

## FINAL ANSWER KEY

Question 106/2025/OL

Paper Code:

Category 088/2024

Code:

Exam: Overseer Gr.III / Draftsman Gr.III (Civil)

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Department Harbour Engineering

Question1:-Spring bow compass used for drawing circle up to about

A:-28 mm

B:-25 mm

C:-30 mm

D:-35 mm

Correct Answer:- Option-B

Question2:-Chain thin double dashed line used for?

A:-Centroidal line

B:-Line of symmetry

C:-Trajectories

D:-Hidden edges

Correct Answer:- Option-A

Question3:-The inclined lettering the stem is inclined to

A:-75 degree to right

B:-15 degree to right

C:-10 degree to right

D:-None of the above

Correct Answer:- Option-B

Question4:-Designation of 1 : 500 scale

A:-M5

B:-M7

C:-M4

D:-None of these

Correct Answer:- Option-A

Question5:-Actual length of 5 m room is represented by 25 mm length on drawing then the scale of drawing is?

A:-1 : 200

B:-1 : 50

C:-1 : 25

D:-None of these

Correct Answer:- Option-A

Question6:-The section obtained by cutting a right circular cone by a section plane passing through the apex of the cone and intersecting the base of the cone

A:-Circle

B:-Hyperbola

C:-Isosceles triangle

D:-Prabola

Correct Answer:- Option-C

Question7:-Which of the following is not a Axonometric projection?

A:-Isometric projections

B:-Dimetric projections

C:-Trimetric projections

D:-None of the above

Correct Answer:- Option-D

Question8:-In the third angle projection the top view is

A:-Above reference line

B:-Below reference line

C:-Is on reference line

D:-None of the above

Correct Answer:- Option-A

Question9:-In building work for internal electrification, sanitary and water supply works a percentage of about \_\_\_\_\_ of the estimated cost of building is provided.

A:-30

B:-20

C:-10

D:-15

Correct Answer:- Option-B

Question10:-Actual size of standard modular brick size

A:-20 cm × 10 cm × 10 cm

B:-19 cm × 9 cm × 9 cm

C:-19 cm × 7 cm × 5 cm

D:-None of the above

Correct Answer:- Option-B

Question11:-In a detailed estimate the provisions for contingensis, is usually

A:-1 percent

B:-3 to 5 percent

C:-10 percent

D:-12 to 15 percent

Correct Answer:- Option-B

Question12:-The joint of the brick work shall be raked out to a depth of

A:-30 mm

B:-20 mm

C:-10 mm

D:-15 mm

Correct Answer:- Option-B

Question13:-Bolts, anchor bolts etc shall be measure in

A:-Quintal

B:-Ton

C:-All of the above

D:-None of the above

Correct Answer:- Option-A

Question14:-Minimum compressive strength of concrete of 1 : 24 proportion shall be

A:-135 kg per sqcm

B:-120 kg per sqcm

C:-140 kg per sqcm

D:-160 kg per sqcm

Correct Answer:- Question Cancelled

Question15:-The first 5 to 10 years the depreciation per year is

A:-0.5%

B:-1%

C:-1.5%

D:-None of the above

Correct Answer:- Option-A

Question16:-The quantity of security money to be deposit for the acceptance of the tender.

A:-15% tendered amount

B:-10% tendered amount

C:-20% tendered amount

D:-None of the above

Correct Answer:- Option-B

Question17:-Generally the unit of measurement for DPC is

A:-Cu.m

B:-Sq.m

C:-M

D:-None of the above

Correct Answer:- Option-B

Question18:-Permit not necessary for the following work

A:-Providing inter - communication doors

B:-Providing well

C:-Providing compound wall

D:-None of the above

Correct Answer:- Option-A

Question19:-Minimum vertical clearance from the overhead high voltage electrical line up to and including 33000 volt \_\_\_\_\_

A:-3 m

B:-2.5 m

C:-3.7 m

D:-None of these

Correct Answer:- Option-C

Question20:-Institution buildings are under \_\_\_\_\_ type of group.

A:-Group D

B:-Group C

C:-Group H

D:-Group B

Correct Answer:- Option-B

Question21:-Which of the following properties indicate the mechanical properties of materials?

A:-Porosity and specific heat

B:-Density and porosity

C:-Creep and hardness

D:-Durability and specific heat

Correct Answer:- Option-C

Question22:-Which test is performed to find out the presence of soluble matters in a sample of stone?

A:-Microscopic test

B:-Smith's test

C:-Impact test

D:-Crystalline test

Correct Answer:- Option-B

Question23:-Ordinarily, a good brick can resist temperature up to

A:-1800°C

B:-1000°C

C:-1200°C

D:-1450°C

Correct Answer:- Option-C

Question24:-Which of the following statement is/are correct about lime?

(i) It is used as flux in steel manufacturing

(ii) It is used for plastering of walls

(iii) It is used as binding material in mortar

(iv) It is used for knotting

A:-Only (ii)

B:-Only (iii)

C:-Only (ii), (iii)

D:-All the above

Correct Answer:- Option-D

Question25:-A good sand should pass BIS No \_\_\_\_\_ Mesh sieve.

A:-480

B:-470

C:-460

D:-490

Correct Answer:- Option-A

Question26:-Maximum size of aggregate used in 1 : 2 : 4 concrete mix is \_\_\_\_\_ mm.

A:-12

B:-18

C:-20

D:-40

Correct Answer:- Option-D

Question27:-Which timber is fully or partly covered with resin and curing is carried out under pressure?

A:-Compreg timber

B:-Plywood

C:-Impreg timber

D:-Veneer

Correct Answer:- Option-A

Question28:-The process of melting to separate metal from iron ore is called

A:-Calcination

B:-Roasting

C:-Dressing

D:-Smelting

Correct Answer:- Option-D

Question29:-Which of the following statement is/are correct about Aluminium?

(i) It is a non-magnetic substance

(ii) It is very soft

(iii) It melts at  $760^{\circ}\text{C}$

(iv) Its specific gravity is 3 : 70

A:-Only (i)

B:-Only (i), (ii)

C:-Only (i), (ii), (iii)

D:-All the above

Correct Answer:- Option-B

Question30:-The foam glass floats in \_\_\_\_\_

A:-Molten tin

B:-Water

C:-Molten zinc

D:-Carbon disulphide

Correct Answer:- Option-B

Question31:-Which among the following is the harmful constituent of Cement?

A:-Magnesium Oxide

B:-Lime

C:-Silica

D:-Iron Oxide

Correct Answer:- Option-A

Question32:-Which of the following is the correct statement about Distemper?

(i) Chalk is used as the base material

(ii) It composed of only Base and Carrier

(iii) Water is used as the Carrier

(iv) It is available in powder form

A:-Only (i) and (iii)

B:-Only (i), (iii), (iv)

C:-Only (iii)

D:-All the above

Correct Answer:- Option-B

Question33:-The continuous horizontal course of masonry projecting from the face of the wall for shedding rain water off is called?

A:-Blocking course

B:-String course

C:-Coping

D:-Frieze

Correct Answer:- Option-B

Question34:-Which bond is used for the construction of half brick thick wall?

A:-Flemish bond

B:-Stretcher bond

C:-Header bond

D:-English bond

Correct Answer:- Option-B

Question35:-Which type of bond is used for brick paving?

A:-Dutch bond

B:-Facing bond

C:-Herring - bone bond

D:-Stretcher bond

Correct Answer:- Option-C

Question36:-Which is the most economical foundation, when heavy structural loads from column are to be transferred to the soil of low bearing capacity?

A:-Deep foundation

B:-Raft foundation

C:-Grillage foundation

D:-Shallow foundation

Correct Answer:- Option-C

Question37:-Which type of piles are driven at an inclination to resist large horizontal or inclined forces?

A:-Friction piles

B:-Batter piles

C:-Compaction piles

D:-Under - reamed piles

Correct Answer:- Option-B

Question38:-Construction of a temporary structure required to support an unsafe structure, is called?

A:-Under pinning

B:-Scaffolding

C:-Shoring

D:-Jacking

Correct Answer:- Option-C

Question39:-The process of applying impervious rich cement mortar over an exposed surface under pressure is known as?

A:-Integral damp proofing

B:-Guniting

C:-Surface treatment

D:-Membrane damp proofing

Correct Answer:- Option-B

Question40:-The arch consisting of fully dressed and properly shaped stones, is called?

A:-Axed arch

B:-Gauged arch

C:-Ashlar arch

D:-Rubble arch

Correct Answer:- Option-C

Question41:-A horizontal member of a frame employed to sub-divide a window opening horizontally is called?

A:-Sill

B:-Mullion

C:-Transom

D:-Horn

Correct Answer:- Option-C

Question42:-The bottom portion of an arch between the skew back and crown is known as \_\_\_\_\_

A:-Skew back

B:-Haunch

C:-Voussoirs

D:-Springer

Correct Answer:- Option-B

Question43:-The edge of a gabled roof, running between the eaves and ridge is called?

A:-Template

B:-Verge

C:-Ridge

D:-Cleats

Correct Answer:- Option-B

Question44:-The span of king post truss?

A:-5 to 9 m

B:-8 to 12 m

C:-3.5 to 5 m

D:-12 to 14 m

Correct Answer:- Option-A

Question45:-What is the name of sloping member which supports the end of steps in a stair?

A:-Baluster

B:-Hand rail

C:-Stringers

D:-Soffit

Correct Answer:- Option-C

Question46:-Which flooring is suitable for hard wearing surface?

A:-Terrazo flooring

B:-Granolithic flooring

C:-Mosaic flooring

D:-Tiled flooring

Correct Answer:- Option-B

Question47:-What is mix proportion of M25 grade concrete?

A:-1 : 3 : 6

B:-1 : 2 : 4

C:-1 : 1½ : 3

D:-1 : 1 : 2

Correct Answer:- Option-D

Question48:-What is the slenderness ratio of short columns?

A:-Equal to 32

B:-Less than 32

C:-More than 32

D:-More than 120

Correct Answer:- Option-B

Question49:-What is the unit weight of 16 mm dia.Bar?

A:-0.89 kg

B:-1.58 kg

C:-2.00 kg

D:-2.45 kg

Correct Answer:- Option-B

Question50:-Which of the following is a tension member?

A:-Strut

B:-Tie

C:-Rafter

D:-Boom

Correct Answer:- Option-B

Question51:-What is the gross diameter of rivet, if the nominal diameter  $\leq 25$  mm?

A:-Nominal diameter + 1 mm

B:-Nominal diameter + 1.5 mm

C:-Nominal diameter + 2 mm

D:-Nominal diameter + 2.5 mm

Correct Answer:- Option-B

Question52:-The distance between two consecutive rivets of adjacent chains and measured at right angles to the direction of the force in the structural member is known as \_\_\_\_\_

A:-Staggered pitch of rivet

B:-Gauge distance of rivet

C:-Pitch of rivet

D:-Nominal dia. of rivet

Correct Answer:- Option-B

Question53:-Find the delta for a crop if the duty for a base period 110 days is 1600 hectares / cumec.

A:-594 mm

B:-59.4 m

C:-125 mm

D:-1.25 m

Correct Answer:- Option-A

Question54:-Based on the financial output, the canal has been classified into

(i) Productive canal

(ii) Perennial canal

(iii) Protective canal

(iv) Feeder canal

A:-Only (i) and (ii)

B:-Only (i) and (iii)

C:-Only (iii) and (iv)

D:-Only (ii) and (iv)

Correct Answer:- Option-B

Question55:-Silt Excluder is provided

A:-In the canal upstream at a distance away from head regulator

B:-In the canal downstream of head regulator

C:-In the river bed downstream of the head regulator

D:-In the river bed upstream or in front of head regulator

Correct Answer:- Option-D

Question56:-What is called Safety valve of a dam?

A:-Drainage Gallery

B:-Inspection Gallery

C:-Spillway

D:-Under Sluice

Correct Answer:- Option-C

Question57:-Which of the following formula is used for calculating the capacity or volume of a reservoir?

(i) Trapezoidal formula

(ii) Chezy's formula

(iii) Prismoidal formula

A:-Only (i) and (ii)

B:-Only (i) and (iii)

C:-Only (ii) and (iii)

D:-All of the above (i), (ii), (iii)

Correct Answer:- Option-B

Question58:-Which cross drainage work is constructed to carry canal over drainage?

A:-Aqueduct

B:-Superpassage

C:-Level crossing

D:-Inlet and Outlet

Correct Answer:- Option-A

Question59:-When was the National Highway Act was passed for empowering the Central Government to develop and maintain national?

A:-1934

B:-1943

C:-1956

D:-1973

Correct Answer:- Option-C

Question60:-The removal of material from base course of the road is known as

A:-Abrasion

B:-Ravelling

C:-Regression

D:-None of the above

Correct Answer:- Option-B

Question61:-The rate of rise or fall of road in longitudinal direction is known as

A:-Camber

B:-Superelevation

C:-Cant

D:-Gradient

Correct Answer:- Option-D

Question62:-Which rail does not require Rail chairs for fixing it to sleeper?

A:-Flat footed Rail

B:-Bull Headed Rail

C:-Double Headed Rail

D:-Both (2) and (3)

Correct Answer:- Option-A

Question63:-Along which direction does the rail creep occurs

A:-Lateral

B:-Vertical

C:-Longitudinal

D:-Transverse

Correct Answer:- Option-C

Question64:-Which of the following statement is correct in case of deck bridge?

A:-The flooring of the bridge which carries the traffic is supported at the top of the main girder of bridge

B:-The flooring of the bridge which carries the traffic is supported at the bottom of the main girder of bridge

C:-The flooring of the bridge which carries the traffic is supported at intermediate level of the main load bearing superstructure of bridge

D:-None of the above

Correct Answer:- Option-A

Question65:-Which is the temporary pier made in the river bed?

A:-Scuppers

B:-Afflux

C:-Kerb

D:-Cribs

Correct Answer:- Option-D

Question66:-What is the name of the wing wall if the angle of splay is 90 degree?

A:-Splayed wall

B:-Return wall

C:-Straight wall

D:-Retaining wall

Correct Answer:- Option-B

Question67:- $\pi$  radians = \_\_\_\_\_ grades.

A:-100

B:-200

C:-180

D:-90

Correct Answer:- Option-B

Question68:-In ordinary chain survey the maximum permissible error is

A:-1 in 250

B:-1 in 1000

C:-1 in 2000

D:-1 in 5000

Correct Answer:- Option-B

Question69:-In a prismatic compass  $180^\circ$  is marked at

A:-North end

B:-South end

C:-East

D:-West

Correct Answer:- Option-A

Question70:-The correction for pull in chain survey

A:- $C_p = \frac{(P_s - P_a)L}{AE}$

B:- $C_p = \frac{(P_a - P_s)L}{AE}$

C:- $C_p = \frac{(P_s + P_a)L}{AE}$

D:- $C_p = \frac{P_a - (P_s + L)}{AE}$

Correct Answer:- Option-B

Question71:-The principle of plane table is \_\_\_\_\_

A:-Triangulation

B:-Traversing

C:-Parallelism

D:-Radiation

Correct Answer:- Option-C

Question72:-The length of one division in the bubble tube graduation is \_\_\_\_\_

A:-2 mm

B:-20 mm

C:-10 mm

D:-None of the these

Correct Answer:- Option-A

Question73:-The line of collimation of an Indian office pattern can be made level by

A:-foot screws

B:-leveling head

C:-both (1) and (2)

D:-micrometer screw

Correct Answer:- Question Cancelled

Question74:-The error of manipulation in levelling include

- (i) Parallax not removed properly
- (ii) Settlement of Staff
- (iii) Careless levelling up of instrument
- (iv) Settlement of level

A:-(ii) and (iv)

B:-(i), (ii) and (iv)

C:-(i) and (iii) only

D:-All the above

Correct Answer:- Option-C

Question75:-Contour lines cross ridge line at \_\_\_\_\_ angles.

A:-30 degree

B:-60 degree

C:-45 degree

D:-90 degree

Correct Answer:- Option-D

Question76:-The method of contouring most suited for hilly areas

A:-Direct method by radial lines

B:-Contouring by spot levels

C:-Tacheometric method

D:-By square method

Correct Answer:- Option-C

Question77:-In transit theodolite the error due to eccentricity of the spindle are

eliminated by

A:-Reading both the verniers

B:-Recitation method

C:-Compound method

D:-None of these

Correct Answer:- Option-A

Question78:-Which instrument is used for setting out curves in angular method?

A:-Theodolite

B:-Chain

C:-Tape

D:-Level

Correct Answer:- Option-A

Question79:-Which is the common choice of coordinate for specifying position?

A:-Latitude, Departure, Elevation

B:-Latitude, Longitude, Elevation

C:-Northing, Southing, Easting

D:-Southing, Azimuth, Elevation

Correct Answer:- Option-B

Question80:-Which segment of GPS consist of satellite?

A:-Control

B:-Space

C:-User

D:-Navigation

Correct Answer:- Option-B

Question81:-What is the full form of UCS?

A:-User CAD System

B:-User CADD system

C:-User Co-ordinate System

D:-User Circle System

Correct Answer:- Option-C

Question82:-Which of the following pointing device is cheaper while comparing the digitalizer?

A:-Keyboard

B:-Puck

C:-Mouse

D:-Enter key

Correct Answer:- Option-C

Question83:-What is the short cut for rendering an image?

A:-RS

B:-RSP

C:-RP

D:-RW

Correct Answer:- Option-C

Question84:-What is the use of function key  $F_{12}$  ?

A:-OSNAP

B:-SAVE AS

C:-TABLET

D:-ISO PLANE

Correct Answer:- Option-B

Question85:-What is the use of short cut key H?

A:-Help

B:-Hatch

C:-Mirror

D:-Hollow block

Correct Answer:- Option-B

Question86:-Which command is used for long term object using object?

A:-Move

B:-Copy

C:-Extend

D:-Offset

Correct Answer:- Option-C

Question87:-What is the use of function Key  $F_3$  ?

A:-OSNAP

B:-TABLET

C:-ISO PLANE

D:-SAVE AS

Correct Answer:- Option-A

Question88:-Which of the following keys give copy Clip?

A:-Ctrl + Z

B:-Ctrl + C

C:-Ctrl + G

D:-Ctrl + L

Correct Answer:- Option-B

Question89:-In the four methods of laying distribution pipes, which one is also known as the interlaced system

A:-Dead end method

B:-Grid iron method

C:-Circular method

D:-Radial method

Correct Answer:- Option-B

Question90:-What substance, when present in drinking water at a concentration of approximately 1 ppm has been shown to reduce the incidence of tooth cavities in young children?

A:-Calcium

B:-Vitamin D

C:-Fluoride

D:-Potassium

Correct Answer:- Option-C

Question91:-The cast iron pipes cast in horizontal position by ordinary sand moulding are known as

A:-McWane pipes

B:-Pit pipes

C:-Delavaud pipes

D:-Spun pipes

Correct Answer:- Option-A

Question92:-A scour valve in a water distribution system is provided at \_\_\_\_\_

A:-low points

B:-high points

C:-junction points

D:-all of the above

Correct Answer:- Option-A

Question93:-The underground structure in the form of a circular or rectangular tank for the purpose of admitting sewage into it from the intercepting chamber is called

A:-Privy pit

B:-Septic tank

C:-Cess pool

D:-Soak pit

Correct Answer:- Option-C

Question94:-The chloride content in water are determined by titrating it with the standard solution of \_\_\_\_\_

A:-Silver nitrate

B:-Potassium permanganate

C:-Hydrochloric acid

D:-Platinum cobalt

Correct Answer:- Option-A

Question95:-When a bar is cooled to  $-6^{\circ}\text{C}$ , it will develop?

A:-No stress

B:-Shear stress

C:-Tensile stress

D:-Compressive stress

Correct Answer:- Option-C

Question96:-Modular ratio of the two materials is the ratio of

A:-Linear stress to linear strain

B:-Shear stress to shear strain

C:-Their modulus of elasticities

D:-Their modulus of rigidities

Correct Answer:- Option-C

Question97:-What is  $\sin \theta \times \operatorname{cosec} \theta$

A:- $\sec \theta$

B:- $\tan \theta$

C:-1

D:-0

Correct Answer:- Option-C

Question98:-A screw jack used for lifting the loads is

A:-reversible machine

B:-non-reversible machine

C:-ideal machine

D:-none of these

Correct Answer:- Option-B

Question99:-One joule is equal to

A:-0.1 N-m

B:-1 N-m

C:-10 N-m

D:-100 N-m

Correct Answer:- Option-B

Question100:-The unit of power in S.I. units is

A:-Horse power

B:-Joule

C:-Watt

D:-kg-m

Correct Answer:- Option-C