

**Question: Which of the following formulae represent the volume of concrete needed for a Rectangular footing?**

**L = Length**

**B = Breadth**

**H = Height**

(a)  $L + B + H$

(b)  $L - B \times H$

(c)  $L - B + H$

(d)  $L \times B \times H$

Answer: d

Solution:

**Question: Read the following statements about Moment distribution method.**

**A. Statically determinate beams are analysed using this method.**

**B. Fixed end moments are calculated.**

**Identify the INCORRECT statement/statements.**

(a) Neither A nor B

(b) Only B

(c) Both A and B

(d) Only A

Answer: d

Solution:

**Question: Read the following statements about the layout of Head Diversion works.**

**A. The material of construction such as stone, sand, etc. should be available in the vicinity of the site.**

**B. The site should be accessible by road.**

**Identify the INCORRECT statement.**

(a) Both A and B

(b) Neither A nor B

(c) Only A

(d) Only B

Answer: b

Solution:

**Question: Which of the following index properties of soil is the measure of shear strength of soil at the plastic limit?**

- (a) Flow index
- (b) Toughness index
- (c) Consistency index
- (d) Plasticity index

Answer: b

Solution:

**Question: Which of the following pollutant of air is produced in the manufacturing of phosphate fertilizers?**

- (a) Carbon Monoxide
- (b) Hydrogen Fluoride
- (c) Oxides of Nitrogen
- (d) Hydrogen Sulphide

Answer: b

Solution:

**Question: In which of the parts of a gravity dam is the water pressure maximum?**

- (a) Heel
- (b) Downstream side
- (c) Upstream side
- (d) Toe

Answer: a

Solution:

**Question: Which of the following is NOT a secondary air pollutant?**

- (a) Halogens
- (b) Acid mists
- (c) Ozone
- (d) Photochemical smog

Answer: a

Solution:

**Question: In which of the Concreting operations are the air bubbles eliminated from the freshly placed concrete?**

- (a) Batching
- (b) Curing
- (c) Transportation
- (d) Compaction

Answer: d

Solution:

**Question: In which of the following buildings is the Plinth Area Method NOT used?**

- (a) Hospitals
- (b) Garbage shaft
- (c) Office buildings
- (d) School buildings

Answer: b

Solution:

**Question: Which of the following types of curves plays an important role in the double deflection method?**

- (a) Transition curve
- (b) Circular curve
- (c) Plastic curve
- (d) Elastic curve

Answer: d

Solution:

**Question: Which of the following is NOT a Mechanical property of Construction materials?**

- (a) Strength
- (b) Plasticity
- (c) Creep
- (d) Durability

Answer: d

Solution:

**Question: Which of the following types of dams are constructed for flood control?**

- (a) Detention dams
- (b) Debris dams

(c) Diversion dams

(d) Storage dams

Answer: a

Solution:

**Question: Which of the following ranges of noise intensity causes permanent ear damage?**

(a) 30

(b) 100

(c) 10

(d) 180

Answer: d

Solution:

**Question: Which of the following selection properties of Construction materials means handling power?**

(a) Ductility

(b) Workability

(c) Strength

(d) Cost

Answer: b

Solution:

**Question: Which of the following grades of OPC is used in construction of runways?**

(a) OPC 33

(b) OPC 63

(c) OPC 43

(d) OPC 53

Answer: d

Solution:

**Question: Which of the following particles are coarser than Gravel?**

(a) Clay

(b) Sand

(c) Cobble

(d) Silt

Answer: c

Solution:

**Question: Read the following statements about Bernoulli's equation.**

**A. The equation explains that, if an increase in the speed of a fluid occurs, there will be a decrease in static pressure or a decrease in the fluid's potential energy.**

**B. For flow inside horizontal pipes, where elevation head  $z$  is constant; the velocity increase will cause a decrease in pressure.**

**Which of the following are CORRECT?**

- (a) Neither A nor B
- (b) Only B
- (c) Both A and B
- (d) Only A

Answer: c

Solution:

**Question: Which of the following is NOT a use of contour interval?**

- (a) When a small area is to be mapped in small piece of paper contour intervals are used.
- (b) Earthwork estimations for any type of structure like bridges, dams or roads can be found out with the help of contour intervals in a map.
- (c) When a large area is to be mapped in small piece of paper contour intervals are used.
- (d) In a large map, index contour lines are less to keep it simple to read the map easily.

Answer: a

Solution:

**Question: Which of the following types of solid wastes are generated from Single and multifamily dwellings?**

- (a) Industrial
- (b) Commercial
- (c) Residential
- (d) Agricultural

Answer: c

Solution:

**Question: Which of the following types of signals are used to warn the traffic?**

- (a) Pedestrian signals

- (b) Manually operated signals
- (c) Flashing beacon
- (d) Fixed time signals

Answer: c

Solution:

**Question: Which of the following is a disadvantage of Hoffman Klin?**

- (a) High initial cost of construction
- (b) Regulation of heat
- (c) Uniform burning of brick
- (d) Fuel economy

Answer: a

Solution:

**Question: Which of the following Orifices for measuring discharge is NOT classified on the basis of its shape?**

- (a) Large
- (b) Triangular
- (c) Circular
- (d) Rectangular

Answer: a

Solution:

**Question: Which of the following statement/statements about Limit State of Serviceability is CORRECT?**

- A. The condition under which the building analysed useful is called the limit state of serviceability in civil engineering.**
- B. If the structure is not used if it is not serviceable**
- C. Based on the most critical limit the structure should be designed and after that checked other limit states.**

- (a) Both A and C
- (b) A, B and C
- (c) Only A
- (d) Only C

Answer: b

Solution:

**Question: Which of the following graphs are developed to represent several unit hydrographs?**

- (a) Dimensionless unit hydrograph
- (b) Natural hydrograph
- (c) Unit hydrograph
- (d) Synthetic hydrograph

Answer: a

Solution:

**Question: The tacheometric constant  $k = f/i$  is also known as:**

- (a) Dividing constant
- (b) Multiplying constant
- (c) Subtractive constant
- (d) Additive constant

Answer: b

Solution:

**Question: Read the following about the analysis of rates:**

**A. To work out the actual cost of per unit of the items.**

**B. To work out the cost of extra items which are not provided in the contract bond, but are to be done as per the directions of the department.**

**Which of the following are CORRECT?**

- (a) Both A and B
- (b) Only A
- (c) Only B
- (d) Neither A nor B

Answer: a

Solution:

**Question: Which of the following factors is NOT responsible for reinforcement anchorage?**

- (a) Ribs interlocking with the concrete
- (b) Concrete shear strength
- (c) Steel tensile strength
- (d) Concrete and Steel adhesion

Answer: c

Solution:

**Question: Read the following statements about the Neutral axis of a beam.**

**A. Neutral axis separates the compression and tension zones in the beam.**

**B. To avoid the brittle failure of concrete, keep the maximum depth of the neutral axis always less than the neutral axis.**

**Which of the statement/statements are INCORRECT?**

- (a) Only B
- (b) Neither A nor B
- (c) Only A
- (d) Both A and B

Answer: b

Solution:

**Question: Which of the following is responsible for major losses in pipes?**

- (a) Valves
- (b) Friction
- (c) Joints
- (d) Bends

Answer: b

Solution:

**Question: Read the following statements about Bernoulli equation.**

**A. The Bernoulli Equation can be considered to be a statement of the conservation of energy principle appropriate for flowing fluids.**

**B. In the high velocity flow through the constriction, kinetic energy must increase at the expense of pressure energy.**

**Which of the given statement/statements are CORRECT?**

- (a) Neither A nor B
- (b) Only A
- (c) Both A and B
- (d) Only B

Answer: c

Solution:

**Question: What is the height of RCC chimneys commonly used?**

- (a) 10 - 20m
- (b) 50 - 100m
- (c) 5 - 10m
- (d) 100 - 200m

Answer: b

Solution:

**Question: Read the following about the factors on which rates of items depends.**

**A. Quantity of materials and their costs**

**B. Cost of labours and their wages**

**C. Overhead and establishment charges**

**Which of the following are CORRECT?**

- (a) Only C
- (b) Only A
- (c) Both A and C
- (d) A,B and C

Answer: d

Solution:

**Question: Which of the following items of work includes bending and binding in position and is measured in quintal?**

- (a) Steel work
- (b) Excavation
- (c) Plastering work
- (d) Clearing of site

Answer: a

Solution:

**Question: Which of the following is a Mechanical property of construction materials?**

- (a) Hardness
- (b) Specific gravity
- (c) Frost resistance
- (d) Hygroscopicity

Answer: a

Solution:

**Question: How many tests can be performed in order to find the fineness of cement?**

- (a) 2
- (b) 20
- (c) 1
- (d) 10

Answer: a

Solution:

**Question: Which of the following is NOT a type of Horizontal curve?**

- (a) Spiral curve
- (b) Crest curve
- (c) Simple curve
- (d) Compound curve

Answer: b

Solution:

**Question: Which of the following ranges of sound is low pitched?**

- (a) 50 Hz
- (b) 300 Hz
- (c) 2 Hz
- (d) 15000 Hz

Answer: a

Solution:

**Question: Which of the following is the portion of roadway of an urban road reserved for use only by high speed and power driven vehicles?**

- (a) Cycle track
- (b) Foot way
- (c) Village road
- (d) Motor way

Answer: d

Solution:

**Question: According to the Limit State Method, which of the following types of bars are categorised as main bar?**

- (a) Steel bars in tension zone
- (b) Concrete bars in tension zone
- (c) Steel bars in compression zone
- (d) Concrete bars in compression zone

Answer: a

Solution:

**Question: Which of the following chemicals is added to Concrete in order to avoid carbonation during cold weather concreting?**

- (a) Magnesium Chloride
- (b) Sodium Hexametaphosphate
- (c) Sodium Chloride
- (d) Calcium Carbonate

Answer: d

Solution:

**Question: Which of the following is the shape of a warning sign board?**

- (a) Square
- (b) Circular
- (c) Rectangular
- (d) Triangular

Answer: d

Solution:

**Question: Which of the following is a type of metamorphic rock?**

- (a) Sandstone
- (b) Granite
- (c) Limestone
- (d) Soapstone

Answer: d

Solution:

**Question: In which of the following structures should the moment distribution method used?**

- (a) Simply supported beam

- (b) Fixed beam
- (c) Cantilever beam
- (d) Simply supported beam with uniformly distributed load

Answer: b

Solution:

**Question: Read the following statements about Macaulay's method.**

**A. Slope and deflection are calculated using this method.**

**B. Structurally indeterminate structures are analysed.**

**Identify the CORRECT statement/statements.**

- (a) Only A
- (b) Both A and B
- (c) Neither A nor B
- (d) Only B

Answer: b

Solution:

**Question: Into how many types is Bandhara irrigation classified?**

- (a) 1
- (b) 4
- (c) 2
- (d) 3

Answer: c

Solution:

**Question: How many types of Earth pressures are there on the basis of the movement of the wall?**

- (a) 5
- (b) 3
- (c) 10
- (d) 2

Answer: b

Solution:

**Question: Which of the following is the particle size of cobble as per the BIS classification of soil?**

- (a) 0.5-2.00mm

- (b) 10-50mm
- (c) 80-300mm
- (d) >300mm

Answer: c

Solution:

**Question: Into how many types are sight distances categorised?**

- (a) Five
- (b) One
- (c) Ten
- (d) Two

Answer: a

Solution:

**Question: Which of the following is used to hold the two rails together both in the horizontal and vertical planes?**

- (a) Fish plates
- (b) Round spikes
- (c) Rail joints
- (d) Dog spikes

Answer: a

Solution:

**Question: Which of the following is the correct formula for Pascal's Law?**

**F= Force**

**P= Pressure**

**A= Area of cross-section**

- (a)  $F = P / A$
- (b)  $F = A / P$
- (c)  $F = P + A$
- (d)  $F = P A$

Answer: d

Solution:

**Question: Which of the following equations is used to find the major losses in pipes?**

- (a) Reynold's equation
- (b) Prandtl equation
- (c) Darcy Weisbach equation
- (d) Manning's equation

Answer: c

Solution:

**Question: Which of the following grades of concrete has the mix ratio 1:1:2?**

- (a) M10
- (b) M25
- (c) M20
- (d) M5

Answer: b

Solution:

**Question: Which of the following properties is NOT considered in selection of construction materials?**

- (a) Availability
- (b) Plasticity
- (c) Strength
- (d) Cost

Answer: b

Solution:

**Question: Which of the following is NOT an advantage of using Bitumen for roads?**

- (a) Quick failure
- (b) Smooth ride Surface
- (c) Staged Construction
- (d) Quick repair

Answer: a

Solution:

**Question: Arrange the steps to determine deflection in beams using Double integration method in chronological order.**

**1. Using the boundary conditions, determine the integration constants and substitute them into the equations obtained to find the slope and the deflection of the beam.**

**2. Calculate the support reactions and write the moment equation as a function of the x coordinate.**

**3. Sketch the free-body diagram of the beam and establish the x and y coordinates.**

**4. Substitute the moment expression into the equation of the elastic curve and integrate once to obtain the slope. Integrate again to obtain the deflection in the beam.**

(a) 1, 4, 3, 2, 1

(b) 3, 2, 4, 1

(c) 3, 1, 4, 3, 2

(d) 4, 1, 2, 3, 4

Answer: b

Solution:

**Question: Read the following statements about working from whole to part:**

**A. When an area is to be surveyed, first a system of control points is to be established covering the whole area with very high precision.**

**B. The idea of working this way is to maximise the accumulation of errors and to control and localise minor errors.**

**Identify the INCORRECT statement.**

(a) Only A

(b) Only B

(c) Both A and B

(d) Neither A nor B

Answer: b

Solution:

**Question: Which of the following properties is the quantity of work required to cause its failure per its unit volume in construction materials?**

(a) Impact strength

(b) Creep

(c) Thermal Conductivity

(d) Ductility

Answer: a

Solution:

**Question: Which of the following index properties indicates the firmness of soil?**

(a) Consistency index

- (b) Plasticity index
- (c) Liquidity index
- (d) Flow Index

Answer: a

Solution:

**Question: Which of the following is a precision instrument that is used to measure the angle in the horizontal and vertical planes?**

- (a) Tape
- (b) Theodolite
- (c) Compass
- (d) Chain

Answer: b

Solution:

**Question: Which of the following types of pollution creates excess heat that causes undesirable effects over long periods of time?**

- (a) Soil pollution
- (b) Water pollution
- (c) Thermal pollution
- (d) Light pollution

Answer: c

Solution:

**Question: Which of the following is NOT a type of traffic signal?**

- (a) Fixed time signals
- (b) Pedestrian signals
- (c) Truck signals
- (d) Manually operated signals

Answer: c

Solution:

**Question: Which of the following types of soil have the lowest bulk surface density?**

- (a) Sandy soil
- (b) Peat
- (c) Glacial till

(d) Silt

Answer: b

Solution:

**Question: Which of the following instruments for linear measurement is a watch like instrument that is carried on the person's pocket or tied on the man's leg?**

(a) Passometer

(b) Pedometer

(c) Compass

(d) Odometer

Answer: a

Solution:

**Question: Into how many types can the cost of labours in Rate analysis be divided?**

(a) 3

(b) 4

(c) 1

(d) 2

Answer: a

Solution:

**Question: Read the following statements about the necessity of irrigation.**

**A. If rainfall is sufficient but spatial distribution is not as per requirement, irrigation becomes necessary.**

**B. If rainfall is more than the demand for plants, irrigation is necessary to fulfil the water requirement of plants.**

**Identify the CORRECT statement/statements.**

(a) Only B

(b) Only A

(c) Neither A nor B

(d) Both A and B

Answer: b

Solution:

**Question: Read the following statements about contour interval and horizontal equivalent.**

**A. Contour interval is the vertical distance between any two consecutive contours.**

**B. The horizontal equivalent is the horizontal distance between any two continuous contour lines.**

**Identify the CORRECT statement/statements.**

- (a) Only A
- (b) Neither A nor B
- (c) Only B
- (d) Both A and B

Answer: d

Solution:

**Question: Which of the following formulae represents the number of tiles needed for flooring?**

- (a) Area of flooring - Area of tile
- (b) Area of flooring  $\times$  Area of tile
- (c) Area of flooring + Area of tile
- (d) Area of flooring / Area of tile

Answer: d

Solution:

**Question: Read the following statements about Macaulay's method.**

**A. Macaulay's Method is a means to find the equation that describes the deflected shape of a beam.**

**B. Macaulay's Method enables us to write a single equation for bending moment for the full length of the beam.**

**Identify the CORRECT statement/statements.**

- (a) Both A and B
- (b) Neither A nor B
- (c) Only A
- (d) Only B

Answer: a

Solution:

**Question: Which of the following properties is responsible for quicksand condition?**

- (a) Plasticity
- (b) Shear strength
- (c) Porosity
- (d) Elasticity

Answer: b

Solution:

**Question: Which of the following reasons is valid for the provision of top reinforcements in singly reinforced beams?**

- (a) Collapse stirrups
- (b) Hold stirrups
- (c) Carry compression load
- (d) Carry compression load and stirrups

Answer: b

Solution:

**Question: Which of the following is NOT a reason for the necessity of irrigation?**

- (a) Even distribution of rainfall
- (b) Cultivation of high yielding crops
- (c) Difference in water holding capacity of the soil
- (d) Uncertainty of monsoon rainfall

Answer: a

Solution:

**Question: Which of the following parts of Centrifugal pump is a wheel or rotor which is provided with a series of backward curved blades or vanes?**

- (a) Casing
- (b) Delivery pipe
- (c) Impeller
- (d) Suction pipe

Answer: c

Solution:

**Question: Which of the following types of equations plays an important part in Macaulay method?**

- (a) Cubic equation
- (b) Differential equation
- (c) Linear equation
- (d) Quadratic equation

Answer: b

Solution:

**Question: Which of the following is the shape of the beam in plate girders?**

- (a) Rectangular
- (b) I-shaped
- (c) Square
- (d) T-shaped

Answer: b

Solution:

**Question: Which of the following type of dams is a temporary structure constructed to allow construction activities to take place in rivers or any other water body?**

- (a) Cofferdam
- (b) Debris dam
- (c) Storage dam
- (d) Diversion dam

Answer: a

Solution:

**Question: Read the following statements about the Mohr-Coulomb Criterion.**

**A. Materials fails by shear**

**B. The ultimate strength of the material is determined by the stresses in the failure plane**

**Identify the CORRECT statement/statements.**

- (a) Both A and B
- (b) Only B
- (c) Neither A nor B
- (d) Only A

Answer: a

Solution:

**Question: Read the following statements about Local attraction.**

**A. Local attraction at a place can be detected by observing bearings, from both ends, of a line in the area.**

**B. If the fore and back bearings of the line differ exactly by  $(180^\circ)$ , there is no local attraction at either station.**

**Identify the INCORRECT statement/statements.**

- (a) Only B

- (b) Both A and B
- (c) Only A
- (d) Neither A nor B

Answer: d

Solution:

**Question: Which of the following type of heads are neglected in case of soils?**

- (a) Piezometric head
- (b) Pressure head
- (c) Velocity head
- (d) Datum head

Answer: c

Solution:

**Question: Which of the following is NOT an advantage of Dumpy level?**

- (a) Angle measurement inaccurate
- (b) High optical power
- (c) Easy to use
- (d) Very accurate level readings

Answer: a

Solution:

**Question: The conditions to qualify as a Laterally Restrained Beam are given:**

- A. It should buckle laterally.**
- B. Limit state of serviceability must be satisfied**

**Which of the following are INCORRECT?**

- (a) Only A
- (b) Only B
- (c) Both A and B
- (d) Neither A or B

Answer: a

Solution:

**Question: Which of the following properties is the most important selection criteria for a construction material?**

- (a) Strength
- (b) Workability
- (c) Durability
- (d) Availability

Answer: a

Solution:

**Question: Read the following statements about a fixed beam.**

**A. Fixed beams undergo very minimal deflection.**

**B. These beams are very strong.**

**Identify the INCORRECT statement.**

- (a) Only B
- (b) Neither A nor B
- (c) Both A and B
- (d) Only A

Answer: b

Solution:

**Question: Which of the following should be the range of humidity of the laboratory for determining the standard consistency of Cement using Vicat's apparatus?**

- (a) 0.1 - 0.5 %
- (b) 60 - 70 %
- (c) 20 - 30 %
- (d) 0 - 10 %

Answer: b

Solution:

**Question: Into how many groups can soil compaction equipment be divided?**

- (a) Five
- (b) Three
- (c) Ten
- (d) Two

Answer: d

Solution:

**Question: Which of the following types of Lime contains high content of Calcium Oxide?**

- (a) Quick Lime
- (b) Hydraulic Lime
- (c) Fat Lime
- (d) Slaked Lime

Answer: c

Solution:

**Question: Which of the following devices for linear measurements is the best for measuring vertical distances?**

- (a) Odometer
- (b) Pedometer
- (c) Passometer
- (d) Chain

Answer: b

Solution:

**Question: Which of the following properties of construction material is the opposite to ductility?**

- (a) Strength
- (b) Brittleness
- (c) Creep
- (d) Elasticity

Answer: b

Solution:

**Question: Which of the factors does NOT affect Crop water requirement?**

- (a) Temperature
- (b) Consumption of fuel
- (c) Wind speed
- (d) Sunshine

Answer: b

Solution:

**Question: Which of the following is NOT an assumption of Terzaghi's bearing capacity theory?**

- (a) The length of the footing is infinite

- (b) The load acting on the footing is uniformly distributed and is acting in vertical direction
- (c) The base of the strip footing is smooth
- (d) The type of foundation is shallow

Answer: c

Solution:

**Question: Which of the following is NOT a component of a Reciprocating pump?**

- (a) Suction Pipe
- (b) Sphere
- (c) Strainer
- (d) Cylinder

Answer: b

Solution:

**Question: Which of the following methods of valuation is used for the properties which are in the underdeveloped stage or partly developed and partly underdeveloped stage?**

- (a) Depreciation method
- (b) Rental method
- (c) Development method
- (d) Sinking fund method

Answer: c

Solution:

**Question: Which of the following types of bricks is also called refractory bricks?**

- (a) Burnt clay bricks
- (b) Concrete bricks
- (c) Firebrick
- (d) Fly ash bricks

Answer: c

Solution:

**Question: In which of the following types of irrigation is the soil surface not made wet?**

- (a) Flood irrigation
- (b) Perennial irrigation
- (c) Sub-surface irrigation

(d) Lift irrigation

Answer: c

Solution:

**Question: Which of the following number of longitudinal reinforcement must be provided in a column having helical binders?**

(a) 1

(b) 6

(c) 10

(d) 50

Answer: b

Solution:

**Question: Which of the following is NOT a natural source of pollution?**

(a) Mining

(b) Dust storms

(c) Smoke

(d) Decay in organic matter

Answer: a

Solution:

**Question: Which of the following is the third step of water treatment?**

(a) Coagulation

(b) Filtration

(c) Screening

(d) Aeration

Answer: a

Solution:

**Question: Which of the following is the first step in Bituminous road construction?**

(a) Placing of premix

(b) Preparation of the existing base course layer

(c) Rolling

(d) Application of Tack coat

Answer: b

Solution:

**Question: Which of the following types of grades of OPC cement is most popularly used in India?**

- (a) OPC 43
- (b) OPC 53
- (c) OPC 63
- (d) OPC 33

Answer: a

Solution:

**Question: Which of the following types of cement is used in the construction of underground structures like tunnels?**

- (a) Coloured cement
- (b) Hydrophobic cement
- (c) White cement
- (d) Air entraining cement

Answer: b

Solution:

**Question: Which of the following is the design bond strength of M20 concrete as per IS 1786 in  $\text{N/mm}^2$ ?**

- (a) 3.2
- (b) 1.2
- (c) 0
- (d) 9.0

Answer: b

Solution:

**Question: Which of the following instruments is used for measuring angles?**

- (a) Passometer
- (b) Theodolite
- (c) Pedometer
- (d) Odometer

Answer: b

Solution:

**Question: Which of the following is NOT a purpose of waste water treatment?**

- (a) extract the chemicals and dissolved minerals
- (b) control unpleasant taste & appearance of particles
- (c) prevent pathogenic microorganisms causing the disease
- (d) addition of excessive colour of water & turbidity

Answer: d

Solution:

**Question: Which of the following is a popular disinfectant other than Chlorine?**

- (a) Arsenic
- (b) Fluorine
- (c) Iron
- (d) Ozone

Answer: d

Solution:

**Question: Which of the following equations are used to measure Gravity flow?**

- (a) Weber's equation
- (b) Mach number
- (c) Reynolds equation
- (d) Manning's equation

Answer: d

Solution:

**Question: In which of the following types of precipitation water drops freeze to form an ice coating?**

- (a) Glaze
- (b) Drizzle
- (c) Snow
- (d) Rain

Answer: a

Solution:

**Question: Which of the following does a beam undergoes when a load is applied to the free end of a cantilever beam?**

- (a) Tension
- (b) Neither Tension nor Compression

- (c) Compression
- (d) Both Tension and Compression

Answer: a

Solution:

**Question: Which of the following is NOT a problem of hot weather concreting?**

- (a) Decreased 28-day and later strengths
- (b) Increased rate of setting
- (c) Increased permeability
- (d) Decreased water demand

Answer: d

Solution:

**Question: Which of the following is the unit of Total Pressure in fluid mechanics?**

- (a) N
- (b) kg/m
- (c) kN/m
- (d) N/m

Answer: a

Solution:

**Question: Which of the following types of kerbs are provided when the pedestrian traffic is high?**

- (a) Semi-barrier type kerbs
- (b) Submerged kerbs
- (c) Barrier type kerbs
- (d) Low kerbs

Answer: a

Solution:

**Question: Which of the following is the Representative Fraction(RF) of an Engineer's scale?**

- (a) 1:8000
- (b) 1:30
- (c) 1:5000
- (d) 1:2000

Answer: c

Solution:

**Question: Which of the following loads DO NOT prevail over RCC chimneys?**

- (a) Earthquake load
- (b) Wind load
- (c) Snow load
- (d) Self-weight

Answer: c

Solution:

**Question: Which of the following types of rain gauges is also called float type?**

- (a) Weighing Bucket Type
- (b) Natural Syphon Type
- (c) Tipping Bucket
- (d) Inclined rain gauge

Answer: b

Solution:

**Question: Read the following statements about working from whole to part.**

- A. Working from whole to part accumulates errors.**
- B. Working from part to whole minimises errors.**

**Identify the INCORRECT statement/statements.**

- (a) Only A
- (b) Both A and B
- (c) Only B
- (d) Neither A nor B

Answer: b

Solution:

**Question: Which of the following is NOT a source of Noise pollution?**

- (a) Industrial
- (b) Transport
- (c) Neighbourhood
- (d) Agricultural

Answer: d

Solution:

**Question: Read the following statements about Continuity equation.**

- A. The inflow and outflow are one-dimensional**
- B. the velocity and density are constant over the area.**

**Which of the following are CORRECT?**

- (a) A and B are False.
- (b) A is True and B is True and B is the not correct explanation for A
- (c) A is True and B is True and B is the correct explanation for A
- (d) A is True, B is False

Answer: c

Solution:

**Question: Which of the following properties of bitumen binds together all the components without bringing about any positive or negative changes in their properties?**

- (a) Strength
- (b) Hardness
- (c) Adhesion
- (d) Ductility

Answer: c

Solution:

**Question: Read the following statements about flexural rigidity.**

- A. EI is known as flexural rigidity.**
- B. It depends upon the material as well as the geometric property of the section.**

**Which of the statement/statements are correct?**

- (a) Only A
- (b) Only B
- (c) Both A and B
- (d) Neither A or B

Answer: c

Solution:

**Question: Which of the following types of fluids is Ethyl Alcohol?**

- (a) Pseudo-plastic

- (b) Newtonian
- (c) Rheoplastic
- (d) Non-newtonian

Answer: b

Solution:

**Question: Which of the following types of solid wastes are capable of transmitting a dangerous communicable disease?**

- (a) Industrial
- (b) Demolition
- (c) Infectious
- (d) Garbage

Answer: c

Solution:

**Question: Which of the following is NOT an application of soil engineering?**

- (a) Retaining structures
- (b) Slope stability
- (c) Pavement design
- (d) River training works

Answer: d

Solution:

**Question: Which of the following defects in timber is caused due to Fungi?**

- (a) Diagonal Grain
- (b) Wet Rot
- (c) Wane
- (d) Chip Mark

Answer: b

Solution:

**Question: Which the following is a warning road sign?**

- (a) No parking
- (b) Height limit
- (c) Load limit

(d) Right reverse bend

Answer: d

Solution:

**Question: Which of the following is NOT a regulatory sign?**

(a) Width limit

(b) Stop

(c) Cross road

(d) Height limit

Answer: c

Solution:

**Question: Read the following about the analysis of Gravity dams.**

**A. The friction on the base will stop the dam from sliding, and the weight of the gravity dam will provide a moment opposite to the overturning moment.**

**B. Another way to stop the dam from moving is to anchor its base into the bedrock.**

**Identify the INCORRECT statement/statements.**

(a) Only B

(b) Only A

(c) Both A and B

(d) Neither A nor B

Answer: d

Solution:

**Question: Which of the following is an imaginary line tangential to the longitudinal curve of the altitude bubble tube at the midpoint?**

(a) Axis of altitude bubble

(b) Axis of plate bubble tube

(c) Axis of telescope

(d) Line of collimation

Answer: a

Solution:

**Question: What should be the effective length of a column held in position at both ends but not restrained against rotation, where L is the length of the column?**

(a)  $2.25L$

- (b) 1.00L
- (c) 0.76L
- (d) 9.0L

Answer: b

Solution:

**Question: Which of the following is the ranges of temperatures for which hot weather problems for concrete begins?**

- (a) 10°F - 20°F
- (b) 0°F - 10°F
- (c) 75°F - 100°F
- (d) 250°F - 300°F

Answer: c

Solution:

**Question: Which of the following is the total cost of construction including land, or the original total amount required to possess a property?**

- (a) Capitalized value
- (b) Market Value
- (c) Book Value
- (d) Capital cost

Answer: d

Solution:

**Question: Which of the following units of work are measured in numbers?**

- (a) Doors
- (b) Partitions
- (c) Plastering
- (d) Masonry

Answer: a

Solution:

**Question: Which of the following is the first layer of a concrete pavement from the top?**

- (a) Subgrade
- (b) Concrete slab
- (c) Base course

(d) Bitumen surface

Answer: b

Solution:

**Question: Which of the following is the colour of soil containing organic matter?**

(a) Yellow

(b) Red

(c) Grey

(d) Black

Answer: d

Solution:

**Question: Which of the following signals are used to direct the drivers of the vehicular traffic to proceed with caution?**

(a) Yellow

(b) White

(c) Green

(d) Red

Answer: a

Solution:

**Question: Which of the following should be the height of slump for better workability of concrete in cold weather?**

(a) less than 4 inches

(b) less than 10 inches

(c) greater than 55 inches

(d) equal to 35 inches

Answer: a

Solution:

**Question: Which of the following rocks is the best example of plutonic rocks?**

(a) Dolomite

(b) Sandstone

(c) Granite

(d) Basalt

Answer: c

Solution:

**Question: Read the following statements about Continuity equation.**

**A. Continuity equation states that in a steady flow process through a control volume, the inflow and outflow are equal.**

**B. It is based on the law of conservation of mass.**

**Which of the statement/statements are INCORRECT?**

- (a) Neither A nor B
- (b) Only A
- (c) Both A and B
- (d) Only B

Answer: a

Solution:

**Question: Which of the following is the required number of days for curing Low heat cement?**

- (a) 5
- (b) 14
- (c) 2
- (d) 30

Answer: b

Solution:

**Question: Which of the following types of works consists of cubical contents?**

- (a) Cement concrete
- (b) Plastering
- (c) Partitions
- (d) Doors

Answer: a

Solution:

**Question: Which of the following types of sleepers are not suited for yielding formations?**

- (a) Steel sleepers
- (b) Cast-Iron sleepers
- (c) Concrete sleepers
- (d) HYSD steel sleepers

Answer: c

Solution:

**Question: Which of the following types of works are measured in square units?**

- (a) Plastering
- (b) Cement concrete
- (c) White washing
- (d) Windows

Answer: c

Solution:

**Question: Which of the following components of a barrage reduces the uplift pressure on a barrage?**

- (a) Fish ladder
- (b) Upstream piles
- (c) Divide wall
- (d) Guide banks

Answer: b

Solution:

