Question Paper Preview

Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

Question Paper Name:	Environmental Management 31st May 2018 Shift1
Subject Name:	Environmental Management
Creation Date:	2018-05-31 15:27:06
Duration:	120
Total Marks:	120
Display Marks:	No
Calculator:	None
Magnifying Glass Required?:	No
Ruler Required?:	No
Eraser Required?:	No
Scratch Pad Required?:	No
Rough Sketch/Notepad Required?:	No
Protractor Required?:	No

Display Number Panel:	Yes
Group All Questions:	No

Question Number : 1 Question Id : 5113469121 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If one root of the equation $2x^2 - 5x + k = 0$ is double the root of the other, then the value of K is

Options :

1. ✖ $\dfrac{7}{9}$

2. ✖ $\dfrac{14}{9}$

3. ✔ $\dfrac{25}{9}$

4. ✖ $\dfrac{1}{9}$

**Question Number : 2 Question Id : 5113469122 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

If the first and fifth terms of an Arithmetical progression are -14 and 2 respectively and the sum is 40 then the number of terms of the A.P is

Options :

1. ✖ 5

2. ✖ 8

3. ✖ 9

4. ✔ 10

**Question Number : 3 Question Id : 5113469123 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

If $A = \begin{bmatrix} 1 & 1 & 1 \\ 1 & -1 & -3 \\ 2 & 1 & -1 \end{bmatrix}$ then det A =

Options :

1. ✖ 2

2. ✔ 5

3. ✖ 7

4. ✖ 10

**Question Number : 4 Question Id : 5113469124 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

If twelve persons are made to sit around a table, the number of ways they can sit such that 2 specified persons are not together is

Options :

1. ✔ 9. 10!

2. ✖ 11!

3. ✳ $9!11!$

4. ✳ $2!9!$

Question Number : 5 Question Id : 5113469125 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $2n_{C_3} : n_{C_2} = 44 : 3$, the value of n =

Options :

1. ✳ 4

2. ✔ 6

3. ✳ 8

4. ✳ 11

Question Number : 6 Question Id : 5113469126 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the unbiased standard deviation (SD) of a sample of 36 cases is 24, the standard error of mean is

Options :

1. ✔ 4

2. ✳ 8

3. ✳ 9

4. ✳ 24

Question Number : 7 Question Id : 5113469127 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Given that the mean of a distribution is 30 and the standard deviation(σ) is 6, the coefficient of variation is

Options :

1. ✳ 10%

2. ✔ 20%

3. ✖ 30%

4. ✖ 40%

Question Number : 8 Question Id : 5113469128 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the regression coefficients of x on y and y on x are given as $\frac{1}{2}$ and $\frac{3}{2}$, then the coefficient of correlation is

Options :

1. ✖ $\frac{1}{\sqrt{2}}$

2. ✖ $\frac{1}{3}$

3. ✔ $\frac{\sqrt{3}}{2}$

4. ✖ $2\sqrt{3}$

Question Number : 9 Question Id : 5113469129 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $A = \begin{bmatrix} 2 & 0 & 1 \\ 2 & 1 & k \\ 1 & -1 & 0 \end{bmatrix}$ is a singular matrix then k =

Options :

1. ✖ 2

2. ✔ $\frac{3}{2}$

3. ✖ $\frac{1}{2}$

4. ✖ $\frac{2}{3}$

Question Number : 10 Question Id : 5113469130 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If X is a Random variable defined by the density function f(x) =$3x^2$ when 0≤x≤1

And '0' (zero) otherwise, then the mean of X

Options :

1. ✔ $\dfrac{3}{4}$

2. ✖ $\dfrac{4}{3}$

3. ✖ $\dfrac{1}{3}$

4. ✖ $\dfrac{1}{5}$

Display Number Panel:	Yes
Group All Questions:	No

Question Number : 11 Question Id : 5113469131 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a viable protection against deforestation?

Options :

1. ✖ Reduce the consumption of forest and related products

2. ✖ Boycott products of companies involved in deforestation

3. ✔ Privatization of forest land

4. ✖ Environmental education

Question Number : 12 Question Id : 5113469132 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is an example of impact of developmental activities in the hydrosphere?

Options :

1. ✖ Air pollution

2. ✖ soil pollution

3. ✖ soil erosion

4. ✔ water pollution

Question Number : 13 Question Id : 5113469133 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Select the least harmful class of compounds from the following:

Options :

1. ✖ Chlorinated hydrocarbons

2. ✖ Organophosphates

3. ✖ Carbamates

4. ✔ Pyrethroids

Question Number : 14 Question Id : 5113469134 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following statement is not true?

Options :

1. ✖

In an ecosystem, sustained development is facilitated by a close physical proximity and functional matching between the producers and the consumers

2. ✖

In the anthroposystem, there is usually a significant physical displacement between the producer and the consumer

3. ✖

In an ecosystem, most of the materials are transferred from the producers to the recyclers and only a small fraction is passed through the consumers to the recyclers

4. ✔

In the anthroposystem, the flow of material from the producers directly to the recyclers is a major proportion

---

Question Number : 15 Question Id : 5113469135 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In an aquatic ecosystem phytoplankton can be considered as

Options :

1. ✖ Consumer

2. ✔ Producer

3. ✖ Saprotrophic organism

4. ✖ Macroconsumer

Question Number : 16 Question Id : 5113469136 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is mycorrhizae?

Options :

1. ✖ Symbiotic relationship between plants

2. ✔ Mutualistic associations between plant roots and fungi

3. ✖ A useful bacteria in carbon cycle

4. ✖ A useful bacteria in phosphorus cycle and carbon cycle

Question Number : 17 Question Id : 5113469137 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Representation of biomass for per unit area at various trophic levels graphically is classified as

Options :

1. ✖ pyramid of numbers

2. ✖ pyramid of primary consumers

3. ✔ pyramid of biomass

4. ✖ pyramid of decomposers

Question Number : 18 Question Id : 5113469138 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

As nutrients cycle through an ecosystem inorganic nutrients are returned to autotrophs by

Options :

1. ✖ Producers

2. ✖ Primary consumers

3. ✖ Top predators

4. ✔ Detritivores

Question Number : 19 Question Id : 5113469139 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following nutrients can be a limiting nutrient because of plant's inability to use its gaseous form?

Options :

1. ✔ Nitrogen

2. ✖ Phosphorous

3. ✖ Hydrogen

4. ✖ Carbon

Question Number : 20 Question Id : 5113469140 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The rate of storage of organic matter in producers in excess of their metabolic consumption is

Options :

1. ✖ Biomass

2. ✖ Community productivity

3. ✖ Gross primary productivity

4. ✔ Net primary productivity

Question Number : 21 Question Id : 5113469141 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A metapopulation is a

Options :

1. ✖ population in an urban area

2. ✖ network of distinct and non-interacting species

3. ✖ population that constantly occupies all suitable habitats in an area

4. ✔ network of distinct but interacting species

Question Number : 22 Question Id : 5113469142 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
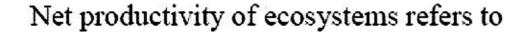
What type of population would be associated with a population pyramid that had an extremely broad base?

Options :

1. ✔ a rapidly expanding population

2. ✖ a stable population

3. ✖ a population where the birth rate equaled the death rate

4. ✖ a population where there were more old individuals than young individuals

Question Number : 23 Question Id : 5113469143 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Net productivity of ecosystems refers to

Options :

1. ✔ the rate of storage of organic matter not used by consumers

2. ✖

the rate of energy storage at different consumer levels and involves no production de novo

3. ✖ the rate at which radiant energy is stored by the chemosynthetic activity of producers

4. ✖

the rate at which radiant energy is stored by the photosynthetic and chemosynthetic activity

of producers

Question Number : 24 Question Id : 5113469144 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Lotic ecosystems includes

Options :

1. ✖ swamps

2. ✖ ponds

3. ✔ streams

4. ✖ Humidity

Question Number : 25 Question Id : 5113469145 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

What is the consumer that belongs to tertiary consumers of ocean ecosystem

Options :

1. ✖ Crustaceans

2. ✖ Molluscs fish

3. ✔ Cod

4. ✖ crane

Question Number : 26 Question Id : 5113469146 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The envelope of which of the following viruses is derived from the host cell nucleus?

Options :

1. ✖ Paramyxoviruses

2. ✖ Retroviruses

3. ✔ Herpesviruses

4. ✖ Orthomyxoviruses

Question Number : 27 Question Id : 5113469147 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The addition of which of the following would change a chemically defined medium into a complex medium?

Options :

1. ✖ Biotin (a vitamin)

2. ✖ K_2HPO_4

3. ✖ Maltose

4. ✔ Yeast extract

Question Number : 28 Question Id : 5113469148 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following procedures can be used to isolate a pure culture of a bacterium from a mixture?

Options :

1. ✔ streak plating

2. ✖ dilution plating

3. ✖ enrichment culture

4. ✖ All the above can be used to isolate a pure culture of a bacterium from a mixture.

Question Number : 29 Question Id : 5113469149 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Oxidation pond for secondary waste water treatment is designed to promote growth of

Options :

1. ✖ plants

2. ✖ fungi

3. ✖ bacteria

4. ✔ Algae

Question Number : 30 Question Id : 5113469150 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Mycoplasmas are different from the other prokaryotes by

Options :

1. ✖ presence of chitin in cell walls

2. ✖ presence of murrain in cell walls

3. ✖ presence of proteins in cell walls

4. ✔ absence of cell wall itself

Question Number : 31 Question Id : 5113469151 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Genetic and biochemical similarities between contemporary cyanobacteria and eukaryotic chloroplasts are accepted to mean that

Options :

1. ✖ eukaryotes evolved from bacteria

2. ✔ eukaryotes evolved from archaea

3. ✖ oxygenic photosynthesis first evolved in eukaryotes

4. ✖ cyanobacteria arose from chloroplasts which escaped from plant cells

Question Number : 32 Question Id : 5113469152 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A common polyhedral capsid shape of viruses is a

Options :

1. ✖ Pentagon

2. ✖ Sphere

3. ✔ Icosahedron

4. ✖ Helical

Question Number : 33 Question Id : 5113469153 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is a micronutrient?

Options :

1. ✖ Carbon

2. ✔ Manganese

3. ✖ Potassium

4. ✖ Magnesium

Question Number : 34 Question Id : 5113469154 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Some bacteria are considered pleomorphic. This means

Options :

1. ✖ they are shaped like bent rods.

2. ✖ they have a corkscrew shape

3. ✓ they do not have just one shape.

4. ✗ they are not either bacilli or cocci.

Question Number : 35 Question Id : 5113469155 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Bacterial fimbriae present on the outer cell surface are used for:

Options :

1. ✗ Cellular activity

2. ✗ Cell wall synthesis

3. ✓ Adherence to surfaces

4. ✗ Adherence and exchange of genetic information

Question Number : 36 Question Id : 5113469156 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The addition of easily metabolized organic matter to a natural microbial community with the purpose of increasing the rate of biodegradation is called

Options :

1. ✗ Nutrient amendment

2. ✓ Cometabolism

3. ✗ Nutrient stimulation

4. ✗ Carbonization

Question Number : 37 Question Id : 5113469157 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The association of endotoxin in Gram-negative bacteria is a result of the presence of

Options :

1. ✗ Peptidoglycan

2. ✔ Lipopolysaccharides

3. ✖ Polypeptide

4. ✖ Calcified proteins

Question Number : 38 Question Id : 5113469158 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A semilogarithmic plot of exponential microbial growth curve, there is a bacterial population which increases from 10^3 cells to 10^9 cells in 10 hours. What is the time required for the doubling of population number?

Options :

1. ✖ 10 min/generation

2. ✔ 30 min/generation

3. ✖ 0.5 min/generation

4. ✖ 60 min/generation

Question Number : 39 Question Id : 5113469159 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In troposphere, the temperature of air decreases with increase in height at the rate of 1 degree centigrade for every
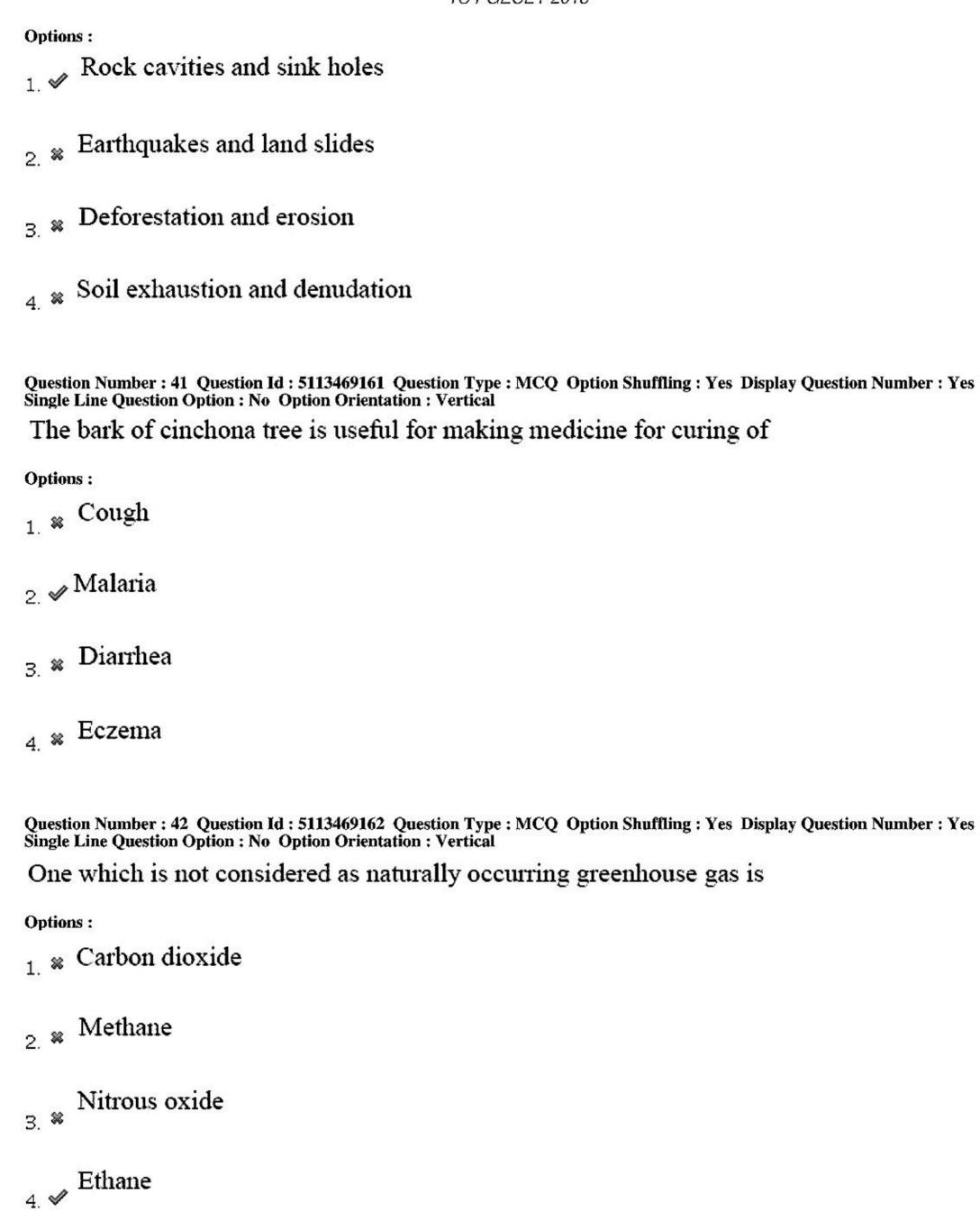
Options :

1. ✖ 160 m

2. ✔ 165 m

3. ✖ 170 m

4. ✖ 175 m

Question Number : 40 Question Id : 5113469160 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Carbonation produces features like

Options :

1. ✔ Rock cavities and sink holes

2. ✖ Earthquakes and land slides

3. ✖ Deforestation and erosion

4. ✖ Soil exhaustion and denudation

Question Number : 41 Question Id : 5113469161 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The bark of cinchona tree is useful for making medicine for curing of

Options :

1. ✖ Cough

2. ✔ Malaria

3. ✖ Diarrhea

4. ✖ Eczema

Question Number : 42 Question Id : 5113469162 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

One which is not considered as naturally occurring greenhouse gas is

Options :

1. ✖ Carbon dioxide

2. ✖ Methane

3. ✖ Nitrous oxide

4. ✔ Ethane

Question Number : 43 Question Id : 5113469163 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Chemical released by chlorofluorocarbons that causes depletion of ozone layer in atmosphere is

Options :

1. ✖ Nitrogen

2. ✖ Sulphuric acid

3. ✔ Chlorine

4. ✖ sodium chloride

Question Number : 44 Question Id : 5113469164 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Process in which water is treated with slaked lime and alum is called

Options :

1. ✖ Sedimentation

2. ✔ Coagulation

3. ✖ Filtration

4. ✖ Chlorination

Question Number : 45 Question Id : 5113469165 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Dinitrogen and dioxygen are main constituents of air but these do not react

with each other to form oxides of nitrogen because _____.

Options :

1. ✔ the reaction is endothermic and requires very high temperature.

2. ✖ the reaction can be initiated only in presence of a catalyst.

3. ✖ oxides of nitrogen are unstable.

4. ✖ N_2 and O_2 are unreactive.

Question Number : 46 Question Id : 5113469166 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following statements is correct

Options :

1. ✖ Ozone hole is a hole formed in stratosphere from which ozone oozes out.

2. ✖ Ozone hole means vanishing of ozone layer around the earth completely.

3. ✔ Ozone hole is thinning of ozone layer of stratosphere at some places.

4. ✖ Ozone hole is a hole formed in the troposphere from which ozone oozes out.

Question Number : 47 Question Id : 5113469167 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The brown haze of photochemical Smog is largely attributable to

Options :

1. ✖ NO

2. ✔ NO_2

3. ✖ $CH_3COOONO_2$

4. ✖ $CH_2=CH-CH=O$

Question Number : 48 Question Id : 5113469168 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The albedo of green vegetation surface is usually taken as

Options :

1. ✖ 0.05

2. ✖ 0.15

3. ✔ 0.25

4. ✖ 0.35

Question Number : 49 Question Id : 5113469169 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of following is a powerful irritant which can aggravate symptoms of people who suffer from respiratory disorders

Options :

1. ✅ Sulphur dioxide

2. ✖ Carbon monoxide

3. ✖ Carbon dioxide

4. ✖ Oxides of nitrogen

Question Number : 50 Question Id : 5113469170 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Pickup the correct sequence of the following treatment processes in a conventional sewage treatment plant

1. Primary sedimentation
2. Grit removal
3. Disinfection
4. Secondary sedimentation
5. Screening
6. Secondary treatment unit

Options :

1. ✖ 1, 2, 3, 5, 6, 4

2. ✅ 5, 2, 1, 6, 4, 3

3. ✖ 2, 3, 5, 6, 4, 1

4. ✖ 2, 1, 6, 5, 4, 3

Question Number : 51 Question Id : 5113469171 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the dissolved oxygen concentration in a natural drainage falls to zero, it indicates the zone of

Options :

1. ✖ Recovery

2. ✔ Active decomposition

3. ✖ Degradation

4. ✖ Digestion

Question Number : 52 Question Id : 5113469172 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Waste water from kitchens and bathrooms of residential buildings is termed as

Options :

1. ✖ Sludge

2. ✖ Sewage

3. ✔ Sullage

4. ✖ Domestic effluent

Question Number : 53 Question Id : 5113469173 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Ringelmann's scale is used to grade

Options :

1. ✖ SO_2

2. ✖ Automobile exhausts

3. ✔ Smoke intensity

4. ✖ CO

Question Number : 54 Question Id : 5113469174 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the maximum allowable concentration of fluorides in drinking water

Options :

1. ✖ 1.0 mg/l

2. ✖ 1.25 mg/l

3. ✔ 1.50 mg/l

4. ✖ 1.75 mg/l

Question Number : 55 Question Id : 5113469175 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following air pollution control devices is suitable for removing the finest dust particles from the air

Options :

1. ✔ Electrostatic precipitator

2. ✖ Fabric filter

3. ✖ Cyclone separator

4. ✖ Settling chamber

Question Number : 56 Question Id : 5113469176 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Tropical soils are typically

Options :

1. ✖ rich in organic material

2. ✖ very fertile

3. ✔ deeply leached

4. ✖ good for agriculture

Question Number : 57 Question Id : 5113469177 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The normal pH of rain water is about

Options :

1. ✖ 3.0

2. ✔ 5.6

3. ✖ 7.0

4. ✖ 7.5

Question Number : 58 Question Id : 5113469178 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The single most effective agent of chemical weathering at the Earth's surface is

Options :

1. ✔ carbonic acid

2. ✖ water

3. ✖ hydrochloric acid

4. ✖ carbon dioxide

Question Number : 59 Question Id : 5113469179 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Soil with approximately equal proportions of sand, silt, and clay along with generous amounts of organic matter is called

Options :

1. ✔ loam

2. ✖ caliche

3. ✖ humus

4. ✖ podzol

Question Number : 60 Question Id : 5113469180 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Clay is a product of

Options :

1. ✔ Chemical weathering

2. ✖ mechanical weathering

3. ✖ geothermal weathering

4. ✖ oxidation

Question Number : 61 Question Id : 5113469181 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

On an average, the geothermal gradient is about:

Options :

1. ✖ $50^{o}C/km$

2. ✔ $30^{o}C/km$

3. ✖ $10\,^{o}C/km$

4. ✖ $1\,^{o}C/km$

Question Number : 62 Question Id : 5113469182 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What information is obtained using remote sensing technique employed for surveying of infrared visible microwave radiation reflected from Earth

Options :

1. ✔ Surface

2. ✖ Sub-surface

3. ✖ aquifer

4. ✖ bottom layers

Question Number : 63 Question Id : 5113469183 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Mafic Igneous rock contains about.

Options :

1. ✔ 50% silica

2. ✖ 60% silica

3. ✖ 70% silica

4. ✖ 80% silica

Question Number : 64 Question Id : 5113469184 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The compass direction of a line formed by the intersection of an inclined plane and a horizontal plane is called as

Options :

1. ✖ the cross-cutting angle

2. ✖ the intersection angle

3. ✔ strike

4. ✖ dip

Question Number : 65 Question Id : 5113469185 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A structural basin is a special case of

Options :

1. ✖ a dome

2. ✔ a syncline

3. ✖ an anticline

4. ✖ a freak of nature

Question Number : 66 Question Id : 5113469186 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Match the following columns:

I	II
1. lsobaths	i) Equal thickness.
2. lsohyets	ii) Equal pressure surface.
3. lsopach.	iii) Equal rainfall.
4. Isopiestic	iv) Equal depth to water table

Options :

1. ✻ 1-ii, 2-i, 3-iv, 4-iii

2. ✻ 1-i, 2-ii, 3-iii, 4-iv

3. ✔ 1-iv, 2-iii, 3-i, 4-ii

4. ✻ 1-iv, 2-ii, 3-iii, 4-i.

Question Number : 67 Question Id : 5113469187 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The total number of degrees of longitude in one hemisphere of the Earth is equal to

Options :

1. ✻ 270

2. ✻ 90

3. ✔ 180

4. ✻ 360

Question Number : 68 Question Id : 5113469188 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

One degree of latitude equals about how many miles?

Options :

1. ✻ 43

2. ✻ 56

3. ✔ 69

4. ✘ 111

Question Number : 69 Question Id : 5113469189 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the contour interval on a topo map is 10 meters, and one contour line is labeled 50 m, then

Options :

1. ✔ the adjacent contour line would represent 60 m in elevation

2. ✘ the adjacent contour line would represent 1500 m in elevation

3. ✘ the adjacent contour line would represent 20 m in elevation

4. ✘ the adjacent contour line would represent 10 m in elevation

Question Number : 70 Question Id : 5113469190 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If 16 flight lines are run perpendicular to an area 30 km wide, their spacing on a photographical map on scale 1:50000, will be

Options :

1. ✘ 1 cm

2. ✘ 2 cm

3. ✘ 3 cm

4. ✔ 4 cm

Question Number : 71 Question Id : 5113469191 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

"An Electromagnetic wave falls on to a boundary between two loss less homogeneous media with different refractive indices, a part of the wave is reflected back to the incident medium and the rest is transmitted on to the second media". This phenomenon is known as :

Options :

1. ✔ Fresnel reflection

2. ✖ Fresnel refraction

3. ✖ Snell's law

4. ✖ Faraday's law

Question Number : 72 Question Id : 5113469192 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the equatorial distance between two meridians is 100 km, their distance at 60 degrees latitude will be

Options :

1. ✔ 500 km

2. ✖ 600 km

3. ✖ 800 km

4. ✖ 1000 km

Question Number : 73 Question Id : 5113469193 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The scale of the photography taken from a height of 300 m, with a camera of focal length 15 cm, is

Options :

1. ✖ 1:15000

2. ✖ 1:1000

3. ✔ 1:2000

4. ✖ 1:30000

Question Number : 74 Question Id : 5113469194 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The infrared portion of EMR lies between

Options :

1. ✖ 0.4 - 0.7 μm

2. ✖ 0.7 - 1.3 μm

3. ✖ 0.5 mm - 1 m

4. ✓ 0.7 - 14 μm

Question Number : 75 Question Id : 5113469195 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

For C band Synthetic Aperture Radar (SAR) with Doppler band width of 1300 Hz, the coherence length lcoh is

Options :

1. ✓ 230 km

2. ✖ 500 km

3. ✖ 250 km

4. ✖ 130 km

Question Number : 76 Question Id : 5113469196 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The altitudinal distance of a geostationary satelite from the earth is about

Options :

1. ✖ 26, 000 km

2. ✖ 30, 000 km

3. ✓ 36, 000 km

4. ✖ 44, 000 km

Question Number : 77 Question Id : 5113469197 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Critical angle of electromagnetic radiation takes place if

Options :

1. ✖ angle of incidence is greater than the angle of refraction

2. ✖ angle of incidence is equal to angle of refraction

3. ✖ angle of incidence is equal to 90°

4. ✔ angle of refraction is equal to 90°

Question Number : 78 Question Id : 5113469198 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Middle infrared light is used in

Options :

1. ✔ mineral mapping

2. ✖ soil moisture

3. ✖ water penetration

4. ✖ vegetation discrimination

Question Number : 79 Question Id : 5113469199 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The processing capability of a microcomputer can be enhanced with the help of

Options :

1. ✖ additional processor

2. ✔ expansion cards

3. ✖ Secondary memory

4. ✖ buffer memory

Question Number : 80 Question Id : 5113469200 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The term gigabytes refers to

Options :

1. ✖ 1024 bytes

2. ✖ 1024 kilobytes

3. ✔ 1024 megabytes

4. ✖ 1024 bits

Question Number : 81 Question Id : 5113469201 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Hexadecimal numbers are a combination of

Options :

1. ✖ Binary of decimal numbers

2. ✔ Letters of decimal digits

3. ✖ Binary of octal numbers

4. ✖ Octal and decimal

Question Number : 82 Question Id : 5113469202 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The number 111001_2 is equivalent to decimal number?

Options :

1. ✖ 48_{10}

2. ✖ 56_{10}

3. ✔ 57_{10}

4. ✖ 58_{10}

Question Number : 83 Question Id : 5113469203 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The 2322_8 in its Octal form is equivalent to _____ in its Decimal form.

Options :

1. ✖ 1024_{10}

2. ✔ 1234_{10}

3. ✖ 194_{10}

4. ✖ 2014_{10}

Question Number : 84 Question Id : 5113469204 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the difference between a declaration and a definition of a variable

Options :

1. ✖ Both can occur multiple times, but a declaration must occur first.

2. ✖ A definition occurs once, but a declaration may occur many times.

3. ✖ Both can occur multiple times, but a definition must occur first

4. ✔ A declaration occurs once, but a definition may occur many times

Question Number : 85 Question Id : 5113469205 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Difference between calloc() and malloc()

Options :

1. ✖ calloc() takes a single argument while malloc() needs two arguments

2. ✔ malloc() takes a single argument while calloc() needs two arguments

3. ✖ malloc() initializes the allocated memory to ZERO

4. ✖ calloc() initializes the allocated memory to NULL

Question Number : 86 Question Id : 5113469206 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which operator has the highest priority

Options :

1. ✔ ( )

2. ✖ [ ]

3. ✖ *

4. ✖ /

Question Number : 87 Question Id : 5113469207 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following shows the correct hierarchy of arithmetic operations in C

Options :

1. ✖ / + * -

2. ✖ * - / +

3. ✖ + - / *

4. ✔ * / + -

Question Number : 88 Question Id : 5113469208 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the output of the following program?

```
#include<stdio.h>
main( )
{
   int a[ ] = {10, 20, 30};
   printf("%d", *a+1);
}
```

Options :

1. ✔ 11

2. ✖ 21

3. ✖ 31

4. ✸ 61

Question Number : 89 Question Id : 5113469209 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the output of the following statement?

```
#include<stdio.h>
main( )
{
  printf("%d", -1<<1 );
}
```

Options :

1. ✸ 2

2. ✔ -2

3. ✸ 1

4. ✸ -1

Question Number : 90 Question Id : 5113469210 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the output of this C code?

```
int main( )
{
   int a = 20, b = 15, c = 5;
   int d;
   d = a == (b + c);
   printf("%d", d);
}
```

Options :

1. ✔ 1

2. ✸ 5

3. ✸ 10

4. ✸ 20

Question Number : 91 Question Id : 5113469211 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

What is the output of this C code?

```
int main( )
{
    int a = 1, b = 2;
    a += b -= a;
    printf("%d %d", a, b);
}
```

Options :

1. ✖ 1 1

2. ✖ 1 2

3. ✔ 2 1

4. ✖ 2 2

Question Number : 92 Question Id : 5113469212 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

What is the output of this C code?

```
void main( )
{
    int x = 4, y, z;
    y = --x;
    z = x--;
    printf("%d%d%d", x, y, z);
}
```

Options :

1. ✖ 423

2. ✖ 223

3. ✖ 322

4. ✔ 233

Question Number : 93 Question Id : 5113469213 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Which of the following formation does not contain any ground water

Options :

1. ✖ Aquifer

2. ✔ Aquifuge

3. ✖ Aquitard

4. ✖ Aquiclude

Question Number : 94 Question Id : 5113469214 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

An influent stream is one which

Options :

1. ✔ Contributes runoff to the groundwater

2. ✖ Deriver runoff from groundwater

3. ✖ Neither contributes nor desires runoff from ground

4. ✖ Flows only below the ground

Question Number : 95 Question Id : 5113469215 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The science which deals with surface stream is

Options :

1. ✖ Limnology

2. ✖ Cryology

3. ✖ Geomorphology

4. ✔ Potamology

Question Number : 96 Question Id : 5113469216 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following statements about the water table is false

Options :

1. ✖ the water table changes when discharge is not balanced by recharge

2. ✔ the water table is generally flat

3. ✖ the water table is above the land surface in lakes

4. ✖ the water table is depressed near high volume pumping wells

Question Number : 97 Question Id : 5113469217 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Most of the water coming out of continental hot springs is

Options :

1. ✔ meteoric water

2. ✖ magmatic water

3. ✖ sea water

4. ✖ metamorphic water

Question Number : 98 Question Id : 5113469218 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the difference between the saturated and the unsaturated zones of ground water

Options :

1. ✖ the saturated zone has a higher porosity than the unsaturated zone

2. ✖ the saturated zone has a lower porosity than the unsaturated zone

3. ✖

the pore spaces in the saturated zone are not completely full of water; the pore spaces in the

unsaturated zone are completely full of water

4. ✔

the pore spaces in the saturated zone are completely full of water; the pore spaces in the unsaturated zone are not completely full of water.

Question Number : 99 Question Id : 5113469219 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Groundwater flows

Options :

1. ✖ always downhill.

2. ✖ from high elevation to low elevation.

3. ✖ from areas of high permeability to areas of low permeability.

4. ✔ from areas of high hydraulic head to areas of low hydraulic head.

Question Number : 100 Question Id : 5113469220 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Gaining streams are those where:

Options :

1. ✖ water from the vadose zone flows into the stream.

2. ✖ water is lost from the stream to the vadose zone.

3. ✔ water from the saturated zone flows into the stream.

4. ✖ water is lost from the stream to the saturated zone.

Question Number : 101 Question Id : 5113469221 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

As stream erosion works its way toward equilibrium in a drainage basin, what is the effect on lakes and waterfalls?

Options :

1. ✖ Both lakes and waterfalls are created by stream erosion.

2. ✔ Both lakes and waterfalls are destroyed by stream erosion.

3. ✖ Lakes are created but waterfalls are destroyed by stream erosion

4. ✖ Waterfalls are created but lakes are destroyed by stream erosion

Question Number : 102 Question Id : 5113469222 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which reservoir holds the greatest amount of water besides the oceans?

Options :

1. ✖ Atmosphere

2. ✔ Glaciers

3. ✖ Groundwater

4. ✖ Lakes

Question Number : 103 Question Id : 5113469223 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Whenever air masses are lifted up, converging into a low pressure area with a surface separating warm and cold air masses, precipitation occurs. What is such precipitation?

Options :

1. ✔ frontal form of cyclonic precipitation

2. ✖ non- frontal form of cyclonic precipitation

3. ✖ convective precipitation

4. ✖ orographic precipitation

Question Number : 104 Question Id : 5113469224 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What are the units of storativity of an aquifer?

Options :

1. ✔ no units

2. ✳ cubic meters

3. ✳ meters

4. ✳ square meters

Question Number : 105 Question Id : 5113469225 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Hundred times the ratio of the volume of ground water obtained by gravity drainage and the total volume of the material drained is known as

Options :

1. ✳ field capacity

2. ✳ specific retention

3. ✔ specific yield

4. ✳ yield

Question Number : 106 Question Id : 5113469226 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In which units is soil moisture tension expressed in?

Options :

1. ✳ Newton

2. ✳ Poise

3. ✔ Atmosphere

4. ✳ Stokes

Question Number : 107 Question Id : 5113469227 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The minimum value of the ratio of the distance from the rain gauge to an object and the height of the object is

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 10

4. ✖ 20

Question Number : 108 Question Id : 5113469228 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following can be measured by using Phytometer

Options :

1. ✖ Evaporation

2. ✔ Transpiration

3. ✖ Infiltration

4. ✖ Soil retention capacity

Question Number : 109 Question Id : 5113469229 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What type of canal is aligned along the natural watershed line

Options :

1. ✖ Contour canal

2. ✔ Ridge canal

3. ✖ Side slope canal

4. ✖ Protective canal

Question Number : 110 Question Id : 5113469230 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The values of annual rain fall, in millimeters, recorded at a particular rain gauge station for the years 1991 to 2010 chronologically are 900, 500, 350, 380, 800, 825, 560, 280, 460, 600, 760, 620, 270, 360, 710, 530, 675, 450, 285 and 180. Which of the following represents the value of precipitation corresponding to a recurrence interval of 2 years

Options :

1. ✖ 825 mm

2. ✔ 530 mm

3. ✖ 500 mm

4. ✖ 270 mm

Question Number : 111 Question Id : 5113469231 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A line drawn by joining various points (by interpolation) at which equal amounts of rainfall is received is termed as an

Options :

1. ✖ Isogonic

2. ✖ Isovel

3. ✔ Isohyet

4. ✖ Isobar

Question Number : 112 Question Id : 5113469232 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The upper limit of Reynolds number for the Darcy's law to be valid for groundwater flow is

Options :

1. ✖ 0.01

2. ✖ 0.1

3. ✔ 1.0

4. ✖ 10.0

Question Number : 113 Question Id : 5113469233 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The dimensions of the specific capacity of an open well are

Options :

1. ✖ $L\ T^{-1}$

2. ✖ L^{-1}

3. ✖ $T\ L^{-1}$

4. ✔ T^{-1}

Question Number : 114 Question Id : 5113469234 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The safe depression head for open wells is generally taken to be _____ of the critical

depression head

Options :

1. ✔ 1/3

2. ✖ 1/2

3. ✖ 2/3

4. ✖ 3/2

Question Number : 115 Question Id : 5113469235 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Radius of influence is the horizontal distance between the centre of the pumped well and

Options :

1. ✖ a point on the cone of depression of maximum drawdown

2. ✔ a point on the cone of depression of zero drawdown

3. ✖ the first observation well point

4. ✖ the second observation well point

At which place Alaknanda and Bhagirathi meets and take the name Ganga

Options :

1. ✔ Devprayag

2. ✖ Allahabad

3. ✖ Haridwar

4. ✖ Rishikesh

Which of the following type of rain gauge is used for measuring rain in remote hilly inaccessible areas

Options :

1. ✖ Acoustic rain gauge type

2. ✔ Tipping bucket type

3. ✖ Jardi's pluviometer

4. ✖ Simon's rain gauge

The surface obtained by joining the water levels in several observation wells penetrating a confined aquifer represents

Options :

1. ✔ Piezometric surface

2. ✖ Water table surface

3. ✺ Capillary fringe

4. ✺ Cone of depression surface

Question Number : 119 Question Id : 5113469239 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Interception loss when expressed as per cent of storm rainfall

Options :

1. ✺ Increases with increase in storm rainfall

2. ✔ Decreases with increase in storm rainfall

3. ✺ Decreases with decrease in storm rainfall

4. ✺ is dependent on storm rainfall

Question Number : 120 Question Id : 5113469240 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The base flow of stream represents the

Options :

1. ✺ Runoff due to only snow melt

2. ✺ Groundwater runoff and the prompt subsurface runoff

3. ✺ Groundwater runoff and the subsurface runoff

4. ✔ Groundwater runoff and the delayed subsurface runoff