

Mock Dos and Don'ts for General Science & Ability Paper

Q&A No: 2

Definition:

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, use 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. :)

b) Explain Dark matter & Dark energy

Dark matter:-

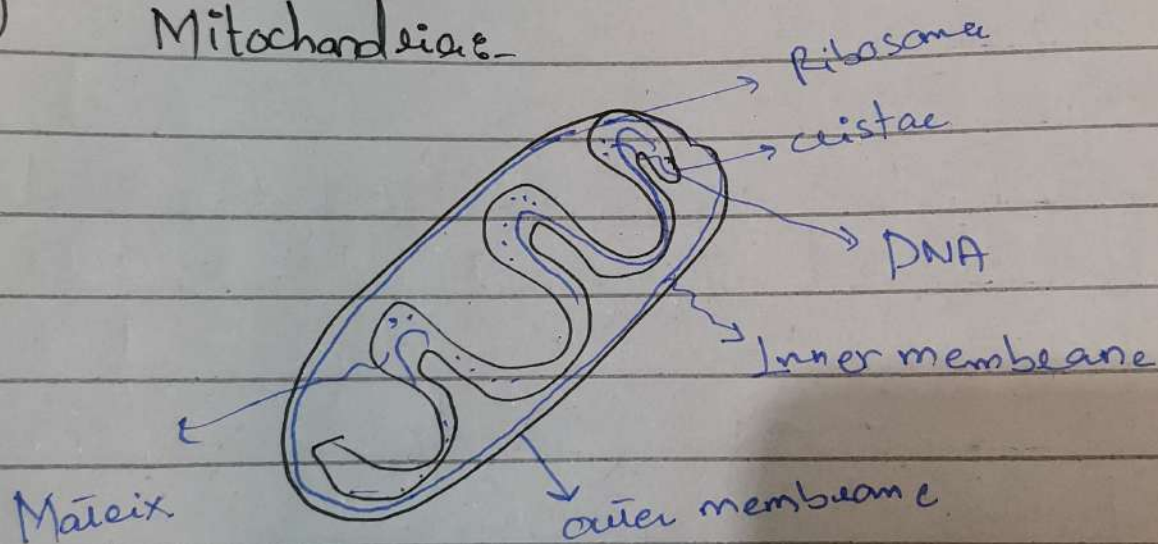
Dark matter exist in universe and extended in galaxies. it constitute the 27% of universe responsible for gravity.

Dark energy:-

Dark energy maintain the expansion of universe.

It constitute 68% of universe.

c) Mitochondriae-



Mitochondria is self Replicating and present in prokaryotes as well as eukaryotes

Reaction Mechanism:-

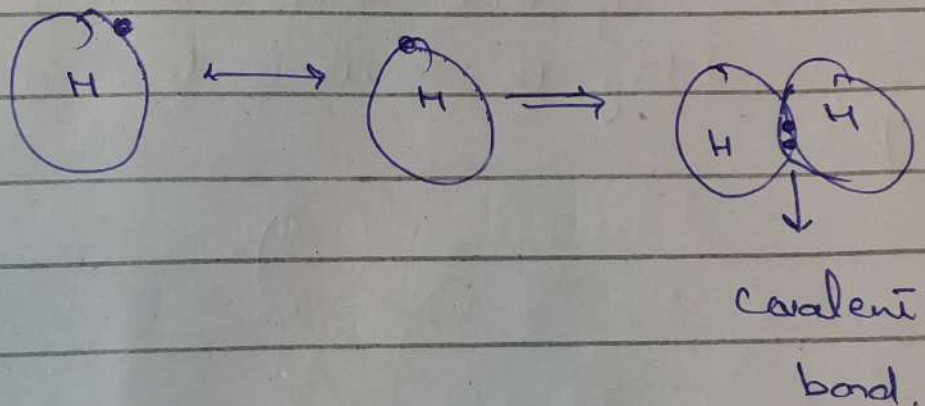
Various reactions, Such as Krebs cycle, aerobic respiration and fatty acid Metabolism occur there

Powerhouse of cell:-

Mitochondria is considered as powerhouse of cell. Because it makes energy constituent ATP break down into ADP and release energy - and later on absorb energy and again become ATP. That's why called Mitochondria is used as powerhouse of cell.

d) Covalent bond?

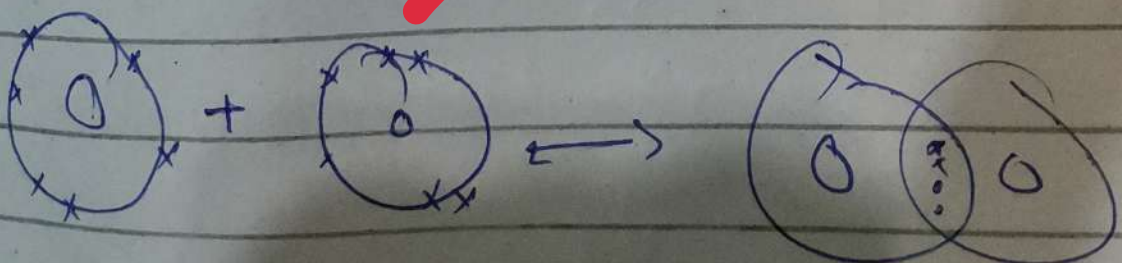
definition: When two non metal atoms combine and share single or pairs of electron and form bonds called covalent bond.



Types :

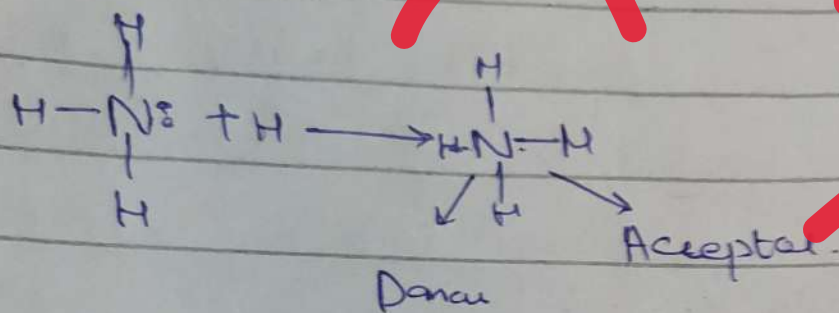
Multiple covalent bond:

Form bond By sharing two pairs of electron.



Coordinate covalent bonds:-

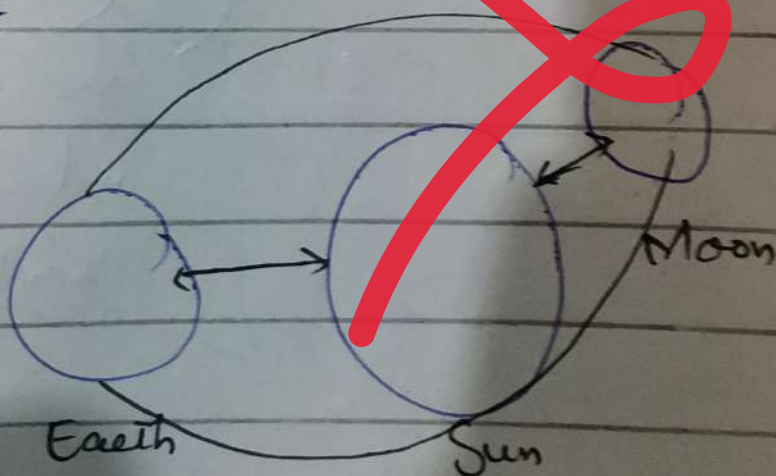
In which one atom has lone pair of electron and other has unfilled orbital to accept lone pair:-



Q. NO. 3

a) Lunar Eclipse

Lunar Eclipse is a condition when Sun come in between of Earth and moon-
Moon visibility to Earth is less and appear red



b) Enzymes:-

Enzymes are act as catalyst which used to speed up the Reaction.
Word use came in last of enzyme.

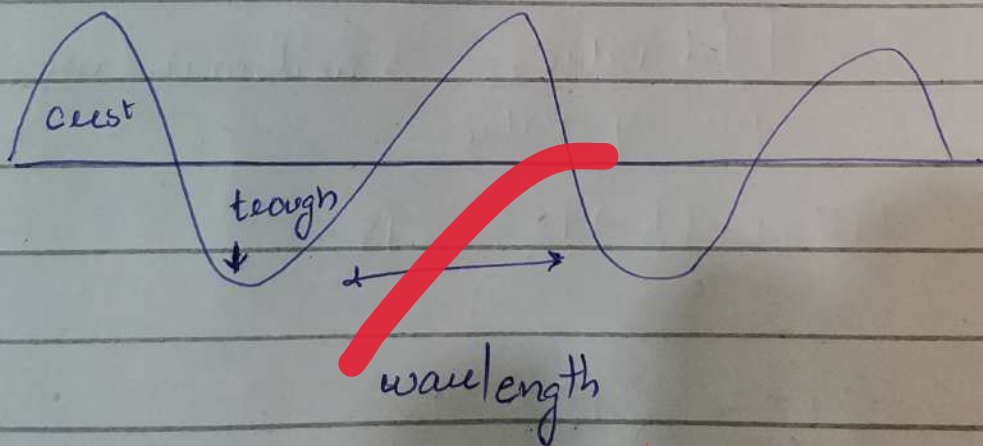
Examples:-

Amylase: Enzyme involved in digestive activity.

Urease & For urea decomposition.
pepsin & act on protein.

c) Electromagnetic Radiation:-

Form of energy which is all around us. Such as light rays, Radio waves etc.



EMR: Spectrum:

Electromagnetic waves can be either the frequency or wavelength of their oscillations to form Electromagnetic Spectrum.

403-
d) ~~Earth~~ Earthquake & volcanoes Eruption
are interconnected?

Yes! Earth has tectonic plates - under these
tectonic plates have crust of earth which
contain volcanoes

So when these tectonic plates moves these
cause earthquake and crust damage and
volcano eruption occur.

So earthquake & volcano eruption are interconnected

Section 11

Q: No 86

2. Determine the "k" value of the arithmetic
means 9, 8, 10, k, 12 is 15

$$\frac{\text{Total value}}{\text{no. of value}} = \text{arithmetic mean}$$

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

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

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

$$39+k = 75$$

$$k = 75 - 39$$

$$k = 36$$

B) Mixture contain Sugar & water

4:3 after add 10L water then
became 4:5

So $4x : 3x + 10$

$$\frac{4x}{3x+10} = \frac{4}{5}$$

$$20x = 4(3x+10)$$

$$20x = 12x + 40$$

$$20x - 12x = 40$$

$$8x = 40$$

$$x = \frac{40}{8}$$

$x = 5$ liter of Sugar
Soln.

C) volume of football with a radius 12 cm.

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

$$V = \frac{4}{3} \pi (12)^3$$

$$V = \frac{4}{3} \pi 1728$$

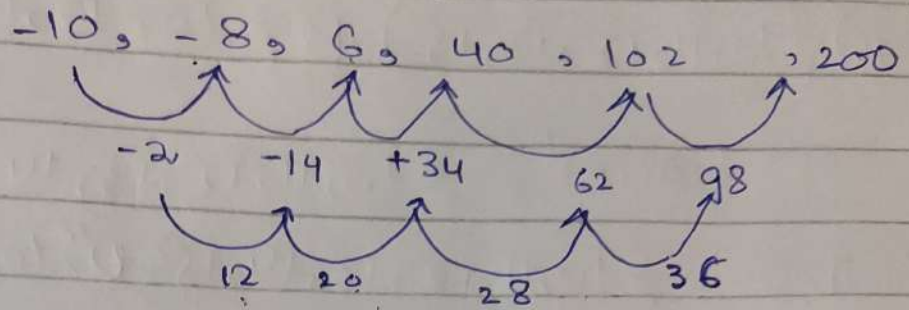
$$= (1.3)(3.14)(1728)$$

~~Ques~~

7234.56 Ans- volume of football

d) Next Series:

-10, -8, 6, 40, 102?



Missing Series is 200-

Q: NO: 8

a) Charge = £ 20 + 4n
window = 7

Charge, £ 20 + 4(7)

$$= 20 + 28$$

$$= \text{£} 48$$

So Brian charge £ 48

B-

C - Verify

$$(A \cup B)' = A' \cap B'$$

$$(A \cup B)' = \{10, 11, 12, 13, 15\} \cup \{10, 12, 14\}$$

$$(A \cup B)' = \{10, 11, 12, 13, 14, 15\}$$

$$(A \cup B) \cup \{16, 17, 18\} = \{10, 11, 12, 13, 14, 15\} \cup \{10, 11, 12, 13, 14, 15, 16, 17, 18\}$$

$$(A \cup B)' = \{16, 18\}$$

$$A' \cap B'$$

$$A' = \{10, 11, 12, 13, 14, 15, 16, 17, 18\} \setminus \{10, 11, 12, 13, 15\}$$

$$A' = \{14, 16, 17, 18\}$$

$$B' = \{10, 11, 12, 13, 14, 15, 16, 17, 18\} \setminus \{10, 12, 14\}$$

$$B' = \{11, 13, 15, 16, 17, 18\}$$

$$A' \cap B'$$

$$\{14, 16, 17, 18\} \cap \{11, 13, 15, 16, 17, 18\}$$

$$A' \cap B' = \{16, 18\}$$

Hence prove that $A' \cap B'$

d- Total 12 triangles.

