

Dos and Don'ts for General Science & Ability Paper

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.

Q-NO 6 (a)
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.

Given that
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.
Arithmetic mean of 9, 8, 10, k, 12 is 15
Find = k

3. You need to understand that your paper is supposed to look more scientific than theoretical. So, add flowcharts and diagrams where required.

$\Rightarrow$ 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.

$\Rightarrow$ 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.

$\Rightarrow$ Good luck for CSS 2025. You're gonna rock in sha Allah. :)

(b)

SOLUTION:

Given
ratio of suger solution
and colored water in a
mixture is $4:3$

$$\Rightarrow S : C = 4 : 3$$

If 10 liters colored water
is added, the ratio becomes $4:5$

$$\Rightarrow S : C = 4 : 5$$

Find = Initial quantity of Suger
solution in mixture.

STEP-1:

Consider solution $x = 100$ liter

STEP-2:

Sum of ratio before 10 liter
colored water $\therefore = 4 + 3$
 $= 7$

STEP-3:

$$\text{Sugar} = \frac{4}{7} \times \text{initial mixture}$$

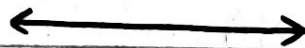
~~$$\text{Sugar} = \frac{4}{7} \times 100$$~~

~~$$= \frac{400}{7}$$~~

~~$$= 57.1 \text{ liter}$$~~

$$\Rightarrow \boxed{\text{Sugar solution} = 57.1 \text{ liter}}$$

Initial quantity of sugar solution is 57.1 liter.



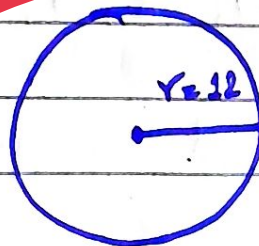
(C)

SOLUTION:

Given data

$$r = 12 \text{ cm}$$

Volume of Football = ?



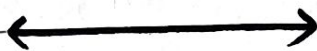
$$\text{Volume} = \frac{4}{3} \pi r^3 \rightarrow (A)$$

Substituting values in Eq (A)

$$\begin{aligned} \Rightarrow \text{Volume} &= \frac{4}{3} \times \pi \times (12)^3 \\ &= \frac{4}{3} \times \pi \times (1728) \\ &= \left(\frac{4}{3}\right) \times \left(\frac{22}{7}\right) \times (1728) \\ &= 2304 \times 3.14 \end{aligned}$$

$$\text{Volume} = 7234.56 \text{ cm}^3$$

Thus, volume of given football is 7234.56 cm^3 .



(d)

SOLUTION:

Given data

$-10, -8, 6, 40, 102, ?$

Find = question mark term

-10, -8, 6, 40, 102, ?

difference $\nearrow$ $\nearrow$ $\nearrow$ $\nearrow$

2 14 34 62

difference $\nearrow$ $\nearrow$ $\nearrow$

12 20 28

$\downarrow$

$\downarrow$

$$12 + 8 = 20$$

$$20 + 8 = 28$$

Therefore,

a pattern of term 8
i-e on adding 8, we get
next number.

$$\text{Thus, } 28 + 8 = 36$$

Missing Term = 200

Given series become

-10, -8, 6, 40, 102, 200



Q-NO 7 (a)

SOLUTION:

Given data

$$20\% \times x = y$$

Find $y\% \times 20$ in terms of x

So,

$$20\% \times x = y$$

$$\frac{20}{100} \times x = y$$

$$\frac{2}{10} \times x = y$$

$$\frac{1}{5} \times x = y$$

$$\Rightarrow \frac{x}{5} = y \quad \text{--- (1)}$$

Now,

$$y\% \times 20 = \frac{y}{100} \times 20$$

$$= y \times \frac{20}{100}$$

using value of y from equation (1)

$$\begin{aligned}\Rightarrow y\% \times 20 &= \frac{x}{5} \times \frac{20}{100} \\ &= x \times \frac{1}{25} \\ &= x \times (0.04)\end{aligned}$$

$$\boxed{y\% \times 20 = 0.04x}$$

Which is required



(b)

SOLUTION:

Given Data

Average salary of P and Q = Rs. 5050

Average salary of Q and R = Rs. 6250

Average salary of P and R = Rs. 5200

Find = Salary of P

Average salary of P & Q

$$\frac{P+Q}{2} = 5050$$

$$\Rightarrow P+Q = 10100 \text{ — (1)}$$

Average salary of Q & R

$$\frac{Q+R}{2} = 6250$$

$$\Rightarrow Q+R = 12500 \text{ — (2)}$$

Average salary of R & P

$$\frac{P+R}{2} = 5200$$

$$\Rightarrow P+R = 10400 \text{ — (3)}$$

Now,

Solving Eq (2) & Eq (3)

$$+Q+R = +12500$$

$$+P+R = +10400$$

$$\hline Q-P = 2100$$

$$\Rightarrow Q - P = 2100 \text{ --- (4)}$$

Solving Eq (4) & Eq (1)

$$+P + Q = +10100$$

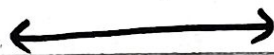
$$-P + Q = +2100$$

$$2P = 8000$$

$$\Rightarrow 2P = 8000$$

$$\Rightarrow \boxed{P = 4000}$$

Therefore, monthly income of P is 4000 rupees.



(C)

SOLUTION:

Given data

Tossed Total coins = 500 times

Total Number Coins = 2

No. of Two-heads = 105 times

one-head = 275 times

No head = 120 times

Probability = ?

$$\text{Probability (two heads)} = \frac{105}{500}$$

$\text{Prob (two heads)} = \frac{21}{100}$
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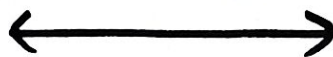
$$\text{Probability (one head)} = \frac{275}{500}$$

$\text{Prob (one head)} = \frac{55}{100}$

$$\text{Probability (no head)} = \frac{120}{500}$$

$\text{Prob (no head)} = \frac{24}{100}$
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This completes the solution.



(d)

SOLUTION:

let age of Jamie = x

then age of Jamie's dad = $4x$

After 14 years

$$4x + 14 = 2(x + 14) \rightarrow (1)$$

↳ given condition

Solving Eq (1)

$$4x + 14 = 2x + 28$$

$$\Rightarrow 2x = 14$$

$$\Rightarrow x = 7$$

Age of Jamie = 7 years

$$\text{Jamie's Dad age} = 4x = 4 \times 7 = 28$$

Age of Jamie's dad = 28 years



SECTION-I

Q-NO 2 (a)

WHAT IS DENGUE?

Dengue is a viral disease which is spread through the bite of mosquito.

→ CAUSES OF DENGUE

When a mosquito bites an infected person, parasite enter body of mosquito. As a result, mosquito becomes infected. When that mosquito bites a person then parasite transfer into the body of that person's bloodstream where it multiply.

→ SYMPTOMS OF DENGUE

An infected person

has mild symptoms or no symptoms, and recovers within 2-7 days. However, when symptoms appear it takes 3-9 days for recovery. Symptoms are:

Early, critical and recovery symptoms

- Fever,
- Fatigue, Tiredness,
- Pain behind eyes,
- Malaise,
- Nausea, Vomiting,
- Diarrhea, etc

→ TREATMENT OF DENGUE

There is no treatment of dengue, only body pain are reduced by giving medicine. **Paracetamol** is taken by the patient.

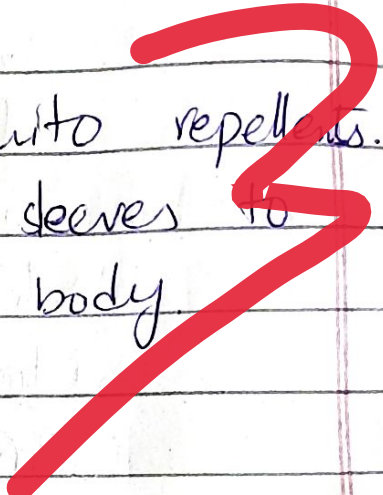
→ PERSON WHO IS INFECTED

An infected person

- use mosquito net,

- Drink plenty of liquids
- a proper diet which is recommended by Dr.

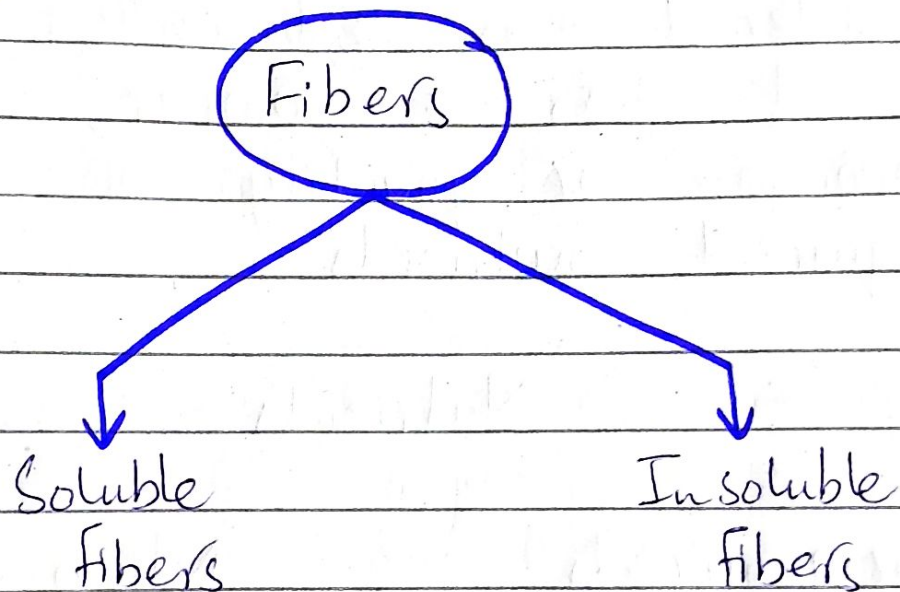
→ PREVENTION

- Use mosquito nets, tents, etc.
 - Apply mosquito repellents.
 - Wear Full sleeves to cover arms and body.
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Q-NO 4 (b)

FIBERS

Fiber is a carbohydrates which are present in the plants such as fruits, grains and leafy vegetables.



(a) SOLUBLE FIBER

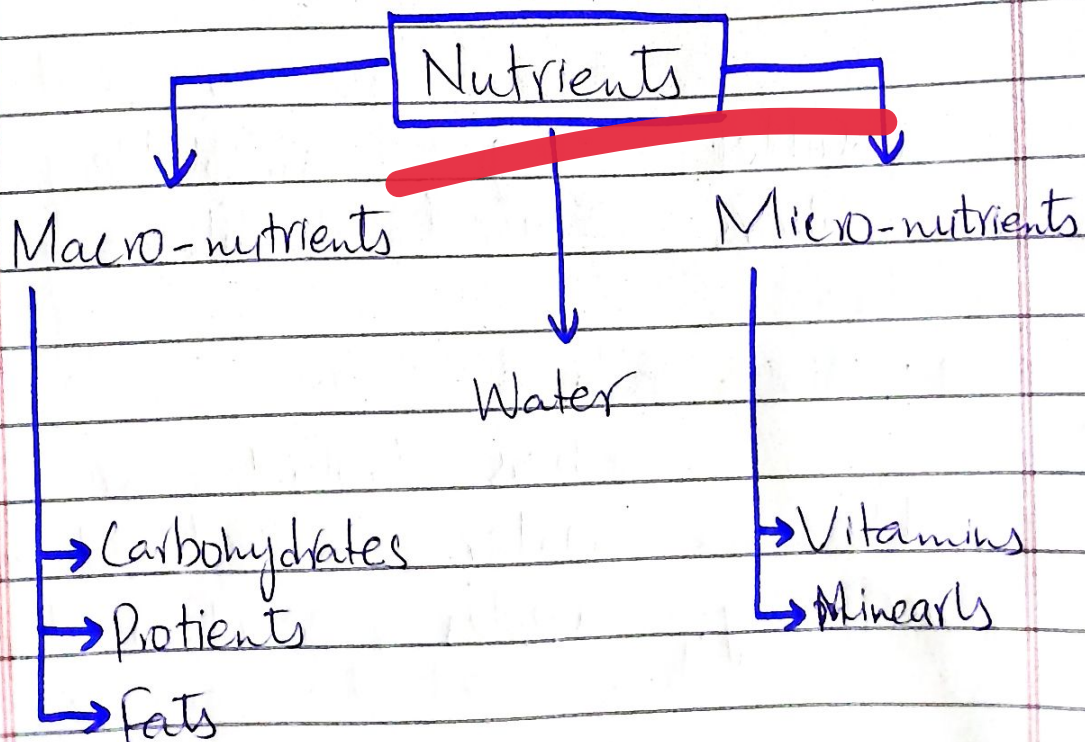
Fibers which are soluble in water called soluble fiber, e.g; apples, peaches etc.

(b) INSOLUBLE FIBER

Fibers which are not soluble in water known as insoluble fiber, e.g; corn, wheat, etc.

→ HOW A PLATTER OF FOOD CONSIDERED BALANCED?

A Platter of food is considered as balanced food if it has a proper proportion or quantity of required nutrients.



→ EXPERTS RECOMMEND

Experts recommended that an adult person should take balanced diet where 25-30 gram of fiber in it.

→ SOURCES OF FIBER

- Corn,
 - Wheat,
 - Peaches,
 - Apples,
 - Barley,
 - leafy green, etc
- Balanced platter??

→ DEFFICENCY OF FIBER

- It may leads to the diarrhea.

→ EXCESSIVE INTAKE OF FIBER

- Constipation, and
- nearly Intestine blockage.

