

# Telangana State Council Higher Education

## Notations :

- 1.Options shown in green color and with ✓ icon are correct.
- 2.Options shown in red color and with ✗ icon are incorrect.

|  |  |
|--|--|
| <b>Question Paper Name :</b>                   | Environmental Management 1st June 2023<br>Shift1 |
| <b>Subject Name :</b>                          | Environmental Management                         |
| <b>Creation Date :</b>                         | 2023-06-01 13:25:41                              |
| <b>Duration :</b>                              | 120  |
| <b>Total Marks :</b>                           | 120  |
| <b>Display Marks:</b>                          | No   |
| <b>Share Answer Key With Delivery Engine :</b> | Yes  |
| <b>Actual Answer Key :</b>                     | Yes  |
| <b>Calculator :</b>                            | None   |
| <b>Magnifying Glass Required? :</b>            | No   |
| <b>Ruler Required? :</b>                       | No   |
| <b>Eraser Required? :</b>                      | No   |
| <b>Scratch Pad Required? :</b>                 | No   |
| <b>Rough Sketch/Notepad Required? :</b>        | No   |
| <b>Protractor Required? :</b>                  | No   |
| <b>Show Watermark on Console? :</b>            | Yes  |
| <b>Highlighter :</b>                           | No   |
| <b>Auto Save on Console?</b>                   | Yes  |
| <b>Change Font Color :</b>                     | No   |
| <b>Change Background Color :</b>               | No   |
| <b>Change Theme :</b>                          | No   |

|                            |    |
|----------------------------|----|
| <b>Help Button :</b>       | No |
| <b>Show Reports :</b>      | No |
| <b>Show Progress Bar :</b> | No |

## **Environmental Management**

|                                      |           |
|--------------------------------------|-----------|
| <b>Group Number :</b>                | 1         |
| <b>Group Id :</b>                    | 28393674  |
| <b>Group Maximum Duration :</b>      | 0         |
| <b>Group Minimum Duration :</b>      | 120       |
| <b>Show Attended Group? :</b>        | No        |
| <b>Edit Attended Group? :</b>        | No        |
| <b>Break time :</b>                  | 0         |
| <b>Group Marks :</b>                 | 120       |
| <b>Is this Group for Examiner? :</b> | No        |
| <b>Examiner permission :</b>         | Cant View |
| <b>Show Progress Bar? :</b>          | No        |

## **Mathematics**

|   |           |
|---|-----------|
| <b>Section Id :</b>   | 283936197 |
| <b>Section Number :</b>   | 1         |
| <b>Section type :</b>   | Online    |
| <b>Mandatory or Optional :</b>                                      | Mandatory |
| <b>Number of Questions :</b>  | 10        |
| <b>Number of Questions to be attempted :</b>                        | 10        |
| <b>Section Marks :</b>  | 10        |
| <b>Enable Mark as Answered Mark for Review and Clear Response :</b> | Yes       |
| <b>Maximum Instruction Time :</b>                                   | 0         |

**Sub-Section Number :** 1  
**Sub-Section Id :** 283936197  
**Question Shuffling Allowed :** Yes  
**Is Section Default? :** null

**Question Number : 1 Question Id : 28393610241 Question Type : MCQ Option Shuffling : Yes**  
**Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time**  
**: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

If the roots of the equation  $x^2 - 5x + 6 = 0$  are  $\alpha$  and  $\beta$ , then the equation having the roots  $(\alpha - 1)$  and  $(\beta - 1)$  is

**Options :**

1. ✘  $x^2 + 3x - 2 = 0$

2. ✔  $x^2 - 3x + 2 = 0$

3. ✘  $x^2 + 3x + 2 = 0$

4. ✘  $x^2 - 3x - 2 = 0$

**Question Number : 2 Question Id : 28393610242 Question Type : MCQ Option Shuffling : Yes**  
**Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time**  
**: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

If the sum of the first 6 terms of an arithmetic progression is 3 and the first term is 4 times the third term, then the fifth term is

**Options :**

1. ✔ -4

2. ✘ -2

3. ✘ 2

4. ✘ 4

Question Number : 3 Question Id : 28393610243 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The value of  $k$  so that  ${}^{15}C_{3k} = {}^{15}C_{k+3}$  is

Options :

1. ✘ 2

2. ✘ -3

3. ✔ 3

4. ✘ 1

Question Number : 4 Question Id : 28393610244 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

$$\begin{vmatrix} -3 & 2 & 1 \\ 0 & 2 & 1 \\ 0 & 0 & -5 \end{vmatrix} =$$

Options :

1. ✘ -30

2. ✘ 25

3. ✘ 32

4. ✔ 30

Question Number : 5 Question Id : 28393610245 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A continuous random variable  $X$  has the p.d.f.  $f(x) = \begin{cases} ax^3, & 0 \leq x < 1 \\ 0 & \text{elsewhere} \end{cases}$ .

Then the value of  $a$  is

Options :

1. ✘ 2

2. ✔ 4

3. ✘ 1

4. ✘  $\frac{1}{4}$

Question Number : 6 Question Id : 28393610246 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Let  $X$  be a Poisson variate such that  $P(X = 0) = 0.1$ . The variance of  $X$  is

Options :

1. ✘ 1
2. ✘ 10
3. ✔  $\log_e 10$
4. ✘  $\log_e 5$

Question Number : 7 Question Id : 28393610247 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The correlation coefficient for the data  $(1, 2), (2, 4), (3, 7), (4, 9), (5, 12), (6, 14)$  is

Options :

1. ✔ 0.998
2. ✘ 0.899
3. ✘ 0.975
4. ✘ -1

Question Number : 8 Question Id : 28393610248 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

If a sample of size 8 has values 1, 3, 3, 2, 5, 6, 4, 8 then its mean is

Options :

1. ✘ 3

2. ✔ 4

3. ✘ 5

4. ✘ 3.5

Question Number : 9 Question Id : 28393610249 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The normal equations for fitting the line  $y = a + bx$  to the data

$(-2, 1), (-1, 2), (0, 3), (1, 3), (2, 4)$  are

Options :

1. ✘  $5a=12, 10b=3$

2. ✘  $5a=13, a + 10b=7$

3. ✘  $5a + b=13, 10b=7$

4. ✔  $5a=13, 10b=7$

Question Number : 10 Question Id : 28393610250 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A random variable  $X$  has the following probability distribution:

|        |      |      |     |      |      |
|--------|------|------|-----|------|------|
| $X$    | 0    | 1    | 2   | 3    | 4    |
| $P(X)$ | $3k$ | $3k$ | $k$ | $2k$ | $6k$ |

The value of  $P(X = 4)$  is

Options :

1. ✓  $\frac{2}{5}$

2. ✗  $\frac{1}{5}$

3. ✗  $\frac{2}{15}$

4. ✗  $\frac{1}{15}$

## Environmental Management

|                                       |           |
|---------------------------------------|-----------|
| Section Id :                          | 283936198 |
| Section Number :                      | 2         |
| Section type :                        | Online    |
| Mandatory or Optional :               | Mandatory |
| Number of Questions :                 | 110       |
| Number of Questions to be attempted : | 110       |



|   |           |
|---|-----------|
| <b>Section Marks :</b>  | 110       |
| <b>Enable Mark as Answered Mark for Review and Clear Response :</b> | Yes       |
| <b>Maximum Instruction Time :</b>                                   | 0         |
| <b>Sub-Section Number :</b>   | 1         |
| <b>Sub-Section Id :</b>   | 283936198 |
| <b>Question Shuffling Allowed :</b>                                 | Yes       |
| <b>Is Section Default? :</b>  | null      |

**Question Number : 11 Question Id : 28393610251 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which one is not part of forest ecosystems classification.

**Options :**

1. ✘ tropical, temperate and boreal
2. ✘ grassland, plain land and desert land
3. ✘ tropical, temperate and coniferous
4. ✔ roads & corridors

**Question Number : 12 Question Id : 28393610252 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which one of the following can be considered as a functional unit of nature?

**Options :**

1. ✘ Humans
2. ✔ Ecosystem
3. ✘ Vehicles
4. ✘ Plants

**Question Number : 13 Question Id : 28393610253 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Two Basic categories of an ecosystem?

**Options :**

1. ✔ Aquatic and terrestrial
2. ✘ Aquatic and forest
3. ✘ Ponds and lakes
4. ✘ Rivers and forests

**Question Number : 14 Question Id : 28393610254 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which one of the following is the characteristic of all types of ecosystems?

**Options :**

1. ✘ Interaction between living things
2. ✔ Interaction between biotic and abiotic factors
3. ✘ Interaction between abiotic factors
4. ✘ Fights among individuals

**Question Number : 15 Question Id : 28393610255 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which one uses the decomposed dead matter?

**Options :**

1. ✘ Zooplankton
2. ✔ Autotrophs
3. ✘ Heterotrophs
4. ✘ Flagellates

**Question Number : 16 Question Id : 28393610256 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

The energy flow in the ecosystem is

Options :

1. ✘ multidirectional
2. ✘ bidirectional
3. ✔ unidirectional
4. ✘ cyclical

Question Number : 17 Question Id : 28393610257 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

In which form the energy is lost in an ecosystem?

Options :

1. ✘ Vapours
2. ✔ Heat
3. ✘ Oxygen
4. ✘ Fecal matter

Question Number : 18 Question Id : 28393610258 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

**Correct Marks : 1 Wrong Marks : 0**

Which one of the following biogeocycles are called as sedimentary cycle

**Options :**

1. ✘ nitrogen cycle
2. ✘ carbon cycle
3. ✘ oxygen
4. ✔ phosphorous and sulphur

**Question Number : 19 Question Id : 28393610259 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Nitrogen fixing bacteria cannot function in the presence of

**Options :**

1. ✘ hydrogen
2. ✘ water
3. ✔ oxygen
4. ✘ carbon

**Question Number : 20 Question Id : 28393610260 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time**

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Studying of species-level, genetic level and molecular level diversity for economical purpose is called

Options :

1. ✘ Biopiracy
2. ✘ Biofuel
3. ✔ Bioprospecting
4. ✘ Biodiversity

Question Number : 21 Question Id : 28393610261 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

MacConkey agar differentiates

Options :

1. ✔ lactose-fermenting bacteria from nonlactose-fermenting bacteria
2. ✘ staphylococci bacteria from salmonella bacteria
3. ✘ aerobic and anaerobic bacteria
4. ✘ ecoli

**Question Number : 22 Question Id : 28393610262 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

The gram-positive bacteria retain the crystal violet colour and stain purple whereas the gram-negative bacteria lose crystal violet and stain red because of the presence of

**Options :**

1. ✓ Gram-positive bacteria have cell walls made of a thick layer of peptidoglycan. The cell walls of gram-negative bacteria contain only a thin layer of peptidoglycan
2. ✘ Gram-positive bacteria have cell walls made of a thin layer of peptidoglycan. The cell walls of gram-negative bacteria contain only a thick layer of peptidoglycan
3. ✘ Gram-negative bacteria have cell walls made of a thin layer of peptidoglycan. The cell walls of gram-negative bacteria contain only a thick layer of peptidoglycan
4. ✘ Gram-positive bacteria have cell walls made of a thin layer of peptidoglycan. The cell walls of gram-positivie bacteria contain only a thick layer of peptidoglycan

**Question Number : 23 Question Id : 28393610263 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

To obtain separated colonies from a mixed bacterial culture, which isolation methods can be used.

**Options :**

1. ✓ pour plate method
2. ✘ black plate method

3. ✘ straight plate method

4. ✘ silver plate method

**Question Number : 24 Question Id : 28393610264 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Prokaryotes represent

**Options :**

1. ✘ higher forms of life on Earth.

2. ✔ lacks a nucleus

3. ✘ multi celled organisms

4. ✘ multiwall organisms

**Question Number : 25 Question Id : 28393610265 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Physical method(s) for the control of microorganisms is/are

**Options :**

1. ✘ addition of sugar

2. ✘ adding of nutrients



3. ✓ osmotic pressure and filtration.

4. ✗ refrigeration

**Question Number : 26 Question Id : 28393610266 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Microorganisms that are not commonly present in wastewater treatment process.

**Options :**

1. ✗ Bacteria

2. ✗ Protozoa

3. ✗ Filamentous bacteria

4. ✓ Mycoplasma

**Question Number : 27 Question Id : 28393610267 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which bacteria converts ammonia to nitrites?

**Options :**

1. ✓ Nitrosomonas

2. ✘ Nitrococci

3. ✘ Nitrosobacteria

4. ✘ Nitrous bacteria

**Question Number : 28 Question Id : 28393610268 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Organisms that generate energy by the oxidation of inorganic molecules for biosynthesis or energy conservation via aerobic or anaerobic respiration are called

**Options :**

1. ✔ chemolithotrophic

2. ✘ endemic

3. ✘ autotrophic

4. ✘ mixotrophic

**Question Number : 29 Question Id : 28393610269 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which method is used for the measurement of microorganisms?

**Options :**

1.

✓ plate count method

2. ✘ titration method

3. ✘ toxicity measurement method

4. ✘ autoclave method

**Question Number : 30 Question Id : 28393610270 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Protozoa and other minute animal life forms in aquatic ecosystems are called

**Options :**

1. ✘ phytoplankton

2. ✓ zooplankton

3. ✘ producers

4. ✘ consumers

**Question Number : 31 Question Id : 28393610271 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which international agreement is associated with ozone depleting substances?

**Options :**

1. ✘ Paris agreement
2. ✘ Kyoto protocol
3. ✔ Montreal protocol
4. ✘ Stockholm convention

**Question Number : 32 Question Id : 28393610272 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

According to Bronsted – Lowry theory, a base is a

**Options :**

1. ✘ a proton donor.
2. ✘ a hydroxide donor.
3. ✘ an electron-pair acceptor.
4. ✔ a proton acceptor.

**Question Number : 33 Question Id : 28393610273 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

The factor(s), that are not affecting the chemical equilibrium is/are

**Options :**

1. ✘ pressure changes
2. ✘ Concentration changes
3. ✘ Temperature
4. ✔ Inert gas / catalyst

**Question Number : 34 Question Id : 28393610274 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which is the main component of oxygen present in the mesosphere

**Options :**

1. ✘ Ozone
2. ✘ PAN
3. ✘ Smog
4. ✔ atomic oxygen

**Question Number : 35 Question Id : 28393610275 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Photochemical smog is caused by the action of solar ultraviolet radiation on atmosphere polluted with

**Options :**

1. ✓ hydrocarbons and oxides of nitrogen.
2. ✗ black carbon
3. ✗ Particulate matter
4. ✗ RSPM

**Question Number : 36 Question Id : 28393610276 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Soil formation process is called

**Options :**

1. ✓ pedogenesis
2. ✗ glycolysis
3. ✗ acidogenesis
4. ✗ acetogenesis

**Question Number : 37 Question Id : 28393610277 Question Type : MCQ Option Shuffling : Yes**

**Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Preservation and protection of endangered species away from their natural place in nurseries and zoos is called

**Options :**

1. ✘ in situ conservation
2. ✔ ex situ conservation
3. ✘ biodiversity
4. ✘ hotspot

**Question Number : 38 Question Id : 28393610278 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following is not a greenhouse gas?

**Options :**

1. ✘ fluorinated gases
2. ✘ water vapour
3. ✘ SF<sub>6</sub>
4. ✔ Nitrogen

**Question Number : 39 Question Id : 28393610279 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which is a macronutrient?

**Options :**

1. ✓ carbohydrates

2. ✗ boron

3. ✗ copper

4. ✗ zinc

**Question Number : 40 Question Id : 28393610280 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

$N_2$  and  $O_2$  in the natural air at normal temperatures do not react to form oxides of nitrogen because

**Options :**

1. ✗ oxides of nitrogen are unstable

2. ✗ catalyst is required for the reaction

3. ✓ the reaction is endothermic



4. ✘ the reaction is fast

Question Number : 41 Question Id : 28393610281 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

DDT is a

Options :

1. ✘ Nitrogen containing insecticide

2. ✘ Biodegradable pollutant

3. ✔ Non-Biodegradable pollutant

4. ✘ An antibiotic

Question Number : 42 Question Id : 28393610282 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which of the following fertilizers usage cause the soil acidity?

Options :

1. ✘ Potassium nitrate

2. ✘ Superphosphate of lime

3. ✔ Ammonium sulphate

4. ✘ Urea

**Question Number : 43 Question Id : 28393610283 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

High nitrate levels in drinking water pose a health risk to infants because they may cause

**Options :**

1. ✔ Methemoglobinemia
2. ✘ Emphysema
3. ✘ Non-Hodgkin's Lymphom
4. ✘ Anemia

**Question Number : 44 Question Id : 28393610284 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

BOD is a measure of

**Options :**

1. ✔ Organic matter in water
2. ✘ Kjeldahl nitrogen in water

3. ✘ Organic phosphates in water

4. ✘ Ammonia in water

Question Number : 45 Question Id : 28393610285 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Acid rain is formed due to the reaction between \_\_\_\_\_

Options :

1. ✘ SF<sub>6</sub> and water vapor

2. ✘ Carbon monoxide and water

3. ✔ Oxides of Sulfur and Nitrogen with water vapor

4. ✘ Nitrogen gas with water vapor

Question Number : 46 Question Id : 28393610286 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which is not a secondary storage device for a computer system?

Options :

1. ✘ Pendrive

2. ✔ Internal Hard drive

3. ✘ CDs

4. ✘ DVDs

**Question Number : 47 Question Id : 28393610287 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

How can you speed up your computer system?

**Options :**

1. ✘ by adding more files

2. ✘ by saving files on desktop

3. ✘ by shutting down

4. ✔ Addition of RAM

**Question Number : 48 Question Id : 28393610288 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

What is the use of randomized algorithm?

**Options :**

1. ✘ To increase the run time efficiently

2. ✘ It helps in getting biased solution
3. ✘ To increase space complexity
4. ✔ To reduce the memory use

**Question Number : 49 Question Id : 28393610289 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

What for a flow chart is used in a programming?

**Options :**

1. ✘ To set the procedure stepwise
2. ✔ Graphically represent the steps of a programming
3. ✘ Only to describe process in computer domain
4. ✘ Same use as algorithm

**Question Number : 50 Question Id : 28393610290 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following is not a programming language?

**Options :**

1. ✘ Python

2. ✘ Java

3. ✘ C++

4. ✔ Android OS

**Question Number : 51 Question Id : 28393610291 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which operating system is most widely used in computers?

**Options :**

1. ✘ Linux

2. ✔ Microsoft Windows

3. ✘ Android

4. ✘ Ubuntu

**Question Number : 52 Question Id : 28393610292 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Why #include is used in C++?

**Options :**

1.

✘ at the end

2. ✘ common structure for all programming languages

3. ✘ To print the result

4. ✔ To access library functions

**Question Number : 53 Question Id : 28393610293 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Int store integers are variable in C++

**Options :**

1. ✔ True

2. ✘ False

3. ✘ Not applicable

4. ✘ Not always

**Question Number : 54 Question Id : 28393610294 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

How to denote a constant in C++?

**Options :**

1. ✘ Given as input
2. ✔ define as a fixed value before the execution
3. ✘ values can be varied
4. ✘ Declaring as a register variable

**Question Number : 55 Question Id : 28393610295 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

A logical expression in a programming tells you about

**Options :**

1. ✔ Whether the statement is true or false
2. ✘ to execute
3. ✘ to stop and return
4. ✘ To repeat a set of statements

**Question Number : 56 Question Id : 28393610296 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**



What is the purpose of EIA?

Options :

1. ✘ Energy impact assessment
2. ✘ To promote industrialization
3. ✘ To enhance resource utilization
4. ✔ To promote sustainable development

Question Number : 57 Question Id : 28393610297 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Screening is one of primary stage in

Options :

1. ✔ EIA
2. ✘ Energy audit
3. ✘ EMP
4. ✘ Environmental audit

Question Number : 58 Question Id : 28393610298 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

**Correct Marks : 1 Wrong Marks : 0**

Which one of these is the first step for an Environment Management Plan?

**Options :**

1. ✓ commitment and policy making
2. ✘ Evaluation
3. ✘ Execution
4. ✘ Implementation

**Question Number : 59 Question Id : 28393610299 Question Type : MCQ Option Shuffling : Yes**

**Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time**

**: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

What are the major causes of Global warming

**Options :**

1. ✘ Reduction of fluorinated gases
2. ✘ Soil conservation
3. ✘ Afforestation
4. ✓ Increasing the energy utilization

**Question Number : 60 Question Id : 28393610300 Question Type : MCQ Option Shuffling : Yes**

**Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time**

**: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Climate change is a long-term overall phenomena of changing weather pattern, that lead to

**Options :**

1. ✓ Droughts, tropical storms
2. ✗ Droughts only
3. ✗ Droughts, tropical storms, glacier melting
4. ✗ Temperature rise

**Question Number : 61 Question Id : 28393610301 Question Type : MCQ Option Shuffling : Yes**

**Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time**

**: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Chernobyl disaster is a kind of

**Options :**

1. ✗ Chemical disaster
2. ✗ Natural, geological
3. ✗ Biological
4. ✓ Manmade nuclear accident

**Question Number : 62 Question Id : 28393610302 Question Type : MCQ Option Shuffling : Yes**

**Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Kedarnath disaster in 2013 is the one of the worst disaster of India caused by

**Options :**

1. ✘ Volcanic eruption
2. ✘ Tsunami
3. ✘ Earthquake
4. ✔ Cloudburst & landslide

**Question Number : 63 Question Id : 28393610303 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Main key components of Kyoto protocol (1997) are

**Options :**

1. ✘ encouraging the usage of conventional fuels
2. ✘ to enhance the industrialization capability
3. ✘ restricting the usage of CFCs
4. ✔ to restrict the human made CO<sub>2</sub> emissions

**Question Number : 64 Question Id : 28393610304 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

How many Sustainable Development Goals are we dealing with for a better future of the world

**Options :**

1. ✘ 19

2. ✔ 17

3. ✘ 20

4. ✘ 169

**Question Number : 65 Question Id : 28393610305 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

EIA methodologies include

**Options :**

1. ✘ RSM method

2. ✘ Rapid method

3. ✘ Random method

4. ✔ Checklist method

Question Number : 66 Question Id : 28393610306 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which of the following membrane filter has least pore size?

Options :

1. ✓ Reverse osmosis (RO)
2. ✗ Microfiltration
3. ✗ Ultrafiltration
4. ✗ Nanofiltration

Question Number : 67 Question Id : 28393610307 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

What are the treatment technologies available to remove pathogens from water

Options :

1. ✗ sedimentation
2. ✗ sand filtration
3. ✗ coagulation
4. ✓ Membrane filtration

Question Number : 68 Question Id : 28393610308 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which of the following parameters is used to determine the wastewater characteristics?

Options :

1. ✘ SPM
2. ✔ COD
3. ✘ Cation exchange capacity
4. ✘ Temperature

Question Number : 69 Question Id : 28393610309 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Grit removal is a type of \_\_\_\_\_ settling

Options :

1. ✘ Flocculent
2. ✔ Discrete
3. ✘ Compressed
4. ✘ Coagulated

**Question Number : 70 Question Id : 28393610310 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Oxygen in aeration ponds for biological treatment acts as

**Options :**

1. ✓ Electron acceptor
2. ✗ Electron donor
3. ✗ Proton donor
4. ✗ Proton acceptor

**Question Number : 71 Question Id : 28393610311 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

What is the best way to manage biodegradable municipal solid waste?

**Options :**

1. ✓ Composting
2. ✗ Aerobic digestion
3. ✗ Chemical treatment
4. ✗ Segregation



**Question Number : 72 Question Id : 28393610312 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following units can be used to control the particulate matter emissions from stack?

**Options :**

1. ✘ incineration
2. ✘ catalytic oxidation
3. ✘ absorption
4. ✔ Electrostatic precipitator

**Question Number : 73 Question Id : 28393610313 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

SO<sub>x</sub> emissions from industries can be controlled effectively by

**Options :**

1. ✔ Lime scrubbing
2. ✘ incineration
3. ✘ catalytic oxidation

4. ✘ Chimney height

Question Number : 74 Question Id : 28393610314 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Volatile Organic Carbon (VOC) emissions from exhaust gases can be controlled by

Options :

1. ✘ Cyclone separator

2. ✘ ESPs

3. ✘ Scrubbing

4. ✔ Thermal incinerators

Question Number : 75 Question Id : 28393610315 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Most suitable equipment for ambient air sampling is

Options :

1. ✔ High volume air sampler

2. ✘ Tedlar Bags

3. ✘ Canisters

#### 4. ✘ Filter papers

Question Number : 76 Question Id : 28393610316 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

As per ISI standards the pH range of drinking water is

Options :

1. ✔ 6.5 – 8.5

2. ✘ 7 – 8

3. ✘ 4 – 6

4. ✘ 3.5 – 5.5

Question Number : 77 Question Id : 28393610317 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Highway noise pollution can be controlled by

Options :

1. ✔ By blocking the direct travel of sound waves from the source

2. ✘ Without blocking the path of noise

3. ✘ Reducing the path length of noise
4. ✘ Planting small plants along the highways

**Question Number : 78 Question Id : 28393610318 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

How can you supply oxygen to aeration ponds in biological treatment plant?

**Options :**

1. ✘ Addition of urea
2. ✘ Addition of peroxides
3. ✘ Addition of potassium permanganate
4. ✔ Surface Aerators

**Question Number : 79 Question Id : 28393610319 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

What is the maximum permissible sound limit for festivals and entertainment events as per WHO guidelines?

**Options :**

1. ✘ 75 dB

2. ✓ 100 dB

3. ✘ 65 dB

4. ✘ 85dB

**Question Number : 80 Question Id : 28393610320 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which device is used in noise level detection meter

**Options :**

1. ✘ Microphone

2. ✘ Earphone

3. ✘ Telephone

4. ✓ Decibel meter

**Question Number : 81 Question Id : 28393610321 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Mechanism of convective precipitation is

**Options :**

1. ✘ Frontal mechanism

2. ✘ Air mass passing over the mountain region and getting cooled.
3. ✔ Rising of moist air due to surface heating.
4. ✘ Cooler air mass forms wedge and lifts the warm air mass.

**Question Number : 82 Question Id : 28393610322 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Phenomenon of transpiration is defined as

**Options :**

1. ✘ Evaporation of water from water bodies or soil.
2. ✔ Loss of water through stomata of leafs.
3. ✘ Causes plants to turn green when there is sunlight.
4. ✘ Evaporation of water through soil and leaves of plants growing on it.

**Question Number : 83 Question Id : 28393610323 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Identify the non-recording type rain gauge

**Options :**

1. ✘ Tipping bucket type
2. ✘ Floating or natural syphon type rain gauge.
3. ✔ Symon's rain gauge
4. ✘ Weighing bucket

**Question Number : 84 Question Id : 28393610324 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Water budget equation for a catchment area in terms of rainfall (P), runoff (R), evaporation (E) and storage (S) is

**Options :**

1. ✘  $P = R - E \pm \Delta S$
2. ✘  $R = P + E - \Delta S$
3. ✔  $P = R + E \pm \Delta S$
4. ✘  $R = P - E \pm \Delta S$

**Question Number : 85 Question Id : 28393610325 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Infiltration capacity of soil is not affected by

Options :

1. ✘ Rainfall intensity
2. ✘ Soil moisture
3. ✘ Depth of surface retention
4. ✔ Distance from sea

Question Number : 86 Question Id : 28393610326 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Contour of equal rainfall depths is known as

Options :

1. ✘ Isonif
2. ✘ Isopleths
3. ✔ Isohyets
4. ✘ Isotherms

Question Number : 87 Question Id : 28393610327 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0



**Correct Marks : 1 Wrong Marks : 0**

Which of the following is defined as the rate of rainfall above which the rainfall volume equals the runoff volume

**Options :**

1. ✘ W index
2. ✘ Runoff coefficient
3. ✘ Basin recharge
4. ✔  $\Phi$  index

**Question Number : 88 Question Id : 28393610328 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following equation represents Horton's infiltration capacity?

**Options :**

1. ✘  $f = f_c + [f_c - f_0] e^{-kt}$
2. ✘  $f = f_c - [f_c - f_0] e^{-kt}$
3. ✘  $f = f_c - [f_0 + f_c] e^{-kt}$
4. ✔  $f = f_c + [f_0 - f_c] e^{-kt}$

**Question Number : 89 Question Id : 28393610329 Question Type : MCQ Option Shuffling : Yes**

**Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which one of the following is an accurate instrument for measuring stream velocity?

**Options :**

1. ✓ Current meter
2. ✗ Surface float
3. ✗ Twin float
4. ✗ Partially submerged rod

**Question Number : 90 Question Id : 28393610330 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

The instrument used for measuring evaporation is

**Options :**

1. ✗ hydrometer
2. ✗ lysimeter
3. ✓ atmometer
4. ✗ luxmeter

Question Number : 91 Question Id : 28393610331 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Specific yield of an unconfined aquifer is given by

Options :

1. ✓ Ratio of volume of water extracted to the volume of aquifer.
2. ✘ Product of volume of aquifer to the volume of water extracted.
3. ✘ Ratio of volume of water extracted to the surface area of aquifer.
4. ✘ Volume of water extracted for unit drawdown.

Question Number : 92 Question Id : 28393610332 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which of the following equation defines transmissivity of confined aquifer?

Options :

1. ✓  $T = KB$
2. ✘  $T = \frac{K}{B}$
3. ✘  $T = \frac{B}{K}$
4. ✘  $T = (BK)^2$

Question Number : 93 Question Id : 28393610333 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Geological formation which yields high amount of discharge is

Options :

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

Question Number : 94 Question Id : 28393610334 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Relation between porosity ( $n$ ), specific retention ( $S_r$ ) and specific yield ( $S_y$ ) is given by

Options :

1. ✓  $S_y = n - S_r$
2. ✗  $S_y - S_r = n$
3. ✗  $n = S_y / S_r$

4. ✘  $S_y * S_r = n$

Question Number : 95 Question Id : 28393610335 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which of the following is not an assumption of Darcy's law

Options :

1. ✘ Flow through soil is laminar
2. ✘ Flow is continuous and steady
3. ✘ Soil is fully saturated
4. ✔ Soil porosity is non-uniform

Question Number : 96 Question Id : 28393610336 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Discharge per unit surface area of confined aquifer for unit drawdown of hydraulic head  
is defined as

Options :

1. ✔ Storativity
2. ✘ Porosity
- 3.

✘ Specific retention

4. ✘ Specific capacity

**Question Number : 97 Question Id : 28393610337 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Relation between Actual velocity of seepage ( $V_a$ ) and apparent velocity of seepage( $V$ ) is given by

**Options :**

1. ✓  $V_a = \frac{V}{n}$

2. ✘  $V_a = V.n$

3. ✘  $V = -\frac{V_a}{n}$

4. ✘  $V = V_a$

**Question Number : 98 Question Id : 28393610338 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

In which aquifer, ground water is under pressure greater than hydrostatic pressure?

**Options :**

1. ✓ Confined aquifer

2. ✘ Unconfined aquifer

3. ✘ Aquifuge

4. ✘ Aquitard

**Question Number : 99 Question Id : 28393610339 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Discharge per unit drawdown is called as

**Options :**

1. ✔ Specific capacity

2. ✘ Porosity

3. ✘ Specific yield

4. ✘ Specific retention

**Question Number : 100 Question Id : 28393610340 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Actual evaporation is given by

**Options :**

1. ✓ Product of pan evaporation and coefficient of pan evaporation
2. ✘ Ratio of pan evaporation to the coefficient of pan evaporation
3. ✘ Ratio of coefficient of pan evaporation to the pan evaporation
4. ✘ Sum of pan evaporation and coefficient of pan evaporation

**Question Number : 101 Question Id : 28393610341 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Coefficient of U.S.W.B class A pan is

**Options :**

1. ✘ 0.9

2. ✓ 0.7

3. ✘ 0.78

4. ✘ 0.8

**Question Number : 102 Question Id : 28393610342 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Identify the limitation of Dupit's law for steady state radial flow into wells



**Options :**

1. ✘ Well does not receive water from entire thickness of aquifer
2. ✘ Flow is assumed to be laminar, but the flow near to the well is no longer laminar.
3. ✘ The flow remains horizontal in all sections of the aquifer.
4. ✔ Ground water discharge is proportional to the saturated aquifer thickness

**Question Number : 103 Question Id : 28393610343 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Darcy's law for Hydrogeology to describe the movement of water through an aquifer is

**Options :**

1. ✘  $Q = \frac{k}{A}$

2. ✔  $Q = kiA$

3. ✘  $Q = \frac{ki}{A}$

4. ✘  $Q = kA$

**Question Number : 104 Question Id : 28393610344 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time**

**: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

If subsoil is formed of gravel or coarse sand deposits, which of the following type of open well is suitable for this condition?

**Options :**

1. ✓ Wells with pervious lining
2. ✗ Unlined wells
3. ✗ Wells with impervious lining
4. ✗ Temporary wells

**Question Number : 105 Question Id : 28393610345 Question Type : MCQ Option Shuffling : Yes**

**Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time**

**: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following comes under direct surface technology for artificial ground water recharge?

**Options :**

1. ✗ Borehole flooding
2. ✗ Dug well recharge
3. ✓ Stream augmentation
4. ✗ Recharge pits and shafts

**Question Number : 106 Question Id : 28393610346 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Compared to shallow well, a deep well

**Options :**

1. ✘ is structurally weaker
2. ✔ has more discharge
3. ✘ is structurally strong
4. ✘ has less discharge

**Question Number : 107 Question Id : 28393610347 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Surface joining the static water levels in several wells penetrating a confined aquifer represents

**Options :**

1. ✘ Water table surface
2. ✔ Piezometric surface of the aquifer
3. ✘ Cone of depression
4. ✘ Capillary fringe

**Question Number : 108 Question Id : 28393610348 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Water available in unit volume of aquifer against gravity is called

**Options :**

1. ✓ Specific retention
2. ✗ Specific yield
3. ✗ Specific capacity
4. ✗ Storativity

**Question Number : 109 Question Id : 28393610349 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following factors does not affect permeability of the soil?

**Options :**

1. ✗ Void ratio
2. ✗ Grain size of soil particles
3. ✓ Volume of soil

#### 4. ✘ Porosity

Question Number : 110 Question Id : 28393610350 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Ditch and furrow system of ground water recharge method is an example of

Options :

1. ✔ Direct surface techniques
2. ✘ Indirect techniques
3. ✘ Combination of surface and sub-surface techniques
4. ✘ Direct sub-surface techniques

Question Number : 111 Question Id : 28393610351 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

What is the special feature of igneous rock

Options :

1. ✘ It forms multilayers
2. ✘ It contains fossil deposits
3. ✘ Contains one type of mineral

4. ✓ does not react with acids.

**Question Number : 112 Question Id : 28393610352 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

How can you distinguish one classification of rock to another?

**Options :**

1. ✓ texture and composition

2. ✘ melting point

3. ✘ cooling point

4. ✘ color & size

**Question Number : 113 Question Id : 28393610353 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following is largest geomorphic agent?

**Options :**

1. ✘ Ice

2. ✓ Running water

3. ✘ Wind

4. ✘ Humans

**Question Number : 114 Question Id : 28393610354 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following is a endogenic geomorphic process.

**Options :**

1. ✘ mining

2. ✘ deforestation

3. ✘ urban planning

4. ✔ Earthquake

**Question Number : 115 Question Id : 28393610355 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Satellite that relays and amplifies radio telecommunication signals is

**Options :**

1. ✘ Relay satellites

2. ✔ Communication satellites

3. ✘ Repeater satellites

4. ✘ Geosynchronous satellites

**Question Number : 116 Question Id : 28393610356 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

A map with Closely spaced contours represents

**Options :**

1. ✘ Gentle slopes

2. ✔ Steep slopes

3. ✘ Concave slopes

4. ✘ Convex slopes

**Question Number : 117 Question Id : 28393610357 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which surveying technique considers the shape of the earth?

**Options :**

1. ✘ Topographic Surveying



2. ✘ Hydrographic Surveying

3. ✔ Geodetic Surveying

4. ✘ Plane Surveying

**Question Number : 118 Question Id : 28393610358 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

\_\_\_\_\_ range of electromagnetic radiation is useful for Passive remote sensing

**Options :**

1. ✔ Visible

2. ✘ X-ray

3. ✘ UV light

4. ✘ Microwaves

**Question Number : 119 Question Id : 28393610359 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following surveying methods is meant to be having high precision?

**Options :**

1. ✘ Terrestrial photogrammetry

2. ✘ Traverse surveying
3. ✘ Theodolite surveying
4. ✔ Aerial photogrammetry

**Question Number : 120 Question Id : 28393610360 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following sensors were used in the IRS 1A and 1B satellites

**Options :**

1. ✘ LISS-IV
2. ✔ LISS-I
3. ✘ LISS-III
4. ✘ LISS-V