QUESTIONS

Question1:-The terminal velocity of a small sphere settling in a viscous fluid varies as the

    A:-Inverse square of diameter

    B:-Inverse of diameter

    C:-first power of its diameter

    D:-inverse of fluid viscosity

    Correct Answer:- Option-D

Question2:-A cement bag contains 0.035 cubic meter of cement by volume. How many bags will one tonne of cement comprises

    A:-16

    B:-17

    C:-18

    D:-20

    Correct Answer:- Option-D

Question3:-Efflorescence of bricks is due to

    A:-Soluble salts present in clay for making bricks

    B:-High Porosity of bricks

    C:-High Silt Content in the soil used

    D:-Excessive burning burning of bricks

    Correct Answer:- Option-A

Question4:-Which of the following constituent in earth gives plasticity to mould bricks in suitable shape

    A:-Silica

    B:-Lime

    C:-Alumina

    D:-Magnesia

    Correct Answer:- Option-C

Question5:-The compound which contributes the highest share of heat of hydration in cement is

    A:-Tricalcium Silicate

    B:-Tricalcium aluminate

    C:-Gypsum

    D:-Combined lime

    Correct Answer:- Option-B

Question6:-Putty is made up of .

    A:-White lead and turpentine

    B:-Powdered chalk and raw linseed oil

    C:-Red lead and linseed oil

    D:-Zinc oxide and boiled linseed oil

    Correct Answer:- Option-B

Question7:-In making Concrete ,maximum density is achieved by,

    A:-Using sufficient cement to fill all the voids

    B:-Controlling the particle size of the ingredient

    C:-Controlling the particle size distribution of the ingredient

    D:-Reducing the quantity of mixing water

    Correct Answer:- Option-C

Question8:-which one of the following is not a vehicle in paints

    A:-Nut oil

    B:-Poppy oil

    C:-Tung oil

    D:-Turpentine oil

    Correct Answer:- Option-D

Question9:-In high tensile steel carbon should be less than

    A:-0.10%

B:-0.15 %

C:-0.70 %

D:-1.5%

Correct Answer:- Option-B

Question10:-The head room for a staircase should not be less than

A:-3.50m

B:-3m

C:-2.10m

D:-2m

Correct Answer:- Option-C

Question11:-The ratio of cement mortar preferred in load bearing walls in brick masonry is

A:-1:2

B:-1: 6

C:-1:8

D:-1:12

Correct Answer:- Option-B

Question12:-A curtain wall carries

A:-wind load

B:-Self weight

C:-roof load

D:-no load

Correct Answer:- Option-B

Question13:-In ordinary residential and public buildings ,the DPC is provided at

A:-Plinth level

B:-Ground level

C:-roof level

D:-lintel level

Correct Answer:- Option-A

Question14:-Laterite is a

A:-argillaceous rock

B:-silicious rock

C:-calcarious rock

D:-magma

Correct Answer:- Option-A

Question15:-Marble is

A:-Igneous rock

B:-metamorphic rock

C:-stratified rock

D:-sedimentary rock

Correct Answer:- Option-B

Question16:-In any case the bearing of lintel should not be less than

A:-100 mm

B:-150 mm

C:-200 mm

D:-300 mm

Correct Answer:- Option-B

Question17:-The resultant of two equal forces(F) acting in opposite directions will be

A:-2 F

B:-√2 F

C:-0.707 F

D:-zero

Correct Answer:- Option-D

Question18:-The set of forces ,whose resultant is zero, are known as

A:-equilibrium forces

B:-collinear forces

C:-coplanar forces

D:-concurrent forces

Correct Answer:- Option-A

Question19:-The centre of gravity of a plane lamina is not at its geometrical centre if it is a

A:-Circle

B:-square

C:-rectangle

D:-right angled triangle

Correct Answer:- Option-D

Question20:-A system of coplanar forces is in equilibrium when

A:-force polygon closes

B:-funicular polygon closes

C:-both force and funicular polygon closes

D:-all the forces are coplanar concurrent

Correct Answer:- Option-C

Question21:-The diagram showing the point of application and line of action of forces in their plane is called

A:-Vector diagram

B:-space diagram

C:-force diagram

D:-funicular diagram

Correct Answer:- Option-B

Question22:-The specification of earth work in foundation trenches,drains etc. Lift ordinarly specified is

A:-0m

B:-1.50 m

C:-5 m

D:-3m

Correct Answer:- Option-B

Question23:-In analysis of rates contractors profit is taken at the rate of

A:-1%

B:-5%

C:-10%

D:-20%

Correct Answer:- Option-C

Question24:-One cubic metre of cement concrete (1:2:4) is to be mixed by volume .Number of cement bags required approximately will be

A:-6

B:-8

C:-3

D:-4

Correct Answer:- Option-A

Question25:-The thickness of plastering to masonry wall is usually

A:-6 mm

B:-30mm

C:-22mm

D:-12mm

Correct Answer:- Option-D

Question26:-In a detailed estimate the provision for contingencies is,usually

A:-1%

B:-3% to 5%

C:-10%

D:-12% to 50%

Correct Answer:- Option-B

Question27:-Original cost of property minus depreciation is

A:-book value

B:-salvage value

C:-capital value

D:-obsolence value

Correct Answer:- Option-A

Question28:-while submitting a tender the contractor is required to deposit some amount with the department, as guarantee of the tender known as

A:-bank guarantee

B:-caution money

C:-security deposit

D:-earnest money

Correct Answer:- Option-D

Question29:-For a comfortable ascent of stairway the number of steps in a flight should be restricted to a maximum of

A:-10

B:-12

C:-16

D:-20

Correct Answer:- Option-B

Question30:-Construction of temporary structure to support an unsafe structure is known as

A:-Shoring

B:-underpinning

C:-scaffolding

D:-Propping

Correct Answer:- Option-A

Question31:-Which of the following is not an excavating equipment

A:-Power shovel

B:-Scrapper

C:-Drag line

D:-Hoe

Correct Answer:- Option-B

Question32:-An Ideal flow of any fluid must fulfil the

A:-Neweton's Law of Viscosity

B:-Neweton's Law of Motion

C:-Boundary layer Theory

D:-Continuity Equation

Correct Answer:- Option-D

Question33:-A cubical tank is filled with water. If side of tank is 1m ,pressure on the base of the tank will be

A:-10 000 kg

B:-5 000 kg

C:-1000 kg

D:-4 000 kg

Correct Answer:- Option-C

Question34:-The buoyancy depends upon the

A:-The pressure with which the liquid is displaced

B:-weight of the liquid displaced

C:-viscosity of the liquid

D:-compressibility of the liquid

Correct Answer:- Option-B

Question35:-block of wood 2m long, 2m wide and 1m deep is floating horizontally in water. If density of wood is 800 kg/m3 ,then the volume of water displaced will be

A:-3.2 cum

B:-2.6 cum

C:-2 cum

D:-6 cum

Correct Answer:- Option-A

Question36:-The flow in a pipe or channel is said to be uniform when

A:-The liquid particles at all sections have the same velocities

B:-The liquid particles at different sections have different velocities

C:-the quantity of liquid flowing per second is constant

D:-each liquid particles has a definite path

Correct Answer:- Option-A

Question37:-Flow in a pipe is laminar if the Reynold's number is

A:-equal to 10 000

B:-Between 4000 and 6000

C:-between 2000 and 4000

D:-less than 2000

Correct Answer:- Option-D

Question38:-Two pipe systems in series are said to be equivalent when

A:-the average diameter in both systems is same

B:-the average friction factor in both the system is same

C:-the total length of the pipes is the same in both the systems

D:-the discharge under the same head is same in both the systems

Correct Answer:- Option-D

Question39:-In open channel water flows under

A:-force of gravity

B:-atmospheric pressure

C:-hydrostatic pressure

D:-mechanical pressure

Correct Answer:- Option-A

Question40:-weir may be used to measure

A:-velocity of flow

B:-pressure

C:-discharge in a river or channel

D:-kinetic energy

Correct Answer:- Option-C

Question41:-The direction of flow of liquid in a propeller pump impeller is in

A:-outward radial direction

B:-axial direction

C:-inward radial direction

D:-the direction tangential to the impeller

Correct Answer:- Option-B

Question42:-The ratio of volume of voids to the total volume of the given soil mass, is known as

A:-porosity

B:-void ratio

C:-specific gravity

D:-water content

Correct Answer:- Option-A

Question43:-Dry density of soil is

A:-always greater than the saturated density

B:-ratio of the weight of soil solids to the volume of solids

C:-ratio of the weight of soil solids to the total volume

D:-determined by stregth test

Correct Answer:- Option-C

Question44:-The effective size of a soil is

A:-D10

B:-D30

C:-D20

D:-D40

Correct Answer:- Option-A

Question45:-A soil having uniformity coefficient more than 10 is called

A:-uniform

B:-fine

C:-coarse

D:-well graded soil

Correct Answer:- Option-D

Question46:-The property of a soil which permits flow of water through its interconnected voids is called

A:-seepability

B:-porosity

C:-permeability

D:-void ratio

Correct Answer:- Option-C

Question47:-The functional equation for specific gravity G ,water content w,void ratio e and degree of saturation Sr is

A:-w= Sr G/e

B:-e= Sr w/G

C:-Sr= wG/e

D:-G=Sr w/e

Correct Answer:- Option-C

Question48:-The law states that in laminar flow in a saturated soil, the velocity is directly proportional to the hydraulic gradient is called

    A:-Reynold's law

    B:-Bligh's law

    C:-Darcy's law

    D:-Lacy's law

    Correct Answer:- Option-C

Question49:-The gradual reduction in volume of a soil mass resulting from an increase in and continued application of compressive stress and is due to expulsion of water from the pores is called

    A:-Compaction

    B:-consolidation

    C:-settlement

    D:-depression

    Correct Answer:- Option-B

Question50:-The minimum size of plate in plate load test is

    A:-100 mm

    B:-450mm

    C:-200 mm

    D:-300 mm

    Correct Answer:- Option-D

Question51:-Bearing capacity should be calculated from the criteria of

    A:-shear only

    B:-settlement only

    C:-both settlement and shear

    D:-cohesion only

    Correct Answer:- Option-C

Question52:-Floating foundation is a type of

    A:-well foundation

    B:-pile foundation

    C:-pier foundation

    D:-Raft foundation

    Correct Answer:- Option-D

Question53:-A shallow foundation is a foundation that

    A:-has low bearing capacity

    B:-has a depth of embedment less than its width

    C:-is resting on the ground surface

    D:-causes less settlement

    Correct Answer:- Option-B

Question54:-Diameter of a circular footing is 3m and side of a square footing is 3m.Both the footings are in the same soil(c-Ø) at same depth. The ultimate bearing capacity of circular footing is

    A:-less than square footing

    B:-more than square footing

    C:-same as square footing

    D:-not comparable

    Correct Answer:- Option-A

Question55:-The energy stored in a material within elastic limit when it is under strain is called

    A:-impact

    B:-shock resistance

    C:-resilience

    D:-elasticity

    Correct Answer:- Option-C

Question56:-The property of a material enabling it to resist deformation under stress is called

    A:-toughness

    B:-stiffness

    C:-strength

    D:-brittleness

    Correct Answer:- Option-B

Question57:-The rate of change of bending moment is equal to

    A:-shear force

    B:-deflection

C:-slope

D:-axial thrust

Correct Answer:- Option-A

Question58:-The point in a beam where the shear force changes sign is called the point of

A:-maximum BM

B:-zero shear

C:-zero curvature

D:-maximum curvature

Correct Answer:- Option-A

Question59:-For a simply supported beam ,carrying a uniformly distributed load ,the shape of the bending moment diagram will be,

A:-triangular

B:-parabolic

C:-circular

D:-cubical

Correct Answer:- Option-B

Question60:-A cantilever beam of length L,cross-section A is subjected to a total uniformly distributed Load of W and a concentrated load W1 at a distance L1 from free end will have maximum moment of

A:-(WL/2)+ W1 L1

B:-(WL2/2)+ W1 L1

C:-[W(L-L1)/2]+ W1 L1

D:-(WL/2)+ W1 (L-L1)

Correct Answer:- Option-D

Question61:-Out of the following mild steel section ,the most economical section is

A:-I section

B:-circular section

C:-rectangular section

D:-channel section

Correct Answer:- Option-A

Question62:-The shear stress on the principal plane is

A:-maximum

B:-minimum

C:-zero

D:-intermediate

Correct Answer:- Option-C

Question63:-If the number of members provided is more than the requirement,then the frame will be classified as

A:-perfect frame

B:-redundant frame

C:-deficient frame Portal frame

D:-Portal frame

Correct Answer:- Option-B

Question64:-The most suitable reason to adopt hollow circular section in place of solid circular shaft Is

A:-weight per unit length is less

B:-more strength for same weight per unit length

C:-easy to manufacture

D:-easy to transport

Correct Answer:- Option-B

Question65:-The back sight reading on a BM(200m) was 2.650m.If the inverted staff reading to the bottom of a cantilever porch slab is 0.350m,the RL of the bottom of the slab is

A:-202.300

B:-203.000

C:-2.3000

D:-3.000

Correct Answer:- Option-B

Question66:-A survey in which horizontzl and vertical locations are fixed by linear and angular measurements is known as

A:-geodetic survey

B:-cadastral survey

C:-city survey

D:-Topographical survey

Correct Answer:- Option-D

Question67:-The survey in which the curvature of earth is ignored is called
    A:-Plane survey
    B:-geodetic survey
    C:-geological survey
    D:-aerial survey
    Correct Answer:- Option-A
Question68:-As per Indian Standard ,the length of one link in 30m chain should be
    A:-0.20m
    B:-0.30m
    C:-0.40m
    D:-0.15m
    Correct Answer:- Option-A
Question69:-The error in measured length due to sag of chain or tape is known as
    A:-positive error
    B:-negative error
    C:-compensating error
    D:-instrumental error
    Correct Answer:- Option-A
Question70:-The base line is measured with
    A:-metallic tape
    B:-steel tape
    C:-Invar tape
    D:-Chain
    Correct Answer:- Option-D
Question71:-If the fore bearing of a line AB is observed to be 12°24' ,the back bearing of line AB should be
    A:-77°36'
    B:-97°36'
    C:-167°36'
    D:-192°24'
    Correct Answer:- Option-D
Question72:-At magnetic poles,the dip of magnetic needle is
    A:-0 degree
    B:-45 degree
    C:-90 degree
    D:-120 degree
    Correct Answer:- Option-C
Question73:-In levelling the error due to refraction is
    A:-additive
    B:-subtractive
    C:-compensating
    D:-progressive
    Correct Answer:- Option-C
Question74:-Closed contours with higher values inside represents
    A:-depression
    B:-Hill
    C:-Plane surface
    D:-pond
    Correct Answer:- Option-B
Question75:-When the bubble of the level tube of a level is central
    A:-line of sight is horizontal
    B:-line of collimation is horizontal
    C:-axis of the telescope is horizontal
    D:-Geometrical axis of the telescope is horizontal
    Correct Answer:- Option-A
Question76:-The process of turning the telescope about the vertical axis in a horizontal plane is known as
    A:-Reversing
    B:-transiting
    C:-plunging
    D:-swinging

Correct Answer:- Option-D

Question77:-The hinged end of a propped cantilever of span L settles by an amount δ, then the rotation of the hinged end will be

A:-δ/L

B:-2δ/L

C:-3δ/2L

D:-4 δ/3L

Correct Answer:- Option-C

Question78:-Two beams carrying identical loads, simply supported, are having same depth but beam A has double the width as compared that of beam B. The ratio of the strength of beam A to that of beam B is

A:-1/2

B:-1/4

C:-2

D:-4

Correct Answer:- Option-C

Question79:-Defection can be controlled by using the appropriate

A:-aspect ratio

B:-modular ratio

C:-span/depth ratio

D:-water cement ratio

Correct Answer:- Option-C

Question80:-In a load-balanced prestressed concrete beam under self load ,the cross-section is subjected to

A:-axial stress

B:-bending stress

C:-axial and bending stress

D:-axial and shear stress

Correct Answer:- Option-D

Question81:-In a cantilever retaining wall of height 'h' the horizontal pressure of earth will act at a distance of

A:-h/2 from top

B:-h/4 from base

C:-h/3 from top

D:-h/3 from base

Correct Answer:- Option-D

Question82:-The minimum size of reinforcement bars in RCC column is

A:-6mm

B:-8 mm

C:-10mm

D:-12mm

Correct Answer:- Option-D

Question83:-In a cantilever beam tensile reinforcement is provided

A:-on the top of the beam

B:-on the bottom of the beam

C:-in the middle of the beam

D:-on the top and bottom of the beam

Correct Answer:- Option-A

Question84:-In a doubly reinforced rectangular beam, the allowable stress in compression steel is

A:-equal to the permissible stress in tension in steel

B:-more than the permissible stress in tension in steel

C:-less than the permissible stress in tension in steel

D:-not related to the permissible concrete compression stress

Correct Answer:- Option-C

Question85:-The section in which concrete is not fully stressed to its permissible value when stress in steel reaches its maximum value, is called

A:-under reinforced section

B:-over reinforced section

C:-doubly reinforced beam

D:-cantilever beam

Correct Answer:- Option-A

Question86:-A hydrograph is a plot of

A:-Precipitation against time

B:-Stream flow against time

C:-surface run off against time

D:-Recorded run off against time

Correct Answer:- Option-B

Question87:-The instrument used for measuring wind speed is

A:-Anemometer

B:-Rotameter

C:-Odometer

D:-Atmometer

Correct Answer:- Option-A

Question88:-The method of moment distribution in structural analysis can be treated as

A:-Force method

B:-Displacement method

C:-Flexibility method

D:-An exact method

Correct Answer:- Option-B

Question89:-Which one of the following tests is performed in the laboratory to determine the extent weathering of aggregates for road work

A:-soundness test

B:-crushing test

C:-Impact test

D:-Abrasion test

Correct Answer:- Option-A

Question90:-Which one of the following method is used in the design of rigid pavements

A:-CBR method

B:-Group Index method

C:-westergaards method

D:-Mcleod s method

Correct Answer:- Option-C

Question91:-The Plasticity index of the granular sub base material should be

A:-les than 6

B:-grater than 6

C:-greater than 9

D:-between 15 and 20

Correct Answer:- Option-A

Question92:-For removal of temporary hardness in water

A:-Water os filtered

B:-Water is boiled

C:-Lime is added

D:-Chlorination is done

Correct Answer:- Option-B

Question93:-Zeolite is

A:-A naturally occurring salt

B:-Hydrated silica

C:-Hydrated alumina-silicate

D:-Dehydrated calcium silicate

Correct Answer:- Option-C

Question94:-Coagulants are used when turbidity of water is more than

A:-50ppm

B:-60 ppm

C:-70 ppm

D:-80 ppm

Correct Answer:- Option-A

Question95:-The Contact pressure distribution under a rigid footing on a cohesionless soil Would be

A:-Uniform throughout

B:-Zero at centre and maximum at edges

C:-Zero at edges and maximum at centre

D:-Maximum at edges and minimum at centre

Correct Answer:- Option-C

Question96:-The minimum grade of concrete used for RCC work shall be
    A:-M10
    B:-M15
    C:-M20
    D:-M30
    Correct Answer:- Option-C
Question97:-The stripping time for form work props of beam having span more than 6m is
    A:-2 days
    B:-7 days
    C:-14 days
    D:-21 days
    Correct Answer:- Option-D
Question98:-In water bound macadam roads,binding material to hold stones is
    A:-sand
    B:-red earth
    C:-cement
    D:-quarry dust
    Correct Answer:- Option-B
Question99:-Plinth area of a building is
    A:-Built up covered area measured at sill level
    B:-Built up covered area measured at lintel level
    C:-Built up covered area measured at plinth level
    D:-carpet area
    Correct Answer:- Option-C
Question100:-The maximum horizontal distance between reinforcement in RCC slab in tension as per IS 456 is
    A:-Three times the effective depth or 300 mm whichever is less
    B:-Three times the effective depth
    C:-300mm
    D:-150 mm
    Correct Answer:- Option-A