

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

Hi there — you've prepared well!

## SECTION II

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:

### PART A:

1. For a 5-mark part, aim to write at least 2 and at most 3 sides of the answer sheet.

Statement: "Her granddaughter is the only daughter of my brother."

Often, a question has two or three parts, and the marks are divided accordingly — so address each part fairly.

My brother's only daughter = Ahsan's niece  
That niece is woman's granddaughter

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.

The grandmother of a brother's daughter is Ahsan's mother

The woman is Ahsan's mother

### PART B:

3. Make your answers look scientific, not just theoretical. Use flowcharts and diagrams wherever they add clarity.

$$\text{Speed (s)} = 12 \text{ km/hr} \Rightarrow 200 \text{ m/min}$$

$$\text{Time (t)} = 8 \text{ min}$$

$$\text{Ratio of length \& Breadth} = 3:2$$

4. Neatness matters — keep your handwriting clean, avoid cutting or overwriting.

$$\text{Perimeter Distance (s)} = ?$$

To find Perimeter or Distance

$$S = v \times t$$

$$S = 200 \times 8$$

$$S = 1600 \text{ m}$$

5. Mind your spelling and grammar — while GSA doesn't deduct marks for these, your expression leaves an impression.

Ratio between length and Breadth

$$L : B = 3 : 2$$

6. In the ability portion, explain analytical ability questions in words. For a 5 mark part, show all steps and provide clear explanations.

where

$$L = 3x$$

$$B = 2x$$

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



Date: \_\_\_\_\_

Perimeter:

$$2(L+B) = 1600$$

$$2(3x+2x) = 1600$$

$$6x+4x = 1600$$

$$10x = 1600$$

$$x = 160$$

$$\text{Length} = 3x = 3 \times 160 = 480 \text{ m}$$

$$\text{Breadth} = 2x = 2 \times 160 = 320 \text{ m}$$

To find the Area:

$$A = L \times B$$

$$A = 480 \times 320$$

$$A = 153600 \text{ m}^2$$

Part C:

Let the ten's digit =  $x$

unit digit =  $x+2$

$$\text{Number} = (10 \times \text{ten's digit}) + \text{unit's digit}$$

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

$$= 11x + 2$$

Sum of the digits:

$$= x + (x+2)$$

$$= 2x + 2$$

According to the given condition

The number  $\times$  Sum of digits = 144

$$(11x+2)(2x+2) = 144$$

$$2(11x+2)(x+1) = 144$$

$$(11x+2)(x+1) = \frac{144}{2}$$

$$(11x+2)(x+1) = 72 \rightarrow 12$$

Applying the trial method on the given equation (i)

Taking  $x = 2$

$$[11(2) + 2] [2 + 1] = 72$$

$$(24)(3) = 72$$

$$72 = 72$$

Hence

ten's digit =

$$\text{Unit digit} = 2 + 2 = 4$$

So,

The number is 24

Part II:

The ratio of two numbers

$$2 : 3$$

$$2x : 3x$$

Using the give LCM condition

$$2 \times 3 \times x = 6x$$

$$6x = 48$$

$$x = 8$$

If  $x$  is 8 then,

$$2x = 2 \times 8 = 16$$

$$3x = 3 \times 8 = 24$$

So, the numbers are 16 and 24 and the sum of the numbers will be;

$$\boxed{16 + 24 = 40}$$

## QUESTION NO # 7

### PART # A

40% of a number is equal to two-third of another number

Let,

First number =  $x$

Second number =  $y$

$$40\% \text{ of } x = \frac{40}{100} \times x = \frac{1x}{10}$$

$$\text{Two-third of } y = \frac{2}{3} \times y \Rightarrow \frac{2y}{3}$$

According to the given condition

$$\frac{4x}{10} = \frac{2y}{3}$$

$$3(4x) = 2y \times 10$$

$$12x = 20y$$

$$\frac{x}{y} = \frac{20}{12}$$

$$\frac{x}{y} = \frac{5}{3}$$

$$\frac{x}{y} = \frac{5}{3}$$

Therefore,

$$\boxed{x : y = 5 : 3}$$

PART # B

S.P = Cost of 17 ball at selling = Rs 720

Loss = Cost price of 5 balls =  $5x$

$$\text{Loss} = \text{C.P} - \text{S.P}$$

$$5x = 17x - 720$$

$$5x - 17x = -720$$

$$+12x = -720$$

$$12x = 720$$

$$x = \frac{720}{12}$$

$$x = 60$$

Therefore,

the cost price of single ball  
is Rs 60

PART # C

Father's age =  $x$

Son's age =  $y = ?$

Father is 24 years older than his son

$$x = y + 24$$

Their ages after two years

$$x + 2 = 3(y + 2)$$

Since;  $x = y + 24$

Therefore,

$$(y + 24) + 2 = 3y + 6$$

$$y + 26 = 3y + 6$$

$$y - 2y = 4 - 26$$

$$-y = -22$$

$$y = 22$$

The present age of son is 22

### PART # D

- Rashid types 32 pages in 6 hours

$$\text{Rate} = \frac{32}{6} = \frac{16}{3} \text{ pages/hour}$$

- Kamil writes 40 pages in 5 hours

$$\text{Rate} = \frac{40}{5} = 8 \text{ pages/hour}$$

Combined rate:

$$\frac{16}{3} + 8 \Rightarrow \frac{16 + 24}{3}$$

$$\frac{40}{3} \text{ pages/hour}$$

Time to type 110 pages together,

$$\text{Time} = \frac{\text{Total work}}{\text{Combined rate}}$$

$$= \frac{110}{\frac{40}{3}} \Rightarrow 110 \times \frac{3}{40}$$

$$= \frac{33}{4}$$

$$\text{Time} = 8.25 \text{ hours}$$

Converting hours into minutes

$$8.25 \text{ hours} = 8 \text{ hours } 15 \text{ minutes}$$

Therefore,

$$\text{Total time to type 110 pages} = 8 \text{ hr } 15 \text{ min}$$

## SECTION # I

## QUESTION # 2

PART D:

## Cell membrane

## Structure:

Cell membrane is a double layer structure made of phospholipids. It comprises of 60-80% protein, 20-40% lipids and carbohydrates. Proteins are embedded in lipid bilayer. Fluid mosaic model explains the structure of cell membrane as a mosaic of phospholipids cholesterol molecules, proteins and carbs.

It act as a barrier between cell and the surrounding environment.

## Function:

- Transport of material
- All individual molecules floating in it.
- Maintenance of concentration gradient
- Endocytosis by infolding
- Transmission of nerve impulse

## Cytoplasm

## Structure:

Cytoplasm is a semi-fluid, non-nuclear content of protoplasm. It is thick and semi-transparent fluid comprise of

ectoplasm and inner granular mass as endoplasm

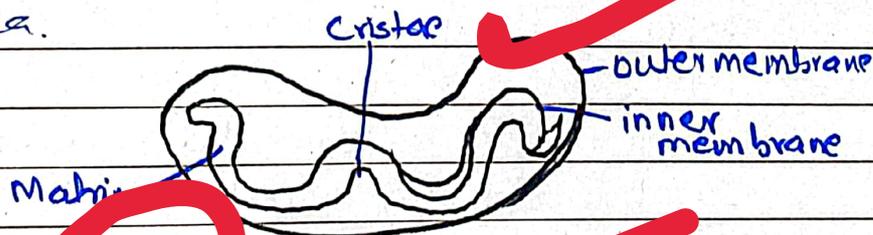
### Function:

- Site of many biochemical reactions
- Provide medium for organelles to remain suspended
- Cytoskeleton provide shape and facilitate movements
- Means of transport of genetic material.

## Mitochondria

### Structure

Mitochondria is powerhouse of cell. It has two membranes. Inner membrane and outer membrane have intermembrane space between them. Matrix is the space within inner membrane having fluid, it and foldings to increase surface area.



### Function:

- Maintaining control of cell cycle and growth
- Use Aerobic respiration to generate adenosine (ATP)
- Provides the source of chemical energy