

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

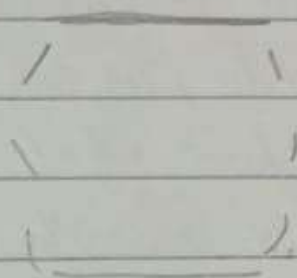
- Q.6 b. Imagine the surface of a balloon with dots on it. Each dot represents a candy.
- a) Candy ratio problem
- Given: Packets in flavors Apple : Berry : Cherry : Date = 3 : 6 : 2 : 5.
- Asked: If Apple candies exceed Date candies by 35, how many Berry candies are there?

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

Similar to the expansion of the universe,
where galaxies move away from
each other as space it's expands.

Before expansion

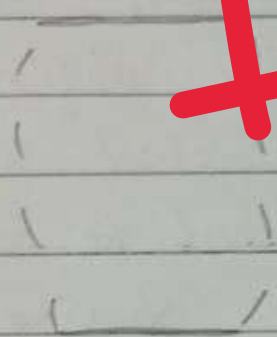
(Galaxies) ↑



Ballon

After expansion

(more apart)

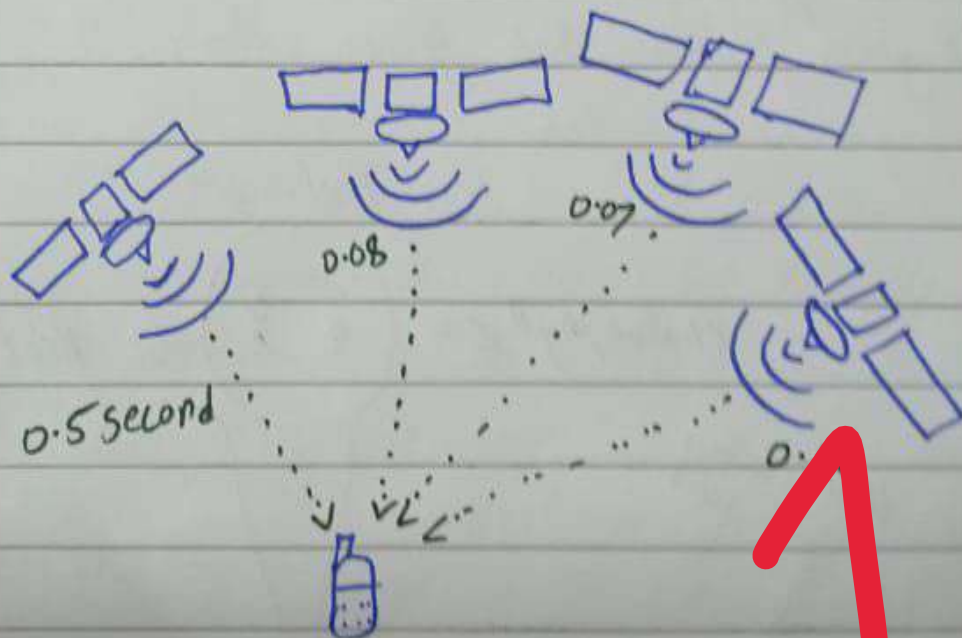


Ballon

Balance diet a diet that provide
all essential nutriets like proteins,
fats, vitamins, carbohydrates, water,
and minerals. These can be take
in a right amounts for good health
and growth. Deficiencies of vitamin
A create poor vision, night blindness,
and weak immune system.
Vitamin D, Weak bones, rickets in
childrens, and osteoporosis in adults.

Moreover, Vitamin E deficiency contain weak muscles, nerve problem, and poor immunity.

- d. GPS stand for Global positioning System. It uses a network of Satellites that orbiting earth. A GPS receiver calculates it's distance from at least 4 Satellites. The receiver determines the exact position of longitude and latitude.



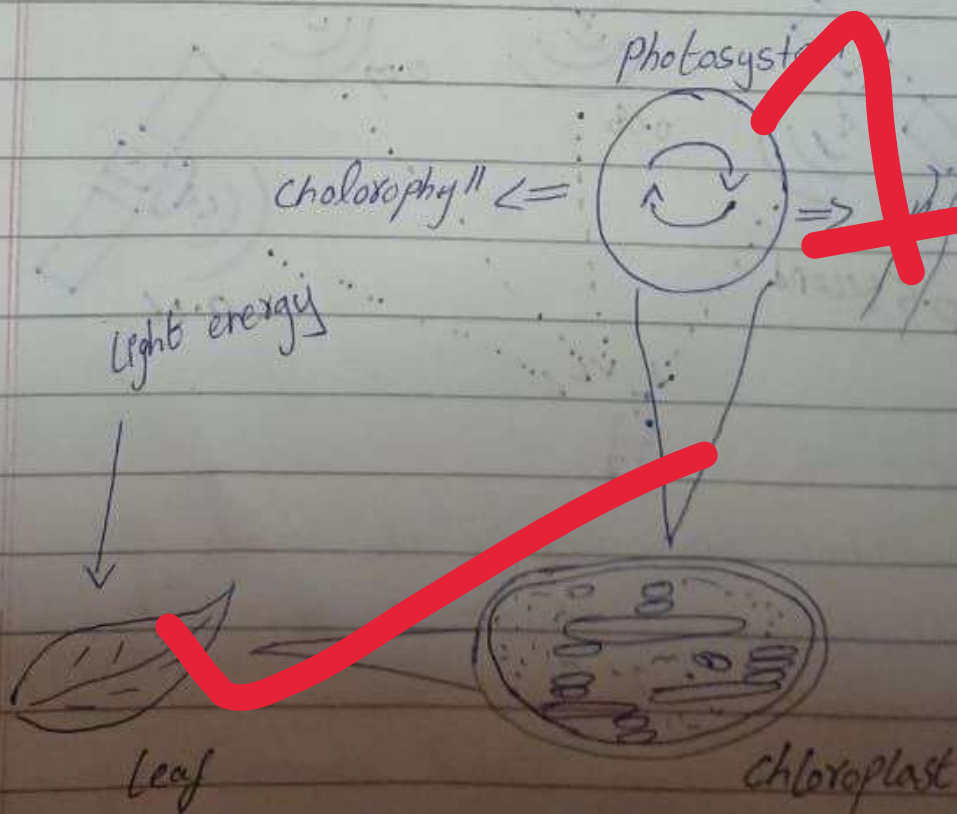
A fiber optic cable is made of thin glass or plastic fibers that transmit data as pulses of light. It allows high speed communication.

2D location is measure by latitude and longitude position on earth.

Surface with satellites.

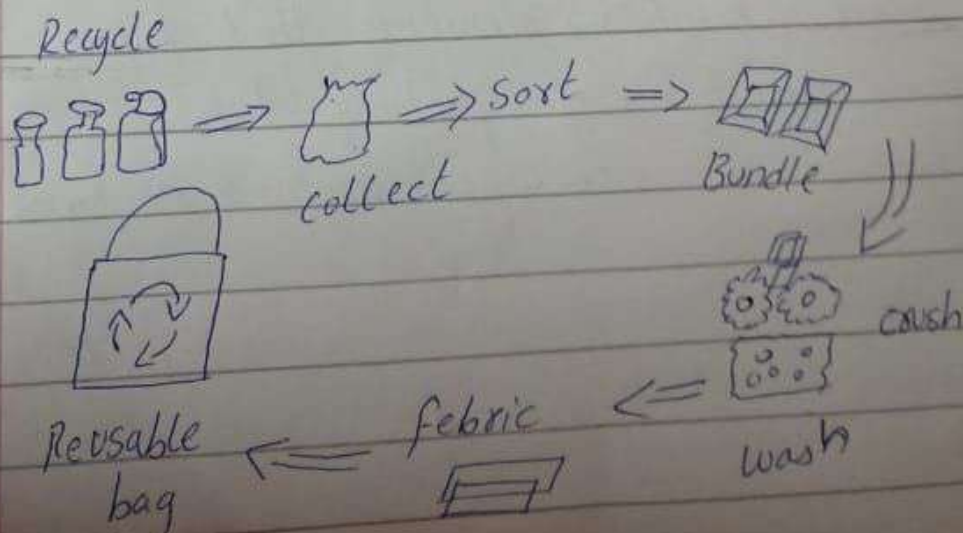
However, 3D location measure latitude + longitude + altitude (height above the sea level with satellites).

Q.NO. 4 a) chlorophyll II is a green pigment found in the plant and in some bacteria. It helps in photosynthesis and absorb sunlight and converting it into chemical energy. It gives plants their green colour.



b. Ribosomes are small organs made up of RNA and proteins. They are found in cytoplasm and they act as protein factories of the cell.

c. Different methods of Solid waste management. Recycling that converting waste materials like paper, plastic, and glass into reusable products. Composting is decomposed ^{things} ~~organs~~ into organic waste like food and leaves into natural fertilizer. Landfilling, Burying waste in layers of soil. It is common but not eco-friendly. Waste reduction is another method, which reduce waste generation by using eco-friendly materials.



D. i) Biofuel :- fuel made from organic material like plant or animal waste.

ii) Adulteration :- The addition of harmful substances to food, or products to increase profit but reduce quality. e.g water in milk.

iii) Hydrosphere :- It is the all water on the earth surface e.g seas, lakes, oceans, and ice caps.

iv) Troposphere :- Lower layer of earth atmosphere, where weather changes, and clouds form, human live.

v) Isotopes :- It is the atoms of the same ~~number~~ element that have same number of protons but different numbers of ~~protons~~ neutrons.

Section 11

Q. No 7 (a) Volume of a Sphere and diameter is 14 cm.

$$V = \frac{4}{3} \pi r^3 = \frac{4}{3} \times \frac{22}{7} \times 7^3$$

$$7^3 = 343$$

$$\frac{343}{7} = 49$$

$$V = \frac{4}{3} \times 22 \times 49$$

$$= \frac{4312}{3} \text{ cm}^3$$

$$V = 1437 \frac{1}{3} \text{ cm}^3 = 1437.33 \text{ cm}^3$$

b) Five friends total Saving = 25,000
ratio = 1:2:3:4:5

$$\text{Sum of ratio} = 1+2+3+4+5 = 15$$

$$\text{Smallest Share} = \frac{1}{15} \times 25000$$

$$= \frac{25000}{15}$$

$$= \frac{5000}{3}$$

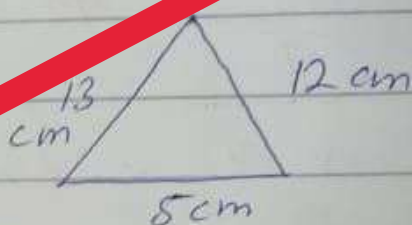
Total smallest share is 1666.6

c) i) 2, 6, 18, 54, 162, 486
 All number are fit
 number doesn't fit are ratio
 of 3.

ii) 3, 5, 7, 11, 13, 17

d)

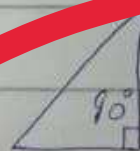
Base = 5 cm
 perpendicular = 12 cm
 Hypotenuse = 13 cm



$$12^2 + 5^2 = 25 + 144 = 169$$

$$= 13^2$$

Right triangle =



$$\sin \theta = \frac{5}{13} = 22.62$$

Q. NO. 6 (a) Data in the ratio

3 : 6 : 2 : 5

Apple candies = 35

How many berry

e.g. ~~2 x 3~~ Berry = 6

6 x 35 = 210 Answer

b. Camera = \$200

25% of
6% tax

Total amount =

$$25\% \times 200 = 50$$

$$\text{discount} = 200 - 50 = 150$$

$$\text{Add 6\% tax} = 150 \times 1.06 \\ = 159\$$$

c.

36 km at 18 km/hr a
bicycle cover at 1 pm
When it reached

$$= \text{Time} = \frac{\text{Distance}}{\text{Speed}} \\ = \frac{36}{18}$$

$$= 2 \text{ hours}$$

$$\text{Arrival time} = 1 \text{ pm} + 2 \text{ hours} \\ = 3 \text{ pm}$$

d. Unscramble

i) S I S T A C I T S → STATISTICS

ii) L G E B M A R → ALGEBRA