Batch : 377.

تاریخ: _____

Dos and Don'ts for Generaral Science & Ability Paper
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.
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. :)

Part - II

Section - I

Q.2.

(a)

Ans "Dengue also known as break-bone fever, is a viral disease which is caused by dengue virus."

(Ref; WHO)

Causes and Transmission :

Dengue is caused by dengue virus. Following are some ways through which dengue spreads;

(i) **Mosquito to man;** Dengue can transmitt from mosquito to man when a mosquito bites a healthy person. The mosquito which transmit dengue virus to man is known

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as Aedes Ajepti.

(ii) **Man to mosquito;** A person who is viramic to dengue transmits dengue virus to mosquito. If mosquito is infected with dengue virus, it will remain infected for a lifetime.

(iii) **Other methods;**

Blood transfusion

Organ donation.

Add aearky, critical, recovery symptoms

SYMPTOMS

The symptoms of dengue include;

- Fever
- Nausea
- Vomiting
- Weakness
- Lack of apetite
- Jaundice.

تاریخ:

(d)

Ans "Covalent bond is a type of bond which is formed by the sharing of electrons between the atoms."

Types of covalent bond

1- Single covalent bond; H:H

"A type of covalent bond which is formed by the sharing of one pair of electrons between the atoms."

e.g. Formation of H_2 molecule.

$H:H \rightarrow H_2$

→ Single covalent bond is represented by single straight bond.

molecule

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2- **Double covalent bond ;**

"A type of covalent bond which is formed by the sharing of two pairs of electrons between the atoms."

e.g. Formation of O_2 molecule ;

$\rightarrow O_2$

Double covalent bond is represented by double straight lines.

3- **Triple covalent bond ;**

"A type of covalent bond which is formed by the sharing of three pairs of electrons between the atoms."

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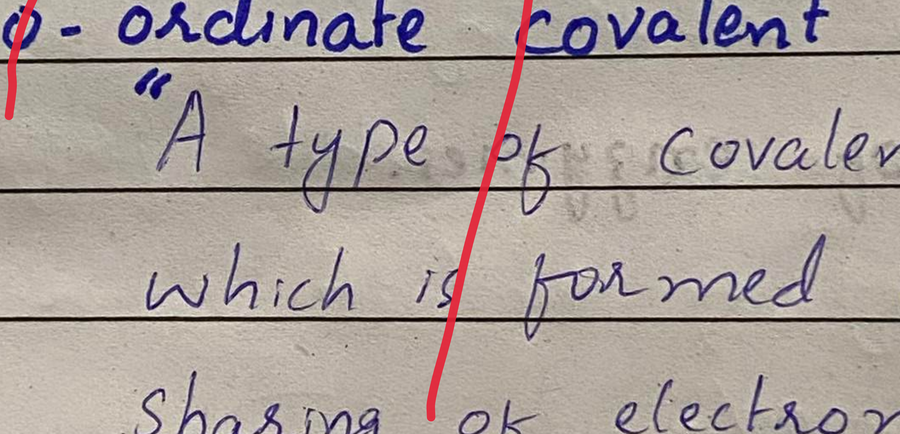
e.g. Formation of N_2 molecule

Ans



$:N \equiv N: \rightarrow N_2$

Triple covalent bond is represented by three straight lines

4- **Co-ordinate covalent bond;**

"A type of covalent bond which is formed by the sharing of electrons by one atom only."

Co-ordinate covalent bond is represented by drawing an arrow from donor (atom) to acceptor (atom)

تاریخ: _____

Q. No. 3.

(B)

Ans

ENZYMES

"Enzymes are the biological molecules which speeds up the chemical reactions."

Examples of enzymes.

- Amylase
- Lipase
- Maltase
- Lactase

Functions of enzymes.

Enzymes also known as catalysts are responsible for to speed up the chemical reaction without being used in reaction.

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e.g. ∃ The enzyme is pepsin which is present in stomach speeds up the chemical reaction which is responsible for the breakdown of protien.

Protien + Pepsin → Polypeptides + Pepsin.

(C)

Ans

"Electromagnetic radiations are the radiations which travel with the speed comparable to the speed of light."

Electromagnetic spectrum (EMR spectrum)

- Electromagnetic radiation spectrum is the spectrum of electromagnetic radiations.
- If we move from upward to downward in electromagnetic spectrum, wavelength of radiations will be increased while frequency and energy of radiations will be decreased.

→ Gamma Rays
→ X-rays
→ Ultra voilet rays
→ Visible light
→ Infra rays
→ Micro rays
→ Radio waves.

EMR Spectrum

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Part II

Section II

Q.No.6

(A)

Ans Solution;

We know that

$$\text{Arithmetic mean} = \frac{\text{Sum of quantities}}{\text{No of quantities}}$$

Thus,

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

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

$$K = 75 - 39$$

$$\boxed{K = 36}$$

تاریخ: _____

(c)

Ans

Data;

Radius $r = 12$ cm

Volume $V = ?$

Solution;

We know that

Diameter $d = 2r$

Thus,

$d = 2 \times 12 = 24$ cm.

By applying the formula of volume

$V = 3L = 3 \times 24$

$V = 72\ cm^3$

تاریخ: _____

(1)

Q. No. 7.

(a)

Ans Solution;

Suppose $x = 1$

So,

20% of $x = y$

$\frac{20}{100} = y \Rightarrow \boxed{y = 0.2}$

Thus,

y% of 20 in terms of x

will be

$\frac{0.2}{100} \times 20 = x$

$\boxed{x = \frac{1}{25}}$

تاریخ: _____

(D)

Ans Solution;

Suppose

Jamie's age at present = x

Then,

Jamie's dad's age at present = 4x

Thus,

(14 years) + Jamie's dad's age =

(14 years + Jamie's age) 2

$14 + 4x = (14 + x)2$

$14 + 4x = 28 + 2x$

$4x - 2x = 28 - 14$

$2x = 14$ $\quad x = 7$

and

$4x = 28$

Therefore,

$4x + x = 28 + 7 = 35$