

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 :	Geo Engineering and Geo Informatics 2nd Aug 2022 Shift 1
Subject Name :	Geo Engineering and Geo Informatics
Creation Date :	2022-08-02 15:45:03
Duration :	120
Total Marks :	120
Display Marks:	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
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No

Show Progress Bar : No

Geo Engineering and Geo Informatics

Group Number : 1
Group Id : 34058039
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
Examiner permission : Cant View
Show Progress Bar? : No

Mathematics

Section Id : 34058071
Section Number : 1
Section type : Online
Mandatory or Optional : Mandatory
Number of Questions : 10
Number of Questions to be attempted : 10
Section Marks : 10
Enable Mark as Answered Mark for Review and Clear Response : Yes
Maximum Instruction Time : 0
Sub-Section Number : 1
Sub-Section Id : 34058071

Question Shuffling Allowed :

Yes

Question Number : 1 Question Id : 3405804561 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 sum of eigen values of the matrix $\begin{bmatrix} 1 & -1 & -1 \\ -1 & -1 & 1 \\ -1 & 1 & -1 \end{bmatrix}$ is

Options :

34058018241. ✓ -1

34058018242. ✗ 1

34058018243. ✗ 2

34058018244. ✗ -2

Question Number : 2 Question Id : 3405804562 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 number of solutions of the system : $x + 2y + z = 0$, $2x + 3y - z = 2$,
 $x + 2y + 3z = -2$, $x + y + z = 1$ is

Options :

34058018245. ✓ 0

34058018246. ✗ 1

34058018247. ✖ 2

34058018248. ✖ ∞

Question Number : 3 Question Id : 3405804563 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 number of independent rows in the matrix

$$\begin{bmatrix} 15 & -2 & -3 & 1 \\ 0 & 4 & 2 & 1 \\ -1 & 2 & 3 & 1 \\ 1 & 2 & -1 & 0 \\ -1 & 6 & 5 & 2 \end{bmatrix} \text{ is}$$

Options :

34058018249. ✖ 1

34058018250. ✔ 2

34058018251. ✖ 3

34058018252. ✖ 4

Question Number : 4 Question Id : 3405804564 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 C is the ellipse $\frac{x^2}{9} + \frac{y^2}{4} = 1$, then $\frac{1}{2} \int_C xdy - ydx =$

Options :

34058018253. ✖ 4π

34058018254. ✔ 6π

34058018255. ✖ 12π

34058018256. ✖ 7π

Question Number : 5 Question Id : 3405804565 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 maximum of $f(x, y) = 4 + 2x - 3y - x^2 + xy - y^2$ is

Options :

34058018257. ✖ $\frac{20}{3}$

34058018258. ✖ 7

34058018259. ✔ $\frac{19}{3}$

34058018260. ✖ 6

Question Number : 6 Question Id : 3405804566 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

$$\int_{-1}^1 \int_{-1}^1 (x^2y + xy^2) dy dx =$$

Options :

34058018261. ✖ 3

34058018262. ✖ 2

34058018263. ✖ 1

34058018264. ✔ 0

Question Number : 7 Question Id : 3405804567 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

$$\frac{1}{2\pi i} \int_{|z|=1} \frac{\sin z}{z^{2022}} dz =$$

Options :

34058018265. ✖ $\frac{1}{(2020)!}$

34058018266. ✔ $\frac{1}{(2021)!}$

34058018267. ✖ $\frac{1}{(2022)!}$

34058018268. ✖ $\frac{1}{(2019)!}$

Question Number : 8 Question Id : 3405804568 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

$$\int_{|z-1|=3} \frac{dz}{(z-2)^3}$$

Options :

34058018269. ✔ 0

34058018270. ✖ πi

34058018271. ✖ $-2\pi i$

34058018272. ✖ $2\pi i$

Question Number : 9 Question Id : 3405804569 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 S be the set of all positive divisors of 18900. If an element is drawn from S at random, then the probability that it is a prime, is

Options :

34058018273. ✖ $\frac{1}{9}$

34058018274. ✓ $\frac{1}{18}$

34058018275. ✘ $\frac{1}{27}$

34058018276. ✘ $\frac{1}{6}$

**Question Number : 10 Question Id : 3405804570 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 mean and mode of a discrete data are 15 and 14 respectively, then the median is

Options :

34058018277. ✘ 19.4

34058018278. ✓ 19.6

34058018279. ✘ 19.8

34058018280. ✘ 20

Geo Engineering and Geo Informatics

Section Id : 34058072

Section Number : 2

Section type : Online

Mandatory or Optional :	Mandatory
Number of Questions :	110
Number of Questions to be attempted :	110
Section Marks :	110
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	34058072
Question Shuffling Allowed :	Yes

Question Number : 11 Question Id : 3405804571 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 rocks indicate highest grade of metamorphism

Options :

34058018281. ✘ Chlorite schist

34058018282. ✘ Hornblende gneiss

34058018283. ✘ Slate

34058018284. ✔ Granulite

Question Number : 12 Question Id : 3405804572 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

K-T boundary signifies

Options :

34058018285. ✓ Extinction of dinosaurs

34058018286. ✘ Presence of dinosaurs

34058018287. ✘ Extinction of brachiopod

34058018288. ✘ Exists close to the Mohorovicic discontinuity

**Question Number : 13 Question Id : 3405804573 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 geological era is the youngest in the geologic time scale

Options :

34058018289. ✘ Precambrian

34058018290. ✘ Mesozoic

34058018291. ✘ Paleozoic

34058018292. ✓ Cenozoic

**Question Number : 14 Question Id : 3405804574 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 parameter always increases with depth in the ocean is

Options :

34058018293. ✖ Temperature

34058018294. ✖ Salinity

34058018295. ✔ Density

34058018296. ✖ Oxygen content

Question Number : 15 Question Id : 3405804575 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

Variation of the acceleration due to gravity (g) on the Earth with latitude is such that

Options :

34058018297. ✖ g is the same at all latitudes

34058018298. ✔ g increases with latitude

34058018299. ✖ g decreases with latitude

34058018300. ✖ g decreases with longitude only

Question Number : 16 Question Id : 3405804576 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 true shape of the Earth is best described by a

Options :

34058018301. ✘ Perfect sphere

34058018302. ✘ Perfect ellipse

34058018303. ✔ Slightly oblate sphere

34058018304. ✘ Circle

**Question Number : 17 Question Id : 3405804577 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

Metamorphic type of mylonite

Options :

34058018305. ✘ Regional metamorphism

34058018306. ✘ Contact metamorphism

34058018307. ✔ Dynamic metamorphism

34058018308. ✘ Scale metamorphism

**Question Number : 18 Question Id : 3405804578 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 factor affects recrystallization most

Options :

34058018309. ✖ Pressure

34058018310. ✔ Temperature

34058018311. ✖ Liquid with chemical fluid

34058018312. ✖ Oxygen

**Question Number : 19 Question Id : 3405804579 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

During which era did the initial opening of the present-day Atlantic Ocean
most likely occur

Options :

34058018313. ✖ Pre-cambrian

34058018314. ✔ Mesozoic

34058018315. ✖ Paleozoic

34058018316. ✖ Late Proterozoic

**Question Number : 20 Question Id : 3405804580 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 geological time span of Neogene is

Options :

34058018317. ✘ 65-55 m.y

34058018318. ✘ 55-33 m.y

34058018319. ✔ 24-1.8 m.y

34058018320. ✘ 1.8-0 m.y

**Question Number : 21 Question Id : 3405804581 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

By applying a force if the shape of a body is distorted, then the corresponding stress is known as

Options :

34058018321. ✘ Tensile stress

34058018322. ✘ Bulk stress

34058018323. ✔ Shear stress

34058018324. ✘ Compressive stress

**Question Number : 22 Question Id : 3405804582 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

Perched water table lies

Options :

34058018325. ✓ Above water table

34058018326. ✘ Below water table

34058018327. ✘ At the same level as water table

34058018328. ✘ At an angle to water table

Question Number : 23 Question Id : 3405804583 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

At transform plate boundaries

Options :

34058018329. ✓ Two plates slip horizontally past each other

34058018330. ✘ Two plates move in opposite directions toward each other

34058018331. ✘ Two plates move in opposite directions away from each other

34058018332. ✘ Two plates are subducted beneath each other

Question Number : 24 Question Id : 3405804584 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 subduction zone is most likely occurring at a

Options :

34058018333. ✘ Translational plate boundary

34058018334. ✘ Divergent plate boundary

34058018335. ✔ Convergent plate boundary

34058018336. ✘ Transform plate boundary

**Question Number : 25 Question Id : 3405804585 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

Steep slope facing the sea is called

Options :

34058018337. ✔ Cliff

34058018338. ✘ Inselberg

34058018339. ✘ Canyon

34058018340. ✘ Mountain

**Question Number : 26 Question Id : 3405804586 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 typical rate of plate motion is

Options :

34058018341. ✓ 3 - 10 centimeters per year

34058018342. ✗ 1 - 18 meters per year

34058018343. ✗ 1 kilometer per year

34058018344. ✗ 1,000 kilometers per year

**Question Number : 27 Question Id : 3405804587 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

Rock form that appears like a Mushroom eroded by wind blown sand

Options :

34058018345. ✗ Canyon

34058018346. ✗ Gorge

34058018347. ✗ Isthmus

34058018348. ✓ Zeugens

**Question Number : 28 Question Id : 3405804588 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

Muscovite is

Options :

34058018349. ✘ A double chain silicate

34058018350. ✔ A sheet silicate

34058018351. ✘ A framework silicate

34058018352. ✘ A single chain silicate

**Question Number : 29 Question Id : 3405804589 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

Natural levees are typical depositional land forms of

Options :

34058018353. ✘ Winds

34058018354. ✔ Rivers

34058018355. ✘ Block mountains

34058018356. ✘ Glaciers

**Question Number : 30 Question Id : 3405804590 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

Erosional land forms are associated with

Options :

34058018357. ✘ Deltas

34058018358. ✘ Alluvial fans

34058018359. ✘ Subduction zones

34058018360. ✔ Valleys

**Question Number : 31 Question Id : 3405804591 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 river breakups into streams before joins the seas and oceans is called as

Options :

34058018361. ✘ Deltas

34058018362. ✘ Estuaries

34058018363. ✘ Tributaries

34058018364. ✔ Distributaries

**Question Number : 32 Question Id : 3405804592 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

Continental shelf and ocean basins are connected by

Options :

34058018365. ✘ Mid-oceanic ridges

34058018366. ✘ Sea mounts

34058018367. ✔ Continental slope

34058018368. ✘ Continental rise

Question Number : 33 Question Id : 3405804593 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 hemisphere the Coriolis effect causes the surface currents to turn
anticlockwise

Options :

34058018369. ✔ Southern Hemisphere

34058018370. ✘ Western Hemisphere

34058018371. ✘ Eastern Hemisphere

34058018372. ✘ Northern Hemisphere

Question Number : 34 Question Id : 3405804594 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 number of points the plane touches the globe in azimuthal projection

Options :

34058018373. ✓ One

34058018374. ✗ Three

34058018375. ✗ Two

34058018376. ✗ Four

**Question Number : 35 Question Id : 3405804595 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 average density of the earth is

Options :

34058018377. ✗ 2.67 g/cm^3

34058018378. ✓ 5.5 g/cm^3

34058018379. ✗ 12.1 g/cm^3

34058018380. ✗ 6.5 g/cm^3

**Question Number : 36 Question Id : 3405804596 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

Tectonic force responsible for sliding of two blocks past each other horizontally is

Options :

34058018381. ✘ Compressive force

34058018382. ✔ Shearing force

34058018383. ✘ Tensional force

34058018384. ✘ Gravity force

**Question Number : 37 Question Id : 3405804597 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

Structures associated with transform plate boundaries are

Options :

34058018385. ✘ Unconformities

34058018386. ✘ Folds

34058018387. ✔ Faults

34058018388. ✘ Salt domes

**Question Number : 38 Question Id : 3405804598 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

Shearing forces produce

Options :

34058018389. ✘ Normal faults

34058018390. ✘ Reverse faults

34058018391. ✘ Mountain building

34058018392. ✔ Strike-slip faults

**Question Number : 39 Question Id : 3405804599 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 fold axis of a plunging fold is

Options :

34058018393. ✘ Horizontal

34058018394. ✘ Always vertical

34058018395. ✔ Inclined

34058018396. ✘ Non-existing

**Question Number : 40 Question Id : 3405804600 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

Mural joints developed in

Options :

34058018397. ✘ Sandstones

34058018398. ✘ Dolomites

34058018399. ✔ Granites

34058018400. ✘ Shales

**Question Number : 41 Question Id : 3405804601 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 type of drainage pattern develops in gneissic terrain

Options :

34058018401. ✘ Parallel

34058018402. ✔ Dendritic

34058018403. ✘ Radial

34058018404. ✘ Rectangular

**Question Number : 42 Question Id : 3405804602 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 statement is correct in flexural folding

Options :

34058018405. ✓ Thicker the layers greater is the slip

34058018406. ✘ Thicker the layers lesser is the slip

34058018407. ✘ Thinner the layers greater is the slip

34058018408. ✘ Thinner the layers lesser is the slip

Question Number : 43 Question Id : 3405804603 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 Miller symbol of the top face of a cube is represented by

Options :

34058018409. ✘ (100)

34058018410. ✘ (010)

34058018411. ✓ (001)

34058018412. ✘ (111)

Question Number : 44 Question Id : 3405804604 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 law of superposition helps to determine

Options :

34058018413. ✓ The relative age of rocks

34058018414. ✗ The absolute age of rocks

34058018415. ✗ The composition of rocks

34058018416. ✗ The structural aspects of rocks

**Question Number : 45 Question Id : 3405804605 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

Radial joints run

Options :

34058018417. ✗ Parallel to the bedding plane

34058018418. ✓ Parallel to hinge line

34058018419. ✗ Perpendicular to hinge line

34058018420. ✗ Oblique to hinge line

**Question Number : 46 Question Id : 3405804606 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

Trellis drainage generally develops in

Options :

34058018421. ✘ Granitic terrain

34058018422. ✘ Basaltic terrain

34058018423. ✘ Metamorphic terrain

34058018424. ✔ Sedimentary terrain

Question Number : 47 Question Id : 3405804607 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

Considering the earth as a solid sphere rotating on its axis with an angular velocity ' ω '. If ' R ' is the radius of the earth, then the difference in net gravity effect between the poles and equator is

Options :

34058018425. ✔ $R \omega^2$

34058018426. ✘ $R^2 \omega$

34058018427. ✘ ω / R

34058018428. ✘ R / ω

Question Number : 48 Question Id : 3405804608 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 'I' and 'R' represent induced and remnant magnetizations in a rock sample, then the Koeneigsberger ratio is

Options :

34058018429. ✘ I - R

34058018430. ✘ I + R

34058018431. ✘ I / R

34058018432. ✔ R / I

Question Number : 49 Question Id : 3405804609 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 horizontal component of the Earth's magnetic field is directed towards

Options :

34058018433. ✔ Magnetic north

34058018434. ✘ Geographic north

34058018435. ✘ Geographic south

34058018436. ✘ East

Question Number : 50 Question Id : 3405804610 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 length of a linear conductor is reduced by half, then its resistivity

Options :

34058018437. ✘ Doubled

34058018438. ✘ Decreased by half

34058018439. ✔ Remains the same

34058018440. ✘ Increased by four times

Question Number : 51 Question Id : 3405804611 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

Paramagnetic substances have

Options :

34058018441. ✔ Small positive susceptibilities

34058018442. ✘ Small negative susceptibilities

34058018443. ✘ Very high positive susceptibilities

34058018444. ✘ Zero susceptibility

Question Number : 52 Question Id : 3405804612 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

Highest degree of crystal symmetry is shown by

Options :

34058018445. ✘ Tetragonal system

34058018446. ✔ Cubic system

34058018447. ✘ Monoclinic system

34058018448. ✘ Triclinic system

Question Number : 53 Question Id : 3405804613 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

Stishovite is a polymorph of

Options :

34058018449. ✘ Olivine

34058018450. ✘ Garnet

34058018451. ✘ Zeolite

34058018452. ✔ Quartz

Question Number : 54 Question Id : 3405804614 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

Crenulation cleavage develops during

Options :

34058018453. ✘ Thrusting

34058018454. ✘ Rifting

34058018455. ✔ Superimposed deformation

34058018456. ✘ Extension

Question Number : 55 Question Id : 3405804615 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 acceleration due to gravity calculated by Clairaut's theorem is valid for

Options :

34058018457. ✘ Geoid surface

34058018458. ✔ Spheroid surface

34058018459. ✘ Earth's topography

34058018460. ✘ Circle

Question Number : 56 Question Id : 3405804616 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

Loess corresponds to

Options :

34058018461. ✓ Eolian deposits

34058018462. ✗ Braided river flood plain

34058018463. ✗ Alluvial fan

34058018464. ✗ Lake deposits

Question Number : 57 Question Id : 3405804617 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 average salinity of seawater is about

Options :

34058018465. ✗ 3.5 psu

34058018466. ✗ 0.35 psu

34058018467. ✓ 35.5 psu

34058018468. ✗ 3.5 psu

Question Number : 58 Question Id : 3405804618 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 unconfined aquifer indicates

Options :

34058018469. ✓ Water capacity

34058018470. ✗ Volume of water

34058018471. ✗ Water retained

34058018472. ✗ Nature of cementing material

Question Number : 59 Question Id : 3405804619 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

Lehman discontinuity is located at a depth of

Options :

34058018473. ✗ 120 km

34058018474. ✗ 690 km

34058018475. ✓ 240 km

34058018476. ✗ 410 km

Question Number : 60 Question Id : 3405804620 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

Wadati diagram is useful to find out

Options :

34058018477. ✘ Velocity of the seismic waves

34058018478. ✔ Origin time of an earthquake

34058018479. ✘ The arrival time of the seismic waves

34058018480. ✘ The epicentral distance

Question Number : 61 Question Id : 3405804621 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 unit of resistivity is

Options :

34058018481. ✘ Ohm

34058018482. ✘ Mohs

34058018483. ✔ Ohm.m

34058018484. ✘ Ohm/m

Question Number : 62 Question Id : 3405804622 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 asthenosphere is

Options :

34058018485. ✘ Cool and strong

34058018486. ✘ Cool and weak

34058018487. ✘ Hot and strong

34058018488. ✔ Hot and weak

Question Number : 63 Question Id : 3405804623 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 outer planets are composed mostly of

Options :

34058018489. ✘ Rocks and ice

34058018490. ✘ Oxygen and nitrogen

34058018491. ✔ Hydrogen and helium

34058018492. ✘ Helium and krypton

Question Number : 64 Question Id : 3405804624 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 temperature within the earth increases with depth at

Options :

34058018493. ✘ 65°C/km

34058018494. ✔ 30°C/km

34058018495. ✘ 120°C/km

34058018496. ✘ 225°C/km

Question Number : 65 Question Id : 3405804625 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 mineral Kyanite shows

Options :

34058018497. ✔ Bladed form

34058018498. ✘ Columnar form

34058018499. ✘ Sheet form

34058018500. ✘ Tabular form

Question Number : 66 Question Id : 3405804626 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

Rocks act as natural arch when the

Options :

34058018501. ✘ Tunnel axis parallel to strike direction

34058018502. ✘ Tunnel axis normal to dip direction

34058018503. ✘ Tunnel axis inclined to dip direction

34058018504. ✔ Tunnel axis parallel to dip direction

**Question Number : 67 Question Id : 3405804627 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

Hydropower tunnel where water is conveyed under gravity is

Options :

34058018505. ✘ Pressure tunnel

34058018506. ✘ Delivery tunnel

34058018507. ✘ Supply tunnel

34058018508. ✔ Discharge tunnel

**Question Number : 68 Question Id : 3405804628 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 capacity of a stone to withstand bending loads is called

Options :

34058018509. ✘ Shear strength

34058018510. ✔ Transverse strength

34058018511. ✘ Loading strength

34058018512. ✘ Torsional strength

**Question Number : 69 Question Id : 3405804629 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 grade schist is formed under

Options :

34058018513. ✘ Local metamorphism

34058018514. ✔ Regional metamorphism

34058018515. ✘ Contact metamorphism

34058018516. ✘ Dynamic metamorphism

**Question Number : 70 Question Id : 3405804630 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 Clairaut's theorem the undisturbed gravity field of the earth, $g(\varphi)$, at any latitude ' φ ' is given by

Options :

34058018517. ✓ $g(\varphi) = 978.03185(1+0.00530248 \sin^2\varphi-0.0000059\sin^22\varphi)$

34058018518. ✗ $g(\varphi) = 978.03185(1-0.00530248 \sin^2\varphi+0.0000059\sin^22\varphi)$

34058018519. ✗ $g(\varphi) = 978.03185(1+0.00530248 \sin^2\varphi*0.0000059\sin^22\varphi)$

34058018520. ✗ $g(\varphi) = 978.03185(1/0.00530248 \sin^2\varphi+0.0000059\sin^22\varphi)$

Question Number : 71 Question Id : 3405804631 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

Magnetic meridian is a vertical plane containing

Options :

34058018521. ✗ Total magnetic field and its horizontal component

34058018522. ✗ Total magnetic field and its vertical component

34058018523. ✓ Total magnetic field and its vertical and horizontal components

34058018524. ✗ Vertical and horizontal components of the total field

Question Number : 72 Question Id : 3405804632 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 permanent magnetism acquired by igneous rocks during the process
crystallization is called

Options :

34058018525. ✓ Natural remanent magnetism

34058018526. ✗ Detrital remanent magnetism

34058018527. ✗ Piezo remanent magnetism

34058018528. ✗ Viscous remanent magnetism

Question Number : 73 Question Id : 3405804633 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 part of the earth's interior primarily consists of pyroxene and olivine

Options :

34058018529. ✗ Inner core

34058018530. ✓ Upper mantle

34058018531. ✗ Crust

34058018532. ✗ Outer core

Question Number : 74 Question Id : 3405804634 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

D'' layer separates

Options :

34058018533. ✘ Inner core and outer core

34058018534. ✘ Upper crust and lower crust

34058018535. ✘ Transition zone between the continental and oceanic crust

34058018536. ✔ Lower mantle and outer core

Question Number : 75 Question Id : 3405804635 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 direction the particles in a solid material move during the passage of
a S wave

Options :

34058018537. ✔ Perpendicular to the direction of propagating wave

34058018538. ✘ To and fro along the direction of propagating wave

34058018539. ✘ Roll along direction of propagating wave

34058018540. ✖ 45° to the direction of propagating wave

Question Number : 76 Question Id : 3405804636 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 direction of the orbit is the same as the direction of Earth's rotation it is
Called

Options :

34058018541. ✖ Retrograde

34058018542. ✖ Perigee

34058018543. ✔ Posigrade

34058018544. ✖ Apogee

Question Number : 77 Question Id : 3405804637 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 time taken by a satellite to complete one orbit is called

Options :

34058018545. ✔ Sidereal period

34058018546. ✖ Lapsed time

34058018547. ✖ Frequency

34058018548. ✖ Rotation time

**Question Number : 78 Question Id : 3405804638 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 the preparation of atlas which type of map projection is used

Options :

34058018549. ✖ Poly conic projection system

34058018550. ✖ UTM projection

34058018551. ✔ Lambert- Azimuthal equal area projection

34058018552. ✖ Cylindrical projection

**Question Number : 79 Question Id : 3405804639 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 first principle of surveying is

Options :

34058018553. ✖ Part to whole

34058018554. ✔ Whole to part

34058018555. ✖ Whole to whole

34058018556. ✖ Part to part

Question Number : 80 Question Id : 3405804640 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

Name the instrument which registers total distance covered by any number of
Paces

Options :

34058018557. ✖ Passometer

34058018558. ✔ Pedometer

34058018559. ✖ Odometer

34058018560. ✖ Barometer

Question Number : 81 Question Id : 3405804641 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

Geoid is

Options :

34058018561. ✔ An imaginary equipotential surface that coincides with the mean-sea level

34058018562. ✖ An imaginary equipotential surface that coincides with the mountain peaks

34058018563. ✖ A surface that replicates the shape of a wave

34058018564. ✖ A physical surface coinciding with the topography

**Question Number : 82 Question Id : 3405804642 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

Keeping the magnetic north as a reference if the angle measured it is called

Options :

34058018565. ✖ True bearing

34058018566. ✖ Azimuthal bearing

34058018567. ✖ Dip bearing

34058018568. ✔ Magnetic bearing

**Question Number : 83 Question Id : 3405804643 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 server-based hardware platform of Geographical
Information System (GIS)

Options :

34058018569. ✖ Autodesk Revit

34058018570. ✘ AutoCAD

34058018571. ✘ Arc GIS

34058018572. ✔ Google-maps

**Question Number : 84 Question Id : 3405804644 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 magnetic meridian is right side to geographic meridian, then magnetic declination is

Options :

34058018573. ✘ Negative

34058018574. ✘ Zero

34058018575. ✔ Positive

34058018576. ✘ 180°

**Question Number : 85 Question Id : 3405804645 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

Geographical Information System (GIS) uses

Options :

34058018577. ✘ Non- spatial information

34058018578. ✔ Spatial information

34058018579. ✘ Global information

34058018580. ✘ Position information

**Question Number : 86 Question Id : 3405804646 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 true bearing if the magnetic bearing of a line is given by S 30°30' E
and the declination as 4°30' west

Options :

34058018581. ✔ S 35°00' E

34058018582. ✘ N 35°00' W

34058018583. ✘ S 26° E

34058018584. ✘ N 26° W

**Question Number : 87 Question Id : 3405804647 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 that depicts the geographic pattern of a particular subject matter in a geographic area is called

Options :

34058018585. ✓ Thematic map

34058018586. ✘ Physical map

34058018587. ✘ Cadastral map

34058018588. ✘ Topographic map

Question Number : 88 Question Id : 3405804648 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 cylindrical projection system, meridians are projected

Options :

34058018589. ✘ Mathematically

34058018590. ✓ Geometrically

34058018591. ✘ Horizontally

34058018592. ✘ Vertically

Question Number : 89 Question Id : 3405804649 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 indicate topological primitive

Options :

34058018593. ✘ Poly line

34058018594. ✘ Point

34058018595. ✔ Node

34058018596. ✘ Polygon

Question Number : 90 Question Id : 3405804650 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 triangulation system has the least probability of encountering errors

Options :

34058018597. ✔ Primary

34058018598. ✘ Secondary

34058018599. ✘ Tertiary

34058018600. ✘ Quaternary

Question Number : 91 Question Id : 3405804651 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 modified form of stadia levelling is

Options :

34058018601. ✘ Barometric levelling

34058018602. ✔ Trigonometric levelling

34058018603. ✘ Spirit levelling

34058018604. ✘ Traversing

Question Number : 92 Question Id : 3405804652 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 'd' is the length of a line and the angle made by it with the y-axis is ϕ° , then
the latitude of the line is

Options :

34058018605. ✔ $d \cos \phi^\circ$

34058018606. ✘ $d \sin \phi^\circ$

34058018607. ✘ $d \tan \phi^\circ$

34058018608. ✘ $d \operatorname{cosec} \phi^\circ$

Question Number : 93 Question Id : 3405804653 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 type of signals are generated by satellites

Options :

34058018609. ✘ Visible rays

34058018610. ✔ Radio waves

34058018611. ✘ X-rays

34058018612. ✘ Cosmic waves

Question Number : 94 Question Id : 3405804654 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 indicates the correct set of GPS segments

Options :

34058018613. ✘ Navigation, space

34058018614. ✘ User, navigation

34058018615. ✔ Control, user

34058018616. ✘ Control, navigation

Question Number : 95 Question Id : 3405804655 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

While doing levelling, which one of the following is a natural error

Options :

34058018617. ✘ Error due to defective joint

34058018618. ✘ Rod is of not standard length

34058018619. ✘ Error due to sluggish bubble

34058018620. ✔ Variations in temperature

Question Number : 96 Question Id : 3405804656 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 parameter is mainly used in pseudo ranging

Options :

34058018621. ✔ Time

34058018622. ✘ Distance

34058018623. ✘ Velocity

34058018624. ✘ Frequency

Question Number : 97 Question Id : 3405804657 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 visible range of electromagnetic spectrum, what is the wavelength
range of blue light

Options :

34058018625. ✓ 0.42-0.52 micrometer

34058018626. ✗ 0.24-0.52 micrometer

34058018627. ✗ 0.42-0.92 micrometer

34058018628. ✗ 0.22-0.32 micrometer

Question Number : 98 Question Id : 3405804658 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

Altitude range of sun-synchronous satellites is

Options :

34058018629. ✗ 7-15 km

34058018630. ✗ 7000-15000 km

34058018631. ✓ 700-1500 km

34058018632. ✗ 70-150 km

Question Number : 99 Question Id : 3405804659 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 α is the Stefan- Boltzmann constant, T is the thermodynamic temperature,
and M is the spectral existence of the body then Stefan- Boltzmann formula is
given by

Options :

34058018633. ✘ $M = \alpha / T^4$

34058018634. ✘ $M = \alpha - T^4$

34058018635. ✘ $M = \alpha + T^4$

34058018636. ✔ $M = \alpha * T^4$

Question Number : 100 Question Id : 3405804660 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

Carbon dioxide is called greenhouse gas because

Options :

34058018637. ✔ It absorbs heat

34058018638. ✘ It absorbs moisture

34058018639. ✘ It absorbs oxygen

34058018640. ✘ It absorbs hydrogen

Question Number : 101 Question Id : 3405804661 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 environmental lapse rate is less is than adiabatic lapse rate, then

Options :

34058018641. ✘ Super adiabatic lapse rate occurs

34058018642. ✘ Neutral lapse rate occurs

34058018643. ✘ Adiabatic lapse rate occurs

34058018644. ✔ Sub adiabatic lapse rate occurs

Question Number : 102 Question Id : 3405804662 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

Detrivores are also called

Options :

34058018645. ✘ Omnivores

34058018646. ✘ Herbivores

34058018647. ✔ Decomposers

34058018648. ✖ Carnivores

Question Number : 103 Question Id : 3405804663 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 wave length of EM wave is 54m what is its energy
(Take Plank's constant as 6.625×10^{-34} J.s.)

Options :

34058018649. ✔ 0.36×10^{-26}

34058018650. ✖ 1073.2×10^{-26}

34058018651. ✖ 0.48×10^{-26}

34058018652. ✖ 54×10^{-26}

Question Number : 104 Question Id : 3405804664 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 large number of interlinked chains in an ecosystem together forms

Options :

34058018653. ✖ Nitrogen cycle

34058018654. ✖ Carbon cycle

34058018655. ✓ Food web

34058018656. ✗ Food chain

Question Number : 105 Question Id : 3405804665 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 wave length of an EM wave decreases, the energy released will

Options :

34058018657. ✓ Increase

34058018658. ✗ Decrease

34058018659. ✗ Remain same

34058018660. ✗ Zero

Question Number : 106 Question Id : 3405804666 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

Type of forests grow in Himalayan region

Options :

34058018661. ✗ Broad-leaved

34058018662. ✓ Coniferous

34058018663. ✘ Deciduous

34058018664. ✘ Cactus

Question Number : 107 Question Id : 3405804667 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 pollution arises mainly due to

Options :

34058018665. ✘ Ozone

34058018666. ✘ Depletion of oxygen

34058018667. ✘ Aerosol

34058018668. ✔ Acid rain

Question Number : 108 Question Id : 3405804668 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 percentage of Argon present in the atmosphere

Options :

34058018669. ✘ 78%

34058018670. ✔ 0.9%

34058018671. ✖ 9%

34058018672. ✖ 21%

Question Number : 109 Question Id : 3405804669 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 term 'Regur' is used to describe

Options :

34058018673. ✖ Lateritic soil

34058018674. ✔ Black cotton soil

34058018675. ✖ Red soil

34058018676. ✖ Alluvial soil

Question Number : 110 Question Id : 3405804670 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 type the soil is loosely packed and with large air spaces

Options :

34058018677. ✖ Clayey soil

34058018678. ✖ Black cotton soil

34058018679. ✓ Sandy soil

34058018680. ✘ Loamy soil

Question Number : 111 Question Id : 3405804671 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

Consider the shape of the earth as a solid sphere. Then the gravity potential at its centre is

Options :

34058018681. ✓ 1.5 times the potential at the surface

34058018682. ✘ Zero

34058018683. ✘ Equal to the potential at the surface

34058018684. ✘ Infinity

Question Number : 112 Question Id : 3405804672 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 block which lies on the under surface of a fault plane is called

Options :

34058018685. ✘ Hanging wall

34058018686. ✘ Side wall

34058018687. ✘ Under wall

34058018688. ✔ Foot wall

**Question Number : 113 Question Id : 3405804673 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 nature of displacement in a shear zone is

Options :

34058018689. ✔ Ductile

34058018690. ✘ Brittle

34058018691. ✘ Malleable

34058018692. ✘ Sonorous

**Question Number : 114 Question Id : 3405804674 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 layer of the earth supports the tectonic plates

Options :

34058018693. ✘ Lithosphere

34058018694. ✘ Hydrosphere

34058018695. ✔ Asthenosphere

34058018696. ✘ Cryosphere

Question Number : 115 Question Id : 3405804675 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

Micro breccia is also called

Options :

34058018697. ✘ Gouge

34058018698. ✔ Mylonite

34058018699. ✘ Kaolinite

34058018700. ✘ Shale

Question Number : 116 Question Id : 3405804676 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

Modification of valley walls by undercutting, weathering and erosion is called

Options :

34058018701. ✘ Incision

34058018702. ✘ Deposition

34058018703. ✔ Denudation

34058018704. ✘ Exudation

**Question Number : 117 Question Id : 3405804677 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

Acceleration due to gravity of the Earth attains its maximum at

Options :

34058018705. ✘ Equator

34058018706. ✘ Tropic of Cancer

34058018707. ✘ Tropic of Capricorn

34058018708. ✔ Poles

**Question Number : 118 Question Id : 3405804678 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 C language, unless otherwise specified, entire arrays are passed
_____ and individual array elements are passed _____

Options :

34058018709. ✘ By value, by reference

34058018710. ✔ By reference, by value

34058018711. ✘ By value, by value

34058018712. ✘ By reference, by reference

Question Number : 119 Question Id : 3405804679 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 true of static local variables

Options :

34058018713. ✔ They are accessible outside of the function in which they are defined

They retain their values when the function in which they are defined

34058018714. ✘ terminates

They are initialized to zero if not explicitly initialized by the

34058018715. ✘ programmer

34058018716. ✘ They can be of type int

Question Number : 120 Question Id : 3405804680 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 result of performing the following addition

$$(0F4A)_{16} + (420B)_{16}$$

Options :

34058018717. ✘ $(4155)_{16}$

34058018718. ✔ $(5155)_{16}$

34058018719. ✘ $(6155)_{16}$

34058018720. ✘ $(7155)_{16}$