

General Science and Ability

Section-II

Question No 6:

(a)

Given:

Original population = 18,000

Increased population = 22,500 in a decade

To find:

percentage increase of population per year = ?

Solution: For procedure

$$\text{percentage increase in population} = \frac{\text{Increase} \times 100}{\text{Original}}$$

$$= \frac{4500 \times 100}{18000}$$

$$= \frac{455 \times 10^5}{189}$$

$$= 25\% \text{ in a decade}$$

$$\text{per year percentage increase} = \frac{25}{10 \times 100}$$

$$= \frac{25}{1000}$$

$$= 0.025\% \text{ per year increase}$$

(b)

Units	Days	Machines
600 ↑	9 ↑	20 ↑
x	12 ↑	8 ↑

$$\frac{x}{600} = \frac{12}{9} \times \frac{8}{20}$$

$$\frac{x}{600} = \frac{6}{5}$$

$$x = \frac{6}{5} \times 600$$

$$x = 120 \times 6$$

$$x = 720$$

∴ 720 Units can be made in 12 days with the help of 18 machines

(c)

Given:

Distance covered by car = 450m

Time taken by car = 1 minute = 60sec

Distance covered by train = 69km

= 69000m

Time taken by train = 45 minutes

= 45 × 60sec

= 2700seconds

To find:

Ratio of their speeds = ?

Solution:

Formula of Speed is as,

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

$$\begin{aligned} \text{Speed of car} &= \frac{450}{60} \\ &= 7.5 \text{ m/sec}^{-1} \end{aligned}$$

$$\begin{aligned} \text{Speed of train} &= \frac{69000}{2700} \\ &= 25.5 \text{ m/sec}^{-1} \end{aligned}$$

Ratio of their speed:

$$\begin{aligned} \text{Speed of car} &: \text{Speed of train} \\ 7.5 \text{ m/s} &: 25.5 \text{ m/s} \end{aligned}$$

(d)

Perimeter of a pentagon = Sum of all sides length

length of one side = 15cm

$$\begin{aligned} \text{Perimeter} &= 15 + 15 + 15 + 15 + 15 \\ &= 75 \text{ cm} \end{aligned}$$

Question No 8:

(a)

If BROTHER is written as QDGSNQA
then SISTER will be written as RHRSDQ

Explain properly?

~~In the given~~

In the given case it is one step backward for each letter while during reverse reading, i.e. "B" to one step backward in "A" and so on.

(b)

1, 2, 6, 21 42

(c)

Let the average temperature of 7 days as

$$T_1 + T_2 + T_3 + T_4 + T_5 + T_6 + T_7 = 33^\circ\text{C}$$

$$\text{Average} = \frac{\text{Sum of Observations}}{\text{No. of observations}}$$

$$33^\circ\text{C} = \frac{T_1 + T_2 + T_3 + T_4 + T_5 + T_6 + T_7}{7}$$

$$33 \times 7 = T_1 + T_2 + T_3 + T_4 + T_5 + T_6 + T_7$$

$$231^\circ\text{C} = T_1 + T_2 + T_3 + T_4 + T_5 + T_6 + T_7 \rightarrow \text{ev(i)}$$

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.

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. :)