# FINAL ANSWER KEY

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| Question Paper Code: | 4/2025/OL |
| Category Code: | 129/2024 |
| Exam: | Assistant Engineer (Civil) |
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Question1:-What is the unit of stress in the SI system ?

A:-Pascal

B:-Newton

C:-Joule

D:-Meter

Correct Answer:- Option-A

Question2:-Hooke's law is valid up to

A:-Yield point

B:-Proportional limit

C:-Elastic limit

D:-Ultimate stress point

Correct Answer:- Option-B

Question3:-For a cantilever beam subjected to a point load at its free end, the bending moment at the fixed end is

A:-Zero

B:-Maximum

C:-Minimum

D:-None of the above

Correct Answer:- Option-B

Question4:-The flexural stress in a beam is directly proportional to

A:-Moment of inertia

B:-Bending moment

C:-Modulus of elasticity

D:-Radius of curvature

Correct Answer:- Option-B

Question5:-The deflection at the free end of a cantilever carrying a point load at the free end is proportional to

A:-Load* Length

B:-Load * Length²

C:-Load * Length³

D:-Load/Length

Correct Answer:- Option-C

Question6:-Slenderness ratio is given by

A:-Radius of gyration/Effective length

B:-Effective length/Radius of gyration

C:-Load/Area

D:-Stress/Strain

Correct Answer:- Option-B

Question7:-A propped cantilever beam is an example of

A:-Statically determinate structure

B:-Statically indeterminate structure

C:-Kinematically indeterminate structure

D:-None of the above

Correct Answer:- Option-B

Question8:-Influence lines are drawn for

A:-Reactions

B:-Shear force

C:-Bending moment

D:-All of the above

Correct Answer:- Option-D

Question9:-Moment distribution method is suitable for

A:-Determinate structures

B:-Indeterminate structures

C:-Trusses only

D:-Columns only

Correct Answer:- Option-B

Question10:-Kanis method involves

A:-Displacement compatibility

B:-Flexibility coefficients

C:-Joint equilibrium

D:-Slope deflection

Correct Answer:- Option-A

Question11:-A fully submerged body in a fluid is in a stable state of equilibrium if

A:-Centre of gravity is above the metacentre

B:-Centre of gravity is below the metacentre

C:-Centre of buoyancy is above the centre of gravity

D:-Centre of buoyancy is below the centre of gravity

Correct Answer:- Option-C

Question12:-Which of the following equations represent the velocity potential of a function ?

A:-$\Phi = x^3 - y^3$

B:-$\Phi = x^2 - y^2$

C:-$\Phi = x^2 + y^2$

D:-$\Phi = x^3 + y^3$

Correct Answer:- Option-B

Question13:-Critical flow will takes place in an open channel when

A:-For a given discharge, the specific force is minimum

B:-For a given specific force, discharge is minimum

C:-For a given specific energy, discharge is minimum

D:-For a given discharge, specific energy is maximum

Correct Answer:- Option-A

Question14:-If a pipe of radius R is running half full under the action of gravity, the hydraulic depth is

A:-$\pi$R/2

B:-$\pi$R

C:-$\pi$R/8

D:-$\pi$R/4

Correct Answer:- Option-D

Question15:-Reynolds and Froude numbers are equally significant in

A:-Movement of ship

B:-Movement of submarine

C:-Flow over a weir

D:-Flow through a Venturi meter

Correct Answer:- Option-A

Question16:-A hyetograh is drawn as a plot of

A:-Cumulative rainfall volume with time

B:-Rainfall intensity with time

C:-Rainfall volume with time

D:-Runoff discharge with time

Correct Answer:- Option-B

Question17:-Dupuit's assumptions are applicable for

A:-Artesian aquifer

B:-Leaky aquifer

C:-Water table aquifer

D:-Perched aquifer

Correct Answer:- Option-C

Question18:-Rating curves for stream discharge are relationships between the

A:-Discharge and stage of flow

B:-Discharge and depth of flow

C:-Discharge and velocity of flow

D:-Velocity and depth of flow

Correct Answer:- Option-A

Question19:-The energy loss due to sudden expansion in a pipe can be expressed as

A:-$(V_1^2 - V_2^2)$ /2g

B:-$(V_1 - V_2)^2$ /2g

C:-$[(V_1 - V_2)/2g]^2$

D:-$(V_1^2 - V_2^2)$/g

Correct Answer:- Option-B

Question20:-If the alignment of an artificial channel is below the bed level of a river, the type of cross drainage structure provided is

A:-Aqueduct

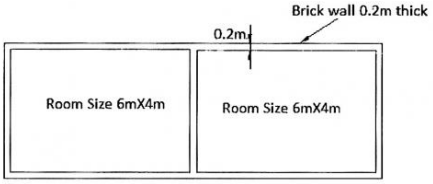
B:-Head regulator

C:-Sluice gate

D:-Super Passage

Correct Answer:- Option-D

Question21:-The length being considered for the determination of brick work quantity in centre line method for the plan view given in figure below is the thickness of brick wall is 20 cm




A:-37.8 m

B:-37.2 m

C:-38.4 m

D:-36 m

Correct Answer:- Option-B

Question22:-Consider the following statements with respect to quantity estimate preparation
I. Brick work for walls shall be taken in cu m.
II. Honeycomb brick work for walls and partitions shall be taken in cu m stating the thickness of the wall and the pattern of honey combing.
III. Brick edging by the side of roads shall be taken in running metre
IV. Brick work in arches for span up to 6m shall be taken in cu m separately and centering shall be taken in sq m.
Choose the right combination of statements from the options given below.

A:-Statement I is true and all others are false

B:-Statement I and II are true and III and IV are false

C:-Statement I and III are true and II and IV are false

D:-All the statements given are true

Correct Answer:- Option-C

Question23:-The quantity of cement required in $m^3$ for preparing a concrete having mix proportion of 1:2:4 is

A:-0.22 $m^3$

B:-0.0.14 $m^3$

C:-0.26 $m^3$

D:-0.29 $m^3$

Correct Answer:- Option-A

Question24:-An R.C.C. beam of length 5.1 m is having depth as 450 mm and width as 350 mm. The end cover for the steel reinforcement is 50 mm and the bottom -top cover is 25 mm. Both straight and cranked bars are of mild steel and are having hooks at both ends. The crank given is 45° and is there on both sides of the bar. The diameter of the bar is 20 mm. The length given in bar bending schedule for the straight bar and cranked bar are

A:-5.46 m and 5.86 m respectively

B:-5.3 m and 5.7 m respectively

C:-5.36 m and 5.72 m respectively

D:-5.4 m and 5.76 m

Correct Answer:- Option-C

Question25:-Match List-I with List-II and select the correct answer using the codes given below the lists.
List -I
K. Scrap Value
L. Salvage Value
M. Market Value
N. Book Value
List - II
1. The value at the end of the utility period without being dismantled
2. The amount shown in account book after allowing necessary depreciations
3. The value of dismantled materials at the end of utility period
4. The amount that can be obtained from the open market if the property is put for

sale

A:-K-1, L-2, M-3, N-4

B:-K-3, L-1, M-4, N-2

C:-K-1, L-3, M-4, N-2

D:-K-4, L-3, M-1, N-2

Correct Answer:- Option-B

Question26:-Consider the following statements with respect to Electro Magnetic (EM) Spectrum in remote sensing
I. Shorter the wave length, more is the energy content.
II. The Gamma ray, X-ray and most part of ultraviolet region are not used in remote sensing due to the more energy in those regions.
III. Near infrared region is used to study thermal condition of the object emitting EM.
IV. The wavelength at which EM radiations are partially or wholly transmitted through the atmosphere are known as atmospheric windows and are used to acquire remote sensing data.
Choose the right combination of statements from the options given below.

A:-Statements I and III are true and II and IV are false

B:-Statements II and IV are true and I and III are false

C:-Statements I and IV are true and II and III are false

D:-All the statements are true

Correct Answer:- Option-C

Question27:-Let there be the cost of cutting and deposition of $1m^3$ of earth be 'c', cost of $1m^4$ of overhaul be '$c_1$ ' and the cost of $1m^3$ of earth available from borrow pit be 's', then economic overhaul distance (e) is

A:-e = $\frac{s+c}{c_1}$

B:-e = $\frac{s-c}{c_1}$

C:-e = $\frac{s+c_1}{c}$

D:-e = $\frac{s-c_1}{c}$

Correct Answer:- Option-A

Question28:-Choose the correct option from the following with respect to the distance calculation in total station survey

A:-By measuring the time of travel of the transmitted wave

B:-By measuring the cross correlation between transmitted wave and received wave

C:-By measuring the phase shift between the transmitted wave and received wave

D:-By calculating principal component analysis between transmitted wave and received wave

Correct Answer:- Option-C

Question29:-A contour canal is constructed in a terrain where the slope of cut is 1 V

: 1H and the slope of fill is 1V : 2H. If the bottom width, depth and velocity of flow are 3m, 2m and 1 m/s respectively, the discharge through the canal is

A:-10 $m^3/s$

B:-12 $m^3/s$

C:-14 $m^3/s$

D:-6 $m^3/s$

Correct Answer:- Option-B

Question30:-Two-peg method is a

A:-Test used to make vertical axis truly vertical in a dumpy level

B:-Test used to make horizontal axis truly horizontal in a dumpy level

C:-To make axis of telescope collinear with line of collimation in a dumpy level

D:-To make the line of collimation parallel to the axis of the bubble tube in dumpy level

Correct Answer:- Option-D

Question31:-The equation to find the minimum depth of foundation to prevent the soil moving laterally under pressure using Rankine's formula is given by

A:-$D = \frac{p}{w}\left(\frac{1-\sin^2\emptyset}{1+\sin^2\emptyset}\right)$

B:-$D = \frac{p}{w}\left(\frac{1+\sin^2\emptyset}{1-\sin^2\emptyset}\right)$

C:-$D = \frac{p}{w}\left(\frac{1+\sin\emptyset}{1-\sin\emptyset}\right)^2$

D:-$D = \frac{p}{w}\left(\frac{1-\sin\emptyset}{1+\sin\emptyset}\right)^2$

Correct Answer:- Option-D

Question32:-What is the minimum thickness of footing(if not designed) for a reinforced concrete footing resting on pile as per the National Building Code of India 2016

A:-150 mm

B:-200 mm

C:-250 mm

D:-300 mm

Correct Answer:- Option-D

Question33:-Name the type of strengthening joint in stone masonry in which the projection of one stone fits into the depression of the adjacent stone

A:-Plug joint

B:-Table joint

C:-Dowel joint

D:-Cramped joint

Correct Answer:- Option-B

Question34:-Name the type of arch in which the radius of the intrados equals the span and the centres are on the springing line

A:-Blunt Arch

B:-Acute Arch

C:-Gothic Arch

D:-None of the above

Correct Answer:- Option-C

Question35:-Name a wooden fixture which is fixed to the floor under a door frame, which enables the door to be cut short enough to clear floor coverings on the inside

A:-Transom

B:-Rebate

C:-Threshold

D:-Cross-Rail

Correct Answer:- Option-C

Question36:-Wooden planks used to fix the ends of common rafters projecting beyond the sloping top of a gabled wall is known as

A:-Eave-board

B:-Dragon beam

C:-Jack rafter

D:-Barge board

Correct Answer:- Option-D

Question37:-Calculate the theoretical capacity of an escalator in persons/hour if the width of step is 0.8 m and rated speed is 0.5 m/s

A:-4500

B:-5850

C:-6750

D:-8775

Correct Answer:- Option-C

Question38:-In building construction, if adequate test data are not available, the target strength for mix proportioning of an M25 grade of concrete as per IS 456:2000

A:-31.6

B:-30.8

C:-33.3

D:-28.3

Correct Answer:- Option-A

Question39:-Name the type of steel beam to beam connection which is used to connect beams and girders at different levels in which the connection is made with the aid of a plate and angle cleats or bolt and rods.

A:-Top-flush

B:-Hanger connection

C:-Blocked connection

D:-Blocked and elevated

Correct Answer:- Option-B

Question40:-In heated air curing method of prefabricated concrete construction, the concrete elements are kept in contact with hot air with a relative humidity not less than

A:-50%

B:-60%

C:-70%

D:-80%

Correct Answer:- Option-D

Question41:-Find the total expected time of an activity if the optimistic time estimate is 8 days, pessimistic time estimate is 12 days and most likely time estimate is 10 days

A:-8 days

B:-9 days

C:-10 days

D:-11 days

Correct Answer:- Option-C

Question42:-Name the type of pointing made by making a projection in the form of V-shape

A:-Tuck pointing

B:-V-pointing

C:-Weathered pointing

D:-None of the above

Correct Answer:- Option-C

Question43:-Identify the drum mixer in which the drum remains rotating in one direction and is emptied by means of the hopper which tilts to receive the discharge

A:-Tilting drum mixer

B:-Closed drum mixer

C:-Continuous mixer

D:-None of the above

Correct Answer:- Option-B

Question44:-Which type of flooring is suitable to be used in libraries, theatres, art galleries and broadcasting stations where perfectly noiseless type of flooring is desired

A:-Cork flooring

B:-Wooden flooring

C:-Linoleum flooring

D:-Glass flooring

Correct Answer:- Option-A

Question45:-As per IS 456-2000, the permissible limits for inorganic solids in the water used for mixing and curing shall be

A:-2000 mg/l

B:-2500 mg/l

C:-3000 mg/l

D:-3500 mg/l

Correct Answer:- Option-C

Question46:-Decay of wood is caused if pH of the acidic medium is

A:-< 2

B:-< 3

C:-< 4

D:-< 6

Correct Answer:- Option-C

Question47:-Which of the following mortar is suitable for pointing works ?

A:-Lime mortar

B:-Gauged mortar

C:-Cement mortar

D:-Mud mortar

Correct Answer:- Option-C

Question48:-While using vibrators for compaction, the concrete shall be placed in a thickness not more than

A:-65 cm

B:-60 cm

C:-75 cm

D:-70 cm

Correct Answer:- Option-B

Question49:-Identify the admixture which permits the reduction of water to the extent upto 30 percent without reducing workability

A:-Accelerator

B:-Plasticizer

C:-Retarder

D:-Super Plasticizer

Correct Answer:- Option-D

Question50:-For any given conditions of test, the strength of workable concrete mix is dependent only upon water cement ratio is stated by

A:-Ferret

B:-Eugene Odum

C:-Abrams

D:-William Aspidin

Correct Answer:- Option-C

Question51:-The fire demand (in litres/minute) for a population of 81000 as per National Board of Fire Underwriters formula is

A:-51,000

B:-28,640

C:-37,980

D:-2,760

Correct Answer:- Option-C

Question52:-Coagulation using ferric chloride is most effective in the range : (i) 3.0 - 5.5 (ii) above 8.5 (iii) 3.5 to 6.5 (iv) above 7.0. out of these statements, which is true ?

A:-Only (i)

B:-Only (iii)

C:-Only (i) and (iv)

D:-Only (ii) and (iii)

Correct Answer:- Option-D

Question53:-As per IS10500(2012), the permissible limit for free residual chlorine in drinking water is

A:-1 mg/l

B:-0.1 mg/l

C:-2 mg/l

D:-0.2 mg/l

Correct Answer:- Option-A

Question54:-For a septic tank, the surface area of the tank required for every 10 litres per minute of peak flow rate at a temperature of 25°C is

A:-7.3 $m^2$

B:-30 $m^2$

C:-0.033 $m^2$

D:-0.92 $m^2$

Correct Answer:- Option-D

Question55:-The detention period in primary sedimentation tanks for sewage treatment is taken as

A:-4 h to 6 h

B:-2 h to 2.5 h

C:-1 h to 2 h

D:-24 h

Correct Answer:- Option-B

Question56:-As per the Schedule VI of Environment (Protection) Rules, 1986 the limit for COD of effluent for discharge into inland surface water is

A:-30 mg/l

B:-50 mg/l

C:-100 mg/l

D:-250 mg/l

Correct Answer:- Option-D

Question57:-If the dissolved oxygen of a diluted water sample (with dilution factor 50) measured immediately after preparation is 7.3 mg/L and the dissolved oxygen at the end of the 3rd day of incubation at 27 deg C is 5.5 mg/L, BOD of the sample is

A:-1.8 mg/l

B:-18 mg/l

C:-45 mg/l

D:-90 mg/l

Correct Answer:- Option-D

Question58:-The saturation dissolved oxygen value for fresh water at 0 deg C is

A:-4 mg/l

B:-14.92 mg/l

C:-6.5 mg/l

D:-7.62 mg/l

Correct Answer:- Option-B

Question59:-For circular sewer of diameter 0.25 m running half full, the hydraulic mean radius is

A:-0.25 m

B:-0.13 m

C:-0.06 m

D:-0.06$\pi$m

Correct Answer:- Option-C

Question60:-As per NAAQS (2009), the concentration of $NO_2$ (24h time weighted average) in ecologically sensitive areas is

A:-30 µg/m³

B:-40 µg/m³

C:-60 µg/m³

D:-80 µg/m³

Correct Answer:- Option-D

Question61:-For two way slabs of shorter spans (up to 3.5m) with mild steel reinforcement, the span to overall depth ratios of continuous slabs is _____ may generally assumed to satisfy vertical deflection limits for loading up to 3 kN/m² as per IS 456-2000

A:-40

B:-45

C:-50

D:-None of the above

Correct Answer:- Option-A

Question62:-The design bond stress of M35 concrete in limit state method for plain bars in tension is

A:-1.2

B:-1.7

C:-1.8

D:-1.9

Correct Answer:- Option-B

Question63:-Pick the correct answer
Given the effective depth of a single reinforced beam = 550 mm, cover = 55 mm, width of beam = 300 mm $A_{st}$ = 2100 mm²
Use M20 concrete and Fe 415 steel

A:-Section is balanced

B:-Section is under reinforced

C:-Section is over reinforced

D:-None of the above

Correct Answer:- Option-C

Question64:-The limiting moment of resistance in kNm of a beam with M25 concrete and Fe 415 steel having 200 mm depth and 400 mm effective depth is

A:-110.4

B:-126.96

C:-135.6

D:-90.48

Correct Answer:- Option-A

Question65:-The anchorage value of a standard U-type hook shall be equal to _____ times the diameter of the bar as per IS 456-2000

A:-12

B:-16

C:-10

D:-8

Correct Answer:- Option-B

Question66:-The unsupported length between end restraints shall not exceed _____ times the least lateral dimensions of column as per IS 456-2000

A:-45

B:-50

C:-55

D:-60

Correct Answer:- Option-D

Question67:-As per IS 456-2000, what will be the theoretical value of effective length of column effectively held in position and restrained against rotation at one end but not held in position nor restrained against rotation at the other end L = unsupported length of the column

A:-2 L

B:-1.5 L

C:-0.8 L

D:-1.2 L

Correct Answer:- Option-A

Question68:-Calculate the equivalent shear in kN of a beam from the data given below
Ultimate shear force = 27 kN, Ultimate torsional moment = 2.3 kNm, Ultimate moment = 10 kNm, breadth of beam = 230 mm, effective depth of the beam = 460 mm

A:-48

B:-43

C:-52

D:-None of the above

Correct Answer:- Option-B

Question69:-Calculate the bearing pressure in $N/mm^2$ under the column from the following data
Size of column is 350mm × 350mm, safe bearing capacity of soil is $200kN/m^2$. Ultimate axial load in footing including the self-weight of footing is 2700kN.

A:-22.04

B:-13.5

C:-33.06

D:-39.67

Correct Answer:- Option-A

Question70:-The maximum shear stress in $N/mm^2$ permitted in M25 concrete as per IS 456-2000 is

A:-2.5

B:-2.8

C:-2.9

D:-3.1

Correct Answer:- Option-D

Question71:-Pick the correct statement as per IS 800-2007

A:-Poisson ratio of structural steel is 0.3 and modulus of rigidity of structural steel is
$0.769\times_{10^5}N/mm^2$

B:-Poisson ratio of structural steel is 0.95 and modulus of rigidity of structural steel is
$0.769\times_{10^6}N/mm^2$

C:-Poisson ratio of structural steel is 0.45 and modulus of rigidity of structural steel is
$0.769\times_{10^4}N/mm^2$

D:-None of the above

Correct Answer:- Option-A

Question72:-Calculate the design wind pressure in $N/m^2$ for a 12m high water tank in a colony situated in Allahabad from the following data
Zone = 2 wind speed = 47m/s, $k_1 = k_2 = k_3 = 1$

A:-4418

B:-2209

C:-1656.75

D:-1325.4

Correct Answer:- Option-D

Question73:-Find the shape factor of a triangular section of base 'b' and height 'h'

A:-2.543

B:-2.646

C:-2.343

D:-2.434

Correct Answer:- Option-C

Question74:-The effective throat thickness of 6 mm weld is

A:-4.8 mm

B:-5.4 mm

C:-6 mm

D:-4.2 mm

Correct Answer:- Option-D

Question75:-The bending moment at which beams fails by lateral buckling when subjected to a uniform moment is called as

A:-In elastic moment

B:-Elastic Critical moment

C:-Plastic moment

D:-Lateral moment

Correct Answer:- Option-B

Question76:-What is permissible concrete stress N/mm² of M50 concrete subjected to direct tension as per IS 3370 part 2 ?

A:-2

B:-3

C:-2.1

D:-2.8

Correct Answer:- Option-C

Question77:-The minimum area of longitudinal reinforcement of any type or grade within the pile shaft shall be _____ of the cross-sectional area of the pile shaft.

A:-0.1%

B:-0.25%

C:-0.35%

D:-0.4%

Correct Answer:- Option-D

Question78:-What purpose we are providing a shear key in the retaining wall ?

A:-If the factor of safety against overturning is less

B:-If the factor of safety against sliding is less

C:-If the factor of safety against overturning and sliding is less

D:-If the factor of safety against pressure is less

Correct Answer:- Option-B

Question79:-The distance required at the end of a pre-tensioned tendon for developing the maximum tendon stress by bond is _____

A:-Transmission length

B:-Bond length

C:-Shear length

D:-Pretension tendon length

Correct Answer:- Option-A

Question80:-What is minimum permissible stress limit in N/mm² of group A timber subjected to bending and tension along the grain ?

A:-10

B:-12

C:-14.5

D:-18

Correct Answer:- Option-D

Question81:-The dry density of a soil mass having specific gravity 2.6 and void ratio 0.3 will be

A:-2.3gm/cc

B:-1.3gm/cc

C:-1.6gm/cc

D:-2gm/cc

Correct Answer:- Option-D

Question82:-Water plasticity ratio of a soil is also known as

A:-Plasticity Index

B:-Flow Index

C:-Liquidity Index

D:-Consistency Index

Correct Answer:- Option-C

Question83:-Which of the following equation is correct ?

A:-$C_v = \frac{k}{m_v \gamma_w}$

B:-$C_v = \frac{T}{H^2 t_{90}}$

C:-$C_v = \frac{k\gamma_w}{m_v}$

D:-$C_v = \frac{T}{H t_{90}^2}$

Correct Answer:- Option-A

Question84:-The depth of tension crack for a dam built in cohesive soil is

A:-$Z_c = \frac{C}{\gamma}$

B:-$Z_c = \frac{2C}{\gamma}$

C:-$Z_c = \frac{2\gamma}{C}$

D:-$Z_c = \frac{\gamma}{C}$

Correct Answer:- Option-B

Question85:-If the retaining wall moves away from the fill, the lateral earth pressure is said to be

A:-At rest Pressure

B:-Active Pressure

C:-Passive Pressure

D:-Neutral Pressure

Correct Answer:- Option-B

Question86:-Which one of the following method is not used for the analysis of the stability of slopes

A:-Swedish Circle Method

B:-Friction Circle method

C:-Bishop's Method

D:-Coulomb's method

Correct Answer:- Option-D

Question87:-The degree of saturation of a partially saturated soil is 40%, and then the air content of the soil is

A:-30%

B:-40%

C:-60%

D:-20%

Correct Answer:- Option-C

Question88:-The bearing capacity of clayey soil with unconfined compressive strength of 20kN/m² is

A:-114 kN/m²

B:-20 kN/m²

C:-57 kN/m²

D:-40 kN/m²

Correct Answer:- Option-C

Question89:-The corrected N value after dilatancy correction for a standard penetration test with recorded N Value of 25 is

A:-25

B:-15

C:-10

D:-20

Correct Answer:- Option-D

Question90:-Ratio of ultimate bearing capacity of circular footing to that of strip footing, if the diameter of circular footing and width of strip footing are same and having equal depth is

A:-1.33

B:-0.75

C:-0.6

D:-1.5

Correct Answer:- Option-C

Question91:-While calculating the sight distance, the driver's eye above road surface is assumed to be

A:-90 cm

B:-100 cm

C:-110 cm

D:-120 cm

Correct Answer:- Option-D

Question92:-Rate of change of centrifugal acceleration for computing length of transition curve for a vehicle with design speed V kmph is given by

A:-$\frac{80}{75+V}$ m/s³

B:-$\frac{75}{80+V}$ m/s³

C:-$\frac{8}{70+V}$ m/s³

D:-$\frac{70}{85+V}$ m/s³

Correct Answer:- Option-A

Question93:-As per ICAO, basic runway length should be increased at the rate of P% per Q metre rise in elevation from MSL. The value of P and Q are respectively.

A:-7 and 300

B:-7 and 250

C:-5 and 300

D:-5 and 250

Correct Answer:- Option-A

Question94:-For a sleeper density of (n + 5), the number of sleepers required for constructing a broad gauge railway track of length 650 m is given by

A:-1000

B:-900

C:-800

D:-700

Correct Answer:- Option-B

Question95:-The yard, where trains are received, sorted out and new trains formed and dispatched is known as

A:-Good yard

B:-Locomotive yard

C:-Station yard

D:-Marshalling yard

Correct Answer:- Option-D

Question96:-Subsidence is a pavement deficiency which is caued by

A:-Removal of larger surface aggregates leaving craters

B:-Abrupt lowering of the road surface due to poor drainage

C:-Progressive disintegration of bituminous premix carpet surfacing by loss of aggregate

D:-A general lowering of the road surface

Correct Answer:- Option-B

Question97:-The number of conflict points for two way traffic on T-intersection is

A:-24

B:-11

C:-18

D:-6

Correct Answer:- Option-C

Question98:-Highway Geometrics are designed for

A:-50th percentile speed

B:-85th percentile speed

C:-95th percentile speed

D:-98th percentile speed

Correct Answer:- Option-D

Question99:-The maximum number of vehicles beyond which the rotary may not function effectively is

A:-500 vehicles per hour

B:-300 vehicles per hour

C:-5000 vehicles per hour

D:-3000 vehicles per hour

Correct Answer:- Option-D

Question100:-General plan for the future layout of a city is known as

A:-Master Plan

B:-Lay-out Plan

C:-Key-Plan

D:-All of the above

Correct Answer:- Option-A