Q :) Consider the following statements for selecting building stones:
1. Seasoning of stones is essential and is done by soaking in water
2. Specific gravity of stone is to be more than 2.7
3. Porosity of stone affects its durability
4. Climatic conditions decide the type of stone to be used in construction

Which of the above statements are correct?
(a) 1, 2 and 3 only
(b) 1, 2 and 4 only
(c) 1, 3 and 4 only
(d) 2, 3 and 4 only

Q :) As per moh's scale the hardness of quartz and topaz respectively are
(a) 7 & 8
(b) 8 & 7
(c) 9 & 10
(d) 10 & 9

Q :) In which of the following units is the kinematic viscosity of fluid expressed?
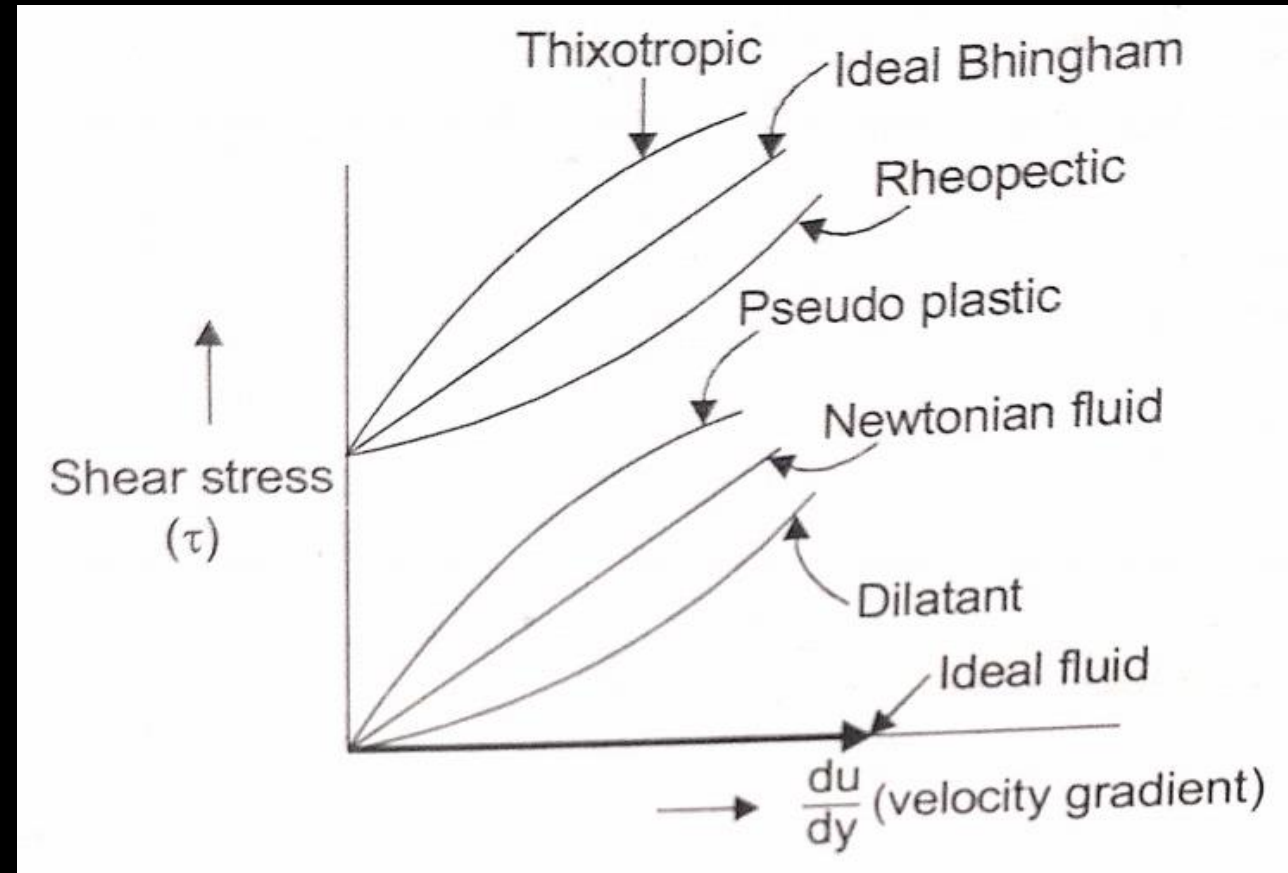(a) m²/s
(b) N.s/m
(c) N/m².s
(d) N.s/m²

Q :) The category of fluids in which shear stress is62.linearly related to the velocity gradient is known as:

(a) Ideal
(b) Dilatant
(c) Newtonian
(d) Pseudo plastic

Q :) The concept which defines 'the pressure at a certain horizontal level in a static fluid is proportional to the vertical distance to the surface of the fluid' is called

(a) D'Alembert's paradox

(b) Magnus effect

(c) Hydrostatic paradox

(d) Archimedes effect

Q :) Pascal's law says that the:

(a) Intensity of pressure at a point in a fluid at rest is equal to zero

(b) Intensity of pressure at a point in a fluid at rest is equal in magnitude in all directions

(c) Intensity of pressure at a point in a fluid at rest cannot be determined

(d) Intensity of pressure at a point in a fluid at motion is equal in magnitude in all directions.

Q :) Which technique of water distribution in farms is also called trickle irrigation?

(a)Border flooding

(b)Drip irrigation

(c)Sprinkler irrigation

(d)Free flooding

Q :) Water for irrigation supplied as per crop requirement throughout the crop period year is called:
(a) Drip irrigation
(b) Inundation irrigation
(c) Lift irrigation
(d) Perennial irrigation

Q :) Calculate the water distribution efficiency if the depths of penetration along the length of a border strip at an interval of 20m are 1.5m,1.8m and 2.1m respectively.
(a) 0.6667
(b) 0.8333
(c) 0.8889
(d) 0.9767

Q :) What is the variation in duty of water from thehead of a main canal (M) to that in the field(F)?

(a) Duty of water at M is always greater than duty of water at F

(b) Duty of water at M is always equal to duty of water F

(c) Duty of water at M can be greater or less than duty of water at F

(d) Duty of water M is always less than duty of water at F

Q :) In which of the following types of canal alignment are the cross-drainage works minimized ?
(a) Watershed canal
(b) Valley canal
(c) Contour canal
(d) Straight canal

Q :) What is the length of Surveyor's chain?
(a) 33 feet
(b) 133 feet
(c) 100 feet
(d) 66 feet

Q :) The length of a road measured with a 30 metre chain was found to be 300 metres. What is the true length of the road If the chain was 10 cm too long

(a) 301 metres

(b) 298 metres

(c) 299 metres

(d) 302 metres

Q :) The correction due to wrong alignment of the tape:

(a) Depends upon whether the alignment is wrong to the right or left of the line

(b) Is always positive

(c) Can be positive or negative

(d) Is always negative

Q :) A prism square is used to:

(a) Set out a horizontal circular curve

(b) Set out a line at 45° to a survey line, without any linear measurement

(c) Set a line at right angles to a survey line

(d) Get an enlarged view of station marks

Q :) A smart station is:

(a) A total station with an integrated GPS module

(b) A total station with software to calculate and display many quantities

(c) A total station attached to a computer

(d) A total station with display units on both sides

Q :) The relationship between the capital recovery factor and sinking fund factor in a uniform Series of payments is given by

(a) Capital recovery factor = Sinking fund factor - Interest rate

(b) Capital recovery factor = Sinking fund factor- (Interest rate)

(c) Capital recovery factor = Sinking fund factor +Interest rate

(d) Capital recovery factor= Sinking fund factor +(Interest rate)

Q :) While comparing alternatives of different lives, most preferred method would be
(a) net present worth analysis
(b) net future worth analysis
(c) net annual worth analysis
(d) break even analysis

Q :) The system of organization introduced by F.W. Taylor is known as-

(a) Effective organization

(b) Functional organization

(c) Line and staff organization

(d) Line organization

Q :) If the excavation of earth is done manually then it costs Rs. 100 per cum. A machine can excavate at a fixed cost of Rs. 40,000 plus a variable cost Rs. 20 per cum. The quantity of the earth for which the cost of excavation by machine will be equal to the cost by manuals excavation is-

(a) 500 cum
(b) 1500 cum
(c) 1000 cum
(d) 2000 cum

Q :) At what change of price level is revised estimate prepared?
(a) 2.0%
(b) 4.0%
(c) 2.5%
(d) 5.0%

Q :) Salvage value is defined as-

(a) value of dismantled materials of a property at the end of its utility period

(b) estimated value of a built up property at the end of its useful life without being dismantled

(c) value of the property shown in the account book in that particular year

(d) present value of a property considering it to be replaced at the current market rates

Q :) The rights and privileges which an owner of a property enjoys through or over the property of another is known as-

(a) Property right

(b) Legal right

(c) Lease right

(d) Easement

Q :) The cost inflow a firm receives if a machine still has value at the time of its disposal is known as-
(a) Salvage value
(b) Purchase expenses
(c) Operating cost
(d) Ownership cost

Q :) Measurement of 50 mm thick concrete flooring of will be done in
(a) Cubic m
(b) Meter
(c) % sq m
(d) Sq. m

Q :) Which of the following is considered as Outgoing in expenses?
(i)   Repairs
(ii) Sinking fund
(iii) Loss of rent
(a) (i) and (ii)
(b) (i) and (iii)
(c) (i) and (ii)
(d) (i), (i) and (iii)

Q :) The minimum cement content in moderately exposed reinforced concrete with normal weight aggregates of 20 mm nominal maximum size is

(a) 220 kg/m³

(b) 240 kg/m³

(c) 300 kg/m³

(d) 280 kg/m³

Q :) The workability of concrete required for the heavily reinforced sections in slab, beam and column is:
(a) very high
(b) medium
(c) very low
(d) low

Q :) The time dependent in elastic deformation of steel resulting from sustained stress and a function there of is known as_____.
(a) Shrinkage
(b) Deformation
(c) Creep
(d) Relaxation

Q :) Which of the following is measure of dynamic modulus of elasticity of concrete?
(a) Tangent modulus
(b) Secant modulus
(c) Initial tangent modulus
(d) All the above

Q :) Fatigue in RCC beams will not be a problem if the number of cycles is les than
(a) 20.000
(b) 30,000
(c) 25,000
(d) 35,000

Q :) The value of creep coefficient of concrete at an age of 28 days loading is:
(a) 1.6
(b) 1.1
(c) 3.5
(d) 2.2

Q :) Given below are the statements associated with concrete.

Statement 1: As the compaction factor increases slump increases.

Statement 2 : Slump test helps in qualitatively understanding the strength of concrete.

(a) Statement 1 and statement 2 are false
(b) Statement 1 is true and statement 2 is false
(c) Statement 1 is false and statement 2 is true
(d) Statement 1 and statement 2 are true

Q :) In the fourth amendment May 2013 of IS 456-2000, M60 grade has been shifted to
(a) standard concrete from high strength concrete
(b) high strength concrete from high strength standard concrete
(c) standard concrete from an ordinary concrete
(d) ordinary concrete from a standard concrete

Q :) Light weight concrete is used for

(a) air conditioned buildings

(b) non-load bearing walls

(c) reducing thickness of structures

(d) heat resistance

Q :) Which of the following is NOT considered as
(a) Erection load
(b) Self-weight of the floor slab
(c) Self-weight of a beam
(d) Self-weight of a column

Q :) On peak hourly demand, what is the maximum daily consumption for the city which have average daily consumption of 100,000 m³ ?

(a) 140000

(b) 170000

(c) 200000

(d) 270000

Q :) which type of drainage system will collect 16. the rainwater ?
(a) Secondary
(b) Primary
(c) Primary and tertiary
(d) Tertiary

Q :) Identify the method for the forecast of population of a town, wherein the percentage increase in population from decade to decade, is assumed to remain constant.

(a) Logistic curve method

(b) Incremental increase method

(c) Geometric increase method

(d) Arithmetic increase method

Q :) According to IS 10500-2012, the permissible limit of total dissolved solids (TDS) in drinking water in the absence of alternative source is

(a) 2000 mg/l

(b) 1500 mg/l

(c) 1000 mg/l

(d) 500 mg/l

Q :) As per 1S 10500 2012, the acceptable limit for fluoride in drinking water is:
(a) 1.5 mg/l
(b) 0.5 mg/l
(c) 1.0 mg/l
(d) 2.5 mg/l

Q :) In ground water, the muddy of cloudy appearance of clay or such other particles that presents hindrance to the path of light, is measured by:

(a) Screening
(b) Nessler's tubes
(c) Jackson turbidity meter
(d) Steven turbidity meter

Q :) Which of the following is NOT used as a
27.coagulant?-
(a) Copperas
(b) Sodium carbonate
(c) Alum
(d) Ferric chloride

Q :) The processes of adding chemicals to induce aggregation and settling of finely divided suspended matter, colloidal substances etc. in water treatment plants is called

(a) Filtration
(b) Clarification
(c) Aeration
(d) plain sedimentation

Q :) In which of the following road construction the finished surface layer of the pavement is given a cross slope of 1 in 45 ?

(a) Macadam construction

(b) Telford construction

(c) Tresaguet construction

(d) Metcalf construction

Q :) Heavy foundation stones are not at all necessary to be placed at the bottom layer of road with sub-grade cross slope of 1 in 36. Which of the following methods of construction used this concept?

(a) Telford construction

(b) Tresaguet construction

(c) Macadam construction

(d) Metcalf construction

Q :) A state highway road is to be constructed with bitumen concrete pavement of width 7m wide and a camber of 1 in 50 is provided. What is the rise of crown with respect to edges?

(a) 0.05 m
(b) 0.06 m
(c) 0.07m
(d) 0.08 m

Q :) As per IRC, what shall be the maximum length of truck and trailer combination of road vehicle?

(a) 12 m

(b) 16 m

(c) 18 m

(d) 11 m

Q :) Which of the following geometric shape is NOT used as a transition curve in the alignment of highway?
(a) Lemniscate
(b) Semicircle
(c) Cubic parabola
(d) Spiral