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Day: _____

Do's and Don'ts for General Science & Ability Paper

GSA-Ability

Date: _____

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 at least 2 and at max 3 sides 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. :)

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Cost price after discount

$$= \$80 - \$12$$

$$= \$68$$

→ We will apply the sales tax on the discounted price now.

$$68 \times \frac{10}{100} = \$6.8$$

$$\underline{\text{Final Price}} = \$68 + \$6.8$$

$$= \boxed{\$74.8}$$

c) Distance = 42 km

Speed = 36 km/hr

Time of departure = 4:00 pm

→

$$\text{Travelled Time} = \frac{\text{Distance}}{\text{Speed}}$$

$$\Rightarrow \text{Time} = \frac{42}{36} = \frac{7}{6} \text{ hrs}$$

$$\frac{7}{6} \text{ hrs} \Rightarrow \text{mins} = \frac{7}{6} \times \frac{60}{1} = 70 \text{ mins}$$

Departure time + travel time =

Arrival time

$$= 4:00 + 1:10 = \boxed{5:10 \text{ pm}}$$

d) Jumbled Words

- i uninterested
- ii white

Question 7

a) Formula for volume of cylinder: $\pi r^2 h$

→ conversion required

: 1 meter = 100cm

⇒ Radius = 30cm

Height = 100cm

$V = \pi r^2 h$

$V = \pi \times 30^2 \times 100$

$V = \pi \times 900 \times 100$

$V = \pi \times 90000$

$V = 9 \times 282,780$

b) Let "x" be age. ^{→ common multiple} Denote boys age as: 3x, 5x, 7x

→ Average of all three boys is 15

⇒ $3x + 5x + 7x = 15$

$15x = 45$

$x = 3$

→ Annly.
Age of youngest boy
3(3)
= 9 years

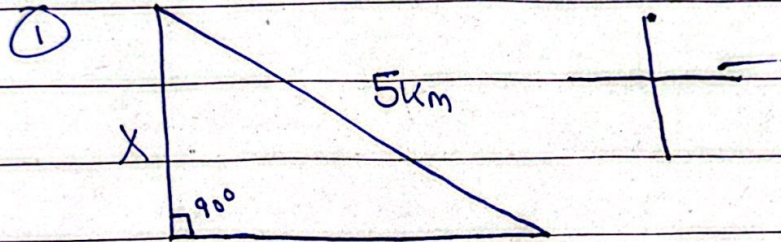
c) The wrong number is 447 as the number as per pattern followed should have been 448

ii) Pattern = +2, +4, +2, +4 ⇒ +2
= 25

d) N/A

Question 8

a)



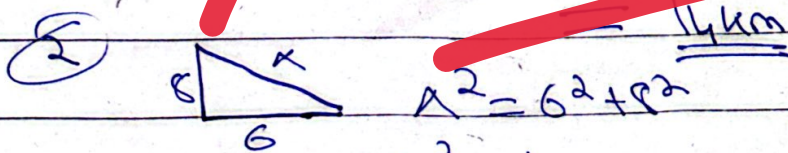
$$5^2 = 4^2 + x^2$$

$$25 - 16 = x^2$$

$$9 = x^2 \quad x = 3 \text{ km}$$

Triangle 1 perimeter = $5 + 4 + 3 = 12 \text{ km}$

Additional distance = 6 km + 6 km



$$x^2 = 6^2 + 6^2$$

$$x^2 = 100$$

$x = 10 \text{ km}$ → Away from Starting Point

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b) 5 Friends and Total Pocket

$$\text{Money} = 8000$$

$$(H) \text{ Hassan} = \frac{1}{3} \times \text{Ali}$$

$$(A) \text{ Ali} = 5 \times \text{Akbar}$$

$$(K) \text{ Akbar} = 3 \times \text{Nasir}$$

$$(N) \text{ Nasir} = ?$$

$$(S) \text{ Shahbaz} = \text{Nasir} + \text{Ali}$$

Let equation be

$$\Rightarrow H + A + K + N + S = 8000$$

(Substitution)
 $\Rightarrow \frac{1}{3} A + A + K + N + S = 8000$

(Substitution)
 $\Rightarrow \frac{1}{3} A + A + 3N + N + S = 8000$

(Substitution)
 $\Rightarrow \frac{1}{3} A + A + 4N + N + A = 8000$

$$\Rightarrow \frac{1}{3} A + 2A + 5N = 8000$$

$$\Rightarrow \frac{7}{3} A + 5N = 8000$$

↓

$$A(\text{Ali}) = 5 \times \text{Akbar}(K)$$

$$A(\text{Ali}) = 5 \times 3N(\text{Nasir})$$

$$\boxed{A = 15N}$$

$$\Rightarrow \frac{7}{3} A + 5N = 8000$$

Substitute $A = 15N$

$$\Rightarrow \frac{7}{3} (15N) + 5N = 8000$$

$$\Rightarrow 35N + 5N = 8000$$

$$\Rightarrow 40N = 8000$$

$$\Rightarrow N = \frac{8000}{40} = 200$$

$$\boxed{\text{Naris} = 200}$$

$$\text{Alkbar} = 3 \times 200 \text{ (Naris)}$$

$$\boxed{= 600}$$

$$\text{Ali} = 5 \times 600 \text{ (Alkbar)}$$

$$\boxed{= 3000}$$

$$\text{Hesson} = \frac{1}{3} \times 3000 \text{ (Ali)}$$

$$\boxed{= 1000}$$

$$\text{Shahbaz} = 200 \text{ (Naris)} + 3000 \text{ (Ali)}$$

$$\boxed{= 3200}$$

So: ① Naris = 200 ② Ali = 3000 ③ Shahbaz = 3200
 ④ Alkbar = 600 ⑤ Hesson = 1000

④

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Q) • Surface Area of sphere Formula

$$A = 4\pi r^2$$

• Volume of sphere Formula

$$= \frac{4}{3}\pi r^3$$

$$\rightarrow \text{Surface area} = 4 \times \pi \times 7^2$$

$$= 28^2 \times \pi$$

$$= 615$$

$$\text{Volum} = \frac{4}{3} \times \pi \times 7^3$$

$$= \frac{4}{3} \times \pi \times 343$$

$$= \frac{1372}{3} \pi$$

$$= 457.33 \pi$$

$$= 1436.7$$

Q) Distributing Rs. 4320

$$Zain = 2x = \text{Rs. } 720$$

$$Aslam = 3x = \text{Rs. } 1080$$

$$Ashraf = 7x = \text{Rs. } 2520$$

Working:

$$Zain = \frac{2}{7x} \times 4320 \Rightarrow x = \frac{720}{2} = 360$$

$$\begin{array}{l} \text{Ashraf} = 5 \times 360 \\ \text{Ashraf} = 7 \times 360 \end{array}$$