Question	OptionA	OptionB	OptionC	OptionD
The main Constituent of cement which is responsible for initial setting of cement is	di-calcium Silicate	tri- calcium silicate	tri-calcium aluminate	tri-calcium alumino ferrite
Which of the following Cement is suitable for use in massive concrete structures such as large dams	ordinary Portland cement	low heat cement	rapid hardening cement	sulphate resisting cement
Mean target strength [f_t] is given by (Where f_{ck} is 28 day Characteristic compressive strength and 'S' is Standards deviation.)	$f_t = f_{ck} + 0.65\ S$	$f_t = f_{ck} - 1.65\ S$	$f_t = f_{ck} + 1.65\ S$	$f_t = f_{ck} - 0.65\ S$
In which of the following directions, the strength of timber is maximum?	parallel to grains	45 degrees	perpendicular to grains	same in all directions
Hydraulic lime is obtained by	burning of limestone	burning of gravel	adding water to quicklime	calcination of pure clay
Soundness of cement is tested by	Blaine's method	Le chatelier method	Autoclave method	Blains and Lechatelier methods
Solvent commonly used for oil paints is	tar	petrol	acquaregia	turpentine
Number of bricks required for one cubic metre of brick masonry is	400	450	500	550
Admixtures which cause early setting and hardening of concrete are called	workability admixtures	accelerators	retarders	air entraining agents
Which of the following metamorphic rocks has the most weather resisting characteristics?	Marble	Quartzite	Slate	Lime stone
The ratio of strength of a solid shaft to hollow shaft for same material, same weight and same length is	1.44	1.0	0.694	0.5

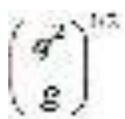
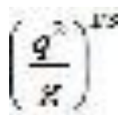
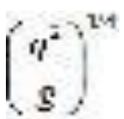
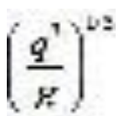
The ratio of the moment of inertia of a circular plate of diameter same as that of a side of a square plate is	less than one	more than one	equal to one	equal to $3\pi/16$
The maximum twisting moment, a shaft can resist, is the product of the permissible shear stress and	moment of inertia	polar moment of inertia	modulus of rigidly	polar modulus
The ratio or longitudinal stress to circumferential stress in the case of a thin cylindrical shell is	1.5	2	1	0.5
The maximum bending moment for a simply supported beam subjected to uniformly varying load with zero intensity at the right end and w per meter length at the left end is	$w l^2/9$	$wl^2/9\sqrt{3}$	$wl^2/\sqrt{3}$	$wl^2/2\sqrt{3}$
The magnitude of fixed end moment for a span if one of the support sinks by δ is	$6EI\ \delta/L^2$	$3EI\delta/L^2$	$12EI\ \delta/L^2$	$EI\delta/6L^2$
For an eccentric load on a circular section, not to cause any tension in it, the eccentricity of loading should not exceed	d/3	d/4	d/6	d/8
A spherical ball of volume 10^6 mm^3 is subjected to a hydrostatic pressure of 90 Mpa. If the bulk modulus for the material is 180 kN/m^2, the change in the volume of the ball is	50 mm^3	100 mm^3	250 mm^3	500 mm^3
For a column of length 'L', fixed at both ends, and flexural rigidity EI, the critical load is given by	$\frac{\pi^2 EI}{L^2}$	$\frac{\pi^2 EI}{4L^2}$	$\frac{2\pi^2 EI}{L^2}$	$\frac{4\pi^2 EI}{L^2}$
The deflection at any point of a perfect frame can be obtained by applying a unit load at the joint in	vertical direction	horizontal direction	Inclined direction	the direction in which deflection is required
A cantilever beam of 3 m long carries a point load of 5 kN at its free end and 5 kN at its middle. The bending moment at the middle of the cantilever beam is	22.5 kN-metre	30.0 kN-metre	15.0 kN-metre	7.5 kN-metre
When the body is subjected to three mutually perpendicular stresses of equal intensity, the ratio of direct stress to the corresponding volumetric strain is known as	modulus of elasticity	modulus of rigidity	bulk modulus	Poisson's ratio

Which one of the following pairs is not correctly matched?	Lame's constant : Thick cylinder	Macaulay's method : Deflection of beams	Euler's method : Theory of columns	Eddy's theorem : Torsion of shafts
A simply supported beam of span 'l' carries a unit load at its centre. The strain energy in the beam is (with usual notations)	$l^3/96EI$	$l^3/48EI$	$l^3/192EI$	$l^2/96EI$
The moment required to rotate the near end of a prismatic beam through unit angle, without translation, the far end being fixed is	EI/L	2EI/L	3EI/L	4EI/L
A simply supported beam which carries a uniformly distributed load has two equal overhangs. To have maximum B.M. produced in the beam the least possible, the ratio of the length	0.207	0.508	0.407	0.307
A plane carrying normal stress accompanied by no shear stress is called	plane of no shear stress	principal plane	normal plane	shear plane
The ratio of strengths of solid to hollow shafts, both having outside diameter 'D' and hollow having inside diameter 'D/2', in torsion, is	1/16	1/4	1/2	15/16
A single-bay, single-storeyed portal frame ABCD has its column ends fixed. If axial deformation is neglected, the kinematic indeterminacy is	3	2	6	4
The maximum bending moment under a particular point load among a train of point loads crossing a simply supported girder occurs at the location when that load is at	at mid span	so placed that load point and the C.G of the train of loads coincides	at one-quarter span	so placed that load point and the C.G of the train of loads equi-distant from the mid span.
Elongation produced due to self weight in a bar of uniform cross sectional area 'A', length 'l', and weight 'W' having modulus of elasticity 'E', hung vertically at top end is				
The point of contra flexure in a laterally loaded beam occurs where:	shear force changes its sign	shear force is minimum	shear force is maximum	bending moment changes its sign
Reaction at the level of prop at free end of a cantilever of span 'l' carrying a u.d.l. of 'W' per unit length is				

Stress variation across the wall thickness of a thick cylinder is computed by using	Castigliano theorem	Clapeyron theorem	Maxwell's theorem	Lames theorem
The torsional rigidity of a tube of thickness 1.0 mm, diameter 200 mm, and rigidity modulus 100.0 GPa is	314.1 $GNmm^2$	341.1 GNm^2	628.3 GNm^2	157.1 GNm^2
The maximum strain in the tension reinforcement in the section at failure shall not be less than (with usual notations)	0.002 + (0.87 f_y /Es)	0.0035 + (0.87 f_y / Es)	0.0035 + (f_y / 1.15 Es)	0.002 + (0.85 Es / f_y)
Partial safety factor of the material considered for concrete is	1.15	2.00	1.50	0.87
The maximum Deflection which can be allowed in gantry supporting manually operated crane, as per 15:800-2007 is	Span / 500	Span / 550	Span / 700	Span / 750
The main function of Column base is to	transmit the Column load to foundation block	resist the Deflections	resist lateral forces	reduce the effect of vibrations
The members carrying compressive forces in a roof truss are called	Girders	Ties	Struts	Purlins
Battens provided for a compression member shall be designed to carry transverse shear equal to	2.5% of axial force in member	5% of axial force in member	10% of axial force in member	25% of axial force in member
For a singly reinforced over-reinforced section 1. the lever arm will be less than for a balanced section, 2. the maximum stress developed in concrete would be equal to the allowable stress, 3. the maximum stress developed in steel would be equal to the allowed stress. Of these statements the correct ones are	1 and 3	1 and 2	2 and 3	1, 2 and 3
The effective length of a circular electrical pole of length ' l ' and constant diameter erected on ground is, where ' l' is un supported length of the column	0.8 l	1.2 l	1.5 l	2.0 l

When the column is effectively held in position and restrained against rotation at one end and at other end is neither held in position nor restrained against rotation, the effective length of column is 'k' times the unsupported length (L) of the column, where 'k' is equal to	1.2	2.0	1.5	0.8
Match list 1 (column base) with list 2 (its application) and select correct answers using the code given below List 1 A) Grillage foundation B) Gusseted base C) Slab base List 2 1) Lightly axial loaded steel column 2) Heavy loaded steel column to be rested on weak soils 3) Eccentric loaded steel column	A-1, B-2, C-3	A-3, B-2, C-1	A-2, B-3, C-1	A-2, B-1, C-3
Which one of the sections is the most efficient for a simply supported gantry girder?	I - section with equal flanges	I - section with a channel attached to the top flange	I - section with a wide bottom flange	I - section with a heavy plate connected to the bottom flange
The unit weight of Reinforced concrete made with sand and gravel or crushed natural stone aggregate may be taken as (in kN/m^3)	20	23	24	25
In an Isolated footing, when e>L/6 soil pressure at the base of farther edge from loading point is (with usual notations)	Infinity	Zero	Compressive in Nature	Tensile in Nature
Which one of the following is the most critical set for consideration in the design of rolled steel column carrying axial loads?	percent elongation at yield and net sectional area	critical bending strength and axial yield strength of the material	buckling strength based on the net area of the section and percent elongation at ultimate	compressive strength based on slenderness ratio and gross sectional area of the section

Match list 1 with list 2 and select correct answer List 1 (Type of stress) A) Bending stress, B) Bearing stress, C) Maximum shear stress, List 2 (permissible stress) 1) 0.40 fy, 2)0.45 fy, 3) 0.66 fy, 4) 0.75fy	A-3, B-1, C-2	A-1, B-4, C-3	A-3, B-4, C-2	A-2, B-1, C-3
Compared to mild steel plain bars, high yield strength deformed bars are?	Less ductile but more strong	More ductile but less strong	More ductile and more strong	Less ductile and less strong
Consider the following statements regarding the working stress design of under reinforced R.C. Section. 1. The N.A. Depth will be > that of balance section, 2. Stress in steel in tension will reach its maximum permissible value, 3. The M.R. Will be < that of balanced section, 4. The concrete on tension side is also to be considered for calculating the M.R. of section. Of these statements	1 & 2 are correct	1 & 4 are correct	3 & 4 are correct	2 & 3 are correct
A T-beam behaves as a rectangular beam of width equal to its flange if its 'NA'. ?	coincides with centroid of reinforcement	coincides with centroid of T-Section	remains with in the flange	remains in the web

In case of a isolated square concrete footing, match the location at which the stress resultant are to be checked? Stress resultant P. Bending moment Q. One way shear R. Punching shear Location 1. at the face of column 2. at d/2 from face of column 3. at d from face of column	P-1, Q-2, R-2	P-3, Q-1, R-2	P-1, Q-3, R-2	P-1, Q-2, R-3
Match the list 1 with list 2 and using the codes given below List-1 P. Flexure, Q. Shear, R. bond, S. Deflection List-2 1. Minimum depth of section, 2. Longitudinal steel reinforcement, 3. Stirrups, 4. Anchorage in support	P-3, Q-2, R-1, S-4	P-2, Q-2, R-1, S-4	P-3, Q-2, R-4, S-1	P-2, Q-3, R-4, S-1
A two dimensional flow is described by velocity components u = 2x and v= -2y. The discharge between the points (1,1) and (2,2) is equal to	9 units	8 units	7 units	6 units
In a rectangular channel, the critical depth is given by				

A Differential manometer measures	absolute pressure at a point	local atmospheric pressure	difference in total energy between two points	difference in pressure between two points
The condition of "No slip" at rigid boundaries is applicable to	Flow of Newtonian fluids only	Flow of ideal fluids only	Flow of all read fluids	Flow of all non-Newtonian fluids
The Bernoulli's equation is written with usual notation as $p/w+v^2/2g+z$ = constant. In this equation each of the terms represents	energy in Kg.m/Kg mass of fluid	energy in N.m/Kg mass of fluid	energy in N.m/N weight of fluid	power in kw/Kg mass of fluid
Pitot tube is used for measurement of	low pressures	flow of ideal fluids only	velocity at a point	discharge
The lift force on a body is	due to buoyant force	the component of the resultant force in the vertical direction	the component of the resultant force in a direction normal to relative velocity	due to drag on the body
The difference between the total head line and the hydraulic grade line represents :	the velocity head	the piezometric head	the pressure head	the elevation head
A water jet 0.015 m^2 in area has a velocity of 15 m/s. If this jet impinges normally on a plate which is moving at a velocity of 5 m/s in the direction of the jet, the force on the plate due to this impact is :	3368 N	2246 N	1497 N	14686 N
Which of the following is not a dimension-less number:	Darcy- Weisbach friction factor f	Coefficient of drag C_D	Manning's coefficient n	Coefficient of Velocity C_V
In a laminar flow between two parallel plates with a separation distance of 6 mm, the centre line Velocity is 1.8 m/s. The velocity at a distance of 1 mm from the boundary is:	0.15 m/s	1.0 m/s	0.55 m/s	0.75 m/s
A laminar boundary layer has a velocity distribution given by $u/U = y/\delta$. The displacement thickness δ^* for this boundary layer is: (with usual notations)	δ	$\delta/2$	$\delta/4$	$\delta/6$

In a hydraulic jump occurring in a horizontal rectangular channel the sequent depths are 0.25 m & 1.25 m. The energy loss in this jump is :	0.25 m	1.0m	1.25m	1.50m
The frictional resistance of a pipe varies approximately with the ___ of the liquid	pressure	velocity	square of velocity	cube of velocity
For subsonic-flow, if the area of flow increases:	velocity is constant	velocity increases	velocity decreases	velocity is infinity
The equation of motion for laminar flow of a real fluid is known as	Euler's equation	Bernoulli's equation	Navier-Stokes equation	Reynold's equation
The notch angle for maximum discharge over a triangular notch is	30^o	60^o	90^o	120^o
Square root of the ratio of inertia force of flowing fluid to the gravity force is	Mach number	Weber number	Froude's number	Euler's number
A centrifugal pump was manufactured to couple directly to a 15 HP electric motor running at 1500 rpm, delivering 50 lit./min. against a total head of 36 m. It is desired to replace the motor by a diesel engine with 1000 rpm and couple it directly to the pump. The head developed by the pump is likely to be	41.4 m	29.6 m	20 m	16 m
A fluid (specific gravity = 0.9 and μ = 1.2 Pa.s) flows in a laminar regime between two parallel plates fixed 3 cm apart. If the discharge is 600 $cm^3/s/cm$ width of plate, the shear stress on the boundary, in Pa, is	800	640	480	240
In the laminar flow of a liquid down an inclined plane, the surface velocity is found to be 30 cm/s. The average velocity of the flow, in cm/s is	20	30	15	10
The thickness of laminar sub layer 'd' is given by (with usual notations)	$11.6u_*/v$	$u_*/(11.6v)$	$11.6v/u_*$	v/u_*

In Isentropic flow between two points, the stagnation	pressure and stagnation temperature may vary	pressure would decrease in the direction of the flow	pressure and stagnation temperature would decrease with an increase in velocity	pressure, stagnation temperature and stagnation density would remain constant
The ratio of power output of the pump to the power input to the pump is known as	mechanical efficiency	overall efficiency	manometric efficiency	Pump efficiency
The relationship between specific gravity of soil (S), Field capacity (FC) and Permanent wilting print (PWP) exists to compute available water for plant per meter depth is	AW = S-FC-PWP	AW=S[FC-PWP]	AW=S[PWP-FC]	Relationship does not exist
The observed runoff during 6 h storm with a uniform intensity of 15mm/h over a basin of area 300 km^2 is 21.6 million m^3. The average infiltration rate during the storm is	3 mm/h	6 mm/h	12 mm/h	18 mm/h
The upper limit on the area of the basin for the applicability of unit hydrograph is taken to be	100 km^2	2500 km^2	5000 km^2	10000 km^2
A 4-hour unit hydrograph of a drainage basin is triangular in form with a height of 50 m^3/s and a base of 15 hours. The area in km^2 of the drainage basin is	110	135	147	151
For an annual flood series arranged in decreasing order of magnitude, the return period for a magnitude listed at position *m* in a total of N entries is	*m/N*	*m/(N+1)*	*(N+1)/m*	*N/(m+1)*
The shape of the phreatic line is	Parabola	Straight line	Cylindrical	Circular
If the regime velocity of flow in a Lacey's channel having hydraulic mean radius of 1 m is 0.4 m/s, the silt factor is	0.5	0.6	0.4	0.7
A drainage basin is	The length of long river	A lake or ocean into which river drains	The lower level a river erodes	Total area drained by river and its tributaries
Isohyet is a line joining points having	Equal evaporation rate	Equal Barometric pressure	Equal height above MSL	Equal rainfall depth of given duration

A unit Hydrograph has	One unit of peak discharge	One unit of rainfall duration	One unit of direct run off	One unit of time base of direct run off
In a sedimentation tank (length L, width B, depth D) the settling Velocity of a particle for a discharge Q, is	Q/BD	Q/LD	Q/L	Q/BL
When chlorine is added beyond the break-point the process of treating the water is known as	Plain chlorination	Super chlorination	Post chlorination	Dechlorination
A waste water sample of 2 ml is made upto 300 ml in BOD bottle with distilled water. Initial DO of the sample is 8 mg/l and after 5 days it is 2 mg/l, its BOD is	894 mg/l	900 mg/l	300 mg/l	1200 mg/l
The detention period of a septic tank is of the order of	2 - 6 hours	2 - 4 hours	12 - 36 hours	4 - 8 hours
The value of ϕ-index (phi index) for any basin area represents	separates the value of Rainfall and Runoff in a year	the depth of runoff at a basin	the depth of rainfall in a basin	a value that separates runoff and rainfall intensity for a particular storm
Which of the option is hygroscopic water	Water which represents the majority available for plant uptake	Water held tightly as film around individual soil particles and unavailable to plant	Water which ponds up on soil surface	Water which is available to drain through soil by gravity
The duty of crop is 1500 hectares in base period is 120 days. The delta of crop is	690 mm	860 mm	1100 mm	1000 mm
A flood wave in a river is an example of	steady, non-uniform flow	unsteady, gradually varied flow	steady, spatially varied flow	unsteady, rapidly varied flow
Seepage through earthen dam can be computed by the following equation (with usual notations)	$q = Kh[N_f \times N_d]$	$q = Kh[\frac{N_f}{N_d}]$	$q = KH\sqrt{}[N_f / N_d]$	$q = KH[N_f / N_d]$
Lacey's concept of design of canals is based on the	lined channels	unlined channels only	both lined and unlined channels	neither lined nor unlined channels
Under normal conditions of load and when reservoir is full, the critical stress will be acting on dam at	Toe	Heel	Middle third	Centre
The rate of settling of a particle depends upon the	viscosity of water	specific gravity of particle	shape and size of particle	viscosity of water, specific gravity and shape and size of particles

During temperature inversion in atmosphere, air pollutants tend to	accumulate above inversion layer	accumulate below inversion layer	disperse laterally	disperse vertically
A pollutant undergoes self purification in four distinct zones 1.Zone of clear water	4,3,2,1	2,3,4,1	2,4,3,1	3,2,4,1
Activated carbon is used to remove	Odour and taste	Hardness	Iron and manganese	Dissolved salts
The main constituents of gas generated during anaerobic digestion of sewage sludge are	CO_2 and CH_4	CH_4 and Ethane	CO_2 and CO	CO_2 and N_2
Uplift pressure is considered in the analysis of gravity dams	Only when there is a drainage gallery in the dam	Only when there is tail water	Only where the reservoir is empty	In all situations having water in the reservoir
According to Khosla's theory, the undermining of the floor starts from the	Tail end	Starting end	Intermediate point	Foundation bed
A stream is discharging 400 cusecs of water and has a fall of 50m. The power potential of the hydel station would be	1.962×10^5 KW	19.62×10^5 KW	1962 KW	2.616×10^5 KW
Which formula is used to measure velocity of water in water supply main	Hazen Williams	Manning's	Chezy's	Kutters
Acid rain is because of	SO_x	CO_x	COH	H_2S
The Tie bars in cement concrete pavements are provided across	Longitudinal joint	Expansion joint	Contraction joint	Warping joint
In general, the drainage layer facility is provided in which layer of the pavement	sub-grade	sub-base	base course	wearing course
In Indian Railways preferable sleeper density is normally kept as (M being rail length in metres)	M + 2 to M+10	M+2 to M+7	M+5 to M+10	M+2 to M+5
A Central Government, semi-official technical body known as Indian Roads Congress (IRC) was formed in the year	1943	1929	1950	1934

What is the off-tracking while negotiating a horizontal curve on two lane highway with a mean radius of 30m (take length of wheel base is 6m)	0.66 m	1.0 m	0.75 m	1.20 m
Desire lines are plotted for these surveys	Origin & destination	Volume	Speed	Accident
The following formula is used to calculate the Equivalent Axle load Factor (EALF) for single axle load (Kg) in vehicle damage factor analysis	EALF =(axle load/8760)^4	EALF= (axle load/8160)^4	EALF= (axle load /14968)^4	EALF = (axle load /5100)^4
The composite sleeper index evolved is from a combination of these properties	Strength and toughness	Toughness and wear resistance	Strength and Hardness	Toughness and shear resistance
The shape of transition curve suitable for highways as per IRC is	Spiral	Lemniscate	Cubic parabola	parabola
Find the compensated gradient at a horizontal curve of radius 50m with a hill road having ruling gradient of 5 percent is	3.5%	4.75%	3.25%	4.25%
Which is useful in estimation of highway user revenues, computation of accident rate, establishment of volume trends	Average Annual Daily Traffic (AADT)	Average Daily Traffic (ADT)	Average Weekday Traffic (AWT)	Peak Hour Traffic Volume (PHTV)
The maximum allowable width of any vehicle as per Indian Roads Congress	3.5 m	3.75 m	2.50 m	3.80 m
The relation between fatigue life and stress ratio (SR) (when 0.45 <=SR<=0.55) is given to compute number of repetitions of axle loads	$N=\left[\frac{4.2577}{SR-0.5325}\right]^{4.36}$	$N=\left[\frac{5.2577}{NR-0.4425}\right]^{4.36}$	$N=\left[\frac{4.2577}{NR-0.4425}\right]^{4.36}$	$N=\left[\frac{4.2577}{NR-0.4425}\right]^{4.36}$
The maximum values of cant deficiency for Broad Gauge and Meter Gauge prescribed by Indian Railways is	BG=75mm & MG = 50mm	BG=77mm & MG=40mm	BG=50mm & MG=40mm	BG=75mm & MG = 60mm
As per ICAO, the combined correction for an elevation and temperature should not exceed for runway design	45 percent	35 percent	25 percent	7 percent
What is the effect of increasing the compaction energy on compaction characteristics of a given soil. (with usual notation)	decreases MDD, increases OMC	decreases OMC, increases MDD	Increases OMC and MDD	decreases OMC & MDD

The "square root of time" fitting method is used to determine	compression Index (C_c)	coefficient of consolidation (C_v)	coefficient of volume change (m_v)	time factor (T_v)
In a triaxial compression test on a c-Ø soil, the inclination of failure surface with horizontal was measured as 61^o. Then, the angle of shearing resistance [Ø] is	16^o	45^o	32^o	61^o
Which roller is most suitable for the compaction of a gravelly sand mixture with 25% fines?	Smooth-wheeled roller	Sheepsfoot roller	Vibrating roller	Heavy roller
Clover leaf cofferdam belongs to	braced type	cellular type	sheet pile type	diaphragm type
What is the maximum value of water table correction factor in predicting bearing pressure based on Meyerhof's theory	0.5	0.75	1.0	Not considered
The effect of cohesion on the active and passive earth pressures is that	Both increase	Both decrease	Active earth pressure increases and passive earth pressure decreases	Active earth pressure decreases and passive earth pressure increases
In Terazaghi's theory of bearing capacity of shallow foundation, which of the following zones is assumed to act as if it were part of the following	Zone of linear shear	Zone of radial shear	Zone of elastic equilibrium	Overburden Zone
Which of the following type of sampler is preferred to collect an undisturbed sample (UDS) in cohesionless soils	thin wall tube samplers	split spoon samplers	piston samplers	augers
Expansive soils are those which generally consists of	silica	feldspar	Mica	Montmorillonite
For a clay, SL=20%, PL=40%. The total volume at PL & LL was 1.20 V_d and 1.50 V_d respectively wherein V_d = dry volume. Then, the plasticity Index PI of the soil is	10	20	30	40

The time required for a consolidating medium with double drainage to undergo 50% of its primary consolidation time was estimated as 8 years. All other conditions remaining same, estimate the time required if the medium has single drainage boundary	4 years	8 years	16 years	32 years
The coefficient of earth pressure in "At rest" condition is given by (with usual notations)	$K_o = \frac{1 - \sin\theta}{1 - \sin\phi}$	$K_o = \frac{1 + \sin\phi}{1 - \sin\theta}$	$K_o = \frac{\mu}{1 - \mu}$	$K_o = \frac{1 + \cos\phi}{1 - \cos\phi}$
Calculate coefficient of permeability in m/sec, if the coefficient of consolidation and volume change are 4.8 mm^2/min. and 1.02×10^{-3} m^2/kN.	4.8×10^{-8}	8.0×10^{-10}	1.02×10^{-9}	4.8×10^{-10}
Skempton's bearing capacity theory is valid for	clay soils	silt soils	sandy soils	gravel soils
Which one of the following is relatively more accurate estimating method for building	service unit	square meter of floor area	cubic meter of the building	elemental bill method
How much percentage of the estimated cost of the building works are usually provided in the estimate for electrification works	10% of the estimated cost of the building	5% of the estimated cost of the building	8% of the estimated cost of the building	12% of the estimated cost of the building
The optimistic, most likely and pessimistic time estimates for an activity are 6, 16 and 22 days, what could be the probabilistic time estimate	15.33 days	30.66 days	14.66 days	29.33 days
A document containing detailed description of all the items of work together with their current rates is called	Analysis of rates	Tender	Schedule of Rates	Cubic rate estimate
The working from whole to the part is done in surveying in order to ensure that	plotting is done more quickly	survey work is completed more quickly	errors and mistakes of one portion do not affect the remaining portion	number of errors is minimum

Match List I with List II and select the correct answer using the codes given below from the lists. List I A) Correction for sag B) Lease count 30' C) Overlap D) Additive Constant List II 1. Tacheometer 2. Aerial Photograph 3. Base line 4.Prismatic compass	A-4, B-3, C-2, D-1	A-3, B-4, C-2, D-1	A-1, B-2, C-3, D-4	A-3, B-4, C-1, D-2
Dip of the magnetic needle at magnetic poles is	0^o	45^o	60^o	90^o
The datum adopted for India is	MSL at Bombay	MSL at Karachi	MSL at Madras	MSL at Calcutta
Overturning of the vehicles on a curve can be avoided by using	Compound curve	Transition curve	Vertical curve	Reverse curve
Which one of the following is an obstacle to chaining but not to ranging?	River	Hill	Building	ground