Q : 1 Hardness of the rock can be tested in situ using

(a) : Smith's test
(b) : Schmidth Hammer test
(c) : Acid test
(d) : Acid test

Q : 2 The most suitable stone for building piers is

(a) : Granite
(b) : Limestone
(c) : Marble
(d) : Sandstone

Q : 3 Following stone is suitable for damp proofing

(a) : Slate
(b) : Marble
(c) : Laterite
(d) : Granite

Q : 4 Pegmatite is an example

(a) : Sedimentary rock
(b) : Extrusive igneous rock
(c) : Intrusive igneous rock
(d) : Metamorphic rock

Q : 5 Shingle is-

(a) : Water bound pebbles
(b) : Disintegrated laterite
(c) : Crushed granite
(d) : None of these

Q : 6 The brick a triangular corner equal to half the width and half length is called

(a) : Closer
(b) : Queen closer
(c) : King closer
(d) : Squint brick

Q : 7 The process of mixing clay, water and other ingredients to make bricks is known as-

(a) : Tempering
(b) : Kneading
(c) : Pugging
(d) : Moulding

Q : 8 Which of the following defect appears due to presences of alkalies in the brick?

(a) : Bloating
(b) : Black core
(c) : Cracks
(d) : Efflorescence

Q : 9 The water absorption (expressed in percentage) for burnt clay perforated bricks should not be more than_____.

(a) : 5
(b) : 15
(c) : 25
(d) : 35

Q : 10 What is the thickness (inches) of the one brick wall made up of traditional brick?

(a) : 9
(b) : 10
(c) : 18
(d) : 20

Q : 11 Oleic acid may be used in the manufacture of:

(a) : While cement
(b) : Hydrophobic cement
(c) : Anti-bacterial cement
(d) : Portland pozzolana cement

Q : 13 Fimd the odd entry among silica fume, rice husk ash, metakaoline and granulated blast furnace slag with respect to cement product :

(a) : Silica fume
(b) : Rice husk ash
(c) : Ground granulated blast
(d) : Metakaoline

Q : 14 Snowcem is

(a) : Coloured cement
(b) : Powdered lime
(c) : Chalk power
(d) : Mixture of chalk power and lime

Q : 15 Stem curing is not used with _____

(a) : Ordinary Portland cement
(b) : Rapid hardening cement
(c) : High alumina cement
(d) : High the option are correct

Q : 16 The specific expressed in square cm^2/gm of a good Portland cement should not be less than _____.

(a) : 1750
(b) : 2000
(c) : 2250
(d) : 2500

Q : 17 For a 50 kg cement bag, water required is

(a) : 16.5 litre
(b) : 18.5 litres
(c) : 20.5 litres
(d) : 22.5 litres

Q : 18 To hydrate 500 kg cement fully water needed is _____.

(a) : 100 kg
(b) : 110 kg
(c) : 120 kg
(d) : 130 kg

Q : 19 In a lime-cement plaster, ratio 1:1:6 corresponds to :

(a) : Lime : Cement : Sand
(b) : Cement : Lime : Sand
(c) : Lime : Sand : Gravel
(d) : Cement : Sand : Gravel

Q : 20 The fineness modulus of fine aggregate is:

(a) : 2.0 to 3.5
(b) : 3.5 to 5.0
(c) : 5.0 to 7.0
(d) : 6.0 to 8.5

Q : 21 The flaky aggregate is said to be elongated if its length is:

(a) : Equal to the main size
(b) : Twice the main size
(c) : Thrice the mean size
(d) : Four times the mean size

Q : 22 The percentage of the fine aggregate of fineness modulus 2.6 to be combined with coarse aggregate of fineness modulus 6.8 for obtaining the aggregate of fineness modulus 5.4, is :

(a) : 0.6
(b) : 0.3
(c) : 0.4
(d) : 0.5

Q : 23 Which department looks after the execution and maintenance of water supply and sanitary works?

(a) : Public works department
(b) : Social welfare department
(c) : Public health department
(d) : None of these

Q : 24 The measure of absorption or scattering of light by the suspended material present in the water is known as_____

(a) : Alkalinity
(b) : Colour
(c) : Hardness
(d) : Turbidity

Q : 25 The total solids in water are due to presence of:

(a) : Colloidal and settleable solids
(b) : Suspended and floating solids
(c) : Suspended and dissolved solids
(d) : Colloidal and bacterial load

Q : 26 The layout of distribution system in which water flows towards the outer periphery is :

(a) : Ring system
(b) : Dead end system
(c) : Radial system
(d) : Grid-iron system

Q : 27 Harmful bacteria, which may be present in sewage, may be;

(a) : E coli
(b) : b coli
(c) : Vibrio cholerase
(d) : Entamoeba histolytica

Q : 28 What is the theoretical demand (mg/L) of a glucose solution of concentration 500 mg/L.

(a) : 250.33
(b) : 380.65
(c) : 533.33
(d) : 650.21

Q : 29 Under natural condition of flow, an unpolluted river would contain

(a) : More dissolved oxygen in summer than in winter
(b) : Less dissolved oxygen in summer than in winter
(c) : More or less same amount of dissolved oxygen in summer and in winter
(d) : The least amount of dissolved oxygen during the floods

Q : 30 Anaerobic treatment is best suited for

(a) : High efficiency
(b) : Toxic wastes
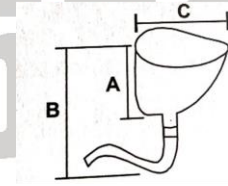(c) : Dilute inorganic wastes
(d) : Strong organic wastes

Q : 31 A pipe, which is installed in the house drainage to preserve the water seal of traps is called

(a) : Vent pipe
(b) : Anti siphonage pipe
(c) : Waste pipe
(d) : Soil pipe

Q : 32 Anti-Siphonage pipe is connected to

(a) : Main soil pipe
(b) : Bottom of p trap W.C.
(c) : Top of p trap W.C.
(d) : Side of water close

Q : 33 The value of "C" of Indian type W.C. Shown in the figure given below is

(a) : 400mm
(b) : 450mm
(c) : 500mm
(d) : 550mm

Q : 34 A hydrometer is used to measure

(a) : Velocity of fluids.
(b) : Velocity of gases.
(c) : Flow of fluids
(d) : Specific gravity of liquids

Q : 35 For which of the following soil, Plasticity index is maximum?

(a) : Clay
(b) : Cobble
(c) : Gravel
(d) : Silt

Q:36 The coefficient of gradation and the coefficient of uniformity of a given soil sample is 1.0 and 4.0 respectively.The ratio of effective size to the diameter through which 30% of the total mass is passed is_____.

(a) : 1.25
(b) : 1.5
(c) : 1.75
(d) : 2

Q : 37 On a grading curve, the gap grading is represented by

(a) : Horizontal line
(b) : A vertical line
(c) : North west inclined line
(d) : None of these

Q : 38 A plate load test is used to determine

(a) : Bearing capacity of foundations
(b) : Settlement of foundations
(c) : Both (a) and (b)
(d) : None of these

Q : 39 A 300 mm square bearing plate settles by 15 mm in a plate load test on a cohesive soil when the intensity of a prototype shallow footing '1 m' square under the same intensity of loading is:

(a) : 15 mm
(b) : 30 mm
(c) : 50 mm
(d) : 167 mm

Q : 40 The grouping of pile will not reduce the load carrying capacity in case of:

(a) : Friction piles
(b) : End bearing piles
(c) : Both (a) and (b)
(d) : None of the above

Q : 41 A friction pile of diameter 50cm is embedded 15 m into the homogeneous consolidated clay deposit.If the adhesion factor is 0.7 and adhesion develops between the clay and pile shaft is $4t/m^2$.What is the safe load (t)for factor of safety 3.0?

(a) : 15
(b) : 22
(c) : 26
(d) : 30

Q : 42 What will be the shift of transition curve, if the length of transition curve is 80 m and radius of the curve is 300m ?

(a) : 0.011
(b) : 0.78
(c) : 0.89
(d) : 21.33

Q:43 The intermediate sight distance is equal to

(a) : Overtaking sight distance
(b) : Stopping sight distance
(c) : Twice of over taking sight distance
(d) : None of above

Q:44 Right of way is the summation of the width of

(a) : carriage way and shoulder
(b) : Carriage way, shoulder and road margins
(c) : Carriage way and road margins. Road margins and shoulder
(d) : None of above

Q : 45 What is the percentage content of asphalt in the cut-back asphalt?

(a) : 0.1
(b) : 0.3
(c) : 0.5
(d) : 0.8

Q:46 The viscous liquid obtained from the destructive distillation of organic material is known as_____.

(a) : Paint
(b) : Slag
(c) : Tar
(d) : None of these

Q:47 Identify which of the following items is not considered while designing rigid pavements :

(a) : Centre of the panel
(b) : Edge of the panel
(c) : Corner of the panel
(d) : Dowel bar between edges

Q : 48 The value of rigidity factor for design purpose, if the type pressure is greater than 0.7 MPa is_____.

(a) : Greater than 1
(b) : Less than 1
(c) : Equal to 1
(d) : Zero

Q : 49 The scale in which three successive dimensions can be measured at a time is called___.

(a) : Chord scale
(b) : Diagonal scale
(c) : Plain scale
(d) : Vernier scale

Q : 50 The design shear stress in reinforced cement concrete depends on-
A. Characteristics strength of concrete
B. Percentage of longitudinal tensile reinforced
C. Characteristics strength of steel

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