

# Telangana State Council Higher Education

## Notations :

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

<b>Question Paper Name :</b>	Geo Engineering and Geo Informatics 22nd Sept 2020 Shift 1
<b>Subject Name :</b>	Geo Engineering and Geo Informatics
<b>Creation Date :</b>	2020-09-22 16:03:46
<b>Duration :</b>	120
<b>Total Marks :</b>	120
<b>Display Marks:</b>	No
<b>Share Answer Key With Delivery Engine :</b>	Yes
<b>Actual Answer Key :</b>	Yes
<b>Calculator :</b>	None
<b>Magnifying Glass Required? :</b>	No
<b>Ruler Required? :</b>	No
<b>Eraser Required? :</b>	No
<b>Scratch Pad Required? :</b>	No
<b>Rough Sketch/Notepad Required? :</b>	No
<b>Protractor Required? :</b>	No
<b>Show Watermark on Console? :</b>	Yes
<b>Highlighter :</b>	No
<b>Auto Save on Console? :</b>	Yes

## Geo Engineering and Geo Informatics

<b>Group Number :</b>	1
<b>Group Id :</b>	88039690
<b>Group Maximum Duration :</b>	0

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

## Mathematics

<b>Section Id :</b>	880396164
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	10
<b>Number of Questions to be attempted :</b>	10
<b>Section Marks :</b>	10
<b>Display Number Panel :</b>	Yes
<b>Group All Questions :</b>	Yes
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	880396164
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 1 Question Id : 88039610681 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 integral  $\int_0^{\pi/2} \log \left( \frac{4 + 3 \sin x}{4 + 3 \cos x} \right) dx$  would be equal to

**Options :**

88039642721. ✓ 0

✗ 1/2

88039642723. ✘ 1/4

88039642724. ✘ 1/8

**Question Number : 2 Question Id : 88039610682 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 trace of the matrix  $A = \begin{bmatrix} a & 7 \\ 2 & b \end{bmatrix}$  is 8 and the product of the eigen values is 1, then the values of  $a$  and  $b$  are respectively

**Options :**

88039642725. ✔ 5, 3

88039642726. ✘ 2, 6

88039642727. ✘ 4, 4

88039642728. ✘ 1, 7

**Question Number : 3 Question Id : 88039610683 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 which one of the following intervals the function  $f(x) = 2x^3 - 9x^2 + 12x + 15$  will be an increasing function?

**Options :**

88039642729. ✘  $(0, 1) \cup (2, \infty)$

88039642730. ✘  $(-2, 1) \cup (2, \infty)$

88039642731. ✔  $(-\infty, 1) \cup (2, \infty)$

88039642732. ✘  $(-\infty, -1) \cup (2, \infty)$

**Question Number : 4 Question Id : 88039610684 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**

Let  $f(x) = \sin^{-1} \frac{x}{y} + \tan^{-1} \frac{y}{x}$ . Then,  $x \frac{\partial f}{\partial x} + y \frac{\partial f}{\partial y} =$

**Options :**

88039642733. ✘  $x / \sqrt{x^2 - y^2}$

88039642734. ✘  $y / \sqrt{x^2 - y^2}$

88039642735. ✘  $-x / \sqrt{x^2 - y^2}$

88039642736. ✔ 0

**Question Number : 5 Question Id : 88039610685 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 will be the value of the integral  $\int_0^{\infty} e^{-x^2} dx$ , in terms of "Gamma function" (where the symbol " $\Gamma$ " stands for gamma function)

Options :

88039642737. ✘  $\Gamma\left(\frac{1}{4}\right)$

88039642738. ✔  $\frac{1}{2} * \Gamma\left(\frac{1}{2}\right)$

88039642739. ✘  $2 * \Gamma\left(\frac{1}{4}\right)$

88039642740. ✘  $\Gamma\left(\frac{1}{2}\right) * \Gamma\left(\frac{1}{4}\right)$

Question Number : 6 Question Id : 88039610686 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 sum of the mean and variance of a binomial distribution for 5 trials is 1.8. Then what would be the probability of success (p) and that of failure (q) in this distribution?

Options :

88039642741. ✔  $p = 0.2, q = 0.8$

88039642742. ✖  $p = 0.3$  ,  $q = 0.7$

88039642743. ✖  $p = 0.5$  ,  $q = 0.5$

88039642744. ✖  $p = 0.4$  ,  $q = 0.6$

**Question Number : 7 Question Id : 88039610687 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 line integral,  $\oint_C 3y dx + 5x dy$ , where  $C$  is the square bounded by  $x = 0, x = 5, y = 0, y = 5$ , is

**Options :**

88039642745. ✖ 10

88039642746. ✖ 15

88039642747. ✖ 25

88039642748. ✔ 50

**Question Number : 8 Question Id : 88039610688 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 complex integral,  $\oint_C \frac{e^{2z}}{z-2} dz$ , where  $C$  is the circle  $|z| = 3$ , is equal to

**Options :**

88039642749. ✘  $2\pi i e$

88039642750. ✘  $2\pi i e^2$

88039642751. ✘  $2\pi i$

88039642752. ✔  $2\pi i e^4$

**Question Number : 9 Question Id : 88039610689 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 probability that a student passes a Physics test is  $\frac{2}{3}$  and the probability that he passes both a Physics and an English test is  $\frac{14}{45}$ . If the probability that he passes at least one of the test is  $\frac{4}{5}$ , then what would be the probability that he passes the English test?

**Options :**

88039642753. ✘  $\frac{2}{81}$

88039642754. ✔  $\frac{4}{9}$

88039642755. ✘  $\frac{2}{9}$

88039642756. ✘  $\frac{5}{9}$

**Question Number : 10 Question Id : 88039610690 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' be a Poisson variate such that  $P(X = 2) = 3 P(X = 3)$ , then the variance of this variate =

Options :

88039642757. ✖ 4

88039642758. ✖ 3

88039642759. ✖ 2

88039642760. ✔ 1

## Geo Engineering and Geo Informatics

Section Id :	880396165
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	110
Number of Questions to be attempted :	110
Section Marks :	110
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	880396165
Question Shuffling Allowed :	Yes

Question Number : 11 Question Id : 88039610691 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 will be the output for the given below C code:

```
#include <stdio.h>
#include <string.h>
int main()
{
    char A[50]= "PGECET EXAM";
    printf("%d ", strlen(A));
    return 0;
}
```

Options :

88039642761. ✘ 10

88039642762. ✘ 50

88039642763. ✔ 11

88039642764. ✘ Compilation Error

Question Number : 12 Question Id : 88039610692 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 option which indicates the output for the following C code:

```
int main()
{
    int x;
    for (x=1; x<=10; x++)
        printf ("%d, ", x/2);
}
```

Options :

88039642765. ✘ 0.5,1,1.3,2,2.5,3,3.5,4,4.5,5

88039642766. ✔ 0,1,1,2,2,3,3,4,4,5

88039642767. ✘ 0,1,1,2,2,3,3,4,4

88039642768. ✘ 1,1,2,2,3,3,4,4,5

Question Number : 13 Question Id : 88039610693 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 options is true with respect to the following C Code?

```
#include <stdio.h>

struct a
{
    char name[20];
    char address[100];
};

int main()
{
    struct a area = {
        "PGECET",
        "HYDERABAD, TELANGANA-7"
    };
    printf("\n%s", area.name);
    printf("\n%s", area.address);
}
```

**Options :**

88039642769. ✘ Starting address values of “name” and “address” items of the structure are displayed as output

88039642770. ✔ The output of the code is: PGECET, HYDERABAD, TELANGANA-7

88039642771. ✘ The output of the code is: PGECET, HYDERABAD.

88039642772. ✘ Code will not return any specific value

**Question Number : 14 Question Id : 88039610694 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 will be the output of the following C code?

```
main()
{
    char text[]={90,90,90,90,90};
    for (int i=0;i<=4;i++)
    {
        printf("%c ",text[i]);
    }
}
```

**Options :**

88039642773. ✔ Z Z Z Z Z

88039642774. ✘ A A A A A

88039642775. ✘ 90 90 90 90 90

88039642776. ✘ No specific output

Question Number : 15 Question Id : 88039610695 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 output of the following C code?

```
#include <stdio.h>
#include<string.h>
void main()
{
char text[]="TSPGECET EXAM-2020\0";
printf("\n%d", sizeof(text));
}
```

Options :

88039642777. ✖ 17

88039642778. ✖ 21

88039642779. ✖ 20

88039642780. ✔ 19

Question Number : 16 Question Id : 88039610696 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 product of mechanical weathering

Options :

88039642781. ✖ Calcium carbonate

88039642782. ✘ Organic soils

88039642783. ✔ Smaller particles like sands & gravels

88039642784. ✘ Clay

**Question Number : 17 Question Id : 88039610697 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 asthenosphere is

Options :

88039642785. ✔ Hot and weak

88039642786. ✘ Hot and strong

88039642787. ✘ Cool and strong

88039642788. ✘ Cool and weak

**Question Number : 18 Question Id : 88039610698 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 forces dominate at divergent plate margins?

Options :

88039642789. ✘ Shearing forces

88039642790. ✔ Tensional forces

88039642791. ✘ Compressive forces

88039642792. ✘ Longitudinal forces

**Question Number : 19 Question Id : 88039610699 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**

Darcy's law states that

**Options :**

88039642793. ✔ The discharge is directly proportional to head loss & area of flow and inversely proportional to the length of the path

88039642794. ✘ The discharge is directly proportional to head loss and inversely proportional to area of flow & to the length of the path

88039642795. ✘ The discharge is inversely proportional to head loss and directly proportional to the length

88039642796. ✘ The discharge is inversely proportional to head loss

**Question Number : 20 Question Id : 88039610700 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 Groundwater is pumped from a confined aquifer, the aquifer's intergranular pressure

**Options :**



88039642797. ✓ increases and the aquifers pore water pressure decreases

88039642798. ✘ decreases and the aquifer's pore water pressure increases

88039642799. ✘ increases and the aquifer's pore water pressure increases

88039642800. ✘ decreases and the aquifer's pore water pressure decreases

**Question Number : 21 Question Id : 88039610701 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**

Valley glaciers are also known as

**Options :**

88039642801. ✘ Lowland glaciers

88039642802. ✓ Alpine glaciers

88039642803. ✘ Gorge glaciers

88039642804. ✘ Upland glaciers

**Question Number : 22 Question Id : 88039610702 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 are not related to wind erosion

**Options :**



88039642805. ✘ Ventifact

88039642806. ✘ Deflation

88039642807. ✔ Loess

88039642808. ✘ Blowout

**Question Number : 23 Question Id : 88039610703 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**

Coherence of two electromagnetic waves takes place if their phase difference is

Options :

88039642809. ✘ Constant in time

88039642810. ✘ Constant in space

88039642811. ✔ Constant in space and time

88039642812. ✘ Infinite

**Question Number : 24 Question Id : 88039610704 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 regions consists primarily of Olivine and Pyroxene?

Options :

88039642813. ✘ Continental crust

88039642814. ✓ Upper mantle

88039642815. ✗ Oceanic crust

88039642816. ✗ Core

**Question Number : 25 Question Id : 88039610705 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 coherence length over which there is a strong relationship between amplitudes is  
Options :

88039642817. ✗ Directly proportional to the bandwidth

88039642818. ✗ square of the bandwidth

88039642819. ✓ Inversely proportional to the bandwidth

88039642820. ✗ cube of the bandwidth

**Question Number : 26 Question Id : 88039610706 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 resistivity prospecting, sounding data will be collected along profiles  
Options :

88039642821. ✗ in any direction

88039642822. ✘ perpendicular to the strike of the formation

88039642823. ✘ inclined to the strike of the formation

88039642824. ✔ parallel to the strike of the formation

**Question Number : 27 Question Id : 88039610707 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**

Step like gravity anomalies are mostly associated with

**Options :**

88039642825. ✘ folds

88039642826. ✔ dip slip faults

88039642827. ✘ antiforms

88039642828. ✘ batholiths

**Question Number : 28 Question Id : 88039610708 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 vein commonly found in igneous rocks is

**Options :**

88039642829. ✘ Fissure-veins

88039642830. ✔ Ladder-veins

88039642831. ✘ Gash-veins

88039642832. ✘ Stock works

**Question Number : 29 Question Id : 88039610709 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**

Carbon can form many different compounds because it can

**Options :**

88039642833. ✘ make a molecule in the shape of a cube, tetrahedron, or cylinder

88039642834. ✘ combine with more metals than other elements

88039642835. ✔ combine with other carbon atoms in addition to other elements

88039642836. ✘ combine with more nonmetals than other elements

**Question Number : 30 Question Id : 88039610710 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**

Pyrope garnet and chrome diopside are characteristic minerals of

**Options :**

88039642837. ✔ Kimberlite

88039642838. ✘ Lamprophyre

88039642839. ✘ Lamproite

88039642840. ✘ Carbonitite

Question Number : 31 Question Id : 88039610711 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 mineral crystallizes in monoclinic system?

Options :

88039642841. ✘ Baryte

88039642842. ✘ Orthoclase

88039642843. ✔ Gypsum

88039642844. ✘ Rutile

Question Number : 32 Question Id : 88039610712 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 most common and fundamental structural element of the silicate mineral group?

Options :

88039642845. ✘ a silicon-nitrogen tetrahedron

88039642846. ✘ a silicon-aluminum tetrahedron

88039642847. ✔ a silicon-oxygen tetrahedron

88039642848. ✘ a silicon-oxygen octahedron

**Question Number : 33 Question Id : 88039610713 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 heat that caused melting in the Earth's early history was supplied from

**Options :**

88039642849. ✔ a large impact event and radioactivity

88039642850. ✘ a large impact event and solar heating

88039642851. ✘ volcanic activity

88039642852. ✘ solar heating and volcanic activity

**Question Number : 34 Question Id : 88039610714 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**

Features that are useful in defining plate boundaries include all the following except

**Options :**

88039642853. ✘ Distribution of volcanoes

88039642854. ✘ Distribution of mountain ranges

88039642855. ✘ Distribution of earthquakes



88039642856. ✓ Shorelines between continents and oceans

**Question Number : 35 Question Id : 88039610715 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**

An overturned fold is characterized by

Options :

88039642857. ✗ two limbs not parallel to each other

88039642858. ✗ two limbs dipping in opposite directions

88039642859. ✗ two limbs at right angles to one another

88039642860. ✓ two limbs dipping in the same direction with one tilted beyond vertical

**Question Number : 36 Question Id : 88039610716 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 triclinic crystal system all three crystallographic axes are present

Options :

88039642861. ✗ mutually perpendicular to each other

88039642862. ✗ one axis is perpendicular to other two

88039642863. ✗ two axes are perpendicular to the third one

88039642864. ✓ no axis is perpendicular to other

**Question Number : 37 Question Id : 88039610717 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 minerals does not exhibit cleavage?

Options :

88039642865. ✗ halite

88039642866. ✗ feldspar

88039642867. ✓ quartz

88039642868. ✗ calcite

**Question Number : 38 Question Id : 88039610718 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 rate of cooling of a magma or lava is reflected by the

Options :

88039642869. ✗ mineralogy of the rock

88039642870. ✓ texture of the rock

88039642871. ✗ colour of the rock



88039642872. ✘ density of the rock

**Question Number : 39 Question Id : 88039610719 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**

Caves are formed mostly in

Options :

88039642873. ✘ granite

88039642874. ✘ basalt

88039642875. ✘ sandstone

88039642876. ✔ limestone

**Question Number : 40 Question Id : 88039610720 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 two sides of a fold are called

Options :

88039642877. ✘ anticlines

88039642878. ✘ synclines

88039642879. ✔ limbs

88039642880. ✘ axial planes

Question Number : 41 Question Id : 88039610721 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 two measurements describe the orientation of a fault plane at a given location?

Options :

88039642881. ✘ axis and plane

88039642882. ✔ strike and dip

88039642883. ✘ trend and plunge

88039642884. ✘ trend and thrust

Question Number : 42 Question Id : 88039610722 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 types of faults associated with shearing forces are

Options :

88039642885. ✔ strike-slip

88039642886. ✘ reverse faults

88039642887. ✘ normal faults

88039642888. ✘ oblique faults

**Question Number : 43 Question Id : 88039610723 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**

Number of angular measurements required to describe the orientation of fault surface

Options :

88039642889. ✘ 1

88039642890. ✘ 3

88039642891. ✘ 4

88039642892. ✔ 2

**Question Number : 44 Question Id : 88039610724 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**

An oblique-slip fault suggests

Options :

88039642893. ✔ shear forces combined with compressive or tensional forces

88039642894. ✘ shear forces only

88039642895. ✘ tensional forces only

88039642896. ✘ compressive forces only

**Question Number : 45 Question Id : 88039610725 Question Type : MCQ Option Shuffling : Yes Display Question Number :**

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

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

Damp sand has a higher angle of repose than dry sand because of

**Options :**

88039642897. ✓ surface tension

88039642898. ✗ cementation

88039642899. ✗ partial melting

88039642900. ✗ dissolution

**Question Number : 46 Question Id : 88039610726 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**

During an earthquake, water-saturated sand can behave like a liquid. This is phenomena called

**Options :**

88039642901. ✗ unconsolidation

88039642902. ✗ solification

88039642903. ✓ liquefaction

88039642904. ✗ dissolution

**Question Number : 47 Question Id : 88039610727 Question Type : MCQ Option Shuffling : Yes Display Question Num**

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

Correct Marks : 1 Wrong Marks : 0

Which one of the following occurs in permafrost regions?

Options :

88039642905. ✓ solifluction

88039642906. ✗ landslides

88039642907. ✗ liquefaction

88039642908. ✗ soil creep

Question Number : 48 Question Id : 88039610728 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 lowering effect of water table due to heavy pumping is called

Options :

88039642909. ✗ speleothem

88039642910. ✗ artesian surface

88039642911. ✓ cone of depression

88039642912. ✗ aquiclude

Question Number : 49 Question Id : 88039610729 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

At what plate boundary setting is the ocean floor deepest?

Options :

88039642913. ✓ Subduction

88039642914. ✗ divergent

88039642915. ✗ continent - continent collision

88039642916. ✗ transform

**Question Number : 50 Question Id : 88039610730 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 water comes out of continental hot springs is known as

Options :

88039642917. ✗ meteoric water

88039642918. ✗ seawater

88039642919. ✓ magmatic water

88039642920. ✗ metamorphic water

**Question Number : 51 Question Id : 88039610731 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 has lowest porosity?

**Options :**

88039642921. ✘ shale

88039642922. ✘ gravel

88039642923. ✔ granite

88039642924. ✘ sandstone

**Question Number : 52 Question Id : 88039610732 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**

Influent streams are more common in

**Options :**

88039642925. ✔ arid regions

88039642926. ✘ humid regions

88039642927. ✘ permafrost regions

88039642928. ✘ sonkholes

**Question Number : 53 Question Id : 88039610733 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**

Orbital motion of water particles due to surface waves stops approximately at a depth

**Options :**

88039642929. ✘ of about twice the wavelength



88039642930. ✘ equal to the wavelength

88039642931. ✔ of about one-half of the wavelength

88039642932. ✘ of about one-tenth the wavelength

**Question Number : 54 Question Id : 88039610734 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**

Landforms caused by wave erosion are

Options :

88039642933. ✘ barrier islands

88039642934. ✔ stacks

88039642935. ✘ estuaries

88039642936. ✘ submarine canyons

**Question Number : 55 Question Id : 88039610735 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**

Deep valleys eroded into the continental slope and shelf are called

Options :

88039642937. ✘ estuaries



88039642938. ✘ oceanic trenches

88039642939. ✘ abyssal valleys

88039642940. ✔ submarine canyons

**Question Number : 56 Question Id : 88039610736 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 used to describe an impermeable geologic unit is

**Options :**

88039642941. ✘ aquifer

88039642942. ✔ aquiclude

88039642943. ✘ unconfined aquifer

88039642944. ✘ artesian aquifer

**Question Number : 57 Question Id : 88039610737 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 seamount is

**Options :**

88039642945. ✘ a coral reef above a submerged volcano

88039642946. ✘ a small rise in the seafloor

88039642947. ✘ a hill adjacent to a spreading center

88039642948. ✔ an extinct submerged volcano

**Question Number : 58 Question Id : 88039610738 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**

Particle motion during the passage of a 'P' wave through the rock is

**Options :**

88039642949. ✔ back and forth parallel to the direction of wave travel

88039642950. ✘ back and forth perpendicular to the direction of wave travel

88039642951. ✘ in a rolling circular motion

88039642952. ✘ the particles do not move at all

**Question Number : 59 Question Id : 88039610739 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 minimum number of seismograph stations needed to locate the epicenter of an earthquake is

**Options :**

88039642953. ✘ 2

88039642954. ✔ 3

88039642955. ✘ 1

88039642956. ✘ 4

**Question Number : 60 Question Id : 88039610740 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 shear modulus measures

**Options :**

88039642957. ✔ the resistance to change in shape

88039642958. ✘ the resistance to flow of a liquid

88039642959. ✘ the resistance to change in volume of a liquid

88039642960. ✘ the resistance to change in volume of a solid

**Question Number : 61 Question Id : 88039610741 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 highest degree of crystal symmetry is shown by

**Options :**

88039642961. ✘ Tetragonal system

88039642962. ✔ Cubic system

88039642963. ✘ Monoclinic system

88039642964. ✘ Triclinic system

**Question Number : 62 Question Id : 88039610742 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**

Diametral prisms formed by the combination of

Options :

88039642965. ✔ Three pinacoids

88039642966. ✘ Three prisms

88039642967. ✘ Two pinacoids

88039642968. ✘ Four pinacoids

**Question Number : 63 Question Id : 88039610743 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**

At what temperature do materials lose their permanent magnetism?

Options :

88039642969. ✔ 550°C

88039642970. ✘ 850° C

88039642971. ✘ 400°C

88039642972. ✘ 100°C

**Question Number : 64 Question Id : 88039610744 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 Earth's magnetic field reverses itself roughly for every

**Options :**

88039642973. ✘ 50 years

88039642974. ✘ 5000 years

88039642975. ✔ 500000 years

88039642976. ✘ 100 years

**Question Number : 65 Question Id : 88039610745 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**

Permanent magnetism acquired by igneous rocks during crystallization is called

**Options :**

88039642977. ✘ induced magnetism

88039642978. ✘ chrono magnetism

88039642979. ✘ detrital magnetism

88039642980. ✓ thermoremanent magnetism

**Question Number : 66 Question Id : 88039610746 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**

Lagoonal deposits are deposited under

**Options :**

88039642981. ✓ Euxinic environment

88039642982. ✗ Estuarine environment

88039642983. ✗ Littoral environment

88039642984. ✗ Lacustrine environment

**Question Number : 67 Question Id : 88039610747 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 lowest degree of crystal symmetry is shown by

**Options :**

88039642985. ✗ Hexagonal system

88039642986. ✗ Monoclinic system

88039642987. ✓ Triclinic system

88039642988. ✗ Orthorhombic system

**Question Number : 68 Question Id : 88039610748 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 causes the shadow zone for the S wave ?

**Options :**

88039642989. ✘ crust-mantle boundary

88039642990. ✔ outer core

88039642991. ✘ lower mantle

88039642992. ✘ crust

**Question Number : 69 Question Id : 88039610749 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 maximum number of plane of symmetry found in crystal systems?

**Options :**

88039642993. ✘ 5

88039642994. ✘ 6

88039642995. ✔ 9

88039642996. ✘ 11



Question Number : 70 Question Id : 88039610750 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

Majority of minerals crystallizes in

Options :

88039642997. ✘ Cubic system

88039642998. ✘ Tetragonal system

88039642999. ✘ Orthorhombic system

88039643000. ✔ Monoclinic system

Question Number : 71 Question Id : 88039610751 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 uses high focused beam of light?

Options :

88039643001. ✔ Lidar

88039643002. ✘ Side-looking radar

88039643003. ✘ Ground penetrating radar

88039643004. ✘ Sonar

Question Number : 72 Question Id : 88039610752 Question Type : MCQ Option Shuffling : Yes Display Question Number :



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

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

Which of the following classes of positioning technique possess high precision?

**Options :**

88039643005. ✘ Rigid technique

88039643006. ✘ Real time technique

88039643007. ✘ Viscous technique

88039643008. ✔ Kinematic technique

**Question Number : 73 Question Id : 88039610753 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**

Polar orbiting satellites are placed at an altitude range of

**Options :**

88039643009. ✘ 7 - 15 km

88039643010. ✘ 7000 - 15000 km

88039643011. ✔ 700 - 1500 km

88039643012. ✘ 70 - 150 km

**Question Number : 74 Question Id : 88039610754 Question Type : MCQ Option Shuffling : Yes Display Question Num**

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

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

Which of the following can act as an example for air-borne platform?

**Options :**

88039643013. ✘ LISS-III

88039643014. ✔ Dakota

88039643015. ✘ MOS

88039643016. ✘ LISS-II

**Question Number : 75 Question Id : 88039610755 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**

Perspective projection is produced from

**Options :**

88039643017. ✘ Perpendicular lines radiating a common point

88039643018. ✘ Parallel lines radiating a common point

88039643019. ✘ Straight lines radiating different points

88039643020. ✔ Straight lines radiating a common point

**Question Number : 76 Question Id : 88039610756 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 triangle is preferred to obtain good results in plotting?

Options :

88039643021. ✘ Isosceles

88039643022. ✘ Obtuse angle

88039643023. ✔ Equilateral

88039643024. ✘ Acute angle

Question Number : 77 Question Id : 88039610757 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

GIS uses the information from which of the following sources?

Options :

88039643025. ✘ Non- spatial information system

88039643026. ✘ Global information system

88039643027. ✘ Position information system

88039643028. ✔ Spatial information system

Question Number : 78 Question Id : 88039610758 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 principle of Remote Sensing?

Options :

88039643029. ✘ Interaction of energy with atmosphere

88039643030. ✘ Electro-magnetic spectrum

88039643031. ✘ Electromagnetic energy

88039643032. ✔ Interaction of energy with satellite

**Question Number : 79 Question Id : 88039610759 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**

Pseudo ranging is used to

**Options :**

88039643033. ✘ Compute the distance between satellite and user

88039643034. ✔ Compute the distance between GPS antenna and satellite

88039643035. ✘ Compute the distance between GPS antenna and user

88039643036. ✘ Compute the distance between satellite and object

**Question Number : 80 Question Id : 88039610760 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**

Isogonic lines refer to

**Options :**

88039643037. ✔ equal declination values

88039643038. ✘ equal inclination values

88039643039. ✘ zero inclination values

88039643040. ✘ equal total magnetic field strength

**Question Number : 81 Question Id : 88039610761 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 Richter scale is used to measure an earthquake in terms of

Options :

88039643041. ✔ magnitude

88039643042. ✘ location

88039643043. ✘ duration

88039643044. ✘ depth

**Question Number : 82 Question Id : 88039610762 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 which type of map projection the entire earth surface is divided into zones?

Options :

88039643045. ✘ Poly conic projection system

88039643046. ✘ Cylindrical projection

88039643047. ✘ Lambert- Azimuthal equal area projection

88039643048. ✔ UTM projection

**Question Number : 83 Question Id : 88039610763 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 lateral distance of an object or ground feature measured from a survey line is called

**Options :**

88039643049. ✔ Offset

88039643050. ✘ Perpendicular distance

88039643051. ✘ Side distance

88039643052. ✘ Perpendicular offset

**Question Number : 84 Question Id : 88039610764 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 refers to an instrument error?

**Options :**

88039643053. ✘ mistakes in recording

88039643054. ✘ mistake in rod handling

88039643055. ✔ error due to sluggish bubble



88039643056. ✘ earth's curvature

Question Number : 85 Question Id : 88039610765 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 'v' is acoustic velocity and 'd' is density, the acoustic impedance is defined as

Options :

88039643057. ✘  $v / d$

88039643058. ✔  $v * d$

88039643059. ✘  $v - d$

88039643060. ✘  $v + d$

Question Number : 86 Question Id : 88039610766 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

Upright fold is a

Options :

88039643061. ✔ Symmetrical fold

88039643062. ✘ Asymmetrical fold

88039643063. ✘ Overtured fold



88039643064. ✘ Isoclinal fold

Question Number : 87 Question Id : 88039610767 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 water stored in the soil in the form of hydrated oxides of Iron, Silicon, and Aluminium is

Options :

88039643065. ✘ Gravitational water

88039643066. ✘ Capillary water

88039643067. ✘ Hygroscopic water

88039643068. ✔ Chemically bound water

Question Number : 88 Question Id : 88039610768 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

Intensity of rainfall is assessed by

Options :

88039643069. ✘ Anemometer

88039643070. ✘ Hydrometer

88039643071. ✔ Continuously recording rain gauge

88039643072. ✘ Pedometer

Question Number : 89 Question Id : 88039610769 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 :

88039643073. ✔ Estimating runoff from a basin

88039643074. ✘ Estimating no of days of rain fall

88039643075. ✘ Knowing the draught months in a year

88039643076. ✘ In deciding the land for the establishment of hydel power plant

Question Number : 90 Question Id : 88039610770 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

According to the Clairaut's theorem, the sum of geometric and gravitational flattenings is equal to

Options :

88039643077. ✔ 2.5 times the ratio of centrifugal force to gravity at the equator

88039643078. ✘ 1.5 times the ratio of centrifugal force to gravity at the equator

88039643079. ✘ 10 times the ratio of centrifugal force to gravity at the equator

88039643080. ✘ one

**Question Number : 91 Question Id : 88039610771 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 maximum force expressed per unit area, which a stone can withstand without rupturing is known as

**Options :**

88039643081. ✘ Shear strength

88039643082. ✘ Tensile strength

88039643083. ✔ Compressive strength

88039643084. ✘ Bending strength

**Question Number : 92 Question Id : 88039610772 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 doesn't determine the capability of GIS?

**Options :**

88039643085. ✘ Defining a map

88039643086. ✘ Representing cartographic feature

88039643087. ✘ Retrieving data

88039643088. ✓ Transferring data

**Question Number : 93 Question Id : 88039610773 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 which of the following fold types, the fold limbs lie exactly one over the other?

**Options :**

88039643089. ✗ Isoclinal

88039643090. ✓ Recumbent

88039643091. ✗ Symmetrical

88039643092. ✗ Asymmetrical

**Question Number : 94 Question Id : 88039610774 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 deep, long and wide trough or basin with very steep concave high walls at its heads as well as its side is known as

**Options :**

88039643093. ✗ Esker

88039643094. ✓ Cirque

88039643095. ✗ Glacial valley

88039643096. ✘ Lateral moraine

**Question Number : 95 Question Id : 88039610775 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 waves approach a beach, the rows of waves gradually bend to a direction more parallel to the shore. This change in direction is called

**Options :**

88039643097. ✔ wave refraction

88039643098. ✘ tidal surge

88039643099. ✘ swash

88039643100. ✘ long shore drift

**Question Number : 96 Question Id : 88039610776 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**

Deep valleys eroded into the continental slope and shelf are called as

**Options :**

88039643101. ✘ ocean trenches

88039643102. ✔ submarine canyons

88039643103. ✘ estuaries

88039643104. ✘ abyssal valleys

**Question Number : 97 Question Id : 88039610777 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 volcanic activity on the seafloor takes place on

**Options :**

88039643105. ✘ continental shelves

88039643106. ✔ mid ocean ridges

88039643107. ✘ continental rise

88039643108. ✘ abyssal plains

**Question Number : 98 Question Id : 88039610778 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 reflectance from a surface is called specular reflection if it follows

**Options :**

88039643109. ✘ Newton's law

88039643110. ✔ Snell's law

88039643111. ✘ Lambert's cosine law

88039643112. ✘ Planktan's law



Question Number : 99 Question Id : 88039610779 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 paleomagnetism is so important in discovering plate tectonics, as

Options :

88039643113. ✘ It allows measurement of mountain building rates

88039643114. ✔ It illustrates sea floor spreading

88039643115. ✘ It illustrates the location of the North Pole

88039643116. ✘ It allows the depth of the oceans to be measured

Question Number : 100 Question Id : 88039610780 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 theory, which explains the continental drift, sea-floor spreading with the build-up of mountains and Oceans is

Options :

88039643117. ✔ Plate tectonics

88039643118. ✘ Rock cycle

88039643119. ✘ Isostasy

88039643120. ✘ Denudation



**Question Number : 101 Question Id : 88039610781 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 surface manifestation of displacement along the fault is termed as

Options :

88039643121. ✘ Fault plane

88039643122. ✘ Fractures

88039643123. ✔ Fault scraps

88039643124. ✘ Normal faults

**Question Number : 102 Question Id : 88039610782 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 sea bed sloping gradually and bordering the continent is known as

Options :

88039643125. ✘ Coast

88039643126. ✘ Continental slope

88039643127. ✔ Continental platform

88039643128. ✘ Continental Shelf

**Question Number : 103 Question Id : 88039610783 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

Match list I to list II and select the correct answer using the codes given below

List I	List II
A. Feldspar	I. No cleavage
B. Gypsum	II. Hardness
C. Mica	III. Foliated
D. Limonite	IV. Readily soak in water

Options :

88039643129. ✘ A-I, B-IV, C-III, D-II

88039643130. ✘ A-I, B-IV, C-II, D-III

88039643131. ✘ A-IV, B-II, C-III, D-I

88039643132. ✔ A-II, B-IV, C-III, D-I

Question Number : 104 Question Id : 88039610784 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

Metallic minerals belong to which category with respect to colour?

Options :

88039643133. ✔ Idiochromatic

88039643134. ✘ Pseudo chromatic

88039643135. ✘ Allochromatic

88039643136. ✘ Iridescence

**Question Number : 105 Question Id : 88039610785 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 survey is carried out to show natural features such as rivers, hills etc.,

**Options :**

88039643137. ✘ Route surveying

88039643138. ✘ Engineering surveying

88039643139. ✔ Topographic surveying

88039643140. ✘ Cadastral surveying

**Question Number : 106 Question Id : 88039610786 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**

Example of an obstacle to both chaining and ranging

**Options :**

88039643141. ✘ Hill

88039643142. ✔ Tall building

88039643143. ✘ Pond

88039643144. ✘ River

Question Number : 107 Question Id : 88039610787 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 R.L of a bench mark is 100.00 m, the back sight is 1.215 m and foresight is 1.870 m, the R.L of the forward station is

Options :

88039643145. ✘ 101.00 m

88039643146. ✔ 99.345 m

88039643147. ✘ 100.345 m

88039643148. ✘ 101.87 m

Question Number : 108 Question Id : 88039610788 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

Scale of vertical photograph is given by

Where  $f$  = focal length of camera,  $H$  = Height of exposure station above MSL,

$h$  = height of ground above MSL.

Options :

88039643149. ✘  $\frac{f}{H}$

88039643150. ✘  $\frac{f}{H+h}$

88039643151. ✘  $\frac{h}{H-f}$

88039643152. ✔  $\frac{f}{H-h}$

**Question Number : 109 Question Id : 88039610789 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**

Lysimeter is an instrument used to measure

**Options :**

88039643153. ✘ Evaporation

88039643154. ✘ Transpiration

88039643155. ✔ Evapotranspiration

88039643156. ✘ Infiltration

**Question Number : 110 Question Id : 88039610790 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**

Penman's equation is used to determine

**Options :**

88039643157. ✓ Evapotranspiration

88039643158. ✗ Infiltration

88039643159. ✗ Runoff

88039643160. ✗ Rainfall

**Question Number : 111 Question Id : 88039610791 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**

Isopleths are the line joining places having

Options :

88039643161. ✗ Equal depths of rainfall

88039643162. ✗ Equal magnitude of wind velocity

88039643163. ✓ Equal depths of evapotranspiration

88039643164. ✗ Equal depths of runoffs

**Question Number : 112 Question Id : 88039610792 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**

Potential evapotranspiration is

Options :

88039643165. ✗ the evapotranspiration of a forest area

88039643166. ✓ The evapotranspiration when there is sufficient moisture available to a fully vegetated area
88039643167. ✗ Actual evapotranspiration of a crop before application of irrigation water
88039643168. ✗ Amount of water needed to bring the water content to its field capacity

**Question Number : 113 Question Id : 88039610793 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**

Eutrophication is caused by

Options :

88039643169. ✗ Plastic
88039643170. ✓ Nitrogen and phosphorus
88039643171. ✗ Nuclear waste
88039643172. ✗ Coal

**Question Number : 114 Question Id : 88039610794 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 ratio of the shear strength of the soil in the undisturbed state to that of soil in remoulded state is known as

Options :

88039643173. ✗ Degree of density



88039643174. ✘ Degree of compaction

88039643175. ✘ Degree of disturbance

88039643176. ✔ Degree of sensitivity

**Question Number : 115 Question Id : 88039610795 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 soil mass, if the volume of voids is equal to volume of solids, then values of void ratio and porosity are

**Options :**

88039643177. ✔ 1, 0.5

88039643178. ✘ 1, 1

88039643179. ✘ 0.5, 1.5

88039643180. ✘ 1.5, 1

**Question Number : 116 Question Id : 88039610796 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**

Critical hydraulic gradient ' $i_c$ ' of the soil mass of specific gravity ' $G$ ' and void ratio ' $e$ ' is given by

**Options :**

88039643181. ✘  $i_c = \frac{G+1}{1-e}$

88039643182. ✘  $i_c = \frac{G-1}{1-e}$

88039643183. ✘  $i_c = \frac{G+1}{1+e}$

88039643184. ✔  $i_c = \frac{G-1}{1+e}$

**Question Number : 117 Question Id : 88039610797 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 porosity of a soil is 20 percent, its void ratio is

**Options :**

88039643185. ✘ 0.15

88039643186. ✔ 0.25

88039643187. ✘ 0.2

88039643188. ✘ 0.8

**Question Number : 118 Question Id : 88039610798 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 following correct statement

**Options :**

88039643189. ✘ Greater the viscosity, is the greater permeability

88039643190. ✔ Greater the unit weight, is the greater permeability

88039643191. ✘ Greater the unit weight, smaller is the permeability

88039643192. ✘ Unit weight does not affect permeability

**Question Number : 119 Question Id : 88039610799 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 an increase in the thickness of the diffused double layer , the permeability

**Options :**

88039643193. ✘ Increases linearly

88039643194. ✔ Decreases

88039643195. ✘ Makes no change

88039643196. ✘ Increase exponentially

**Question Number : 120 Question Id : 88039610800 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**

Textural classification is most suitable for

**Options :**

88039643197. ✘ Moist soil

88039643198. ✓ Coarse grained soil

88039643199. ✗ Clay soil

88039643200. ✗ Wet soil