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Dos and Don'ts for General Science & Ability Paper Section I

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Hi there, you've done well. Know that

acquiring knowledge is one thing and

reproducing it in paper according to what's

asked is another. There are a few things I

would like to highlight.

Dengue:

1. A 5 marks part requires at least 2 and at

max 3 sides of a paper. Know that there can

be two or three parts of a question and their

marks are divided accordingly. So, address all

of them in a just manner.

2. Focus on time management. You get 35

minutes to solve one question and about 8

minutes per 5 mark part. Manage your time

accordingly.

3. You need to understand that your paper is

supposed to look more scientific than

theoretical. So, add flowcharts and diagrams

where required.

4. Your handwriting and neatness can be

really impactful. Avoid cutting and overwriting.

5. Focus on your spellings and your grammar.

Here, in GSA there's no deduction in marks

but your expression will definitely create an

impact.

6. In ability portion, give explanation for

analytical ability question in words. You need

to understand that a 5 mark part requires all

steps written and explained.

Good luck for CSS 2025. You're gonna rock

in sha Allah. :)

entire life. The causative virus target replicate white blood cell.

Symptom of dengue:

Symptoms of dengue usually appears 4-10 days after an infected mosquito bite and range from mild to severe. Common symptom include:

- 1/ High fever
- 2/ Severe headache
- 3/ Pain behind the eyes
- 4/ Joint and Muscle pain
- 5/ Vomiting
- 6/ Skin rash etc.

What are the covalent bond?

Give early, critical and recovery symptoms along with elaborated structures.

Covalent bond:

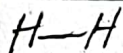
A bond formed by the mutual sharing of electron between two atom is known as covalent bond.

Types of covalent bond:

(i) Single Covalent Bond:

covalent bond is ^{formed by} sharing by of one electron pair between two atoms and represented by a single line.

Example



(2) Double Covalent Bond:

A double covalent bond involves sharing of two electron pairs is called double covalent bond and represented by two short electron

Example



(3) Triple Covalent bond:

In a triple bond, three pairs of electrons are shared between two atoms

and is represented by three parallel lines

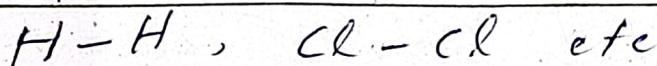


Special Types of Covalent bond:

(1) Non-covalent polar Bond:

In this type of covalent bond, like atoms in which the bonding electron is equally shared by atom is called non covalent bond.

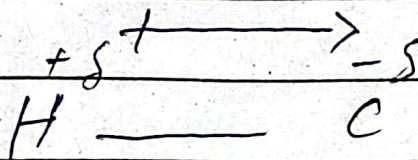
Example



Polar Covalent Bond:

The sharing of electron pairs between unlike atom in which the bonding electron pair is not equally shared is called a polar covalent bond.

Eg Example



3

What is lunar eclipse? Explain in detail with opt diagram.

Eclipse:

The eclipse means the obscuring of one astronomical object by another.

Lunar Eclipse formation:

When Earth comes between the sun and the moon & casts the shadows across the lunar eclipse. It is the common phenomenon and about three lunar eclipses occur yearly.

Types of lunar eclipse

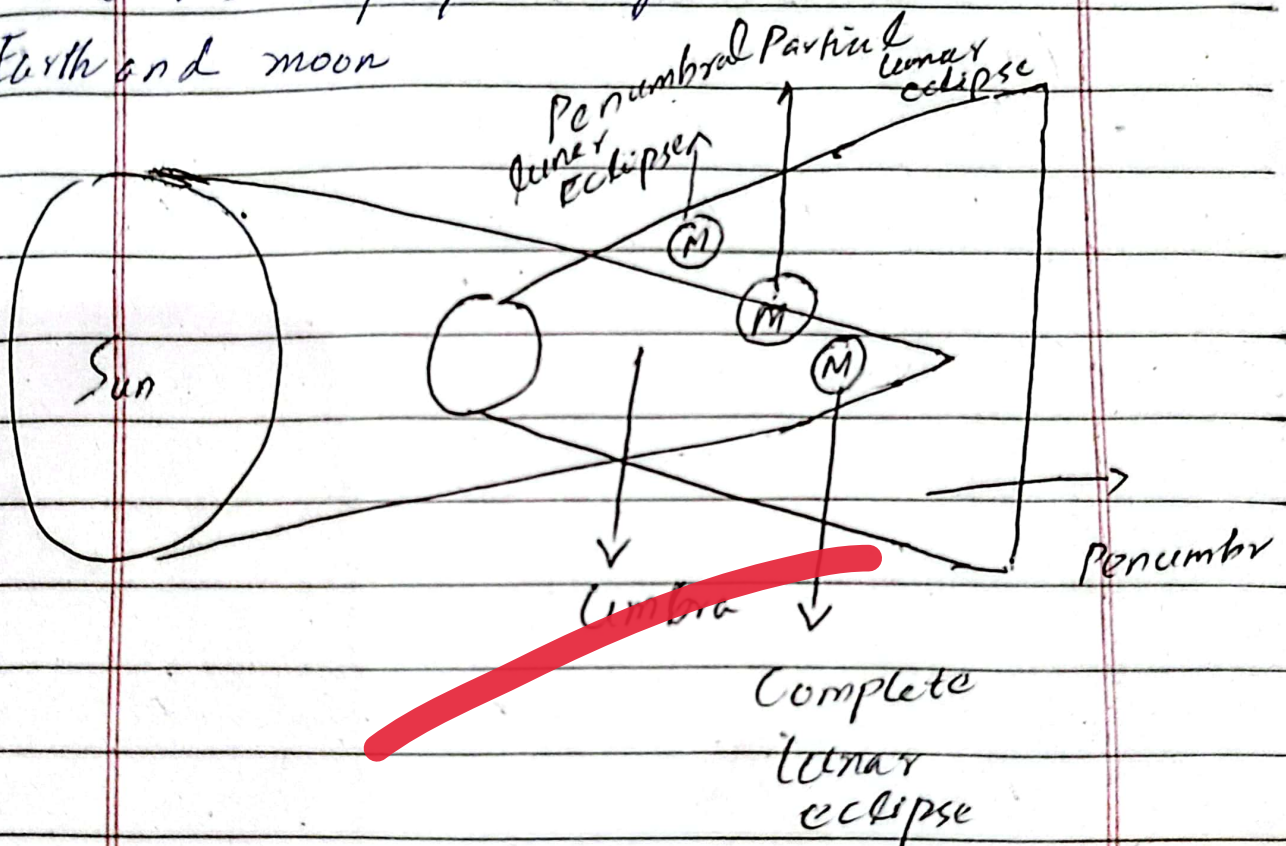
1- Complete lunar eclipse

When the entire moon comes under umbra part of the shadow, it is called a complete lunar eclipse. It happens when

it is a full moon and the sun, Earth and Moon are aligned in a straight line.

2- Partial lunar eclipse

When the moon passes through the part of the Earth's umbra, it is called a partial lunar eclipse. It occurs due to the imperfect alignment of the sun, Earth and moon.



3- Penumbral lunar eclipse:

When the moon travels through the Earth's penumbra, it is called penumbral lunar eclipse. It is also called occurs due to imperfect alignment of the sun, Earth and moon.

(a) Explain function of enzymes in detail with examples:

Enzymes:

Enzymes are the most important group of proteins which are biologically active.

They are highly specific, each having responsible for a particular type of reaction. Since enzymes are responsible for catalyzing the reaction, without them, the reaction would proceed at a very slow speed, making life impossible.

Examples:

Pepsin

Sucrase

Lipase

Function of Enzymes:

Generally, the main function of enzyme is to speed up the reaction rate by attracting substance (reactants) with the active site of the enzyme to form a product;

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The general function of enzyme are as follows

- 1- Enzyme, such as protein kinase, are pivotal in ~~initiating~~ signal transduction processes.
- 2- Enzymes assist in breaking down large molecule into smaller
- 3- ATP ^{enzymes} is instrumental in the synthesis of energy, contributing to body's energy production.
- 4- They maintain cellular balance
- 5- They are responsible for biochemical reaction, such as oxidation and reduction,

Are earthquake and volcanic eruptions
are interconnected. If yes then
how?

Earth quake and volcanic eruptions
are interconnected.

How they are Interconnected:

(1) Tectonic plate Movement;

Both ^{often} occurs

in tectonic plate boundaries. When
the plates move, they create crack
and fracture in the earth's crust.

This allows ~~to~~ magma to rise,
potentially leading volcanic eruption
and earthquake due to release
of stress along fault lines.

(2) Pressure Buildup and Release:

When magma
moves toward surface, it
build pressure. This can cause
small to large earthquake.

These ~~can~~ earthquake known
as volcanic eruption.

(3) Subduction Zones

Subduction zones

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are located where tectonic plates
meet each other, in case of
earthquake, the magma also
rise.

In conclusion, both share close
relationship with each other.

Qno 60

Section 2

- (a) Determine the value "k" if the arithmetic mean of 9, 8, 10, k, 12 is 15.

Solution

Given :

$$\frac{9+8+10+k+12}{5} = 15$$

Hence we get.

$$\frac{39+k}{5} = 15$$

Now simplify the above equation we get

$$39+k = 15 \times 5$$

$$39+k = 75$$

$$k = 36 \quad \text{Answer}$$

- (c) What will be volume of football with radius of 12 cm

Sol - Volume of the Football.

$$V = \frac{4}{3} \pi r^3$$

$$\therefore r = 12$$

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$$= \frac{4}{3} \times (12)^3 \times 3.14$$

$$V = 7234.56 \text{ cm}^3$$

$$-10 + 2^2 = -10 + 4 = -6$$

$$-8 + 2^3 = -8 + 8 = 0$$

$$6 + 2^4 = 6 + 16 = 22$$

$$40 + 2^5 = 40 + 32 = 72$$

$$102 + 2^6 = 102 + 64 = 166$$

166. Correct at place of question mark.

Add question number(s)