

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.

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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 marks but your expression will definitely create an impact.

Consequences:

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.

i) decreased cognitive functions.

ii) delayed wound healing.
Good luck for CSS 2025. You're gonna rock in sha Allah. :)

- iii) Physical exhaustion
- iv) Poor metabolism
- v) Affect digestion.

stomach
diarrh

v) In or

it w

food

avoid

damn

food

Chi

for

— a b —

Food Contamination

Adulteration

- | | |
|---|--|
| i) Food contamination means when a harmful microorganism present in food can cause illness to the consumer. | i) Adulteration is intentionally adding or replacing the food substances with poor substances or components. |
| ii) That includes dirt from unwashed fruit and vegetables, Pest dropping in food etc. | ii) This can be done to increase weight or appearance of food constituents can include chalk powder, stones, sand ^{etc} |
| iii) Contamination can be chemical, physical and biological | iii) It can be accidental, metallic, Packing hazard etc. |
| iv) It can cause vomiting, fever | iv) It can cause diarrhea, nausea, |

stomach pain,
diarrhea etc.

allergic reactions,
diabetes etc.

v) In order to prevent
it we can avoid
food past its use,
avoid leaked or
damaged preserved
food, don't buy
chilled or frozen
foods.

v) In order to prevent
it check all the sealed
packaged foods, wash
thoroughly fruit and
vegetables, check
packaging of milk,
oil, and yogurt
etc.

Computer buses:

A bus is a
communication system that
transfers data between components
inside a computer or between
computers.

Types:

There are three types
of buses that are used for
data transfer.

- i) Address bus
- ii) Data bus
- iii) Control bus

RAM

ROM

- | | |
|---|--|
| i) It is random-access memory. | It is read only memory. |
| ii) It is a short term memory in computer. | It contains data that can't be changed. |
| iii) It's where the data is stored in computer processor for applications to run. | It contains the data even after the power to the device has been turned off. |
| iv) It is made up of semiconductors. | It is made up of semiconductor device. |

~ (d) ~

Geo-Stationary Satellites :

A geostationary satellite is in an orbit that can only be achieved at an altitude very close to 22236 miles and which keeps the satellite fixed over one longitude at the equator.

Natural Satellite

- i) Natural satellites are the objects (natural) that orbit planets.
- ii) These are natural solid bodies.
- iii) Moon is the natural satellite that orbits around the Earth.

Artificial Satellite

- i) Artificial satellites are the man made machines that orbit planets.
- ii) These are usually machines.
- iii) There are almost 8000+ satellites that orbit around the Earth.

Artificial satellite of Jupiter:

Jupiter has one artificial satellite orbiting it.

(Qno-4)

(a)

Causes of floods:

Following

are the causes of floods:

- i) Rapid Rainfall / Heavy Rainfall.
- ii) Tsunamis in coastal areas.
- iii) Tropical cyclones
- iv) Ice or debris jam in a river.

How floods of 2022 different from 2010?

In 2022, there were 5 extreme precipitation events while in 2010 it was three. In 2010 the floods affected $\frac{1}{5}$ of Pakistan's land area while in 2022 $\frac{1}{3}$ of country's area was affected. Flood of 2010 caused damage of approximate \$12.9 billion in damage while of 2022 caused \$10 billion in damage.

Role of NDMA:

National disaster management Authority (NDMA) at times of flood coordinated with local NGO's for rescue and requested future plans to deal with flood situations, directed infrastructure projects to prevent costly damages.

~ a b ~

Star

- i) Stars are huge celestial bodies made up of hydrogen and helium.
- ii) They emit their light and energy from nuclear fusion reactions
- iii) Stars are bigger than planets

Planet

- Celestial bodies that orbit around the sun are termed as planets.
- They don't have the ability to emit light and energy from fusion reactions
- Planets are smaller than stars.

How a star becomes a black hole?

A star becomes a black hole when its core collapses in on itself. This collapse is caused by the star running out of nuclear fuel, which stops the radiation pressure from the core.

~(C)~

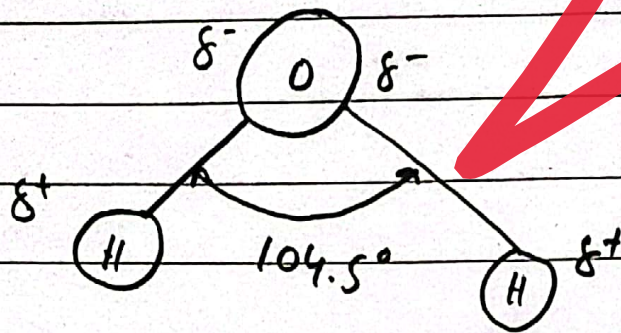
Why do atoms form chemical bonds?

Atoms form chemical bonds to achieve a more stable state with lower energy. This is usually achieved by filling their outer electron shell, or satisfying the octet rule by having eight valance electrons.

Structure of water:

(3)

A water molecule consists of two hydrogen atoms bonded to an oxygen atom, and its overall structure is bent.



~(d)~

Conductors =

A conductor conducts electricity as it offers little or no resistance to the flow of electrons, thus leading to a flow of electrical current.

Example =

Examples of conductors include graphite, mercury, water, steel etc.

Semiconductors:

Semiconductors are chemical elements or compounds that can conduct electricity under certain conditions, but block it under others.

Semiconductors have electrical properties that fall between conductors and insulators.

Example:

Examples of semiconductors include antimony, arsenic, boron, carbon, germanium, selenium, silicon, sulfur and tellurium.

Metals:

Metals are shiny, lustrous and are good conductors of electricity and heat even at absolute zero.

Metals can be easily molded and deformed.

Example:

Copper, lead, Nickel, titanium,
Lithium etc.

Plastics =

Plastics are material made from synthetic or semi-synthetic organic compounds that can be molded into solid objects.

Examples =

Polyethylene,
Nylon 6, polystyrene.

Ceramics =

Ceramics are generally made by taking mixtures of clay, earthen elements, powders, and water and shaping them into desired forms.

Example =

Earthenware,
stoneware, porcelain.

$$x = \frac{-(-12) \pm \sqrt{(-12)^2 - 4(13)(-53)}}{2(13)}$$

$$x = \frac{12 \pm \sqrt{144 + 2756}}{26}$$

$$x = \frac{12 \pm 53.85}{26}$$

Extra

$$x = \frac{12 + 53.85}{26}$$

$$x = \frac{12 - 53.85}{26}$$

$$x = \frac{65.85}{26}$$

$$x = \frac{-41.85}{26}$$

$$x = 2.5$$

$$x = -1.6$$

Q. No. 7

(a)

According to question the condition is:

$$\frac{x}{6} + 50 = 60$$

$$\frac{x}{6} = 60 - 50$$

$$\frac{x}{6} = 10$$

$$x = 10 \times 6 \Rightarrow x = 60$$

So the missing number is 60.

(b)

Let's check the sequence to identify the odd one.

The numbers given are:

8, 16, 24, 34, 40, 48

$$16 - 8 = 8$$

$$24 - 16 = 8$$

$$34 - 24 = 10$$

$$40 - 34 = 6$$

$$48 - 40 = 8$$

All the numbers except for 34 are multiples of 8.

So the odd one is number 34.

(c)

height of tower = 15 m

the standing distance = 20 m

what is aerial distance = ?

we can use pythagorean theorem.

$$c^2 = a^2 + b^2$$

putting values

$$c^2 = (15)^2 + (20)^2$$

$$c^2 = 225 + 400$$

$$c^2 = 625$$

$$c = \sqrt{625}$$

$$c = 25 \text{ m}$$

aerial distance is 25 m.

Q. 10

Total amount paid by the man is = Rs. 30,000

Tariff of odd dates = Rs. 1000 per day

Tariff of even dates = Rs. 2000 per day

Let, x = odd days

y = even days

So,

$$(1000x + 2000y = 30000)$$

(5)

$$1000 [x + 2y = 30]$$

$$\text{if } y = 10 \text{ so,}$$

$$1000 (x + 2(10) = 30)$$

Divide by 1000

$$x + 2(10) = 30$$

$$x = 30 - 20$$

$$x = 10$$

So, total 10 odd days +
10 even days = 20 days.

~ (Qno. 8) ~

~ (a) ~

Faisal Mosque in Islamabad
is designed in the shape
of a triangle, the outer
view of these halls is
based on equilateral
triangle the formula for
this

$$A = \frac{\sqrt{3}}{4} a^2$$

(b)

Mixture = 60 litres

milk and water ratio = 2:1

changed ratio = 1:2

what quantity of water
further added = ?

~~milk and water ratio = 2+1=3~~

~~quantity of milk = 40 litres~~

~~quantity of water = 20 litres~~

Now, (1:2)

milk quantity = (20 litres) \times 1

water quantity = (40 litres) \times 2

= 80 litres

water initially was 20 litres

So, 60 litres needs to be

added to achieve the ratio

of 1:2

(c)

A is the brother of B means
A and B are siblings.

B is the sister of C means
C is a sibling as well.

So, A, B, C are siblings.

C is the father of D means

D is C's child.

So, A and C are

siblings C is D's father
this makes A D's uncle.

add

compare the words

R → U (shifted 3 positions)

O → R (shifted 3 positions)

A → D "

R → U "

So,

$$U + 3 = X$$

$$R + 3 = U$$

$$D + 3 = G$$

$$U + 3 = X$$

Thus, ~~URDU~~ will be written
as ~~XUGX~~ in that code.

The
Gondy

Explain in words