Q:) A good brick earth can be rolled without breaking is small thread of diameter

A: 1 mm

B: 3 mm

C: 6 mm

D: 10 mm

Q:) Fat lime is used for best performance in _____

A: Masonry mortar

B: Lime concrete

C: Plaster work

D: None

Q:) Which of the following grades of concrete of R.C.C is recommended for severe exposure conditions by BIS?
A: M15
B: M20
C: M25
D: M30

Q:) Which of the following minerals has more than 50% share in rapid hardening cement

A: C2S

B: C3S

C: C3A

D: C4AF

Q:) Which of the following range of prement volume concentration number is recommended for paint for prime, coat, or metal?
A: 25-40
B: 40-50
C: 50-60
D: 60-70

Q:) The best season for felling of trees for timber production in hilly areas.
A: Summer
B: Winter
C: Mansoon
D: Spring

Q:) Which of the following Indian Standard is referred to determine zone of fine aggregate?
A: IS 456
B: IS 383
C: Is 1893
D: IS 1237

Q:) A dummy activity in a project network does not consume

A: Time

B: Material

C: Money

D: all of the above

Q:) Surface tension is due to-

A: Cohesion and adhesion

B: Cohesion Only

C: Adhesion only

D: None of the above

Q:) The absolute pressure is equal to

A: Gauge pressure + vaccum pressure

B: Atmospheric pressure + Vaccum pressure

C: Gauge pressure + Atmospheric pressure

D: Gauge Pressure + Vaccum pressure

Q:) The centre of gravity of the volume of the liquid displaced is called

A: Centre of buoyancy

B: Meta centre

C: Centre of pressure

D: None of the above

Q:) Which of the following function present the velocity potential of a function

A: $\phi = x^2 + y^2$

B: $\phi = x^2 - y^2$

C: $\phi = 2 x^2 \ y^2$

D: $\phi = x^3 - y^3$

Q:) Which of the following pressure units represents the least pressure?
A: N/mm^2
B: kgf/cm^2
C: Milibar
D: mm of mercury

Q:) The Cippoleti weir is a _____weir
A: Circular
B: Rectangle
C: Triangular
D: Trapezoidal

Q:) The power transmitted through the pipe is maximum when the head loss due friction is equal to
A: 1/4th of the total supply head
B: 1/3th of the total supply head
C: 1/2th of the total supply head
D: 2/3th of the total supply head

Q:) Due to aging of a pipe line, its carrying capacity has decreased by 25%. The corresponding increases in the Darcy weis bach friction factor F is _____ %

A: 63%

B: 77 %

C: 56%

D: None of the above

Q:) The friction factor of laminar liquid flow in a circular pipe is proportional to
A: Inversely to the Reynold's number
B: Square to the Reynold's number
C: Sqaure root of the Reynold's number
D: Reynold's number

Q:) The survey in which the earth's curvature is also considered is called
A: Topographical survey
B: Plain survey
C: Geodetic Survey
D: Preliminary Survey

Q:) The latitude and departure of a line AB are + 78 m and -45.1 m, respectively. The whole circle bearing of the line AB is

A: 150^0

B: 330^0

C: 30^0

D: 120^0

Q:) A series of closed contour lines on the map with lower to higher value inside them, represents a
A: Hill
B: Ridge
C: Depression
D: Steep slope

Q:) Two-point problem and three-point problem are method of
A: Resection
B: Orientation
C: Orientation and resection
D: None of these

Q:) The collimation method for obtaining the reduced levels of points does not provide a check on
A: Fore sights
B: Back sights
C: Change points
D: Intermediate sights

Q:) Size of a theodolite is specified by
A: Diameter of lower plate
B: Diameter of upper plate
C: Length of telescope
D: Diameter of vertical circle

Q:) The point on the celestial sphere vertically below the observa's position is called

A: Pole

B: Celestial point

C: Zenith

D: Nadir

Q:) The most widely used antenna in GPS is
A: Slotted antenna
B: Microstrip antenna
C: Parabolic antenna
D: Horn antenna

Q:) The long and short wall method of estimation, the length of long wall is the centre distance between the walls and plus
A: Breadth of the wall
B: Half of the wall
C: One fourth breadth of wall on each side
D: None of these

Q:) A catchment consists of 40% area with run-off ceofficient 0.30 with the remaining 60% area with run-off coefficient 0.50. The equivalent run-off coefficient will be

A: 0.38

B: 0.42

C: 0.48

D: 0.52

Q:) For calculting the maximum flood discharge in an alluvial stream, which is the best suited relation?

A: $V \alpha R^{1/2} S^{1/2}$

B: $V \alpha R^{2/3} S^{1/3}$

C: $V \alpha R^{2/3} S^{1/2}$

D: $V \alpha D^{0.64}$

Q:) Discharge per unit drawdown at a well is called
A: Specific capacity
B: Specific storage
C: Specific yield
D: None of the above

Q:) Water present in an artesian aquifer is usually
A: At 0.5 time of the atmospheric pressure
B: Above atmospheric pressure
C: At sub atmospheric pressure
D: At atmospheric pressure

Q:) The water utilized by plants is available in the form of

A: Hydroscopic water

B: Chemical water

C: Gravity water

D: Capillary water

Q:) A canal has designed to supply the irrgation needs of 1000 ha of land growing rise of 140 days base period and having a delta of 126 cm. If the canal water is used to irrigate wheat of base period 120 days and having a delta of 60 cm, the area that can be irrigated is

A: 1600 ha

B: 1800 ha

C: 2000 ha

D: 2200 ha

Q:) In the alignment of an irrigation channel whereform off takes have to be provided at regular intervals, changes in the given channel parameters are made of. The correct sequence of the decreasing order of preference of these parameters is
A: Depth, slope, width
B: Depth, width, slope
C: Width, slope, depth
D: Width, depth, slope

Q:) A ridge canal is called a:
A: Across the contours
B: Contour canal
C: Side slope canal
D: Watershed canal

Q:) Lacey's silt factor for medium silt whose average grain size is 0.25 mm, is likely to be

A: 0.66

B: 0.77

C: 0.88

D: 0.99

Q:) Garret's diagrams are based on
A: Bligh's theory
B: Kenmedy's theory
C: Khosla's theory
D: Laey's thory

Q:) Which of the following method is most accurate for the determination of the water content of oil
A: Oven drying method
B: Pynometer method
C: Sand bath method
D: Calcium carbide method

Q:) The plastic limit and liquid limit of a soil sample are 35% and 70% respectively. The percentage of soil fraction with grain size finer than 0.002 mm is 25. The activity ratio of the soil sample is

A: 0.6

B: 1.0

C: 1.4

D: 1.8

Q:) The hydraulic head would produce a quick condition in a sand stratum of thickness 1.8 m, specific gravity 2.65 and void ratio 0.65 is equal to

A: 1.0 m

B: 1.2 m

C: 1.6 m

D: 1.8 m

Q:) The hydraulic pressure on the phreatic line within a dam section is

A: Greater than atmospheric pressure

B: Equal to atmospheric pressure

C: Less than atmospheric pressure

D: None of the above

Q:) For a particular loading condition saturated clay layer undergoes 30% consolidation 30% in a period of 180 days. What would be the additional time required for further 20% consolidation to occur
A: 320 days
B: 280 days
C: 220 days
D: 160 days

Q:) For conducting standard proctor compaction test, the weight of hammer (P in kg), the fall of hammer (Q in mm), the number of blows per layer (R) and the number of layers (S) required are respectively

A: P-5.89, Q-550, R-50, S-3

B: P-4.89, Q-450, R-25, S-3

C: P-3.60, Q-310, R-35, S-4

D: P-2.60, Q-310, R-25, S-3

Q:) sheep-foot rooler are recommanded for compacting
A: Hard rock
B: Granular soil
C: Cohesive soil
D: Any type of soil

Q:) Given that for a soil deposit

K_o = earth pressure coefficient at rest

K_a = active earth pressure coefficient

K_p = passive earth pressure coefficient

μ Poission's ratio

The value pf (1-μ)is given by

A: K_O

B: K_a / K_P

C: K_p / K_a

D: 1 / K_o

Q:) A gross bearing capacity of a 2.0 m wide strip footing at a depth of 1.5 m is 450 m is 450 KN/m². If gamma = 20 KN/m³, what is the net bearing capacity?
A: 400 KN/m²
B: 410 KN/m²
C: 420 KN/m²
D: 430 KN/m²

Q:) The size of square bearing plate in the plate load test for determining the bearing capacity of soil should be

A: Less than 300 mm

B: Between 300 mm and 750 mm

C: Between 750 mm and 1.0 m

D: Greater than 1.0 m