

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 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.

Here's a brief key/sample of your Ability questions

Q.6

a) Candy ratio problem

Given: Packets in flavors Apple : Berry : Cherry : Date = 3 : 6 : 2 : 5.

Asked: If Apple candies exceed Date candies by 35, how many Berry candies are there?

Note (consistency check): The ratio shows Apple = 3 parts

of the all medical facilities at PIMS, CMH and many other hospitals has led to an increase in life expectancy of the people causing a surge in the population. The average life expectancy of people from Pakistan has now passed 65 years according to WHO.

v) High testosterone level in males =

The males of Pakistan possess high levels of testosterone on average. This leads to more effective sperm production and on average the Pakistani men can get a woman pregnant more easily. This leads to an increase in population.

vi) Sexual Education is considered a taboo =

Sexual Education is still considered a taboo in Pakistan. This leads to less awareness among couples about sex which leads to them conceiving children and resultantly, an increase in population.

c) Control Measures:-

i) Awareness among the masses =

There is a dire need of spreading awareness among the masses about the usage of contraception and encouraging the practice of family planning.

ii) Encouraging use of contraceptives

The usage of contraceptives will decrease chances of pregnancy and in turn, lead to a decrease in population increase.

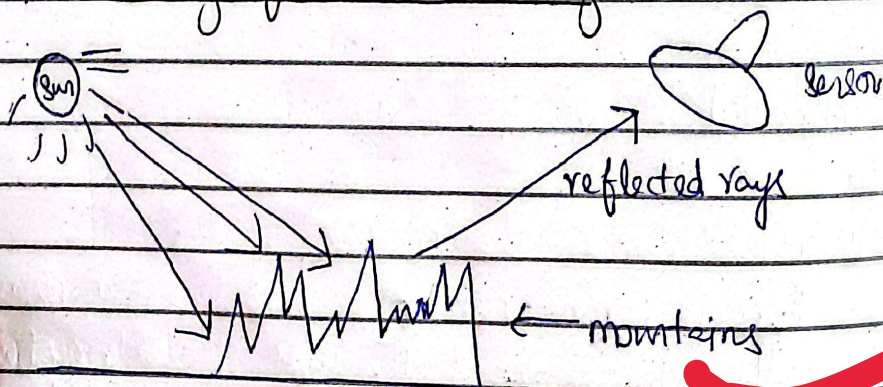
iii) Two-child policy

Policy interventions by the state such as a two child policy could be a method for the control of population explosion.

Ans 5.b) A) REMOTE SENSING

Remote sensing is a proximal method utilised to identify, gather and predict the information regarding a geographic location. It uses satellites in its working and can accurately identify a location from far away.

i) Working of Remote Sensing :-



Remote sensing, uses the reflected rays from a surface to figure out the geographical features of a surface. The sensor receives the reflected rays from the surface, analyses it and uses it to predict the type of and location of the surface.

ii) Types of Remote Sensing:-

i) Natural Powered =

Natural powered remote sensing uses a natural source of energy like the sun and receives its reflected rays.

ii) Self Powered =

The self powered remote sensing uses a source placed by the humans themselves to generate the energy which is propagated towards surface and then used to figure out the features of the surface.

iii) Components of Remote Sensing:-

i) Sensor

ii) Technical Human resource

iii) Surface whose identification and information is required

B) GIS

GIS refers to Geographical Information System, which is a software that identifies, analyses, predicts and stores information about a geographical region.

Role of GIS in Environmental Sciences-

i) Helps in Disaster management =

GIS helps predict disaster ridden areas and which areas are in need of relief activities. It can help in flood relief activities.

ii) Urban Planning =

GIS can be used to effectively plan and manage the urbanization process. It can be used to mitigate the damages caused by the urbanization to the environment.

iii) Prevention and Mitigation of Floods =

GIS can be used as a form of early warning system which can help in the prevention and mitigation of floods and many other disasters.

iv) Access to remote areas =

GIS can be used to access and

help out people in remote or inaccessible areas. It can help in maintenance of equitable resource distribution to them and ensure equity.

v) Identification of lands where reforestation or afforestation can be done =

GIS can be utilised to identify areas with rich ecological systems and biomes and reforestation efforts can be done there to prevent the disruption of ecological system and prevent loss of biodiversity.

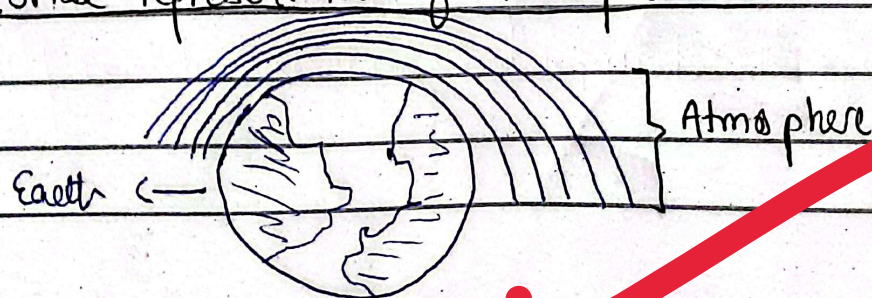


Ans. c) ATMOSPHERE

The atmosphere is the blanket of the Earth. It covers the Earth completely from all the sides. It consists of multiple gases, mainly :-

- i) Nitrogen (78%)
- ii) Oxygen (21%)
- iii) Carbon dioxide (0.4%)

A) Pictorial representation of Atmosphere :-



B) Layers of the Atmosphere :-

- i) Troposphere
- ii) Stratosphere
- iii) Mesosphere
- iv) Thermosphere
- v) Exosphere

C) ATMOSPHERE : BLANKET of the EARTH :-

The atmosphere is called the blanket of Earth because it helps keep the heat of the sun which in turn does not let our planet become very cold. Furthermore, it protects the Earth from harmful rays of the sun and helps maintain a balance of the temperature on the Earth.

GSA - Mock

Q6) a) Apple : Berry : Cherry : Date
3 : 6 : 20 : 5

Apple exceed^{Date} Candies by 35

Difference in ratio = 2

→ 2 ratios represent = 35.

so 1 ratio = 17.5

Berry candies = 6 ratios.

Berry candies = $6 \times 17.5 = 105$.

$$\begin{array}{r} 42 \\ 17.5 \\ \times 6 \\ \hline 105.0 \end{array}$$

6.5) Camera price = \$200

Discount = 25%.

Tax = 6%.

Total amount paid = Price - (discount) + Tax on price

Discount = $\frac{25}{100} \times 200 = \50 .

Tax = $\frac{6}{100} \times 200 = \12 .

Total amount paid = $200 - 50 + 12 = \$162$.

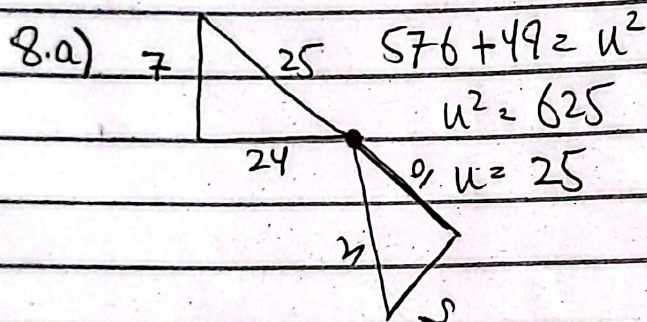
6c) Distance = 36 km
 Speed = 18 km/h
 Start = 1 pm.

Time taken = $\frac{36}{18} = 2 \text{ hours}$.

Time when it reaches = 3 pm.

6d) i) STATISTICS

ii)



$$\begin{array}{r} 124 \\ \times 24 \\ \hline 496 \\ 1526 \\ + 49 \\ \hline 625 \end{array}$$

$$\begin{array}{r} 618 \\ \times 18 \\ \hline 1446 \\ 1080 \\ \hline 11124 \end{array}$$

$u^2 = 5^2 + 10^2$

$u^2 = 25 + 100$

$u^2 = 125$

$u^2 = 125$

$u = \sqrt{125} = 11.1 \text{ km}$.

Total distance = $7 + 24 + 25 + 10 + 5 + 11.1 = 82.1$

Distance from start = 11.1 km.

8.6) Total = Rs 9000

$A = \frac{1}{2}B$, $B = 3C$, $C = 4D$, $D = 2E$, $E = F$

$E = F$

$D = 2F$

$C = 4(2F) = 8F$

$B = 3(8F) = 24F$

$A = 12F$

$F + 2F + 8F + 24F + 12F = 9000$

$47F = 9000$

$F = \frac{9000}{47}$

$F = 191.5$

$A = 2298 \text{ Rs}$

$B = \text{Rs } 4596$

$C = \text{Rs } 1532$

$D = 383 \text{ Rs}$

$E = \text{Rs } 191.5$

$\begin{array}{r} 647 \\ \times 9 \\ \hline 423 \end{array}$

$\begin{array}{r} 347 \\ \times 5 \\ \hline 1735 \end{array}$

$\begin{array}{r} 47 \overline{) 9000} \\ \underline{4761} \\ 430 \\ \underline{423} \\ 70 \end{array}$

$\begin{array}{r} 191.5 \\ \times 2 \\ \hline 383 \\ \times 15 \\ \hline 2782.5 \end{array}$

$\begin{array}{r} 191.5 \\ \times 24 \\ \hline 7660 \\ 3830 \times 8 \\ \hline 4596.0 \end{array}$

$\begin{array}{r} 191.5 \\ \times 2 \\ \hline 383.0 \end{array}$

8.c) TSA = Sum of Area of all faces.

$$= [2(6 \times 4) + 2(8 \times 6) + 2(4 \times 8)]$$

$$= [2(24) + 2(48) + 2(32)]$$

$$= 2[48 + 96 + 64] = 208 \text{ m}^2$$

$$\begin{array}{r} 148 \\ + 96 \\ + 64 \\ \hline 208 \end{array}$$

Volume = $l \times b \times h$

$$8 \times 6 \times 4 = 192 \text{ m}^3$$

$$\begin{array}{r} 324 \\ \times 6 \\ \hline 192 \end{array}$$

8.d) Family = 8 members.

Men = 72 kg of food.

Women = 50 kg of food

Men & Women are equal in number = 4

Anna joined and new average = 67

$$\text{Men ate} = 72 \times 4 = 288 \text{ kg}$$

$$\text{Women ate} = 200 \text{ kg.}$$

$$\begin{array}{r} 72 \\ \times 4 \\ \hline 288 \end{array}$$

$$\text{New avg} = 288 + 200 + \cancel{172} = 67$$

19

$$288 + 200 + 11 = 67 \times 9$$

$$\cancel{11} = \cancel{102} + \cancel{200} - \cancel{288}$$

$$\begin{array}{r} 467 \\ \times 2 \\ \hline 934 \end{array}$$

$$\begin{array}{r} 667 \\ \times 9 \\ \hline 6003 \end{array}$$

$$u = 603 - 288 - 200$$
$$u = 115 \text{ kg.}$$

$$\begin{array}{r} 603 \\ - 288 \\ \hline 115 \end{array}$$

Amna ate 115 kgs.

