

9 December 2025

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

Muhammad Rahn
NOA, mock

G.S.A

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 flowcharts 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.

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

(b)

Semiconductors

Semiconductors are small chips of silicon and lithium. These are good conductors of heat and electricity. Mostly used in computer devices.

Types of Semi-conductors.

N-type Semiconductors.

N-type semi-conductors are made up of pure silicon or germanium. It has excess of electrons, making them the majority charge carriers.

P-type Semiconductors

It is created by doping silicon with boron, aluminium, etc. These are positive charge carriers.

Applications of Semiconductors

- 1) Semiconductors are used in microprocessors of computers.
- 2) Mobile phones, and small electronic

devices like transistors, capacitors, etc. in all semiconductor used.

Smartphones, fighter jets and in everything. semiconductors are used.

(C)

Global Warming:-

Global warming is a process which rise temperature of the globe, that's why called global warming. In other words, the ~~rising~~ process of rising temperature of the globe is called global warming.

Mechanism of Global Warming

Different gases and other man made activities contribute in global warming. Deforestation is one way of increasing global warming. The gases which especially CO_2 rise in the atmosphere and increase temperature, this rise the temperature. These gases which cause the rising temperature are called greenhouse gas. Mostly, industries, vehicles and space

rockets emit green house gases.

Three major green house gases

- 1) CO_2 carbon dioxide
- 2) SO_2 sulphur oxide
- 3) NO_2 nitric oxide

(d)

Tsunami

Tsunami is a Japanese word which mean to harbour the waves. This when sudden whirl of waves arise especially in coastal areas and in oceans this called Tsunami.

Process of Tsunami

Tsunami is sometimes caused by earthquakes. The magnitude of the earthquake must be above 7.0 on Richter scale. Sometimes, it also arises due to moon gravity and wind vacuums. For example, when winds blows in oceans and inside centre pressure create a vacuum and a long whirl

potential Tsunami.

Impacts of Tsunami on coastal areas.

- 1) Rip off buildings and electricity towers.
- 2) Loss of human lives due to Tsunami.
- 3) Crops and livestock damaged due to Tsunami.
- 4) Infrastructure damage due to effects of Tsunami.

Question No.3

(a)

Mitochondria and Ribosomes

These are present in animal cell, which perform various functions. Mitochondria makes protein and provide energy to the cell. It is very important. Ribosomes also carry hereditary traits the characteristics which are to be transferred to foetus is carried out by Ribosomes.

Mitochondria is called as power house of the cell because it provides energy to the cell. The protein formation took place in the mitochondria - that's why it is called as the power house of the cell.

(C)

Renewable Energy	Non-Renewable Energy
(i) The energy which can be re-used e.g. solar and wind energies	The energy which once used cannot be reused. e.g., natural gas, Fossil fuels etc.
(ii) Less cost	more cost of Non-Renewable energy.
(iii) Climate friendly	climate killer - i.e. cause of climate change.

Wind Energy as a source of sustainable future.

Wind energy has a great potential of providing the global needs in future. Mostly, coastal areas all over

The world has a great potential in creating electricity. It is free once installed. In Pakistan, wind energy can also have a future. The growing energy needs of the world and increasing climate change compel the world to go for renewable energy like wind energy.

(d)

Dengue Fever:

It is a type of viral fever which is caused by virus D-1, D-2 and D-3.

Symptoms:

- High fever
- Headache
- Swollen
- Fatigue etc.

Transmission:

It is transmitted through a female mosquito called Aedes Aegypti.

Preventive measures

- 1) Filling marshy places because virus originates from there.
- 2) Mosquito nets, the best way to prevent dengue or any other fever like malaria.
- 3) Spray to kill mosquitoes.
- 4) Treatment at time.

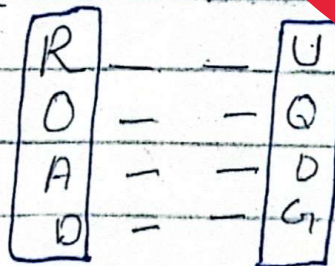
Section - IIQuestion - 8

(a)

Solution-

ROAD is coded as UQDG

Here the rule in the code is
third one of the given letters.

Explanation

ROAD → UQDG

Now "LAKE" can be coded
as

L	—	O
A	—	D
K	—	N
E	—	H

LAKE → ODNH

Thus LAKE is coded ODNH,
according to given language.

(B)

Answer

The woman is the wife
of nephew of the man.

(C)

(i) 4, 12, 6, 8, 9, 27, —

Explanation

4, 12, 6, 18, 9, 27, —

There are two patterns

i) $4, 6, 9, \underline{\quad ? \quad}$

ii) $12, 18, 27$ complete

Pattern one's sequence is

$$4 + 2 = 6$$

$$6 + 3 = 9$$

$$9 + 4 = \underline{12}$$

So, According to this pattern the next number in the sequence will be '12'

i.e. $4, 12, 18, 9, 27, \underline{12}$

Answer

ii) $1, 2, 6, 24, 120, \underline{\quad}$

Solution $1, 2, 6, 24, 120, \underline{\quad}$

Explanation

$$1 \times 1 = 1$$

$$1 \times 2 = 2$$

$$2 \times 3 = 6$$

$$6 \times 4 = 24$$

$$24 \times 5 = 120$$

$$120 \times 6 = 720$$

So, The sequence will be

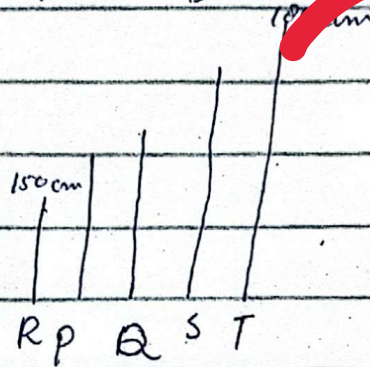
$1, 2, 6, 24, 120, \underline{720}$

Answer

(d)

Solution.

According to Given Data.



The shortest person is = 150 cm

The Tallest is 180 cm

So,

• Q is the third ~~for~~ Tallest friend.

$$\begin{aligned}
 \text{Range} &= \text{Maximum value} - \text{Minimum value} \\
 &= 180 - 150 \\
 &= 30 \text{ cm}
 \end{aligned}$$

Ans

Question No-6

(a)

Solution.

Pipe "A" fills water tank = 10 h

Pipe "B" fills = = = 15 h

Pipe "C" empty tank in = 30h.

So,

Calculate hours to fill tank

if all pipes simultaneously opened.

Thus let us take

Pipe "A" fills tank in 10h = 3 times = $3 \times 10h$

Pipe "B" fills tank in 30h = 2 times = $2 \times 15h$

Pipe "C" empty tank in 30h = 1 times

Now

Tank will be filled in = $\frac{30h}{5} = 6 \text{ hours}$

Answer

(b)

Solution:

$$X:Y:Z = 4:5:7$$

So, let us take total salary of

$$X, Y \text{ and } Z = T$$

Then

10% increase in Y's salary

equation becomes,

$$\frac{5}{16} \times 10 + T = 1 \rightarrow (i)$$

and

$$T - \frac{7}{16} \times 25 = Z \rightarrow (ii)$$

Also, it is given that new salary of Y and Z = Rs. 169,500

Thus

$$\text{Salary of Y} + \text{Salary of Z} = 169,500$$

We know that

$$\frac{5}{16} \times 10 + T + T - \frac{7}{16} \times 25 = 169,500$$

$$\frac{25}{8} + 2T - \frac{175}{16} = 169,500$$

$$2T + \frac{25}{8} - \frac{175}{16} = 169,500$$

$$2T + \frac{50 - 175}{16} = 169,500$$

$$2T - \frac{125}{16} = 169,500$$

$$2T = 169,500 + \frac{125}{16}$$

$$2T = \frac{9712000 + 125}{16}$$

$$2T = \frac{2712125}{16}$$

$$T = \frac{2712125}{32}$$

$$T = 84753.7 \quad \text{--- (iii)}$$

put. it into eq (ii)

$$\frac{5}{16} \times 10 + 84753.7 = Y$$

$$\frac{25}{8} + 84753.7 = Y$$

$$\boxed{Rs\ 84756.9 = Y}$$

Also.

$$84753.7 - \frac{7}{16} \times 25 = Z$$

$$84753.7 - 10.9 = Z$$

$$\boxed{84742.8 = Z}$$

Now original salary of "X"

$$\frac{4}{16} T = X$$

$$\frac{4}{16} (84753.7) = X$$

$$\boxed{Rs\ 21188 = X}$$

Original Salary of "X"

Answer.

(15)

(d)

Solution:

Let class's total number of students is $= x$

We also know that

$$\text{Average} = \frac{\text{Sum of Numbers}}{\text{Total Numbers}}$$

Now, According to given data

$$78 = \frac{\text{Sum of No}}{x} \rightarrow (i)$$

Also, $75 = \frac{\text{Sum of No}}{x-5} \rightarrow (ii)$

According Maths we can arrange this eqn

$$78(x) = \text{Sum of No}$$

$$75(x-5) = \text{Sum of No}$$

We can compare now, as equation is equal.

$$78(x) = 75(x-5)$$

$$78x = 75x - 375$$

$$78x - 75x = +375$$

$$\frac{3x}{3} = \frac{+375}{3}$$

$$\boxed{x = 125} \quad \text{Answer}$$