

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.

Question Paper Name :	Environmental Management 23rd Sept 2020 Shift 1
Subject Name :	Environmental Management
Creation Date :	2020-09-23 15:17:58
Duration :	120
Total Marks :	120
Display Marks:	No
Share Answer Key With Delivery Engine :	Yes
Actual Answer Key :	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console? :	Yes

Environmental Management

Group Number :	1
Group Id :	88039691
Group Maximum Duration :	0

Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	120
Is this Group for Examiner? :	No

Mathematics

Section Id :	880396166
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	7
Number of Questions to be attempted :	7
Section Marks :	7
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	880396166
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 88039610801 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

For the equation $3x^2 + px + 3 = 0$, $p > 0$, if one of the roots is square of the other, then the value of p is equal to

Options :

88039643201. ✖ $1/3$

88039643202. ✖ $2/3$

88039643203. ✖ 1

88039643204. ✔ 3

Question Number : 2 Question Id : 88039610802 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

${}^{18}C_5$ is equal to

Options :

88039643205. ✖ ${}^{18}C_4 + {}^{17}C_5$

88039643206. ✔ ${}^{17}C_5 + {}^{17}C_4$

88039643207. ✖ ${}^{17}C_4 + {}^{17}C_3$

88039643208. ✖ ${}^{17}C_5 + {}^{17}C_2$

Question Number : 3 Question Id : 88039610803 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The value of the determinant $\begin{vmatrix} 7575 & 7565 \\ 7577 & 7567 \end{vmatrix}$ is

Options :

88039643209. ✖ -20

88039643210. ✖ -2

88039643211. ✖ 2

88039643212. ✔ 20

Question Number : 4 Question Id : 88039610804 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The mean and standard deviation of a Binomial distribution are 10 and 2 respectively, then the value of p (the probability of success) for this distribution would be

Options :

88039643213. ✖ 0.3

88039643214. ✔ 0.6

88039643215. ✖ 0.8

88039643216. ✖ 0.4

Question Number : 5 Question Id : 88039610805 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The value of k for which the function $f(x) = ke^{-ax}$, $x \geq 0$, $a > 0$ represents a probability density function is

Options :

88039643217. ✖ $1/a$

88039643218. ✓ a

88039643219. ✗ 1

88039643220. ✗ $1/a^2$

Question Number : 6 Question Id : 88039610806 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

If the eighth term of geometric progression with common ratio 2 is 128, then the product of its first five terms would be equal to

Options :

88039643221. ✗ 4^6

88039643222. ✓ 4^5

88039643223. ✗ 4^4

88039643224. ✗ 4^3

Question Number : 7 Question Id : 88039610807 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

A manufacturer produces switches and observes that 2 % switches are defective. Then, the probability that in a box of 50 switches, there are at the most two defectives would be ?

Options :

88039643225. ✗ e^{-1}

88039643226. ✘ $2e^{-1}$

88039643227. ✔ $2.5e^{-1}$

88039643228. ✘ $0.5e^{-1}$

Environmental Management

Section Id :	880396167
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	113
Number of Questions to be attempted :	113
Section Marks :	113
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	880396167
Question Shuffling Allowed :	Yes

Question Number : 8 Question Id : 88039610808 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Nibble is the series of _____ bits

Options :

88039643229. ✔ 4

88039643230. ✘ 8

88039643231. ✖ 6

88039643232. ✖ 12

Question Number : 9 Question Id : 88039610809 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is not an operating system?

Options :

88039643233. ✖ Windows

88039643234. ✔ Firefox

88039643235. ✖ Mac

88039643236. ✖ Android

Question Number : 10 Question Id : 88039610810 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A computer cannot 'boot' if it does not have the

Options :

88039643237. ✖ Compiler

88039643238. ✖ Loader

88039643239. ✔ Operating system

88039643240. ✘ Assembler

Question Number : 11 Question Id : 88039610811 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is not a programming language

Options :

88039643241. ✘ C

88039643242. ✘ C++

88039643243. ✘ Java

88039643244. ✔ Windows

Question Number : 12 Question Id : 88039610812 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is the correct option?

List 1

List 2

- | | |
|----------------|------------------------|
| a) Memory | i) Optical Mark Reader |
| b) Input Unit | ii) Plotter |
| c) CPU | iii) ROM |
| d) Output Unit | iv) Registers |

Options :

88039643245. ✘ a-i, b-ii, c-iv, d-iii

88039643246. ✘ a-ii, b-iii, c-iv, d-i

88039643247. ✔ a-iii, b-i, c-iv, d-ii

88039643248. ✘ a-i, b-iii, c-ii, d-iv

Question Number : 13 Question Id : 88039610813 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If $x = 9$, $y = 5$ and $z = -3$, then what is the output of the following expression?

$x < y \ \&\& \ x > z > (y + 5 > z - 2)$

Options :

88039643249. ✘ 9

88039643250. ✘ 1

88039643251. ✘ 3

88039643252. ✔ 0

Question Number : 14 Question Id : 88039610814 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In C language, which of the following is not a valid data type?

Options :

88039643253. ✘ Long int

88039643254. ✘ Unsigned char

88039643255. ✘ Signed char

88039643256. ✔ Long float

Question Number : 15 Question Id : 88039610815 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The ecological term 'Niche' is often referred to as an organism's

Options :

88039643257. ✔ Habitat & place of food chain

88039643258. ✘ Address

88039643259. ✘ Breeding place

88039643260. ✘ Hiding place

Question Number : 16 Question Id : 88039610816 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Active swimmers on the surface waters are called

Options :

88039643261. ✘ Plankton

88039643262. ✓ Nekton

88039643263. ✗ Floatons

88039643264. ✗ Benthos

Question Number : 17 Question Id : 88039610817 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A structural and functional unit of the biosphere comprising living organisms and their non-living environment that interact with each other is called

Options :

88039643265. ✗ Biosystem

88039643266. ✗ Microcosm

88039643267. ✓ Ecosystem

88039643268. ✗ Macrocosm

Question Number : 18 Question Id : 88039610818 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Acid rain refers to the precipitation with a pH of

Options :

88039643269. ✗ 7

88039643270. ✘ More than 10

88039643271. ✘ Between 7 and 10

88039643272. ✔ Less than 5

Question Number : 19 Question Id : 88039610819 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following factors is most directly responsible for the creation of fossil fuels?

Options :

88039643273. ✘ Displacement

88039643274. ✘ Earthquakes

88039643275. ✔ Pressure

88039643276. ✘ Accretion

Question Number : 20 Question Id : 88039610820 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The law of minimum in ecology was popularized by

Options :

88039643277. ✘ Joseph Stanley

88039643278. ✓ Justus von Liebig

88039643279. ✘ Nevin Scrimshaw

88039643280. ✘ Issac Asimov

Question Number : 21 Question Id : 88039610821 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The main energy source for the environment is

Options :

88039643281. ✓ Solar energy

88039643282. ✘ Chemical energy

88039643283. ✘ Bioelectric energy

88039643284. ✘ Electrical energy

Question Number : 22 Question Id : 88039610822 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following term defines the ability of the individual in the population to produce new individuals?

Options :

88039643285. ✘ Dispersion

88039643286. ✘ Mortality

88039643287. ✔ Natality

88039643288. ✘ Population dispersal

Question Number : 23 Question Id : 88039610823 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Total primary production in an ecosystem is known as

Options :

88039643289. ✘ Gross final production

88039643290. ✔ Gross primary production

88039643291. ✘ Gross middle production

88039643292. ✘ Net primary production

Question Number : 24 Question Id : 88039610824 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In the food and feeding relationship where the tiger eats the deer and the deer eats

plants, which of the following is true?

Options :

88039643293. ✘ Tiger is the prey

88039643294. ✘ Tiger is the primary consumer

88039643295. ✘ Deer is the predator

88039643296. ✔ Deer is the prey

Question Number : 25 Question Id : 88039610825 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Plants growing under direct sunlight are known as

Options :

88039643297. ✔ Heliophytes

88039643298. ✘ Psammophytes

88039643299. ✘ Sciophytes

88039643300. ✘ Dicots

Question Number : 26 Question Id : 88039610826 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Identify the group of microorganisms to which Bdellovibrios belongs

Options :

88039643301. ✘ Viruses

88039643302. ✓ Bacteria

88039643303. ✗ Fungi

88039643304. ✗ Algae

Question Number : 27 Question Id : 88039610827 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

In the growth equation: $n = 3.3 (\log_{10} N - \log_{10} N_0)$, 'n' stands for

Options :

88039643305. ✗ Total population

88039643306. ✗ Initial population

88039643307. ✓ Number of generations

88039643308. ✗ Growth constant

Question Number : 28 Question Id : 88039610828 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Penicillin was discovered by

Options :

88039643309. ✗ Robert Hooke

88039643310. ✗ Robert Koch

88039643311. ✓ Alexander Fleming

88039643312. ✗ Louis Pasteur

Question Number : 29 Question Id : 88039610829 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following can grow either as chemolithotroph or chemoorganotroph?

Options :

88039643313. ✗ *Nitrosomonas* sp

88039643314. ✓ *Pseudomonas pseudoflava*

88039643315. ✗ *Rhodospirillum rubrum*

88039643316. ✗ *Chromatium okenii*

Question Number : 30 Question Id : 88039610830 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Cragie tube is for

Options :

88039643317. ✓ Determining bacterial motility

88039643318. ✗ Detecting the gas production by bacteria

88039643319. ✘ Culturing anaerobic microbes

88039643320. ✘ Inoculating test samples

Question Number : 31 Question Id : 88039610831 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is used as a solidifying agent for media?

Options :

88039643321. ✘ Beef extract

88039643322. ✘ Peptone

88039643323. ✔ Agar

88039643324. ✘ Yeast extract

Question Number : 32 Question Id : 88039610832 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is the relationship between optical density and cell mass?

Options :

88039643325. ✘ Exponentially proportional

88039643326. ✔ Linearly proportional

88039643327. ✘ Inversely proportional

88039643328. ✘ Not related to each other

Question Number : 33 Question Id : 88039610833 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Stickland reaction refers to

Options :

88039643329. ✘ Lactic acid fermentation

88039643330. ✘ Alcoholic fermentation

88039643331. ✘ Mixed acid fermentation

88039643332. ✔ Amino acid fermentation

Question Number : 34 Question Id : 88039610834 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following show the maximum resistance to physical and chemical agents?

Options :

88039643333. ✘ Viruses

88039643334. ✘ Mold spores

88039643335. ✔ Bacterial spores

88039643336. ✘ E. Coli

Question Number : 35 Question Id : 88039610835 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which phase has the condition of specific growth rate " $\mu \approx \mu_{\max}$ "?

Options :

88039643337. ✘ Lag phase

88039643338. ✘ Log phase

88039643339. ✔ Growth phase

88039643340. ✘ Death phase

Question Number : 36 Question Id : 88039610836 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the generation time, if 100 bacterial cells growing logarithmically for 5 hours produce 1.7×10^6 cells?

Options :

88039643341. ✘ 0.351 generations/h

88039643342. ✘ 0.353 generations/h

88039643343. ✘ 0.355 generations/h

88039643344. ✔ 0.358 generations/h

Question Number : 37 Question Id : 88039610837 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Gluconic acid is produced by

Options :

88039643345. ✔ *Aspergillus niger*

88039643346. ✘ *Rhizopus nigricans*

88039643347. ✘ *Aspergillus terreus*

88039643348. ✘ *Rhizopus oryzae*

Question Number : 38 Question Id : 88039610838 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The coliform group includes

Options :

88039643349. ✘ Aerobic bacteria

88039643350. ✘ Anaerobic bacteria

88039643351. ✘ Aerobic, non-sporulating bacteria

88039643352. ✓ Aerobic, Gram-negative, non-sporulating bacteria

Question Number : 39 Question Id : 88039610839 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is the current major contributor to lead air pollution?

Options :

88039643353. ✓ Metal processing centres

88039643354. ✗ Motor vehicles

88039643355. ✗ Waste incinerators

88039643356. ✗ Lead acid battery manufacturing units

Question Number : 40 Question Id : 88039610840 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the concentration (in ppm) of nitrogen in the atmosphere?

Options :

88039643357. ✓ 780,840

88039643358. ✗ 390,420

88039643359. ✗ 78,084

88039643360. ✘ 900,000

Question Number : 41 Question Id : 88039610841 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following statements is true?

Options :

88039643361. ✘ Troposphere is equally thick across different parts of the world

88039643362. ✘ Troposphere contains the ozone layer

88039643363. ✘ Troposphere is thinner at the equator than at the poles

88039643364. ✔ Troposphere is thicker at the equator than at the poles

Question Number : 42 Question Id : 88039610842 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following deals with the Principle of Photochemical Activation?

Options :

88039643365. ✔ Grothus–Draper law

88039643366. ✘ Lambert's law

88039643367. ✘ Draper law

88039643368. ✘ Stark law

Question Number : 43 Question Id : 88039610843 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following deals with the Principle of Quantum Activation?

Options :

88039643369. ✘ Lambert's law

88039643370. ✘ Beer's law

88039643371. ✔ Stark-Einstein law

88039643372. ✘ Stark law

Question Number : 44 Question Id : 88039610844 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a threat to the ozonosphere?

Options :

88039643373. ✘ Nitrogen dioxide

88039643374. ✘ Oxygen

88039643375. ✔ CFCs

88039643376. ✘ Carbon dioxide

Question Number : 45 Question Id : 88039610845 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The total amount of ozone in the atmosphere above a point on the earth's surface is expressed in

Options :

88039643377. ✓ Dobson unit

88039643378. ✗ Angstrom unit

88039643379. ✗ Mhos unit

88039643380. ✗ Milligram per cubic metre

Question Number : 46 Question Id : 88039610846 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which is the most abundantly found greenhouse gas?

Options :

88039643381. ✗ Carbon dioxide

88039643382. ✓ Water vapour

88039643383. ✗ Methane

88039643384. ✗ Nitrous oxide

Question Number : 47 Question Id : 88039610847 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following action takes place when a car is parked in the sun for a few hours?

Options :

- 88039643385. ✓ Sunlight entering the car through windows is partially converted into heat
- 88039643386. ✘ Sunlight entering the car through windows is partially converted into electricity
- 88039643387. ✘ Sunlight entering the car through windows is completely absorbed by the car
- 88039643388. ✘ Sunlight entering the car through windows is partially converted into wind energy

Question Number : 48 Question Id : 88039610848 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a water borne disease?

Options :

- 88039643389. ✘ Typhoid
- 88039643390. ✓ Scabies
- 88039643391. ✘ Cholera
- 88039643392. ✘ Hepatitis

Question Number : 49 Question Id : 88039610849 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following statement is incorrect regarding micronutrients?

Options :

- 88039643393. ✘ Micronutrients are sometimes also called "minor elements," but the latter term is considered obsolete for this usage
- 88039643394. ✔ Micronutrients are so called, because they are less important for plant growth than macronutrients
- 88039643395. ✘ There may be only a small difference between deficient levels in plant tissue and toxic levels in plant tissue for certain micronutrients
- 88039643396. ✘ Many of the micronutrients are important in enzyme function in plants

Question Number : 50 Question Id : 88039610850 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which is the most abundant metal in the earth's crust?

Options :

- 88039643397. ✔ Aluminium
- 88039643398. ✘ Iron
- 88039643399. ✘ Calcium

88039643400. ✘ Magnesium

Question Number : 51 Question Id : 88039610851 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is more responsible for black colour in kanhar (vertisol) soil?

Options :

88039643401. ✘ Hematite

88039643402. ✘ Geotite

88039643403. ✔ Titaniferous magnetite

88039643404. ✘ Organic matter

Question Number : 52 Question Id : 88039610852 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Recycling of plastics is very challenging because they are

Options :

88039643405. ✘ Very hard in nature

88039643406. ✘ Adhesive in nature

88039643407. ✔ Made up of different types of polymer resins

88039643408. ✘ Not amenable for chemical conversions

Question Number : 53 Question Id : 88039610853 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following option is correct?

- I. There is no real waste in nature
- II. The apparent waste from one process becomes input to another
- III. All processes of production and consumption does not produce waste

Options :

88039643409. ✘ Only I

88039643410. ✔ I and II

88039643411. ✘ II and III

88039643412. ✘ I and III

Question Number : 54 Question Id : 88039610854 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is used for expressing loudness of sound or noise?

Options :

88039643413. ✘ Linear scale

88039643414. ✔ Logarithmic scale

88039643415. ✘ Exponential scale

88039643416. ✘ Parabolic scale

Question Number : 55 Question Id : 88039610855 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The main objective of secondary treatment of sewage is to remove

Options :

88039643417. ✘ Suspended particles

88039643418. ✘ Contaminants

88039643419. ✔ Reduce the BOD

88039643420. ✘ Inorganic materials

Question Number : 56 Question Id : 88039610856 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

What is the state of ammonia above a pH of 12?

Options :

88039643421. ✔ Dissolved gas

88039643422. ✘ Ammonia ions

88039643423. ✘ Soluble ions

88039643424. ✘ Inert gas

Question Number : 57 Question Id : 88039610857 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which one of the following industries generates Sulphur dioxide and fly ash as pollutants?

Options :

88039643425. ✘ Textile

88039643426. ✘ Cottage

88039643427. ✔ Thermal power

88039643428. ✘ Coal

Question Number : 58 Question Id : 88039610858 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following reactors does not experience back mixing?

Options :

88039643429. ✔ Plug flow

88039643430. ✘ Completely stirred reactor

88039643431. ✘ Batch reactors

88039643432. ✘ Venturi reactor

Question Number : 59 Question Id : 88039610859 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which among the following is a secondary pollutant?

Options :

88039643433. ✔ Peroxyacetyl nitrate

88039643434. ✘ Carbon monoxide

88039643435. ✘ Sulphur dioxide

88039643436. ✘ Methane

Question Number : 60 Question Id : 88039610860 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The self cleansing velocity for all sewers in India is usually

Options :

88039643437. ✘ Less than 1.0 m/sec

88039643438. ✔ 1.0 m/sec to 1.2 m/sec

88039643439. ✘ 1.5 m/sec to 2.0 m/sec

88039643440. ✘ 3.0 m/sec to 3.5 m/sec

Question Number : 61 Question Id : 88039610861 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

In a BOD test, 2.0 ml of raw sewage was diluted to 100 ml and the dissolved oxygen concentration of diluted sample at the beginning was 8 ppm and it was 4.5 ppm at the end of 5 day incubation at 20°C. The BOD of raw sewage would be

Options :

88039643441. ✓ 175 ppm

88039643442. ✗ 150 ppm

88039643443. ✗ 340 ppm

88039643444. ✗ 550 ppm

Question Number : 62 Question Id : 88039610862 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following represents the amount of oxygen required for the microbial decomposition of the organic matter in water?

Options :

88039643445. ✗ Total Suspended Solids

88039643446. ✓ Biological Oxygen Demand

88039643447. ✘ Chemical Oxygen Demand

88039643448. ✘ Total Kjeldahl Nitrogen (TKN)

Question Number : 63 Question Id : 88039610863 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is meant by Hamada?

Options :

88039643449. ✔ An extensive flat rocky surface in desert

88039643450. ✘ A Costal lowland eroded by glaciers

88039643451. ✘ A plain surface in the karst region

88039643452. ✘ A depositional part of pediplain

Question Number : 64 Question Id : 88039610864 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is an example of direct source to study interior of the earth?

Options :

88039643453. ✘ Gravitation

88039643454. ✘ Sesimic activity

88039643455. ✘ Magnetic field

88039643456. ✔ Volcanic Eruption

Question Number : 65 Question Id : 88039610865 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is the innermost solid part of the earth?

Options :

88039643457. ✘ Crust

88039643458. ✔ Core

88039643459. ✘ Mantle

88039643460. ✘ Magma

Question Number : 66 Question Id : 88039610866 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Mohorovicic discontinuity refers to a boundary between

Options :

88039643461. ✔ Earth's crust and mantle

88039643462. ✘ Sial and Sima

88039643463. ✘ Lithosphere and Exosphere

88039643464. ✘ Mantle and Earth's Core

Question Number : 67 Question Id : 88039610867 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which type of magma is most likely to erupt effusively from a shield volcano?

Options :

88039643465. ✘ Cool sticky magma

88039643466. ✔ Hot runny magma

88039643467. ✘ Magma that has already crystallized

88039643468. ✘ Magma that has not crystallized

Question Number : 68 Question Id : 88039610868 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Defined as mass per unit volume, what property is used for identifying rocks and minerals?

Options :

88039643469. ✘ Relativity

88039643470. ✔ Density

88039643471. ✘ Luminosity

88039643472. ✘ Heat flow

Question Number : 69 Question Id : 88039610869 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The Value of Universal Gravitational Constant (G) in S.I. units is

Options :

88039643473. ✘ 6.67×10^{-8}

88039643474. ✔ 6.67×10^{-11}

88039643475. ✘ 6.67×10^{-9}

88039643476. ✘ 6.67×10^{-12}

Question Number : 70 Question Id : 88039610870 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following instrument is NOT used in geochemical prospecting

Options :

88039643477. ✘ Atomic Absorption Spectrophotometer

88039643478. ✘ Emission Spectrograph

88039643479. ✘ Flame photometer

88039643480. ✓ Optical microscope

Question Number : 71 Question Id : 88039610871 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which earthquake is caused due to faulting or relative displacements of blocks of the crust of the earth along rupture planes?

Options :

88039643481. ✓ Tectonic earthquakes

88039643482. ✗ Shallow earthquakes

88039643483. ✗ Class-A earthquakes

88039643484. ✗ Non-tectonic earthquakes

Question Number : 72 Question Id : 88039610872 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The measure of the volume of water that can be drawn from a given reservoir in a certain interval of time is called

Options :

88039643485. ✗ Surface yield

88039643486. ✗ Drawable yield

88039643487. ✓ Reservoir yield

88039643488. ✘ Pool yield

Question Number : 73 Question Id : 88039610873 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Residual hills in the desert region is known as

Options :

88039643489. ✘ Inlier

88039643490. ✓ Inselberg

88039643491. ✘ Playa

88039643492. ✘ Pediment

Question Number : 74 Question Id : 88039610874 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Study the following statements and select the correct answer from the following codes

- I. Limestone is the only rock suffers from chemical weathering process called as “solution”.
- II. Rate of weathering is directly related to the pore-spaces in rocks.

Options :

88039643493. ✘ Only I

88039643494. ✓ Only II

88039643495. ✗ I and II

88039643496. ✗ Neither I nor II

Question Number : 75 Question Id : 88039610875 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The weathering of the exposed walls by physical and chemical processes followed by slippage of weathered products into river below, under the action of gravity is called

Options :

88039643497. ✗ Mass slipping

88039643498. ✓ Mass wasting

88039643499. ✗ Rocks wasting

88039643500. ✗ Debris wasting

Question Number : 76 Question Id : 88039610876 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Pick the correct order in which the Denudation process happens

Options :

88039643501. ✗ Erosion, Weathering, Transportation, Deposition

88039643502. ✓ Weathering, Erosion, Deposition, Transportation

88039643503. ✘ Erosion, Transportation, Weathering, Deposition

88039643504. ✘ Transportation, Weathering, Erosion, Deposition

Question Number : 77 Question Id : 88039610877 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The concept of 'Cycle of Erosion' was first proposed by

Options :

88039643505. ✔ W.M. Davis

88039643506. ✘ L.C. King

88039643507. ✘ Penk

88039643508. ✘ Hutton

Question Number : 78 Question Id : 88039610878 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The term 'loess' refers to

Options :

88039643509. ✘ River borne material

88039643510. ✔ Fine wind deposited material

88039643511. ✘ Fine wave deposited material

88039643512. ✘ Fine glacial material

Question Number : 79 Question Id : 88039610879 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Medial Moraine are formed due to the convergence of two

Options :

88039643513. ✔ Glaciers

88039643514. ✘ Rivers

88039643515. ✘ Ocean currents

88039643516. ✘ Winds

Question Number : 80 Question Id : 88039610880 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The rock which is well polished by wind abrasion is called

Options :

88039643517. ✘ Yardangs

88039643518. ✘ Pedestal rock

88039643519. ✔ Ventifacts

88039643520. ✘ Desert pavements

Question Number : 81 Question Id : 88039610881 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How close will an eight digit grid get you to your point?

Options :

88039643521. ✘ 1 meter

88039643522. ✔ 10 meters

88039643523. ✘ 100 meters

88039643524. ✘ 1000 meters

Question Number : 82 Question Id : 88039610882 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What would be the gradient, if the change in field value is equal to 100 m and the distance is equal to 50 km?

Options :

88039643525. ✘ 20.0 m/km

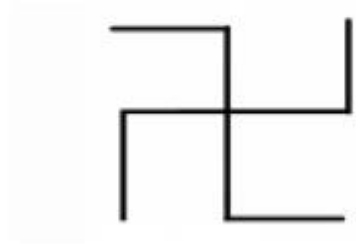
88039643526. ✘ 15.5 m/km

88039643527. ✔ 2.0 m/km

88039643528. ✘ 5.5 m/km

Question Number : 83 Question Id : 88039610883 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

What does the following symbol represent in a topographic map?



Options :

88039643529. ✔ Temple

88039643530. ✘ Church

88039643531. ✘ Police station

88039643532. ✘ Statue

Question Number : 84 Question Id : 88039610884 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

What does the term intersection mean?

Options :

88039643533. ✓ Finding the location of an unknown point by sighting two or more known points

88039643534. ✗ It is where the stop lights are

88039643535. ✗ Where two terrain features intersect

88039643536. ✗ Finding your current location by getting a back azimuth

Question Number : 85 Question Id : 88039610885 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which type of map projection is used in the preparation of atlas?

Options :

88039643537. ✗ Cylindrical projection

88039643538. ✗ UTM projection

88039643539. ✗ Polyconic projection system

88039643540. ✓ Lambert- Azimuthal equal area projection

Question Number : 86 Question Id : 88039610886 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following is not a type of shutter used in aerial photogrammetry?

Options :

88039643541. ✘ Between-the-lens shutter

88039643542. ✘ Louvre shutter

88039643543. ✔ Ideal shutter

88039643544. ✘ Focal plane shutter

Question Number : 87 Question Id : 88039610887 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following correctly lists electromagnetic waves in order from longest to shortest wavelengths?

Options :

88039643545. ✘ Gamma rays, ultraviolet, infrared, microwaves

88039643546. ✘ Microwaves, ultraviolet, visible light, gamma rays

88039643547. ✘ Radio waves, infrared, gamma rays, ultraviolet

88039643548. ✔ Television, infrared, visible light, X-rays

Question Number : 88 Question Id : 88039610888 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

IRS P3 satellite uses which of the following sensors?

Options :

88039643549. ✘ PAN

88039643550. ✘ LISS-III

88039643551. ✔ MOS

88039643552. ✘ LISS-II

Question Number : 89 Question Id : 88039610889 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

When was India's first operational 'Indian Remote Sensing Satellite' launched?

Options :

88039643553. ✘ 1975

88039643554. ✘ 1979

88039643555. ✔ 1988

88039643556. ✘ 1999

Question Number : 90 Question Id : 88039610890 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Most recent 'Indian Remote Sensing Satellite' launched by ISRO is

Options :

88039643557. ✔ Resourcesat-2a

88039643558. ✘ Cartosat- 3

88039643559. ✘ Gisat-1

88039643560. ✘ Risat-2br1

Question Number : 91 Question Id : 88039610891 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

How does global warming affect the hydrologic cycle?

Options :

88039643561. ✘ It causes random variations in the cycle

88039643562. ✘ It doesn't affect the cycle at all

88039643563. ✔ It causes the cycle to accelerate

88039643564. ✘ It causes the cycle to decelerate

Question Number : 92 Question Id : 88039610892 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

What is it called when water vapour cools and forms water droplets in the air?

Options :

88039643565. ✘ Transpiration

88039643566. ✘ Precipitation

88039643567. ✘ Evaporation

88039643568. ✔ Condensation

Question Number : 93 Question Id : 88039610893 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

To officially be considered as rain, how big does a droplet need to be?

Options :

88039643569. ✘ Greater than 10 mm

88039643570. ✔ Greater than 0.5 mm

88039643571. ✘ Less than 0.5 mm

88039643572. ✘ Between 5 and 8 mm

Question Number : 94 Question Id : 88039610894 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The drum situated in recording type Rain Gauge makes one rotation for every

Options :

88039643573. ✘ 4 hours

88039643574. ✓ 24 hours

88039643575. ✗ 6 hours

88039643576. ✗ 12 hours

Question Number : 95 Question Id : 88039610895 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

As light intensity increases, the transpiration rate _____ and the stomata _____ to allow more carbon dioxide into the leaf for photosynthesis

Options :

88039643577. ✗ Increases, closes

88039643578. ✗ Decreases, opens

88039643579. ✗ Decreases, closes

88039643580. ✓ Increases, opens

Question Number : 96 Question Id : 88039610896 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following is not used as Water Evaporation Reducer in reservoirs?

Options :

88039643581. ✗ Hexa decanol

88039643582. ✘ Octa decanol

88039643583. ✘ Docosanol

88039643584. ✔ Cyclohexanol

Question Number : 97 Question Id : 88039610897 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following is used for laboratory measurement of infiltration?

Options :

88039643585. ✘ Rainguages

88039643586. ✔ Rainfall Simulator

88039643587. ✘ Tensiometer

88039643588. ✘ Lysimeter

Question Number : 98 Question Id : 88039610898 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

What is the correct expression of Horton's equation?

Options :

88039643589. ✘ $f_t = f_c + (f_c - f_0) e^{-Kt}$

88039643590. ✘ $f_t = f_c + (f_c - f_o) e^{Kt}$

88039643591. ✘ $f_t = f_c + (f_o - f_c) e^{Kt}$

88039643592. ✔ $f_t = f_c + (f_o - f_c) e^{-Kt}$

Question Number : 99 Question Id : 88039610899 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Vegetation cover or grass-cover

Options :

88039643593. ✔ Increases the field capacity

88039643594. ✘ Decreases the field capacity

88039643595. ✘ May increase or decrease the field capacity

88039643596. ✘ Have no effect on field capacity

Question Number : 100 Question Id : 88039610900 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Unit hydrograph is helpful in

Options :

88039643597. ✔ Estimating runoff from a basin

88039643598. ✘ Estimating number of days of rainfall

88039643599. ✘ Knowing the draught months in a year

88039643600. ✘ In deciding the land for hydel power plant

Question Number : 101 Question Id : 88039610901 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Cyclonic precipitations result from

Options :

88039643601. ✘ Thermal convection currents

88039643602. ✔ Lifting of air masses converging into low pressure area

88039643603. ✘ Gradual barometric fall during a period

88039643604. ✘ Orographic convection currents

Question Number : 102 Question Id : 88039610902 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following instrument uses a rating curve?

Options :

88039643605. ✘ Tipping bucket

88039643606. ✘ Rain gauge

88039643607. ✓ River gauge

88039643608. ✗ Marine gauge

Question Number : 103 Question Id : 88039610903 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

What type of energy does rain fall holds relative to the oceans?

Options :

88039643609. ✗ Kinetic energy

88039643610. ✓ Potential energy

88039643611. ✗ Electrical energy

88039643612. ✗ Motion energy

Question Number : 104 Question Id : 88039610904 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The shape of recession limb of a hydrograph depends upon

Options :

88039643613. ✓ Basin characteristics only

88039643614. ✗ Strom characteristics only

88039643615. ✘ Drawdown parameter

88039643616. ✘ Temperature

Question Number : 105 Question Id : 88039610905 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A land is known as waterlogged

Options :

88039643617. ✘ When the permanent wilting point is reached

88039643618. ✔ Capillary fringe reaches the crop root zone

88039643619. ✘ When gravity drainage has ceased

88039643620. ✘ When there is decline in the level of carbon dioxide

Question Number : 106 Question Id : 88039610906 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Pick up the correct statement(s) from the following:

- I. Perched aquifer is found in unconfined aquifer
- II. The top surface of the water held in the perched aquifer, is perched water table
- III. Perched aquifer is formed in unconfined aquifer if an impervious layer exists

Options :

88039643621. ✘ Only III

88039643622. ✘ I and II

88039643623. ✘ II and III

88039643624. ✔ I, II and III

Question Number : 107 Question Id : 88039610907 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The quantity of water retained by the sub-soil against gravity, is known as

Options :

88039643625. ✘ Yield

88039643626. ✘ Specific yield

88039643627. ✘ Porosity

88039643628. ✔ Specific retention

Question Number : 108 Question Id : 88039610908 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Select the correct limitation according to the Dupit's theory for steady radial flow into wells.

Options :

88039643629. ✘ The flow remains horizontal in all sections of the aquifer

88039643630. ✔ Flow is assumed to be laminar, but the flow near to the well is no longer laminar

88039643631. ✘ Near the well, the slope is less and $\sin\theta = \tan\theta$

88039643632. ✘ Well does not receive water from the entire thickness of the aquifer

Question Number : 109 Question Id : 88039610909 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Determine the diameter of the well in coarse sand for a yield of 0.008 cumec when working under a depression head of 3.0.

Options :

88039643633. ✘ 3.70 m

88039643634. ✘ 3.30 m

88039643635. ✔ 3.50 m

88039643636. ✘ 3.75 m

Question Number : 110 Question Id : 88039610910 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

With the usual meanings of letters, the equation $V = 400 I (D_{10}^2/\mu)$ is used for determining the velocity of ground water flow in metres per day. It is known as

Options :

88039643637. ✘ Meinzer's formula

88039643638. ✔ Slichter's formula

88039643639. ✘ Darcy's formula

88039643640. ✘ Hazen's formula

Question Number : 111 Question Id : 88039610911 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A dimensionless measure of the volume of water that will be discharged from an aquifer per unit area of the aquifer and per unit reduction in hydraulic head refers to

Options :

88039643641. ✘ Conductivity

88039643642. ✘ Porosity

88039643643. ✔ Storativity

88039643644. ✘ Transmissivity

Question Number : 112 Question Id : 88039610912 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following equation defines Darcy's law?

Options :

88039643645. ✘ $q = kA$

88039643646. ✘ $q = k/A$

88039643647. ✔ $q = k i A$

88039643648. ✘ $q = k i/A$

Question Number : 113 Question Id : 88039610913 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Choose the correct example of Direct sub surface technique for recharging the groundwater?

Options :

88039643649. ✘ Over irrigation

88039643650. ✘ Ditch and furrow system

88039643651. ✔ Bore hole flooding

88039643652. ✘ Aquifer modification

Question Number : 114 Question Id : 88039610914 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What type of Open well is suitable when the sub-soil is formed of gravel or coarse sand deposits

Options :

88039643653. ✘ Unlined wells

88039643654. ✔ Wells with pervious lining

88039643655. ✘ Wells with impervious lining

88039643656. ✘ Temporary wells

Question Number : 115 Question Id : 88039610915 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Select the correct equation representing the estimation of specific yield 'k' of the well

Options :

88039643657. ✔ $k = 2.303 * \frac{A}{T} * \log\left(\frac{h_1}{h_2}\right)$

88039643658. ✘ $k = 2.303 * \frac{T}{A} * \log\left(\frac{h_1}{h_2}\right)$

88039643659. ✘ $k = 2.303 * \frac{A^2}{T} * \log\left(\frac{h_1}{h_2}\right)$

$$k = 2.303 * \frac{A}{T^3} * \log\left(\frac{h_1}{h_2}\right)$$

88039643660. ✖

Question Number : 116 Question Id : 88039610916 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The 'Govind Ballabh Pant Sagar', the biggest artificial lake in India is formed behind

Options :

88039643661. ✖ Kosi Project

88039643662. ✔ Rihand Dam Project

88039643663. ✖ Bhakhra-Nangal Project

88039643664. ✖ Damodar Valley Project

Question Number : 117 Question Id : 88039610917 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Earth Observation technologies are continually advancing reinforcing earlier available techniques/technologies. In this context, which is the latest trend amongst the following?

Options :

88039643665. ✔ High resolution satellites

88039643666. ✘ Stereo/video viewing

88039643667. ✘ Microwave for all weather capability

88039643668. ✘ Small satellite constellations and frequent visit capability

Question Number : 118 Question Id : 88039610918 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Where does the energy to drive the hydrologic cycle come from?

Options :

88039643669. ✘ Earth's interior

88039643670. ✔ The sun

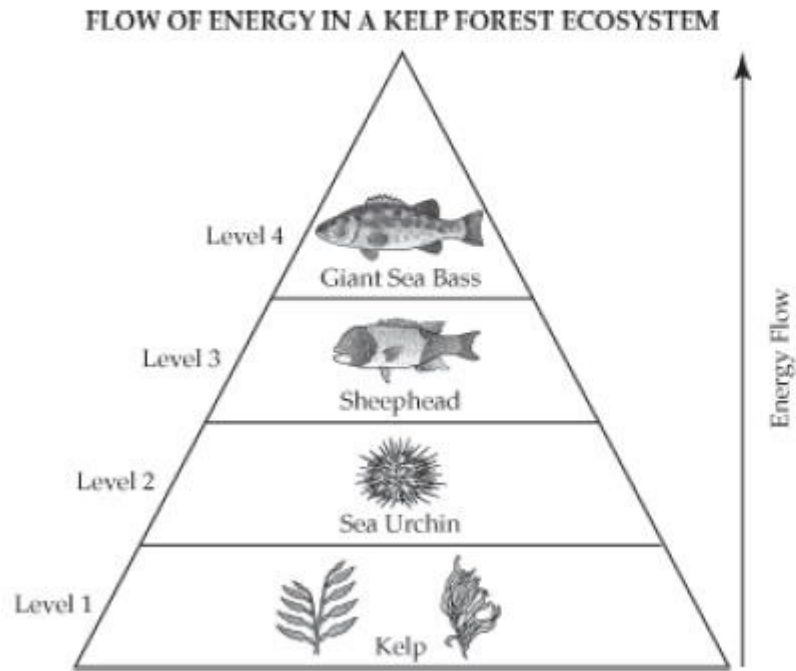
88039643671. ✘ Plate tectonics

88039643672. ✘ Photosynthesis

Question Number : 119 Question Id : 88039610919 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The diagram below indicates that the Giant Sea Bass does not get as much energy from eating the same amount of food as a sea urchin. Which statement below best describes the reason for this?



Options :

- 88039643673. ✘ Sea urchins move around less than sea bass
- 88039643674. ✘ Sea urchins live on less energy than bass
- 88039643675. ✘ Sea urchins are bigger than sea bass
- 88039643676. ✔ Sea urchin use much of their energy for life processes

Question Number : 120 Question Id : 88039610920 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The type of arch dam in which upstream face is vertical is called as

Options :

88039643677. ✓ Constant radius arch dam

88039643678. ✗ Variable radius arch dam

88039643679. ✗ Vertical arch dam

88039643680. ✗ Inclined arch dam