

Dos and Don'ts for General Science & Ability Paper

GSA Mock: 1

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.

Ans. x. Definition of Malnutrition:
Malnutrition refers to a condition resulting from an unbalanced or insufficient intake of nutrients, including undernutrition (deficiency of calories or nutrients) and overnutrition (excess intake of nutrients).

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.

6. Here, in GSA there's no deduction in marks but your expression will definitely create an impact.

7. 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 2026. You're gonna rock in sha Allah. :)

absorption.

4. **Lack of education:** Ignorance about nutritional needs and healthy eating.

5. **Food insecurity:** Shortage of food due to war, disaster, or climate change.

*. **Consequences of Malnutrition:**

The severe malnutrition results in following cases:

1. Stunted growth and wasting in children.

2. Weakened immune system, leading to frequent illness.

3. Poor cognitive development and reduced productivity.

4. Increased maternal and child mortality.

5. Chronic diseases such as diabetes, heart disease, and obesity.

Qno: 2 (B)

Ans: x. Definition:

- Food contamination means presence of harmful or undesirable substances in food.
- While, Food Adulteration refers to the deliberate mixing of inferior or harmful substances.

x. Cause:

- Food contamination is accidental. It may be caused due to bacteria, chemicals, or toxins.
- On the other hand, Food Adulteration is intentional to increase quantity or shelf life.

x. Health Impact:

- Food contamination can cause food poisoning, infections, or diseases.
- While, Food Adulteration can cause long-term health problems or toxicity.

* Examples :

- Bacteria in stale meat and pesticide residues on fruits are the examples of Food contamination.
- While, adding water to milk and brick powder to chilli powder are the examples of Food Adulteration.

QNO: 2 (C)

Ans: * Computer Buses:

A computer bus is a communication system that transfers data between components inside a computer, or between computers. It connects the CPU, memory, and peripherals. It includes three main types: data bus, address bus, and control bus.

* Difference between RAM and ROM

Following are the differences:

Volatility:

- RAM (Random Access Memory) is volatile - means data is lost when Power is off.
- While, ROM (Read-only Memory) is non-volatile which substantiate that data remains even without power.

Purpose:

- RAM is temporary storage for active processes.
- However, ROM is permanent storage for startup instructions.

Modifiability:

- RAM is read and write memory.
- While, ROM usually read-only.

Speed:

- RAM is faster in access and operations.
- On the other hand, ROM is slower compared to RAM.

Qno: 2 (d)

Ans: x. Geo-stationary Satellites:

These are the satellite that orbit the Earth at an altitude of around 35,786 km directly above the equator. They revolve in the same direction as Earth's rotation and appear stationary to a ground observer. They are mainly used for communication; weather forecasting and television broadcasting.

x. Differences between Natural and Artificial Satellites:

→ Origin:

Natural satellites are formed naturally, while Artificial satellites are man-made and

launched into orbit.

→ Purpose:

Natural satellites serve natural functions like tides or gravity balance. But Artificial satellites serve human purposes like communication or research.

→ Examples:

Moon to Earth, and Ganymede to Jupiter are natural satellites and Hubble Telescope or GPS satellites are artificial ones.

* Artificial satellites of Jupiter:

As of current data, Jupiter has 95 moons, but none of them are artificial. Artificial satellites are only orbiting Earth and other bodies for exploration, not placed around Jupiter. However, several probes have been launched.

QNO: 04 (A)

Ans: * Tropical cyclones:

- Form in tropical regions where altitude is $5^{\circ} - 30^{\circ}$ (latitude).
- They develop over warm ocean waters.
- Heat and moisture from ocean water are the source of these cyclones.
- Their structure is symmetrical with a calm eye at the center.
- They are common in summer and early autumn.
- Hurricanes, typhoons, and cyclones are the examples of Tropical cyclones.

* Temperate Cyclones

- They are found in mid-latitudes ($30^{\circ} - 60^{\circ}$ latitude).

- > They form due to meeting of warm and cold air masses.
- > Their source is the temperature contrast between air masses.
- > Their structure is asymmetrical with fronts warm or cold.
- > They occur in winter and spring seasons.
- > Nor'easters and European wind-storms are the examples of these cyclones.

Q.No: 4 (b)

Ans: Star and Planet:

-> Light Emission:

Star emit its own light due to nuclear fusion. While, Planet does not emit light, only reflects the star's light.

Draw proper line

→ Heat source:

Star generates heat from internal fusion reactions, but planet has no internal source of energy production.

→ Examples:

Sun, Sirius, and Proxima Centauri are the stars. The Earth, Mars, and Jupiter are the planets.

* How a star becomes a black hole?

A massive star exhausts its nuclear fuel and can no longer support itself against gravity. It undergoes a supernova explosion, and if the core's remaining mass is sufficient, it collapses under its own gravity, forming a black hole, a region with gravity so strong that not even light can escape.

Q No: 4 (C)

Ans: x. Why atoms form chemical bonds?

Atoms form chemical bonds to attain a stable electron configuration, usually resembling the nearest noble gas. By sharing and transferring electrons, atoms achieve lower energy and greater stability.

*. Structure of water:

- A water molecule consists of two hydrogen atoms and one oxygen atom. (H_2O)
- It is held together by covalent bonds (electrons are shared).
- Oxygen is more electronegative, creating a bent or V shape

molecule with a partial negative charge on oxygen and partial positive charges on hydrogen atoms, making water a polar molecule.

Add structure

→ This polarity leads to hydrogen bonding between water molecules, giving it unique properties like high boiling point and surface tension.

(Q No: 4 (d))

Ans:

→ Conductor:

Materials that allow electricity or heat to flow easily. copper is a conductor.

→ Semiconductor:

Materials which conduct electricity under certain conditions and used in electronics. Silicon is an example.

→ Metal:

Materials with shiny, or malleable look and good conductors of heat and electricity.

For example Aluminium is a metal.

→ Plastic:

Plastics are synthetic polymer, lightweight and mouldable materials, ~~which~~^{and} are poor conductors.

Polythene (used in bags) is an example.

→ Ceramic:

Ceramic is a non-metallic, solid, inorganic, and brittle material that is heat-resistant. For instance, porcelain.

Section: II

Q No: 6. (A)

Solution:

Let the three consecutive prime numbers be P_1, P_2, P_3 .

We are given:

$$P_1 + P_2 + P_3 = 159$$

Try prime number 47, 53, and 59

$$47 + 53 + 59 = 159$$

These are consecutive primes.

Answer: The three prime numbers are 47, 53, and 59.

(B)

Solution:

$$\text{Formula} = \text{Perimeter} = 2\pi r$$

Putting value in formula: -

$$2 \times 3.14 \times 6 = 37.7 \text{ cm}$$

Answer:

The perimeter of the circle is 37.7 cm.

(C)

Solution:

Let the present ages be

Man = M, wife = W,
child = C

→ 3 years ago:

$$\frac{(M-3) + (W-3) + (C-3)}{3} = 27$$

$$27 \Rightarrow M + W + C - 9 = 81$$

$$81 \Rightarrow M + W + C = 90 \longrightarrow \textcircled{1}$$

→ 5 years ago

$$\frac{(W-5) + (C-5)}{2} = 20$$

$$20 \Rightarrow M + L - 10 = 40$$

$$40 \Rightarrow M + L = 50 \longrightarrow (2)$$

Substitute (2) into (1)

$$M + 50 = 90 \Rightarrow M = 40$$

Answer:

The present age of the Man is 40 years

(10)

Solution:

Let the three numbers be A, B, and C

Given: $A:B = 2:3$ and $B:C = 5:8$

→ Make B the common term in both ratios

- $A:B = 10:15$ (multiply both by 5)
- $B:C = 15:24$ (multiply both by 3)

So full ratio $A:B:C = 10:15:24$

Sum of parts = $10 + 15 + 24 = 49$

Given total = 98

Each part = $98 / 49 = 2$

Answer:

The second number is 30

(Q No: 7 (A))

Solution:

→ let the numbers be x and y

$x + y = 23$ and $xy = 132$

→ Let's form a quadratic equation

$x^2 - 23x + 132 = 0$

→ By using quadratic formula:

$$x = \frac{23 \pm \sqrt{(-23)^2 - 4(1)(132)}}{2} =$$

$$= \frac{23 \pm \sqrt{1}}{2}$$

$$x = \frac{23 \pm \sqrt{1}}{2} \Rightarrow x = 11 \text{ or } 12$$

Answer:

The two numbers are 11 and 12.

(13)

Solution:

Let the number be x

Given:

$$0.4x = 0.2 \times 650 + 180 = 130 + 180 = 320$$

$$x = 320 / 0.4 = 800$$

Answer:

The number is 800.

(14)

Solution:

Let the marked price = x

He paid 80% of the marked price
so,

$$0.8x = 70 \Rightarrow x = 70 / 0.8 = 87.5$$

Answer:

The marked price of car
was Rs 87.5 million.

(10)

Solution:

Let the original number be
100

→ After 10% increase

$$100 + 10 = 110$$

→ After 10% decrease

$$110 - 11 = 99$$

Answer:

Net change in the number
is 1% or 1 unit.
