

Dos and Don'ts for General 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 mark 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.

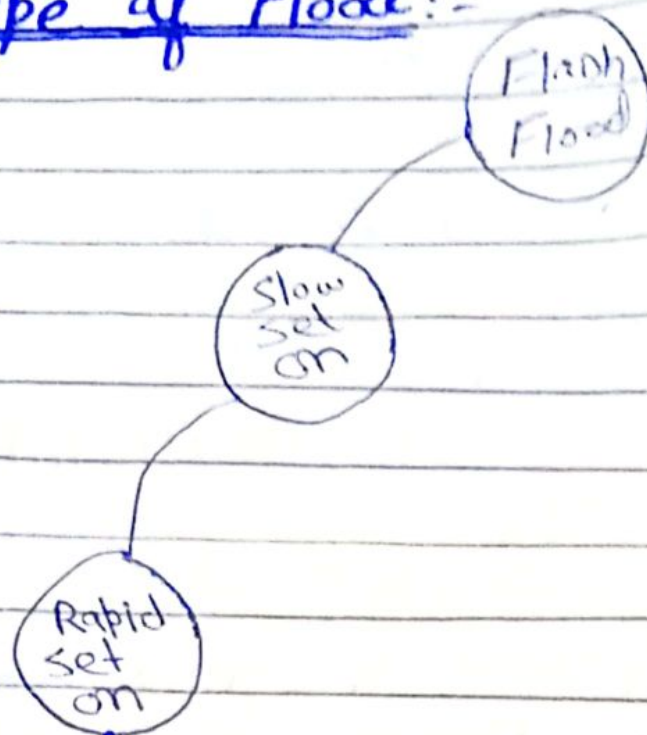
4. Your handwriting and neatness can be really impactful. Avoid cutting and overwriting.

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. :)

Type of Flood:-



Which factors encourages the Floods:-

Barriers set channel



The Flow of water put impact on barriers and break them and force the water to move outward from the river



Vegetation



The cut down of tree decrease the vegetation that increase risk of Flood



Urban-set-barrier
↓

Mismanagement during
Construction Cause
the Flood. water
do not get way
to pass. so it can
move toward
residential area

Sediments
↓

Sediments
are also
responsible
to occurrence
of flood
in residential area

3- Causes of Flood :-

The Flood is a naturally
occurring due to heavy rain
which break the barriers of
rivers, and cause of flood
occurrence -

⇒ Heavy rain even a
short period of time cause
flood occur.

⇒ wind flow and hurricane
force the water to move
outside the river to break
the barriers of gate.

⇒ Sediments may also responsible for flood occurrence

⇒ Vegetation process responsible for flooding

⇒ Mismanagement of the town plan made the huddles on the way of water.

⇒ Climate Change increase of temperature cause the melting of glaciers or ice, which increase the level of water.

⇒ Garbage in river increase level of water.

≡ How Flood of 2022 is were different from Super flood 2010?

The flood of 2022 is completely different

Year 2010-2022

Flood of 2010	Flood of 2022
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1- Loss of Lives - over 1985	Loss of life was 1785
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2- it cause the 43 trillion loss overall	in which loss is about 23 trillion
--	------------------------------------

3- it is due to monsoon spell of heavy rain which continue about 21 July to August	3- it is a flash flood naturally occurring
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~~Impacts~~

- 1) Relief of Texasit (GDP)
- 2) Political instability
- 3) Largest loss of economy

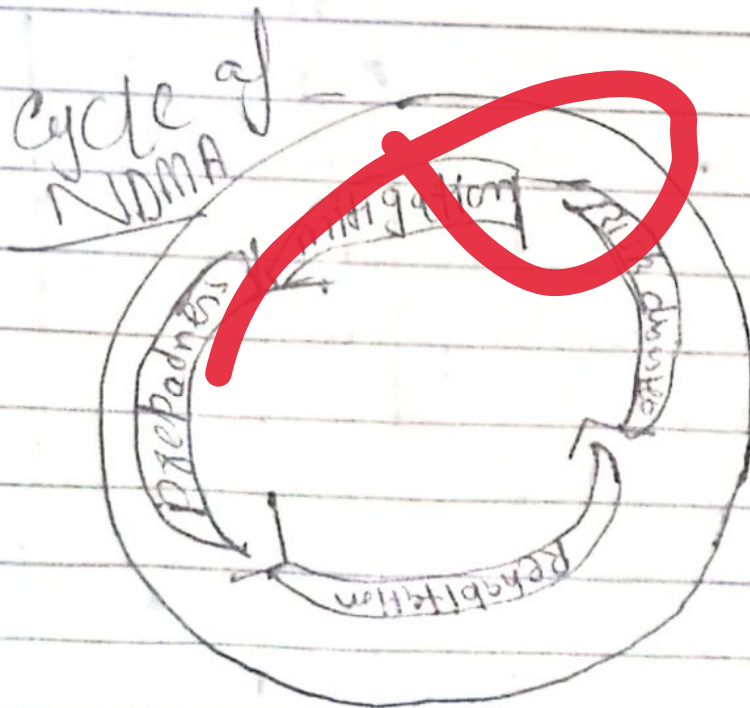
~~Impacts~~

- 1- Economy
- 2- Infrastructure
- 3- Environment
- 4- Loss of life

- (4) Environmental degradation
- (5) GDP's Low
- (6) inflation level rise

The flood of 2010 was the biggest Flood of history.

Prevention/Role of NDMA



The NDMA act as a relief provider and humilitation in 2010 Flood. Give the pozeign funding to human that had suffered from flood.

(Part c)

Why do atoms form
Chemical bonds? Explain
the structure of water?

1 Chemical Bonding

Everything in the world
wants to get stability. The
atom wants to get stability
these atoms form they form
covalent or Ionic bond
during chemical reaction.

The are formed by
sharing or transfer or
loss of electrons

2 Definition

Atom wants to stability
by losing, sharing or transfer
of its valence electron. called
Chemical bonding

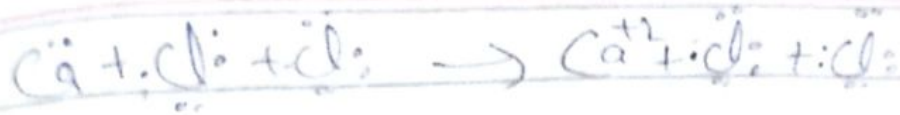
2. Characteristics of Chemical Bonding

- (1) To get stability.
- (2) Some electron have 8 or 7 electron they (release) gain or share electron to form a covalent bond
- (3) Some have 2 or 3 electron in valence shell they release them to other atom and form a stable bond

Example

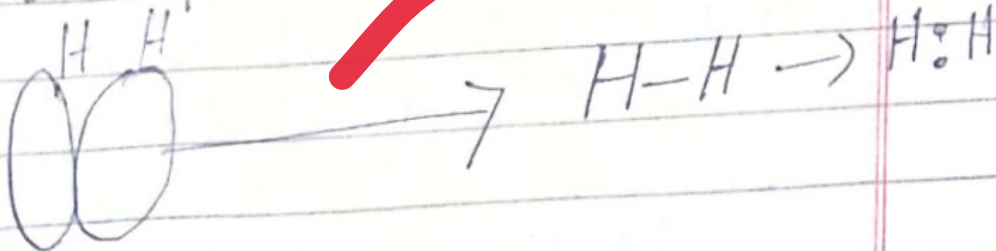
(1) NaCl





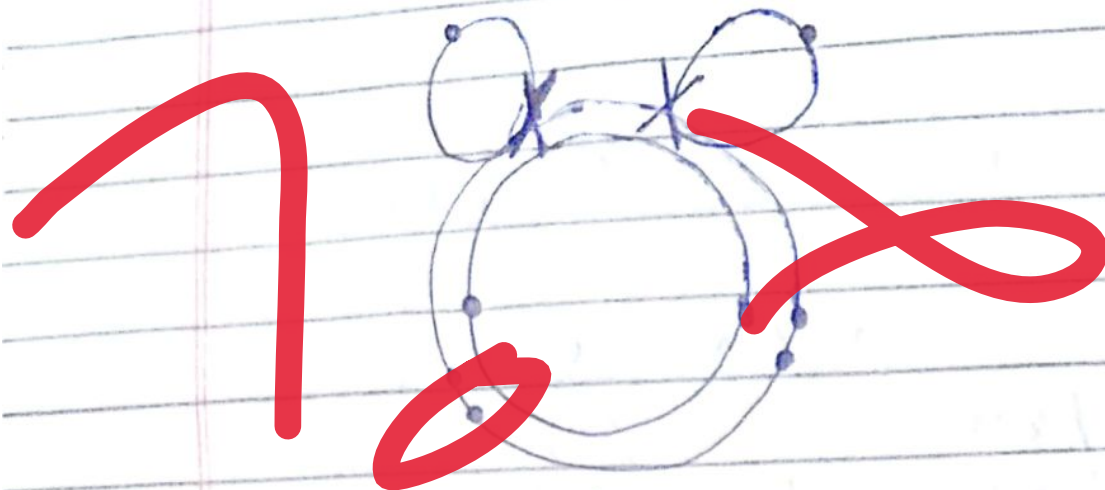
Structure of water

Water is not share a atom with single bond. they get stability to form a valance electron share completely with two hydrogen atom or one oxygen whole shell is share to form the bond



Bonding of atom

Atom form a covalent bond with two hydrogen and one oxygen atom -



↓
water molecule

Part(d)

What are conductor, semi-conductor, metals, plastics and ceramics:

1 -
Conductor



Conductors are metal which allows the electric current

Semi-Conductor



it is not allows the electric current pass

Pass through
it



it is carries
of electric
charge and
have ions
that move
freely from
one atom to
another



Example
of conductors
are copper
silver
gold & mercury
etc

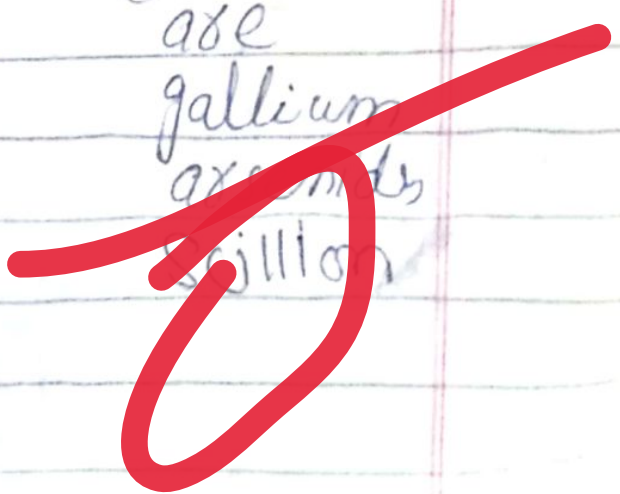
or Partly Pass
through it



it partly
allow the
electric
current
to pass
through it
and not have
freely move
ions



Example
of semi-
conductors
are
gallium
arsenide
silicon



metal

Plastic

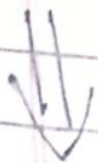
ceramic



metal are inorganic material which is consists of metal Non-metal & metalloids

Plastics are organic compound that are formed by the molecule chain called polymers

it is an inorganic material which is used in different things formation



It have the characteristics of ductibility allow electric current to pass through it

it is easily moulded and formed in different colors

it is used to form a stone ware products

metal are the example of

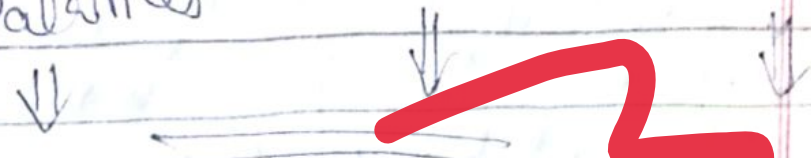
Example of metal are

Example of ceramic

Silver, copper, white gold, Fe, Ni, Al, or stone wear

↓
all the atom that form a positive + Bond except hydrogen are metals
↓
Plastics are of two types Thermosetting Polymers
↓
These are two types Non-Crystalline or Crystalline

↓
it is used in formation of jewellery, crockery or electric insulators
↓
It is used to form surgical instruments, Bed or Bed wear
↓
it is used to form Stone wear or formation of crockery



Difference b/w star and planets? How star form black hole?

Stars	Planets
(1) Stars are hot burning ball of gases.	Planet are yellow dwarf object. They have different level of temperature.
(2) They are freely move able in the universe.	They are not freely move in the universe.
(3) They move around the celestial body like Sagittarius or Nebula.	They move around the Sun.

(4)

They emit light energy during Nuclear fusion

They do not emit light during Nuclear fusion.

(5) They have its own light

Planets do not have its own lights

(6)

There are millions of stars in the universe

There are 8 planets in the universe

Examples of Stars are

Polaris

House shape

Sagittarius

Nebula

Example

Mercury

Jupiter

Venus

Nebula

They are
resolue around
galaxy

They are
resolue around
Sun

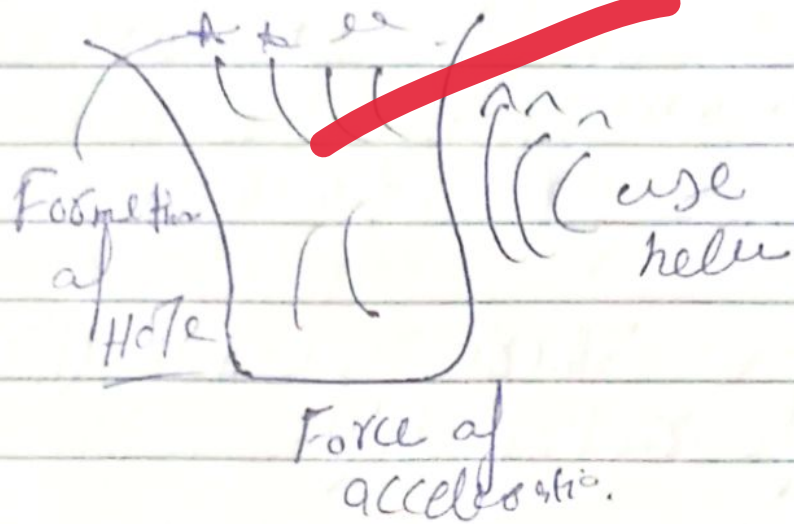
(9)
Stars have
its life -
cycle

Plantes do
not have
life cycle

How stars form black hole?

The stars have
high magnitude of energy
They use their light
it is occur in two phase
first star use hydrogen
atom when this layer
is finished. They start
to use helium to
form energy. when
all hydrogen and
helium used its
form a Red giant
Phase

Stars burst and it falls
own its own center and
formation of black hole
occurs.



Question Nos

Q1

What is Radio activity.
Difference between Natural
and artificial radioactivity?

Radio-activity

Radio-activity is a natural process in which ions get stability. They are present in environments, matter or rocks. It is spontaneous reaction. That's occur naturally it is used in Nuclear Fusion.

Type of Radioactive

There are two types of radio-activity.

- (1) Natural radioactivity
- (2) artificial radioactivity

(1) Natural-radio-activity

it is natural process which occurs during Nuclear fusion. Because ions have unstable number of protons, Neutron or electrons. They get stability through radio-activity.

These are numbers of process that are happen in universe. it is happen due organism matter rocks and environment. They ions lose or gain electron atom to get stable condition.

Example

Uranium 35, Uranium-34, Potassium 40, are the example of radi-activity.

(2) Artificial-radio-activity.

Artificial radio-activity are man-made. it is non-spontaneous reaction. it is formed when high energy atom bombards on it. They have high energy reaction. it is used in medicine and food industries.

Difference b/w Natural and artificial radio-activity

1- Occurance

⇒ Natural radio-activity are occur own its own. it is a natural process.

⇒ while artificial are manmade process which is occur when high energy α rays or β rays or neutron bombard the nucleus fusion reaction form it.

2- Origin

⇒ They are present in elements of rocks matter.

⇒ while artificial are on laboratory.

⇒ isotope