

Dos and Don'ts for General Science & Ability Paper

GSA - Mock - June - Admirer Siddhant / Batch 360

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 2 sides (not more than that) 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. :)

Q No # 07 (b)

Given data

$$\text{Radius} = 4 \text{ cm.}$$

Required data

Circumference of the circle = ?

Solution

As we know that circumference of the circle,

$$C = 2\pi r$$

$$\pi = 3.14 \quad r = 4 \text{ cm.}$$

$$C = 2 \times 3.14 \times 4$$

$$= 8 \times 3.14$$

$$= 25.12$$

$$C = 25.12 \text{ cm}$$

Ans.

$$\begin{array}{r} 3 \\ 3.14 \\ \hline 25.12 \end{array}$$

Q No # 07 (c)

Given data

20, 22, 21, 23.

Required data:

mean, median, mode, range.

Solution

Mean : Mean = $\frac{\text{sum of all the numbers}}{\text{number of observations}}$

Mean = $\frac{20 + 21 + 21 + 21 + 23}{5} = \boxed{21.4}$ Ans

Median:

Median: The mid value in the arranged data.

arranged = 20, 21, 21, 21, 23

Median = $\boxed{21, 21}$

= $\frac{21 + 21}{2} = \frac{42}{2} = \boxed{21}$ ✓
Ans

Mode:

The most repeated age.

20, 21, 21, 21, 23

Mode = $\boxed{21}$ Ans

Range:

Difference of maximum & minimum value.

Range = $\frac{20, 21, 21, 21, 23}{20, 23}$

= $23 - 20 = \boxed{3}$ ✓
Ans

Q No 7 (d)

Given Data:

The Investment of Talvir for a year = $\text{Rs } 15,000/\text{year}$

" " " Umar after 5 months = $\text{Rs } 30,000/(7\text{ months})$

" " " Usman after 9 months = $\text{Rs } 45,000/(3\text{ months})$

Total profit = $\text{Rs } 406,000/(12\text{ months})$

Required data:

Share profit for each one.

Solution

The invest become for each

Talvir = $15,000/-$

Umar = $\text{Rs } 30,000 \times \frac{7}{12} = \text{Rs } 17,500$

Usman = $\text{Rs } 45,000 \times \frac{3}{12} = \text{Rs } 11,250$

Total - investment becomes

= $15,000 + 17,500 + 11,250 = 43,750$ Rupees.

→ percentage of each will become.

Ratio

= $\frac{\text{Profit}}{\text{Total}} = \frac{406,000}{1,660,000} = \frac{11,250}{1,660,000} = \frac{11,250}{1,660,000}$

→ = $\frac{15,000}{43,750} = \boxed{\frac{3}{8} \text{ Talvir}}$

= $\frac{17,500}{43,750} = \boxed{\frac{7}{15} \text{ Umar}}$

= $\frac{11,250}{43,750} = \boxed{\frac{9}{35} \text{ Usma}}$

P. 9.0

Now the net profit will become out of total profit.

$$T_{\text{min}} = 406,000 \times \frac{3}{8} = \text{Rs } [152,250]$$

$$U_{\text{max}} = 406,000 \times \frac{7}{16} = \text{Rs } 177,625.$$

$$U_{\text{min}} = 406,000 \times \frac{9}{35} = [105,125 \text{ rupees}]$$

QNO #08

(a)

Given

BROTHER written as $C P D G S N O A$

Required

SISTER code

Solution

SISTER will become

HUKSKD

A	B	C	D	E	F	G
H	I	J	K	L	M	N
O	P	Q	R	S	T	U
V	W	X	Y	Z		

In the given code, 4 step back,
12 step Forward, 8 step back, 7 step Back,
6 step Forward and 12 step Forward.

Qno 8 (B)

Given Data:

1, 2, 21, —

Required Data

type of question
missing number

Solution

Identify the missing number

1, 2, 6, 21, 50

1, 2, 6, 21, 50
1, 2, 6, 21, 50
1, 2, 6, 21, 50

Qno 8 (d)

Average temperature of 7 days = 33 degree.

1st 3 days temperature = 30°C.

and 3 days temperature = 35°C.

Now the average of these 6 days been
been 32.5

and the last fourth day temperature
is higher than the 35°C.

4th day of week = 36°C.

7 days temperature would

$$\text{been} = \frac{30 + 30 + 30 + 35 + 35 + 35 + 36}{7} = 33^\circ\text{C}$$

(PART II)

Section (I)

Q No 1 b)

function of arteries:

Arteries are the blood vessels, that carries blood away from heart to the various part of the body.

This blood having oxygen, and arteries takes this blood to the whole body.

The wall of the arteries are muscular so that they could maintain the blood pressure of the body.

The largest artery that carry blood from the heart is called Vena cava.

function of veins

Add diagrams

The veins are also the blood vessels that carries the deoxygenated blood from the parts of the body to the heart. The largest vein is called Vena cava. There are two type of Vena cava. Upper & lower Vena cava that carries the ^{blood} from the upper parts of the body and blood from the lower part of the body of heart respectively.

Capillaries: Capillaries are the smallest blood vessel that functioned the exchange between arteries & veins, the oxygenated and deoxygenated blood respectively.

QNO#02 (c)

Why do atoms form chemical bond?

Explain structure of water?

Solve **Add proper headings**

Chemical Bond

A chemical bond is force that holds the atoms together. It contains two or more atoms.

Why they form a chemical bond.

The atoms form a chemical bond for the completion of valence shell of atom in a ionized state.

Either they complete octet or doublet of valence shell.

e.g

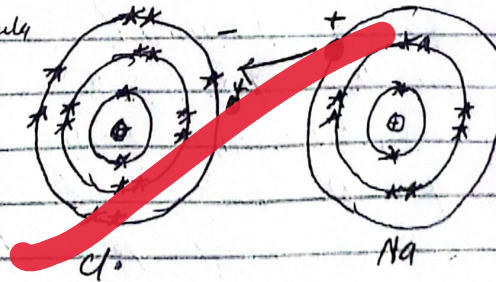
• NaCl

in this example

Atomic no. of Cl = 17.

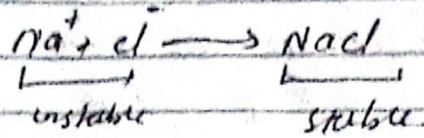
and " " Na = 11

applying $2n^2$ formula for ~~valence~~ shell electrons.



The chlorine need one electron to complete its last shell and the sodium (Na) has one electron in unstable form.

So, the (Na) gives one electron couple
and chlorine get one (Cl) electron and complete
its valence shell.



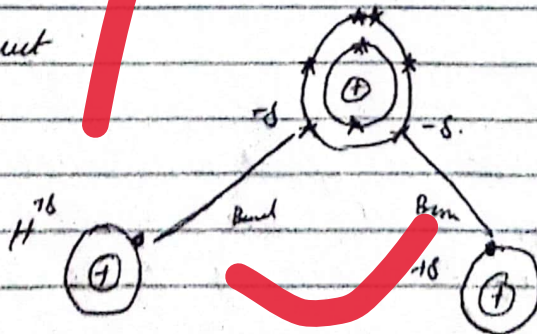
NOW they gain stability, that's why
they form chemical bond to
gain stability of both the atoms.

Structure of water (H₂O).

The water is hydrogen chemical
bond.
Two hydrogen (H₂) and One oxygen (O).

Oxygen atom = 8
and Hydrogen = 1.

Struct



Hydrogen are slightly bent because
of lone pairs of oxygen.

QNO#02 (5) (d)

Conductors

Conductors are the materials made of atoms having large number of free electrons.

Due to these large number of free electrons they have high conductivity.

Example:

Copper, a highly conductive element.

Semiconductor

The semiconductors are conductors having optimum number of free electrons. They are neither insulators nor conductors but between them.

Example

Silicon and germanium used in diodes.

Metal:

Metals are the good conductors made up of metallic bond. Metals having a strong conductivity of electricity.

Examples:

Iron is metal and a good conductor.

Plastics

Plastics are composed of polymers. They are mainly insulators, do not conduct electricity.

Example

polyethylene bags are largely used in packaging.

CERAMICS

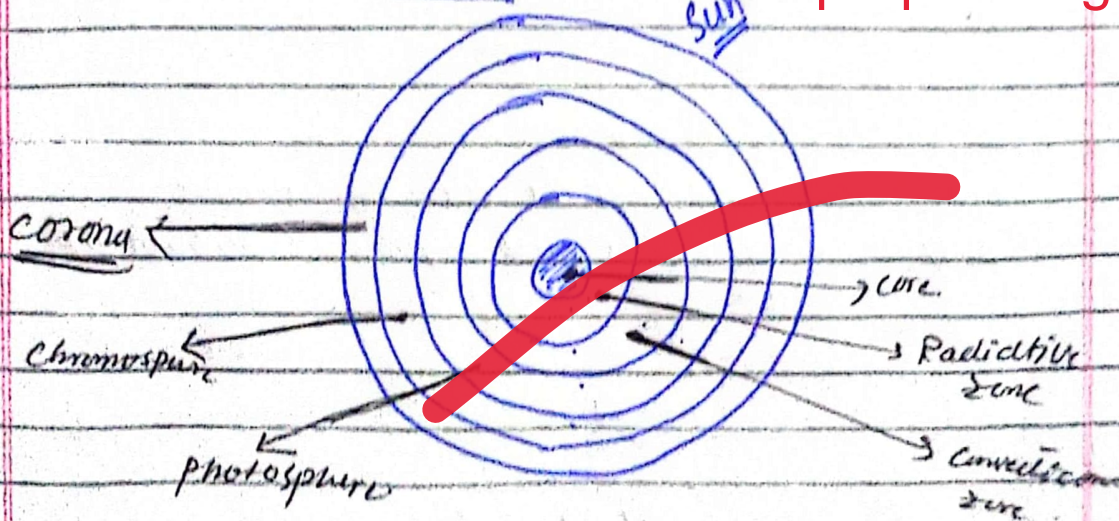
They are also non-metallic insulators, but they are hard and do not conduct electricity.

Example

Titanium, used for protection of sensitive materials.

Photob (b)

Make proper diagram



Core:

The core of the sun is the real powerhouse. In that place the fusion takes place

Radiative zone.

Between the core and convective zone. The energy passes from the core to the convective zone passes through Radiative zone

Convection zone

In this place the hot plasma takes place. Extends from radiative zone to the visible

Photosphere

The visible white light emerge from photosphere. It is comparatively coolest region of the sun.

Chromosphere

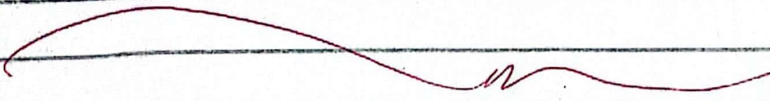
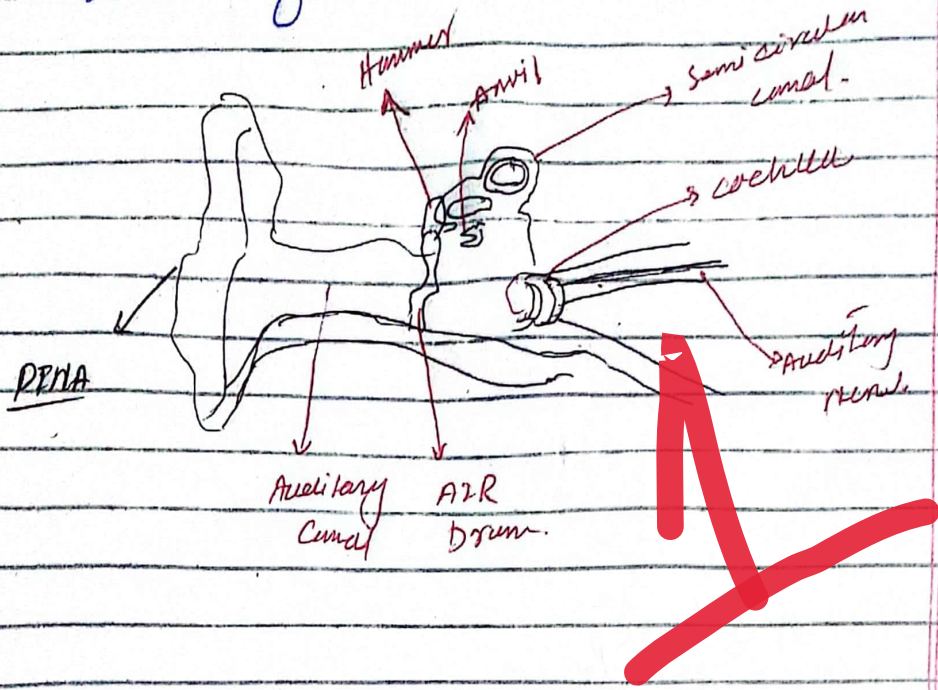
This always is also the visible surface area. Emits red light and ultraviolet.

CORONA

The visible surface and outermost surface, visible in solar eclipses as a white

CNOY (d)

Structure of Ear:



T/Ink used