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

Hi there — you've prepared well! Remember, knowing the content is one thing, but presenting it in the paper exactly as required is another. Here are a few key points to keep in mind:

1. For a 5-mark part, aim to write at least 2 and at most 3 sides of the answer sheet. Often, a question has two or three parts, and the marks are divided accordingly — so address each part fairly.
2. Manage your time wisely — you have about 35 minutes per full question, which comes down to around 8 minutes for each 5-mark part. Stick to this to avoid rushing later.
3. Make your answers look scientific, not just theoretical. Use flow charts and diagrams wherever they add clarity.
4. Neatness matters — keep your handwriting clean, avoid cutting or overwriting.
5. Mind your spelling and grammar — while GSA doesn't deduct marks for these, your expression leaves an impression.
6. In the ability portion, explain analytical ability questions in words. For a 5-mark part, show all steps and provide clear explanations. Add a diagram and explain things in a proper manner

Good luck for CSS 2026 — you're going to ace it, in sha Allah! 🌟

b) Semiconductors;

A Semiconductors is a substance that can either act as Conductor or insulator of electricity.

Differentiate between n-type and P type Semiconductor

n-type	P-type
◦ Extra electrons act as majority charge carries	◦ Holes act as majority charge carries
◦ Negatively charged carriers dominate	◦ Positively charged carriers dominate

Modern Application;

c) Define Global warming

Global warming is the long term increase in Earth's temperature, primarily caused by human activities for example; Burning of fossil fuel, as it releases greenhouse gases into atmosphere.

Greenhouse Effects:

◦ Sun radiation enters into Earth's atmosphere
◦ Greenhouse gases traps heat & re-emit heat which result in rise of Earth's temperature.
◦ Earth absorb this energy and re-emit in environment

Three Major Greenhouse Gases

◦ Carbon dioxide
◦ Methane
◦ Nitrous oxide

d) What is Tsunami?

Tsunami is the large and power ocean wave caused by shift or displacement of large volumes of water.

Natural processes that trigger tsunami;

1) Earthquake
2) volcanic eruptions
3) underwater Landslides

Potential impact on Coastal areas

- Massive flooding and destruction of property
- Loss of People Lives
- displacement of people
- Salinization of Soil.

Question # 3

a) Describe the structure and function of the Mitochondria and Ribosomes;

Mitochondria is the powerhouses of the cell, acting as organelles that convert nutrients into energy. Is the double membrane organelles found in animals. Outer member is smooth, while the inner member is highly folded into structure called cristae. Inside of mitochondria, it containing enzymes, DNA and ribosomes. Main function is the to convert nutrients into energy.

Ribosomes is the small, non membranous structure made of RNA and protein. Float freely in the cytoplasm and primarily role is protein synthesis.

Mitochondria are called the [illegible] of cell

because they generate most of the cells usable energy in form of ATP. which powers all cellular activities.

b) what are Enzymes?

Enzymes are Biological catalyst made of Protein, which speed up chemical reaction without being consumed.

Lock and key model

Explain things properly

Each enzyme has specific active site in which substrates fits into active site as a key fit into lock. As enzymes are formed, when substrate fit into active site and reaction occurs and products are released.

Two important factor affect enzymes

1) temperature → high and low temperature reduce activity

c) Differentiate Between Renewable and Non renewable Energy

Renewable Energy	Non-Renewable Energy
• can be replaced naturally in a short time.	• Non-renewable are Limited in amount and take to many years to form.
• can be naturally replenished	• Ex: Coal, oil, gases
• Ex: Solar and wind	

Potential of Wind Energy

Wind energy is the potential energy source. As it is clean and safe, and does not produces greenhouse gases. As it is safe and will not damage environment. Wind is renewable energy and it can be naturally replenished.

d) What is dengue fever?

dengue fever is a viral diseases caused by the dengue virus. It is caused by mosquito bites.

Common Symptoms

1) High fever 2) Severe headache 3) Skin rash
4) Vomiting and Nausea 5) Pain muscles and joint.

Preventive Measures

1) Use mosquito repellent
2) wear full covered clothes and [illegible] covered clothing
3) cover water cover
4) keep environment clean

Section II

Question #7

a) Cricket and Hockey

Total 100 People

- 20 → watch neither → 100 − [illegible] 0
- 65 + 40 + x = 80

$105 + x = 80$

$x = 80 - 105$

$x = 25$ //

25 people will watch both.

b)

c) ~~Relative~~ Speed = 60 + 40 = 100 km/h

Distance = 400 km

Time = $\frac{\text{Distance}}{\text{Speed}}$

= $\frac{400}{100}$ = 4 hrs

8 + 4 = 12 → 12 Pm

12:00 Pm reach at noon

d) Father + son = 75 years

10 year ago → Father's age = 4 x

75 − 10 = 4(s − 10)

65 = 4s − 10

65 + 10 =

75 = 4s

75/4 = 18.3

Question #8

a) if Road Coded as UQDG

Lake = ?

+3 +3 +2 +3

19 15 14

Road = 21 17 4 7

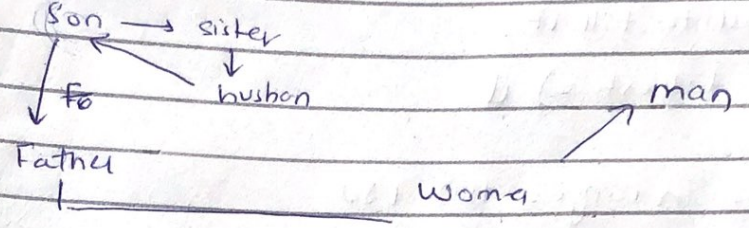
U Q D G

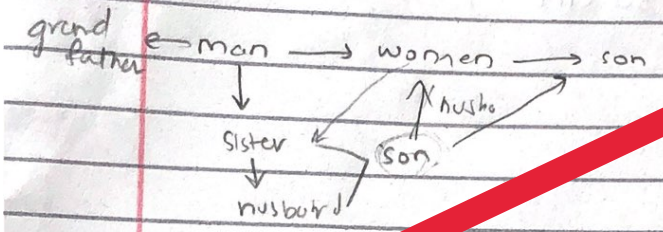
11 5 15 4 14 9

Lake = O D N I + = ONH

acid + 3.

b) A man tells a women, "The son of my sister's husband is the father of your son".





man's nephew is married to the women so women will be niece-in-law

c) i) 4, 12, 6, 18, 9, 27, 13.5

×3 ÷2 ×3 ÷2 ×3 ÷2

$2\overline{)27}$ = 13.5

2

07

6

1

ii) 1, 2, 6, 24, 120, ___

d) Five Friends (P, Q, R, S, T)

Shorter than P ← P → taller than R

Q ← S → taller than Q

Shorter than T

→ R, P, Q, S, T

Smaller to tallest

→ Third tallest => Q

→ maximum range = 150 - 1

= 30

4

explain: