Correct Answer:- Option-D Question3:-The points at which the edge of a prism or pyramid penetrates through the second surface is known as A:-Vertices B:-Curve of intersection C:-Critical point D:-Horizon line Correct Answer:- Option-A Question4:-Which of the following method is used for the development of Prisms and Cylinders? A:-Radial line method B:-Parallel line method C:-Zone method D:-Triangular method Correct Answer:- Option-B Question5:-Which of the following statement is/are correct about alloying elements of steel
(i) Chromium, when added to steel, improves the corrosion resistance, toughness and hardenability of steel.
(ii) Addition for silicon or alloying with steel improves resistance to high temperature oxidation. Vanadium improves the toughness of steel A:-Only (i) B:-All of the above (i, ii and iii) C:-Only (i and ii) D:-Only (ii) Correct Answer:- Option-B Question6:-Which of the following statement is/are correct about the following alloys? Brass is an alloy of copper and zinc. Bronze is basically an alloy of copper, antimony and tin. (iii) Babbit metal is an alloy of lead, tin, copper and antimony. A:-Only (i and iii) B:-All of the above (i, ii and iii) C:-Only (i and ii) D:-Only (ii and iii) Correct Answer:- Option-A

Question7:-What is the melting point of Aluminium?

A:-231°C
B:-420°C
C:-1083°C
D:-660°C
Correct Answer:- Option-D
Question8:-The property of a metal to withstand shock or impact is known as
A:-Brittleness
B:-Toughness
C:-Tenacity
D:-Elasticity
Correct Answer:- Option-B
Question9:-Which of the following statement is/are correct about the use a capital letter? (i) Use a capital letter for the first letter in a sentence. (ii) Always use a capital letter for the word:l (iii) Use a capital letter for the names of people
A:-Only (i and iii)
B:-Only (ii and iii)
C:-Only (i and ii)
D:-All of the above (i, ii and iii)
Correct Answer:- Option-D
Question10:-Which of the following statement is/are correct about Homophones? (i) It is a word that is pronounced the same as another word but differs in meaning. (ii) It is a word that shares same written form as another word but has different meaning.
A:-Only (i)
B:-Only (ii)
C:-Both (i and ii)
D:-None of the above
Correct Answer:- Option-A
Question11:-What is a word that takes the place of a common noun or a proper noun?
A:-Noun
B:-Pronoun
C:-Articles
D:-Adjectives
Correct Answer:- Option-B
Question12:-What is a word that connects one thing with another, showing how they are related?
A:-Conjunctions
B:-Interjections
C:-Articles
D:-Prepositions
Correct Answer:- Option-D
Question13:-Which of the following statement is/are correct about grades of a file? (i) A rough file is used for removing rapidly a larger quantity of metal. (ii) A bastard file is remove small quantity of material and to give a good finish. (iii) A dead smooth file is used to bring the material to accurate size with a high degree of finish.
A:-Only (i and ii)
B:-Only (ii and iii)
C:-Only (i and iii)
D:-All of the above (i, ii and iii)
Correct Answer:- Option-C
Question14:-Which of the following statement is/are correct about specification of a lathe? (i) Swing or maximum diameter that can be rotated over the bed ways. (ii) Maximum length of the job that can be held between head stock and tail stock centres. (iii) Lead screw diameter and number of threads per inch or pitch in mm.
A:-Only (i)
B:-Only (ii)

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C:-Only (i and ii)
     D:-All of the above (i, ii and iii)
      Correct Answer:- Option-D
Question15:-Which one of the following is used for bringing the sheet metal closely together after inserting the rivet in the hole?
     A:-Dolly
      B:-Rivet set
     C:-Snap
     D:-Drift
     Correct Answer:- Option-B
Question16:-Which one of the following is not a part of diesel engine?
     A:-Fuel injector
     B:-Air filter
     C:-Fuel pump
     D:-Spark plug
      Correct Answer:- Option-D
Question17:-The difference between the maximum limit of size and the minimum limit of size is known as
     A:-Upper deviation
      B:-Lower deviation
      C:-Tolerance
     D:-Actual deviation
      Correct Answer:- Option-C
Question18:-Which of the following statement is/are correct about the Table jig?
    Used when it is necessary to locate the piece part from its face.
Used to hold work which are to be drilled at right angles to their mounting locators.
(iii) Ideal for thin or soft workpieces which may bend or warp due to force while machining.
     A:-Only (i)
     B:-Only (ii)
     C:-Only (iii)
     D:-All of the above (i, ii and iii)
      Correct Answer:- Option-A
Question19:-Calculate the mass in kg of a rectangular steel plate of dimensions 250 \times 200 \times 20 mm (density of steel = 7.82 \text{ kg/} cm^3)
     A:-782.00 kg
     B:-0.782 kg
     C:-7.82 kg
     D:-78.20 kg
     Correct Answer:-Question Cancelled
Question20:-Which of the following statement is/are correct about the weight of a body?

(i) Weight is measure of amount of force acting on mass due to acceleration due to gravity.

(ii) It does not depend on the position or space.
(iii) Weight of an object will be zero if gravity is absent.
      A:-Only (i and ii)
     B:-Only (i and iii)
     C:-Only (ii and iii)
     D:-All of the above (i, ii and iii)
     Correct Answer:- Option-B
Question21:-Which of the following statement is/are correct about the unit of density?
     gr/cm3
kg/dm3
(iii) ton/m3
     A:-Only (i and iii)
     B:-Only (ii and iii)
     C:-Only (i and ii)
     D:-All of the above (i, ii and iii)
      Correct Answer:- Option-D
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Question22:-Which one of the following is the density of water?
A:-1.00 kg/cm ³
B:-10.0 gm/cm ³
C:-1.00 gm/cm ³
D:-10.0 kg/cm ²
Correct Answer:- Option-C
Question23:-Which of the following statement is/are correct about oral communication?
(ii) It is quick and direct method. (iii) Feedback is immediate, be it praise or critcism. (iii) It can be used for documentary evidence.
A:-Only (i and ii)
B:-Only (i and iii)
C:-Both (ii and iii)
D:-All of the above (i, ii and iii)
Correct Answer:- Option-A
Question24:-Which one is the type of listening is basically listening for pleasure?
A:-Comprehensive (Informational) Listening
B:-Critical (Evaluative) Listening
C:-Appreciative (Aesthetic) Listening
D:-Therapeutic (Empathetic) Listening
Correct Answer:- Option-C
Question25:-Which of the following statement is/are correct about Barriers to Listening? (i) Listener's bias or prejudice (ii) Language difference or accents. (iii) Listener's personal attitude.
A:-Only (i and ii)
B:-Only (i and iii)
C:-Only (ii and iii)
D:-All of the above (i, ii and iii)
Correct Answer:- Option-D
Question26:-What makes people take the effort to achieve their goals?
A:-Motivation
B:-Ethics
C:-Quality
D:-Commitment
Correct Answer:- Option-A
Question27:-The stress produced in shaft due to torsional load
A:-Bending stress
B:-Shear stress
C:-Both bending and shear stress
D:-None of above
Correct Answer:- Option-B
Question28:-A key made from cylindrical disc having segmental cross section is known as
A:-Feather key
B:-Gib head key
C:-Woodruff key
D:-Flat saddle key
Correct Answer:- Option-C
Question29:-The coupling used to connect the shafts having lateral mis-alignment is
A:-Universal coupling
B:-Muff coupling
C:-Oldham coupling

D:-Flange coupling	
Correct Answer:- Option-C	
Question30:-The ratio of eccentricity to the radial clearance in the case of Journal bearing is known as	
A:-Clearance ratio	
B:-Attitude	
C:-Bearing modulus	
D:-None of the above	
Correct Answer:- Option-B	
Question31: The distance measured on the circumference of the pitch circle from a point of one tooth to the corresponding point on next tooth is known	as
A:-Circular pitch	
B:-Diametral pitch	
C:-Backlash	
D:-Module	
Correct Answer:- Option-A	
Question32:-In a flat belt drive, for maximum power transmission the ratio of centrifugal tension to maximum tension will be	
A:- $\frac{1}{3}$	
B:-2/3	
C:-3	
$D:-\frac{3}{2}$	
Correct Answer:- Option-A	
Question33:-The thickness of rim for all sizes of steel pulleys should be	
A:-6 mm	
B:-7 mm	
C:-5 mm	
D:-8 mm	
Correct Answer:- Option-C	
Question34:-ISP stands for	
A:-Internet System Provider	
B:-Internet Service Protocol	
C:-Internet Service Provider	
D:-Internet System Protocol	
Correct Answer:- Option-C	
Question35:-Unit of thermal conductivity is	
A:- $\frac{W}{mK}$	
$B:-\frac{W}{m^2K}$	
$C:-rac{W}{m^2K^4}$	
D:-None of the above	
Correct Answer:- Option-A	
Question36:-In a non flow process	
A:-Kinetic energy will not change	
B:-Potential energy will not change	
C:-Both potential and kinetic energy will change	
D:-Both potential and kinetic energy will not change	
Correct Answer:- Option-D	
Question37:-The tab used for adding rows and columns in the table in MS Word	
A:-Insert	
B:-Design	

C:-Layout
D:-Page Layout
Correct Answer:- Option-C
Question38:-The key used for Ortho mode on or off in Auto CAD is
A:-F9
B:-F8
C:-F3
D:-F7
Correct Answer:- Option-B
Question39:-The command used for creating a new object which has shape of the object selected, which is parallel to old one
A:-Array
B:-Mirror
C:-Offset
D:-Copy
Correct Answer:- Option-C
Question40:-The command used to join two non parallel lines, a line and arc, circles and poly lines with an arc with specified radius is
A:-Fillet
B:-Chamfer
C:-Trim
D:-Stretch
Correct Answer:- Option-A
Question41:-The command used to select a viewing direction for three dimensional view of a drawing specified by X, Y and Z coordinates is
A:-VDIR
B:-VPOINT
C:-VIEW
D:-VIEWDIR
Correct Answer:- Option-B
Question42:-Which of the following is not a modifying command?
A:-Erase
B:-Copy
C:-Hatch
D:-Array
Correct Answer:- Option-C
Question43:-The button on the mouse which is used for zoom and pan
A:-Right button
B:-Wheel
C:-Left button
D:-All buttons can be used
Correct Answer:- Option-B
Question44:-In how many ways a circle can be drawn in Auto CAD?
A:-5
B:-4
C:-7
D:-6
Correct Answer:- Option-D
Question45:-The command used to display the various properties of 2D and 3D objects is
A:-MASSPROP
B:-VOLPROP
C:-MASSPOINT
D:-VOLPOINT

Correct Answer:- Option-A
Question46:-The command used to draw solids by giving thickness to object
A:-ARRAY
B:-EXTRUDE
C:-UNION
D:-PRESSPULL
Correct Answer:- Option-B
Question47:-The angle between the edges of a cube in isometric projection
A:-120°
B:-30°
C:-60°
D:-180°
Correct Answer:- Option-A
Question48:-The symbol given below shows
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A:-90° flanged elbow
B:-90° screwed elbow
C:-90° welded elbow
D:-All of the above
Correct Answer:- Option-C
Question49:-Which of the following symbol is used for screwed coupling?

В:-

4

C:-

 \neg I \vdash

D:-

Correct Answer:- Option-A

Question50:-In isometric view circle appears as

A:-Circle

B:-Ellipse

C:-Both Circle and Ellipse

D:-None of the above

Correct Answer:- Option-B

Question51:-In which year Auto CAD introduced?

A:-1984

B:-1985

C:-1982

D:-1983

Correct Answer:- Option-C

Question52:-|| the symbol shows

A:-Square lap weld

B:-Square butt weld

C:-Single fillet weld

D:-Single butt weld

Correct Answer:- Option-B
Question53:-Expanded form of UCS in Auto CAD is
A:-Universal Coordinate System
B:-Unit Coordinate System
C:-User Coordinate System
D:-Union Coordinate System
Correct Answer:- Option-C
Question54:-Which of the following is an output device?
A:-Printer
B:-Keyboard
C:-Mouse
D:-Scanner
Correct Answer:- Option-A
Question55:-The command used to cut off any part of the object in Auto CAD is
A:-Erase
B:-Cut
C:-Trim
D:-Break
Correct Answer:- Option-C
Question56:-Which of the following command is used for creating a solid sphere?
A:-Extrude
B:-Revolve
C:-Loft
D:-Sweep
Correct Answer:- Option-B
Question57:-The tool used to measure the dimensions of a 3-D sketch in Auto Desk Inventor is
A:-Loop
B:-Manage
C:-Inspect
D:-Annotate
Correct Answer:- Option-C
Question58:-A cylinder can be created by using
A:-Extrude command
B:-Revolve command
C:-Both 1 and 2
D:-None of the above
Correct Answer:- Option-C
Question59:-The command used for adding dimensions in orthographic projections in Auto Desk Inventor is
A:-Manage
B:-Annotate
C:-Inspect
D:-Tools
Correct Answer:- Option-B
Question60:-Which of the following is 3-D modelling software?
A:-Solid works
B:-Catia
C:-Auto desk inventor
D:-All the above
Correct Answer:- Option-D

Question61:-A fitting that connects two pipes placed at right angles to each other is a

	A:-Lateral fitting
	B:-45° elbow
	C:-90° elbow
	D:-90° connector
	Correct Answer:- Option-C
Que	stion62:-What does WCS stands for?
	A:-Wrong CAD Setting
	B:-World Coordinate Setting
	C:-Western CAD Setting
	D:-Worldwide Coordinate Sectors
	Correct Answer:- Option-B
Que	stion63:-Status bar do not contain
	A:-Erase
	B:-Snap
	C:-Grid
	D:-Polar
	Correct Answer:- Option-A
Que	stion64: is the minimum radius of the cam.
	A:-Flank
	B:-Base circle
	C:-Tip
	D:-Nose
	Correct Answer:- Option-B
Que	stion65:-Remote control valve is a kind of
	A:-Gate valve
	B:-Globe valve
	C:-Needle valve
	D:-Butterfly valve
	Correct Answer:- Option-D
Question66:-The impurities are removed from boiler with the help of	
	A:-Safety valve
	B:-Blow off cock
	C:-Stop valve
	D:-Fusible plug
	Correct Answer:- Option-B
Question67:-A device used to heat feed water by utilizing the heat in the exhaust flue gases before leaving through the chimney, is	
	A:-Super heater
	B:-Blow off cock
	C:-Stop valve
	D:-Economiser
	Correct Answer:- Option-D
Que	stion68: is used to maintain a constant safe working pressure inside the boiler.
	A:-Lever safety valve
	B:-Blow off cock
	C:-Non return valve
	D:-Shut off valve
	Correct Answer:- Option-A
Que	stion69:-A ram cylinder can only have in one direction.
	A:-Movement
	B:-Force

C:-Rotation
D:-Stop
Correct Answer:- Option-B
Question70:-R stands for in FRL unit is
A:-Reservoir
B:-Regulator
C:-Recheck valve
D:-Reassemble
Correct Answer:- Option-B
Question71:-A die in which more than one cutting operation per stroke is done, is known as
A:-Blanking die
B:-Compound die
C:-Progressive die
D:-Piercing die
Correct Answer:- Option-B
Question72:-Press tool is used in mass production of
A:-Nails
B:-Nuts
C:-Bolts
D:-Sheet metal components
Correct Answer:- Option-D
Question73:-Press tool can be categorized by
A:-Type of operation
B:-Size
C:-Shape
D:-Weight
Correct Answer:- Option-A
Question74:-A device, which is used to remove the piece-part or material from around the punch, is known as
A:-Die stop B:-Nest
c:-Shedder
D:-Stripper Correct Answer:- Option-D
Question75:-If the circumference of the square is 16 cm then the area of the same is $\underline{\hspace{1cm}}$ cm^2 .
A:-16 B:-32
B:-32 C:-64
D:-25
Correct Answer:- Option-A
Question76:The area of a square whose diagonal is 20 cm long
Question 70. The drea of a square whose diagonal is 20 cm long $ A200 \ cm^2 $
B:-225 cm^2
C:-250 cm ²
D:-150 cm^2
Correct Answer:- Option-A
Question77:-The circumference of a circle is reduced at 50%, what will be the reduction in area?
A:-25%
B:-40%
C:-50%

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Correct Answer:- Option-D
Question78:-Example of second order lever
    A:-Claw hammer
    B:-A pair of scissors
    C:-Handle of tube well pump
    D:-A wheel barrow
     Correct Answer:- Option-D
Question79:-The ratio of distance moved by effort to the distance moved by load is termed as
    A:-Effort
    B:-Load
    C:-Velocity ratio
    D:-Efficiency
    Correct Answer:- Option-C
Question80:-A load 1200 kg is lifted using a simple machine having velocity ratio of 5. Find out the efficiency of machine, if effort applied is 300 kg.
    B:-70%
    C:-75%
    D:-80%
    Correct Answer:- Option-D
Question81:-W in SWOT stands for
    A:-Wealth
    B:-War
    C:-Weakness
    D:-Willingness
    Correct Answer:- Option-C
Question82:-The process of making the slip gauges adhere is called
    A:-Adhesion
    B:-Assembling
    C:-Sliding
    D:-Wringing
     Correct Answer:- Option-D
Question83:-A sine bar is used to measure
    A:-External tapers
    B:-Surface roughness
    C:-Internal tapers
    D:-Gear profiles
     Correct Answer:- Option-A
Question84:-The point in the body where all mass of the body is concentrated is called
    A:-Moment of inertia
    B:-Centre of gravity
    C:-Centre of mass
    D:-Null point
    Correct Answer:- Option-B
Question85:-A truck carrying 3 tonnes load is moving on a metallic road. If the co-efficient of friction is 0.25. Calculate the force of friction?
    A:-75 kg
    B:-0.75 kg
    C:-750 kg
    D:-7.5 kg
    Correct Answer:- Option-C
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D:-75%

Question86:-The heat treatment process used to make ferrous metal non-brittle	
A:-Hardening	
B:-Tempering	
C:-Nitriding	
D:-Carburizing	
Correct Answer:- Option-B	
Question87:-The centre of gravity of a circular solid cone of height "h" lies at the following distance from the base	
A:-h/2	
B:-h/3	
C:-h/4	
D:-h/6	
Correct Answer:- Option-C	
Question88:-If x=2; y=-3; z=4. Find the value of $(4x^2 + 2y^2 - 4z + xyz)$.	
A:-27	
B:-54	
C:54	
D:-72	
Correct Answer:-Question Cancelled	
Question89:-The sum of three consecutive numbers is 42. What are the numbers?	
A:-10, 10, 22	
B:-13, 14, 15	
C:-20, 20, 2	
D:-15, 15, 12	
Correct Answer:- Option-B	
Question90:-Which heat treatment process is used to modify the grain structure?	
A:-Annealing	
B:-Normalizing	
C:-Tempering	
D:-Hardening	
Correct Answer:- Option-B	
Question91:-The property which enables a material to spring back to its original shape and size after the removal of load is called?	
A:-Elasticity	
B:-Plasticity	
C:-Malleability	
D:-Ductility	
Correct Answer:- Option-A	
Question92:-When a worker contributes to bring the best output by using the available resources, the worker is	
A:-Selfish	
B:-Ineffective	
C:-Bad	
D:-Productive	
Correct Answer:- Option-D	
Question93:-Rule of conduct or procedure established by authority is called	
A:-Procedure	
B:-Law	
C:-Act	
D:-Policy	

	A:-Price
	B:-Defects
	C:-Design
	D:-Standard
	Correct Answer:- Option-B
Que	estion95:-Quality consciousness help to deliver to yourself and those around you.
	A:-value
	B:-products
	C:-profit
	D:-time
	Correct Answer:- Option-A
Que	estion96:-Information like date of birth, permanent address form a part of one's in the resume.
	A:-Career objectives
	B:-Personal details
	C:-Achievements
	D:-Qualifications
	Correct Answer:- Option-B
Que	estion97:-While probing your customer your main focus should be on your
	A:-Customer needs
	B:-Sales target
	C:-Forcing customers
	D:-Body languages
	Correct Answer:- Option-A
Que	estion98:-By selling a bicycle for Rs. 2850, a shopkeeper gains 14%. If the profit is reduced to 8%, then the selling price will be
	A:-2600
	B:-2700
	C:-2800
	D:-3000
	Correct Answer:- Option-B
	estion99:-The market price of shirt and trousers are in the ratio of 1:2. The shopekeeper gives 40% discount on the shirt. If the total discount in the set of the shirt and trousers is 6, the discount offered on the trousers is
	A:-15%
	B:-20%
	C:-25%
	D:-30%
	Correct Answer:- Option-C
Question100:-What purpose is served by grouting?	
	A:-Fill gaps
	B:-Increase water flow
	C:-Soften foundation
	D:-Break foundation
	Correct Answer:- Option-A