CAREERS 360
PREPARATION Series

CUET PG 2024

Water Engineering & Management Question Paper

National Testing Agency

Question Paper Name :	Water Engineering and Management 20th March 2024 Shift 3
Subject Name :	Water Engineering and Management
Creation Date :	2024-03-20 22:01:11
Duration :	105
Total Marks :	300
Display Marks:	Yes

Water Engineering and Management

Group Number :	1
Group Id :	680191119
Group Maximum Duration :	0
Group Minimum Duration :	105
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	300
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

Water Engineering and Management

Section Id :	680191152
Section Number :	1

Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	75
Number of Questions to be attempted :	75
Section Marks :	300
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	680191199
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 1 Question Id : 6801919087 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

A soil sample in its undisturbed state was found to have a volume of 100 cm^3 and mass of 300 gm. After oven drying, the mass got reduced to 200 gm. What will be the value of void ratio if the specific gravity of soil is 2.7. Assume unit weight of water to be 1 gm/cc.

1. 0.35
2. 4.4
3. 1.35
4. 0.66

Options :

68019135801. 1

68019135802. 2

68019135803. 3

68019135804. 4

Question Number : 2 Question Id : 6801919088 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

For a soil sample having void ratio e, porosity n, water content w, degree of saturation Sr, specific gravity of soil is G, Unit weight of water is γ_w and saturated unit weight of water is γ_{sat}. Which of the following expression stands true ?

1. $e = \frac{n}{1-n}$
2. $n = \frac{e}{1-e}$
3. $e = \frac{wG}{Sr}$
4. $\gamma_{sat} = \frac{(G+e)}{1+e}\gamma_w$

Options :

68019135805. 1

68019135806. 2

68019135807. 3

68019135808. 4

Question Number : 3 Question Id : 6801919089 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

In a particle size distribution curve, the coefficient of curvature (Cc) for a soil having particle size D_{10}, D_{30} and D_{60} corresponding to percentage finer value (N) 10%, 30%, and 60%, respectively can be calculated as:

1. $Cc = (D_{30})^2 / (D_{10} * D_{60})$
2. $Cc = D_{60} / D_{10}$
3. $Cc = (D_{60})^2 / (D_{10})$
4. $Cc = (D_{30})^2 * D_{10} / (D_{60})$

Options :

68019135809. 1

68019135810. 2

68019135811. 3

68019135812. 4

Question Number : 4 Question Id : 6801919090 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A

Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

If a soil has plasticity index value of 10%, then the soil is classified as

1. Non Plastic
2. Low Plastic
3. Medium Plastic
4. Highly Plastic

Options :

68019135813. 1

68019135814. 2

68019135815. 3

68019135816. 4

Question Number : 5 Question Id : 6801919091 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A

Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The natural dry density of a soil deposit was found to be 18.0 kN/m^3. A sample of soil was brought to the laboratory and the minimum and maximum dry density were found to be 15.0 kN/m^3 and 20.0 kN/m^3, respectively. The density index for the soil deposit will be:

1. 66.66%
2. 54.3%
3. 33.33%
4. 27.2%

Options :

68019135817. 1

68019135818. 2

68019135819. 3

68019135820. 4

Question Number : 6 Question Id : 6801919092 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A

Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

If natural water content (w) of a soil sample is equal to its plastic limit (wp), then the consistency index of the soil will be:

1. 0
2. 1
3. - 0.5
4. 1.5

Options :

68019135821. 1

68019135822. 2

68019135823. 3

68019135824. 4

Question Number : 7 Question Id : 6801919093 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Talus is an example of a soil deposit which is formed:

1. by the action of flowing water
2. by the consistent action of wind flow from the same direction.
3. due to action of glacier drift.
4. by the action of gravitational forces.

Options :

68019135825. 1

68019135826. 2

68019135827. 3

68019135828. 4

Question Number : 8 Question Id : 6801919094 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The swelling and shrinking nature of black cotton soil is primarily due to the presence of:

1. Kaolinite
2. Illite
3. Montmorillonite
4. Verimiculite

Options :

68019135829. 1

68019135830. 2

68019135831. 3

68019135832. 4

Question Number : 9 Question Id : 6801919095 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

What will be the maximum capillary rise for a tube having internal diameter 0.1 mm, when it is held vertical with bottom end dipped in pure water taken in trough? Consider the temperature of water to be 20°C, value of surafce tension (Ts) 72.8×10^{-6} kN/m, and $\Upsilon w = 9.79$ kN/m^3.

1. 0.2974 m
2. 0.3867 m
3. 0.5671 m
4. 0.6782 m

Options :

68019135833. 1

68019135834. 2

68019135835. 3

68019135836. 4

Question Number : 10 Question Id : 6801919096 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Water held by fine grained soil particles due to electrochemical force of adhesion is known as:

1. free water
2. capillary water
3. structural water
4. adsorbed water

Options :

68019135837. 1

68019135838. 2

68019135839. 3

68019135840. 4

Question Number : 11 Question Id : 6801919097 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Find the relation between h1, h2 and h3, if during a variable head permeability test on a soil sample, equal time intervals are noted for head to drop from h1 to h2 and h2 to h3.

1. $h1 = \sqrt{h2h3}$
2. $h2 = \frac{\sqrt{h3}}{\sqrt{h1}}$
3. $h2 = \sqrt{h1h3}$
4. $h3 = \sqrt{h1h2}$

Options :

68019135841. 1

68019135842. 2

68019135843. 3

68019135844. 4

Question Number : 12 Question Id : 6801919098 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Calculate the critical hydraulic gradient for a soil deposit with void ratio of 0.7 and having specific gravity of 2.7.

1. 0.25
2. 0.50
3. 1
4. 1.5

Options :

68019135845. 1

68019135846. 2

68019135847. 3

68019135848. 4

Question Number : 13 Question Id : 6801919099 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The ratio of compactive energies used in modified proctor test to standard proctor test is about

1. 4.5
2. 6.5
3. 2.5
4. 1.5

Options :

68019135849. 1

68019135850. 2

68019135851. 3

68019135852. 4

Question Number : 14 Question Id : 6801919100 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

What will be the value of coefficient of volume change if in a consolidation test void ratio decreased from 0.70 to 0.65 when the load was changed from 50 kN/m^2 to 100 kN/m^2.

1. 5.88×10^{-4} m^2/kN
2. 2.88×10^{-4} m^2/kN
3. 3.12×10^{-4} m^2/kN
4. 1.05×10^{-4} m^2/kN

Options :

68019135853. 1

68019135854. 2

68019135855. 3

68019135856. 4

Question Number : 15 Question Id : 6801919101 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The science which deals with the surface streams is known as

1. Limnology
2. Cryology
3. Geomorphology
4. Potamology

Options :

68019135857. 1

68019135858. 2

68019135859. 3

68019135860. 4

Question Number : 16 Question Id : 6801919102 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The instrument which detects shortwave radiation both direct and diffused, reaching the earth's surface is known as

1. psychrometer
2. Stevenson screen
3. pyranometer
4. atmometer

Options :

68019135861. 1

68019135862. 2

68019135863. 3

68019135864. 4

Question Number : 17 Question Id : 6801919103 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The instrument which measures the variation of atmospheric humidity with time is known as:

1. Barograph
2. Thermograph
3. Hygrograph
4. Radiometer

Options :

68019135865. 1

68019135866. 2

68019135867. 3

68019135868. 4

Question Number : 18 Question Id : 6801919104 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The rainfall that takes place due to western disturbances in Rajasthan which is much needed for wheat growing region of the country takes place due to

1. Cold weather
2. Hot weather
3. Southwest monsoon
4. Retreating Southwest monsoon

Options :

68019135869. 1

68019135870. 2

68019135871. 3

68019135872. 4

Question Number : 19 Question Id : 6801919105 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

What will be the form factor for a drainage basin having the following data: Area of the basin = 3000 km^2 ; Length of the main stream = 100 km, and perimeter of the basin = 300 km.

1. 0.1
2. 0.3
3. 10
4. 0.05

Options :

68019135873. 1

68019135874. 2

68019135875. 3

68019135876. 4

Question Number : 20 Question Id : 6801919106 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The Thiessen weights of 4 raingauges A, B, C and D covering a river basin are 0.15, 0.25, 0.30 and 0.30, respectively. If the average depth of rainfall for the basin is 5 cm, and the rainfalls recorded at B, C and D are 5 cm, 4cm and 5cm respectively, What will be the rainfall at A?

1. 5 cm
2. 3 cm
3. 7 cm
4. 9 cm

Options :

68019135877. 1

68019135878. 2

68019135879. 3

68019135880. 4

Question Number : 21 Question Id : 6801919107 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

For a given storm, the relation b/w highest rainfall P_o and average rainfall depth P in cm over an area A km^2, where K and n are storm constants is given by

1. $P= P_o \exp(-KA^n)$
2. $P= P_oK \exp(A^n)$
3. $P =P_o K^{-A}$
4. $P = P_o K^n$

Options :

68019135881. 1

68019135882. 2

68019135883. 3

68019135884. 4

Question Number : 22 Question Id : 6801919108 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The average pan coefficient for United State weather Bureau Class A pan is equal to

1. 0.95
2. 1.10
3. 0.70
4. 0.20

Options :

68019135885. 1

68019135886. 2

68019135887. 3

68019135888. 4

Question Number : 23 Question Id : 6801919109 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The total observed runoff volume during a 6 hr storm with a uniform intensity of 1.5cm/hr is $21.6 \times 10^6 m^3$. What will be the average infiltration rate of the basin if area of the basin is 300 km^2.

1. 2.4 mm/hr
2. 3 mm/hr
3. 1.2 mm/hr
4. 4 mm/hr

Options :

68019135889. 1

68019135890. 2

68019135891. 3

68019135892. 4

Question Number : 24 Question Id : 6801919110 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Which of the following formation does not contain any groundwater?

1. Aquifer
2. Aquifuge
3. Aquitard
4. Aquiclude

Options :

68019135893. 1

68019135894. 2

68019135895. 3

68019135896. 4

Question Number : 25 Question Id : 6801919111 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Coulomb's Theory is also known as

1. Maximum Principal Stress Theory
2. Maximum Shear Stress Theory
3. Maximum Principal Strain Theory
4. Total Strain Energy Theory

Options :

68019135897. 1

68019135898. 2

68019135899. 3

68019135900. 4

Question Number : 26 Question Id : 6801919112 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

How much force is required to punch a 20 mm diameter hole in a plate that is 25 mm thick?

1. 550 kN
2. 1350 kN
3. 1750 kN
4. 175 kN

Options :

68019135901. 1

68019135902. 2

68019135903. 3

68019135904. 4

Question Number : 27 Question Id : 6801919113 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The relationship between Young's Modulus of Elasticity (E), Bulk's Modulus (K) and poisson's ratio (v) is given by

1. $E = 3K(1-2v)$
2. $E = 3K(1+2v)$
3. $E = 9K/(1+v)$
4. $E = 2K(1+v)$

Options :

68019135905. 1

68019135906. 2

68019135907. 3

68019135908. 4

Question Number : 28 Question Id : 6801919114 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The bending moment at supports in case of simple supported beams of length (L) and carrying a point load W in the mid span of the beam is always

1. WL/4
2. WL2/8
3. zero
4. W/2

Options :

68019135909. 1

68019135910. 2

68019135911. 3

68019135912. 4

Question Number : 29 Question Id : 6801919115 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

In case of circular section of diameter d, the section modulus is given by

1. $\pi d^2/16$
2. $\pi d^3/16$
3. $\pi d^3/32$
4. $\pi d^3/64$

Options :

68019135913. 1

68019135914. 2

68019135915. 3

68019135916. 4

Question Number : 30 Question Id : 6801919116 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Two shafts of solid circular cross section identical except their diameters are subjected to the same Torque (T). What will be the ratio of strain energies (U_1/U_2) stored in both the shafts if the diameter of first shaft is d_1 and diameter of the second shaft is d_2, respectively.

1. $\left(\frac{d_1}{d_2}\right)^4$
2. $\left(\frac{d_1}{d_2}\right)^2$
3. $\left(\frac{d_2}{d_1}\right)^2$
4. $\left(\frac{d_2}{d_1}\right)^4$

Options :

68019135917. 1

68019135918. 2

68019135919. 3

68019135920. 4

Question Number : 31 Question Id : 6801919117 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The circumferential strain in case of thin cylinderical shell, when subjected to internal pressure (p) is equal to

1. $\frac{pd}{2tE}\left(\frac{1}{2}-\nu\right)$
2. $\frac{pd}{2tE}\left(1-\frac{1}{2}\nu\right)$
3. $\frac{pd}{4tE}(1-\nu)$
4. $\frac{3pd}{4tE}(1-\nu)$

Options :

68019135921. 1

68019135922. 2

68019135923. 3

68019135924. 4

Question Number : 32 Question Id : 6801919118 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Which construction stage is required to carry out technical investigations such as soil investigation, topographic investigation, material supply and market survey etc.

1. Report Stage
2. Planning Stage
3. Tendering Stage
4. Construction stage

Options :

68019135925. 1

68019135926. 2

68019135927. 3

68019135928. 4

Question Number : 33 Question Id : 6801919119 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Out of the following which drawing together with other documents like bill of quantities, describes the project scheme to the contractor so that he can price the construction work accordingly?

1. Contract Drawing
2. Tender Drawing
3. Working Drawing
4. Completion Drawing

Options :

68019135929. 1

68019135930. 2

68019135931. 3

68019135932. 4

Question Number : 34 Question Id : 6801919120 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Which type of contract is not suitable for difficult foundations, excavation of uncertain character, and project susceptible to unpredictable hazards and variations.

1. Lump Sum contract
2. Item rate contract
3. Cost Plus Fixed Fee contract
4. Running contract

Options :

68019135933. 1

68019135934. 2

68019135935. 3

68019135936. 4

Question Number : 35 Question Id : 6801919121 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

What will be the expected time for driving the precast piles for a bridge abutment activity having optimistic time 22, most likely time 30 and pessimistic time 50?

1. 34 days
2. 32 days
3. 42 days
4. 40 days

Options :

68019135937. 1

68019135938. 2

68019135939. 3

68019135940. 4

Question Number : 36 Question Id : 6801919122 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Which Act makes the provision for the statutory fixation of a minimum rate of wages in the industries?

1. Payment of wages Act, 1936
2. Minimum wages Act, 1948
3. Workmen 's compensation Act, 1923
4. Contract Labour Act, 1970

Options :

68019135941. 1

68019135942. 2

68019135943. 3

68019135944. 4

Question Number : 37 Question Id : 6801919123 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The distance AB on the ground as measured on a plan drawn to a scale of 1 cm = 50 m was found to be 500 m. Later it was detected that the surveyor wrongly used a scale of 1 cm = 40 m in the calculations. What will be the true length of the line AB.

1. 400 m
2. 512.5 m
3. 625 m
4. 412.5 m

Options :

68019135945. 1

68019135946. 2

68019135947. 3

68019135948. 4

Question Number : 38 Question Id : 6801919124 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Surveys which are carried out to indicate the inequalities of land surface and to depict the mountain, water bodies , woods etc. are known as

1. Cadastral survey
2. City survey
3. Topographical survey
4. Hydrographic survey

Options :

68019135949. 1

68019135950. 2

68019135951. 3

68019135952. 4

Question Number : 39 Question Id : 6801919125 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

What will be the sag correction for a 100 m tape which is suspended between the ends under a pull of 10 N? The total weight of the tape is 12 N.

1. 10 m
2. 6 m
3. 3 m
4. 12 m

Options :

68019135953. 1

68019135954. 2

68019135955. 3

68019135956. 4

Question Number : 40 Question Id : 6801919126 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A

Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Geodimeter is based on

1. propagation of modulated light waves
2. high frequency radio waves.
3. intermittent signal of high frequency near 500 MHz.
4. propagation of infrared radiation

Options :

68019135957. 1

68019135958. 2

68019135959. 3

68019135960. 4

Question Number : 41 Question Id : 6801919127 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A

Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Oblique offsets are used to

1. locate broken boundary
2. locate corner of the building
3. Plot the chainage
4. check the accuracy of the plotted work in chain survey.

Options :

68019135961. 1

68019135962. 2

68019135963. 3

68019135964. 4

Question Number : 42 Question Id : 6801919128 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A

Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Find the magnetic declination if the magnetic bearing of sun at noon is 356°

1. 4°N
2. 4°S
3. 4°E
4. 4°W

Options :

68019135965. 1

68019135966. 2

68019135967. 3

68019135968. 4

Question Number : 43 Question Id : 6801919129 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

For which of the following permanent adjustment of a theodolite is the spire test used?

1. Adjustment of plate levels
2. Adjustment of line of sight
3. Adjustment of horizontal axis
4. Adjustment of altitude bubble and vertical index frame

Options :

68019135969. 1

68019135970. 2

68019135971. 3

68019135972. 4

Question Number : 44 Question Id : 6801919130 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

In case of angular measurements being more precise than the linear measurements, the traverse can be balanced by

1. Graphical method
2. Bowditch rule
3. Fast needle method
4. Transit rule

Options :

68019135973. 1

68019135974. 2

68019135975. 3

68019135976. 4

Question Number : 45 Question Id : 6801919131 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The reduced level of a factory floor is 30.00 m and the staff reading on the floor is 1.40 m. The staff reading when held inverted with the bottom touching the Tee-beam of the roof is 3.67 m. What will be the height of the beam above the floor?

1. 5.07 m
2. 2.27 m
3. 35.07 m
4. 27.73 m

Options :

68019135977. 1

68019135978. 2

68019135979. 3

68019135980. 4

Question Number : 46 Question Id : 6801919132 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The rock fragments contributed by the frost action mainly along valley-sides and the adjoining cliffs, and carried away by glaciers are known as

1. Moraines
2. Mesa
3. Monadnocks
4. Peneplains

Options :

68019135981. 1

68019135982. 2

68019135983. 3

68019135984. 4

Question Number : 47 Question Id : 6801919133 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The shine of mineral is known as

1. Lustre
2. Streak
3. Tenacity
4. Cleavage

Options :

68019135985. 1

68019135986. 2

68019135987. 3

68019135988. 4

Question Number : 48 Question Id : 6801919134 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Muscovite is a family member of which category of mineral group

1. Feldspar Group
2. Mica Group
3. Amphibole group
4. Garnet group

Options :

68019135989. 1

68019135990. 2

68019135991. 3

68019135992. 4

Question Number : 49 Question Id : 6801919135 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Basalt is a

1. Volcanic igneous rock
2. Argillaceous elastic sedimentary rock
3. Calcareous sedimentary rock
4. Crystalline metamorphic rock

Options :

68019135993. 1

68019135994. 2

68019135995. 3

68019135996. 4

Question Number : 50 Question Id : 6801919136 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

1 Stoke is equal to

1. 10^{-4} m^2/s
2. 10^4 m^2/s
3. $10^5 m/s$
4. $10^{-3} m/s$

Options :

68019135997. 1

68019135998. 2

68019135999. 3

68019136000. 4

Question Number : 51 Question Id : 6801919137 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

In a static fluid with y as the vertical direction, the pressure variation is given by

1. $\frac{dp}{dy} = \rho$
2. $\frac{dp}{dy} = -\rho$
3. $\frac{dp}{dy} = \Upsilon$
4. $\frac{dp}{dy} = -\Upsilon$

Options :

68019136001. 1

68019136002. 2

68019136003. 3

68019136004. 4

Question Number : 52 Question Id : 6801919138 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The gauge pressure at the surface of a liquid of density 900 kg/m^3 is 0.4 bar. If the atmospheric pressure is 1×10^5 Pa, calculate the absolute pressure at a depth of 50 m.

1. 5.8145 bar
2. 6.2345 bar
3. 7.324 bar
4. 3.467 bar

Options :

68019136005. 1

68019136006. 2

68019136007. 3

68019136008. 4

Question Number : 53 Question Id : 6801919139 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The condition for irrotational flow is given by

1. $\frac{\partial u}{\partial x} = \frac{\partial v}{\partial y}$
2. $\frac{\partial u}{\partial x} = -\frac{\partial v}{\partial y}$
3. $\frac{\partial v}{\partial x} = \frac{\partial u}{\partial y}$
4. $\frac{\partial v}{\partial x} = -\frac{\partial u}{\partial y}$

Options :

68019136009. 1

68019136010. 2

68019136011. 3

68019136012. 4

Question Number : 54 Question Id : 6801919140 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

As per Rankine Theory, the coefficient of active earth pressure (Ka) is given by

1. $Ka = \frac{1 - Sin\emptyset}{1 + Sin\emptyset}$
2. $Ka = \frac{1 + Sin\emptyset}{1 - Sin\emptyset}$
3. $Ka = \frac{1 + tan\emptyset}{1 - tan\emptyset}$
4. $Ka = \frac{1 - tan\emptyset}{1 + tan\emptyset}$

Options :

68019136013. 1

68019136014. 2

68019136015. 3

68019136016. 4

Question Number : 55 Question Id : 6801919141 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

In stone masonary, the projection which is usually provided to serve as support for joist, truss, weather shed etc. is known as

1. Through Stone
2. Corbel
3. Jambs
4. Coping

Options :

68019136017. 1

68019136018. 2

68019136019. 3

68019136020. 4

Question Number : 56 Question Id : 6801919142 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The treatment step adopted for removing bushes, debris and wood from water is known as

1. Sedimentation
2. Coagulation
3. Screening
4. Filtration

Options :

68019136021. 1

68019136022. 2

68019136023. 3

68019136024. 4

Question Number : 57 Question Id : 6801919143 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Addition of Alum in water treatment increases:

1. Acidity and hardness of water
2. Alkalinity and hardness of water
3. Sulphate and sulphides in water
4. Carbonate and bicarbonates in water

Options :

68019136025. 1

68019136026. 2

68019136027. 3

68019136028. 4

Question Number : 58 Question Id : 6801919144 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The disease Methaemoglobinaemia is caused when drinking water supply contains high concentration of

1. Fluoride
2. Iron
3. Chloride
4. Nitrate

Options :

68019136029. 1

68019136030. 2

68019136031. 3

68019136032. 4

Question Number : 59 Question Id : 6801919145 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Addition of gypsum to the irrigation water is recommended to overcome difficulties posed by

1. highly saline irrigation supplies
2. irrigation supplies containing high quantities of sodium
3. irrigation supplies containing heavy sediment
4. irrigation supplies containing heavy metals

Options :

68019136033. 1

68019136034. 2

68019136035. 3

68019136036. 4

Question Number : 60 Question Id : 6801919146 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The crop sequence, which cannot serve any useful purpose in crop rotation is

1. Wheat-----Juar-------Gram
2. Rice------Gram----------Rice
3. Cotton------Wheat-----Gram
4. Rice-------Wheat-----Cotton

Options :

68019136037. 1

68019136038. 2

68019136039. 3

68019136040. 4

Question Number : 61 Question Id : 6801919147 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The moisture held by a well drained soil against gravity drainage, by the force of surface tension between soil grains and water drops is called

1. field capacity water
2. hygroscopic water
3. capillary water
4. water of adhesion

Options :

68019136041. 1

68019136042. 2

68019136043. 3

68019136044. 4

Question Number : 62 Question Id : 6801919148 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The ratio of water stored in the root zone during irrigation, to the water needed in the root zone prior to irrigation is called

1. efficiency of water use
2. efficiency of water storage
3. efficiency of water application
4. efficiency of water conveyance

Options :

68019136045. 1

68019136046. 2

68019136047. 3

68019136048. 4

Question Number : 63 Question Id : 6801919149 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Bio Diesel is commonly known as

1. Wood Alcohol
2. Mono alkyl esters
3. Gasohol
4. Propane

Options :

68019136049. 1

68019136050. 2

68019136051. 3

68019136052. 4

Question Number : 64 Question Id : 6801919150 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Breathing ability of engine can be represented by

1. Thermal efficiency
2. Mechanical efficiency
3. Volumetric efficiency
4. Relative efficiency

Options :

68019136053. 1

68019136054. 2

68019136055. 3

68019136056. 4

Question Number : 65 Question Id : 6801919151 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Travel reduction ratio (TRR) is commonly known as

1. wheel slip
2. velocity or pull losses
3. motion resistance
4. Coefficient of traction

Options :

68019136057. 1

68019136058. 2

68019136059. 3

68019136060. 4

Question Number : 66 Question Id : 6801919152 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Puddler is used

1. to reduce the leaching of water and destruction of weeds
2. for digging circular pits for planting sapling in orchards and forest.
3. for zero tillage
4. for making furrows

Options :

68019136061. 1

68019136062. 2

68019136063. 3

68019136064. 4

Question Number : 67 Question Id : 6801919153 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The process of breaking of larger fat globules into smaller size to prevent fat separation is known as

1. homogenization
2. sterilization
3. pasteurization
4. sanitization

Options :

68019136065. 1

68019136066. 2

68019136067. 3

68019136068. 4

Question Number : 68 Question Id : 6801919154 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Pulsed light is method of food preservation that involves

1. pressure processing
2. the use of intense and short duration pocket of broad spectrum.
3. electron beam
4. dense phase carbon dioxide

Options :

68019136069. 1

68019136070. 2

68019136071. 3

68019136072. 4

Question Number : 69 Question Id : 6801919155 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The hoop tension force (Fht) per metre (kg) exerted on cylindrical silo wall is given by

1. Fht = r. Pz
2. Fht = t.Pz
3. Fht = Pz/r
4. Fht = t * Pz/r

Options :

68019136073. 1

68019136074. 2

68019136075. 3

68019136076. 4

Question Number : 70 Question Id : 6801919156 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Certified seed has tag of which colour?

1. Yellow Colour
2. Red Colour
3. Blue Colour
4. Black Colour

Options :

68019136077. 1

68019136078. 2

68019136079. 3

68019136080. 4

Question Number : 71 Question Id : 6801919157 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Which of the following irrigation method has been developed in Israel?

1. Drip Irrigation
2. Sprinkler Irrigation
3. Furrow Irrigation
4. Border Strip Irrigation

Options :

68019136081. 1

68019136082. 2

68019136083. 3

68019136084. 4

Question Number : 72 Question Id : 6801919158 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Adulteration of which of the following weed in mustard oil causes dropsy disease?

1. Cuscuta
2. Motha
3. Piazi
4. Satyanashi

Options :

68019136085. 1

68019136086. 2

68019136087. 3

68019136088. 4

Question Number : 73 Question Id : 6801919159 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Indian Dairy Corporation was established in which year?

1. 13 January1970
2. 27 August 1955
3. 26 June 1975
4. 11 July 2016

Options :

68019136089. 1

68019136090. 2

68019136091. 3

68019136092. 4

Question Number : 74 Question Id : 6801919160 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Slip erosion is associated with

1. saturation of steep hills and slopes
2. rain drops falling on land surface
3. erosion against natural cover
4. high velocity of winds moving over barren land surface

Options :

68019136093. 1

68019136094. 2

68019136095. 3

68019136096. 4

Question Number : 75 Question Id : 6801919161 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : Scientific Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The sediment yield (Dr) of watershed which is function of sediment yield (Sy) and gross erosion (Eg) is represented by

1. $Dr = \frac{Sy}{Eg}$
2. $Dr = Sy * Eg$
3. $Dr = \frac{Eg}{Sy}$
4. $Dr = Eg + Sy$

Options :

68019136097. 1

68019136098. 2

68019136099. 3

68019136100. 4