

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 and Date = 5 parts, so Date is larger than Apple in the ratio. The statement "Apple candies exceed Date candies by 35" contradicts the ratio (Apple cannot exceed Date if ratio is 3:5). Two ways to handle this:

1. If the problem truly intends Apple - Date = 35, that's impossible with the given ratio (would require negative common factor).

2. Most likely the intended meaning is Date exceeds Apple by 35 (i.e. Date - Apple = 35). I will solve that reasonable interpretation.

Formula: Let common factor = k . Apple = $3k$, Date = $5k$.

So $5k - 3k = 35 \Rightarrow 2k = 35$.

Solution: $2k = 35 \Rightarrow k = 35 \div 2 = 17.5$.

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

Answer: 105 Berry candies.

(If you intended the other wording exactly as written, note that it is inconsistent with the ratio.)

b) Camera discount + tax

Given: Original price = \$200. Discount = 25% off. After discount, 6% tax applied.

Asked: Total amount paid.

Formula / Steps:

Discount amount = 25% of 200 = 0.25×200 .

Sale price = 200 - discount.

Tax = 6% of sale price.

Total = sale price + tax.

Solution (digit by digit):

Discount = $200 \times 0.25 = 50$.

Sale price = $200 - 50 = 150$.

Tax = $150 \times 0.06 = 9$.

Total paid = $150 + 9 = 159$.

Answer: \$159.00

c) Bicycle travel time

Given: Distance = 36 km, speed = 18 km/hr, start time = 1:00 PM.

Asked: Arrival time.

Formula: Time = Distance $\div$ Speed.

Solution: Time = $36 \div 18 = 2$ hours. Start 1:00 PM + 2 hours = 3:00 PM.

Answer: 3:00 PM

d) Unscramble math terms

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Hello sir, thank you for checking my exam. Could you
tell me areas of improvement in some of these
questions that I quickly attempt?

General Science & Ability

Pt. II

Q.2(a) Data:

Data is the new oil, from the dual standpoint of both data and oil. "Data" is the raw, unorganized collection of facts and figures, which is used to generate information, the processed form of ~~concept~~ data. Consequently, the larger the 'quantity' of data, the higher the information generation. Information is then further used for decision making, with another direct relationship: the more (and accurate) the information, the more targeted the decision made.

oil =

oil, once the harbinger of wealth and prosperity, is currently on the unstable grounds of being replaced by comparatively cheaper renewable energy. Today, the world members no longer require oil as the basis of their growth.

The New Factor of Production:

Data is the new factor of production, as evident by the stream of data produced and consumed everyday by all entities. Data is calculated, monitored and stored by all modern devices; be it the movement tracker application on phones, calculating number of steps taken or the likes and

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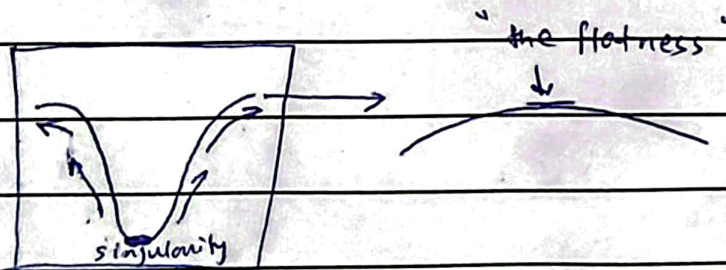
dislikes of a term on a social media platform. That individual level data tracking is then used to create a digital/virtual consumer profile for targeted ads and content. Algorithms understand preferences and cater to individuals with personalized feeds. While at the level of states, the recent tussle between America and China over the sale of TikTok is a clear proof for the fact that the state that controls the data and in turn the information and narratives, is consequently the stronger state. After the sale of TikTok, America announced that the algorithm will be "retrained" according to more suitable content. That will, very obviously, control what gets told and what remains hidden, controlling narratives and public perceptions at large. Similarly, China has initiated a digital ~~public~~ ID system, with over 65,000 voluntary sign-ups in the initial week. This allows the state to track the lives, and in turn their habits on a daily, moment-to-moment basis and in turn offer rewards and punishments. These examples at both individual/corporation and state level exemplify that data is the new treasure trove and the one controlling and storing it will be the ultimate winner in the new race towards prosperity.

2(b) Universe Expansion Theory

The universe is expanding, as supported by multiple theories and also scientific evidences. The Accelerating universe theory purports that the universe is moving outwards and the supporting evidence is the red shift effect. When an object is moving towards the reference point, it creates a blue shift spectrum called the blue-shift, while an object moving away from said reference point creates the red shift effect. The data collected and analyzed from distant objects shows

Date _____

them to produce a red shift effect. Once it has been established that the universe is accelerating, and in turn, expanding, it is easier to understand it by an analogy of a balloon. If a point is marked on the balloon, and it is continuously, but slowly, being blown into then the balloon will increase in size, however, the point will stay ~~near~~ on its original location. Except it will be more spread out, but the effect on that will be felt only a large galactic timescale. So although the size is increasing, the surface of it will appear to be flat (or 'same') to the observer placed on that surface. This is because, on a relative level the surface, like a balloon's, will "feel" flat.



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Section II

Q7 (a) Volume of sphere = $\frac{4}{3} \pi r^3$

diameter = 14cm

$$r = d/2 = 14/2 = 7$$

$$\text{volume} = \frac{4}{3} \times 22/7 \times 7^3$$

$$= \frac{4}{3} \times 22 \times 7^2$$

$$= \frac{4}{3} \times 22 \times 49 = 1437\frac{2}{3}$$

$$= 1437.3$$

Date _____

2(b)

total savings = 25,000

ratio = 1:2:3:4:5

total ratio (sum) = 15

ratios = $\frac{1}{15} \times 25000 = 1666.7$

2(c)

(i) 2, 6, 18, 54, 162, 486

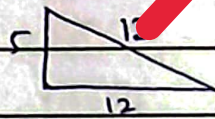
⇒ all numbers fit in the pattern of $(x \times 3)$ where x is the previous number in the sequence. $2 \times 3 = 6$, $6 \times 3 = 18$...

(ii) 3, 5, 7, 11, 13, ...

the next no. is 17 because this is a series of prime numbers

2(d)

sides = 5, 12, 13



check Pythagorean theorem

$$H^2 = P^2 + B^2$$

$$13^2 = 5^2 + 12^2$$

$$169 = 25 + 144$$

the triangle is a right angle triangle, one angle is 90° } for other angles

$$\sin \theta = \frac{P}{H} = \frac{5}{13} = \sim 22.6^\circ$$

$$\cos \theta = \frac{B}{H} = \frac{12}{13} = \sim 67^\circ$$