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.
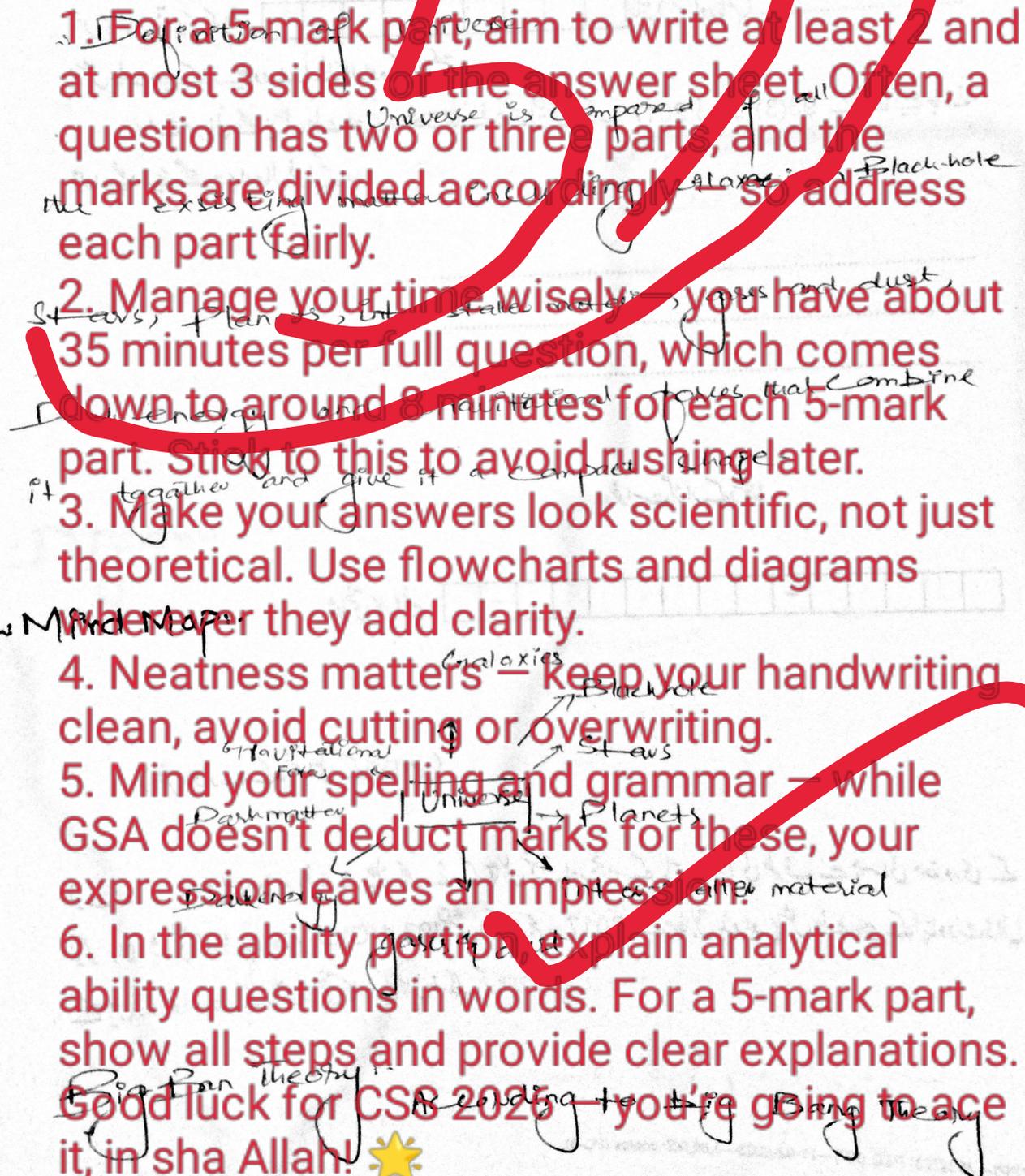
3. Make your answers look scientific, not just theoretical. Use flowcharts and diagrams wherever they add clarity.

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. Good luck for CSS 2025 — you're going to ace it, in sha Allah! 🌟

Handwritten annotations:

AYESHA-AHMED
Batch: 83
Mock: GSA
Date: 15-January-2025

QUESTION NO:1

Definition/purpose

Universe is compared to all the existing matter → galaxies → Black hole

Stars, planets, interstellar dust, dark energy and forces that combine it together and give it a compact shape

Mind Map

Galaxies
Black hole
Stars
Gravitational Force
Dark matter | Universe | → Planets
→ other material

Big Bang theory

the universe is approximatley 14.56 Billion years ago
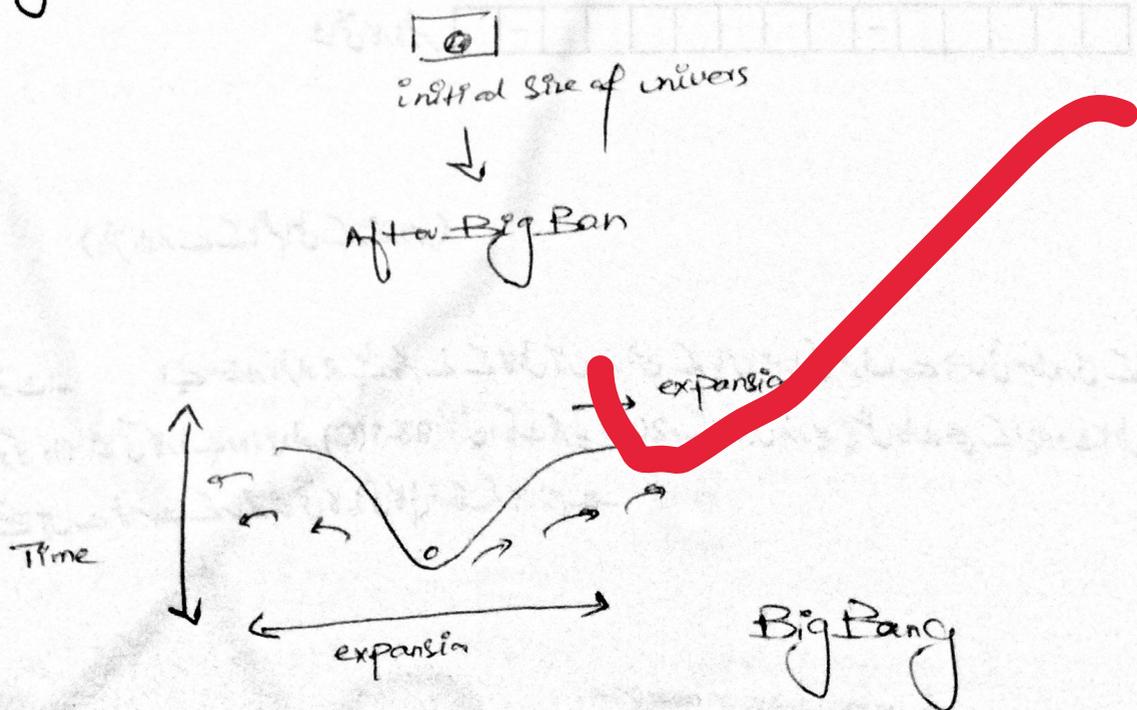
Origion and shape according to Big Bang:-

According to Big Bang universe was the size of a pin head before the big Bang occur and aft a it started expanding in an enteraumous rate in a flat disc bed in form of a cosmic web.

Now universe is to vast enaugh to measure thus faur auw feasibility lue division of univale has been one univese in still expanding.

Diguam:-

initial size of univers
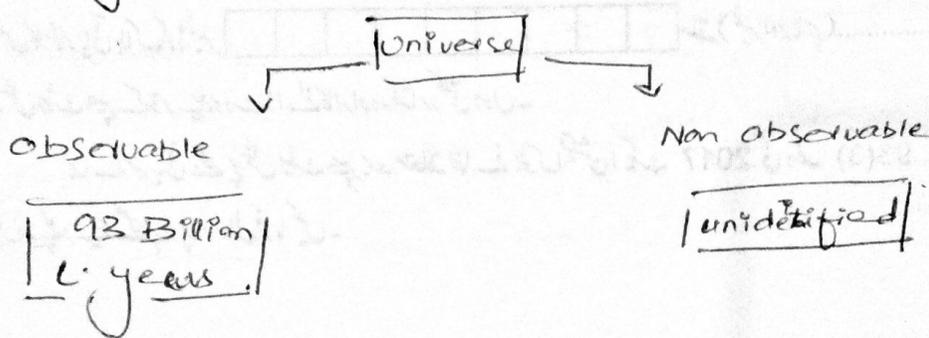
↓

After Big Ban

Time

expansion

expansia

Big Bang

Division of Universe

1 - Universe is dived into observable Universe which is approximatly 93 Billion.

2 - and Non observable part which is beyond human knowledge

```
              | Universe |
        ↙                    ↘
  Observable            Non observable
  | 93 Billion |          | unidentified |
  | L. years . |
```

Model of Universe according to Big Bang

Following are the models

1 - Geo-Centric

2 - Halo Ceantric

3 -

Primary model of Universe.

Primary Model of universe in Lambda CM model, which describe universe's expansion from the a hot, dense state of matter

i: to dominated by dark energy and dark matter to
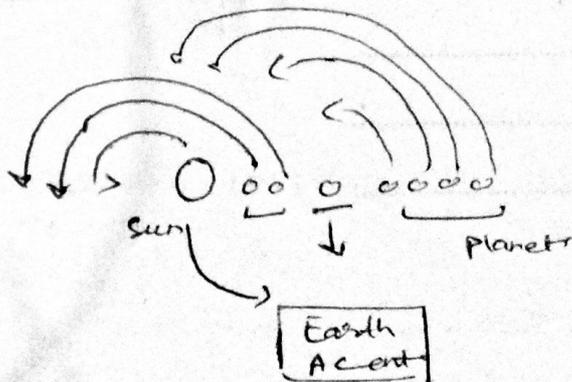
the vast the cold universe.

: Geo-Centeric Modle :-

Geo-Centric is the a historical
model which work on Polemy. Placing
earth as a center while sun, Star and
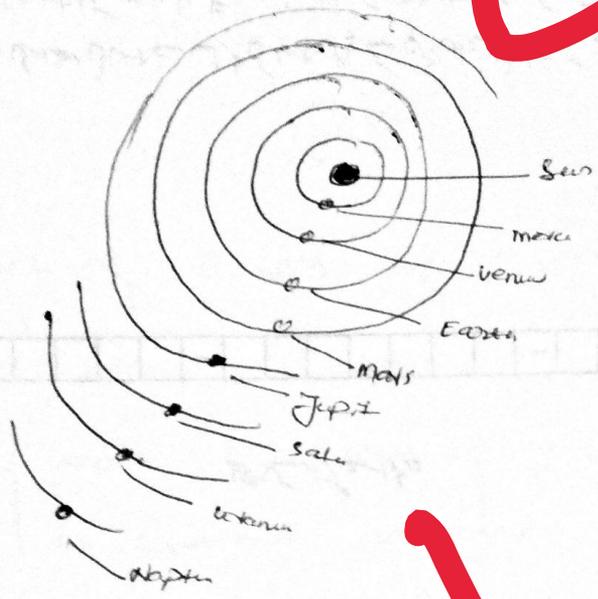other Cosmic reed material revolve around it

Halo-Centeric :-

: Proposed By :- It was Proposed by
Copevanicous Placing sun as the
center of universe

Geo-Centeric :

Sun   Earth   Planets
           A cent

revolving around the earth.

Halo-Centeric

Sun
merc
venus
Earth
Mars
Jupit
Sat
Uranus
Neptu

Plants revolving around

Sun in halo-Centeric model.

Part : 2

Question:- What is un-Balanced diet? How it effect human Body?

• Definition of un-Balanced diet:-

A un-Balanced diet means eating too much or too little, on eating Processed food which directly result in t either
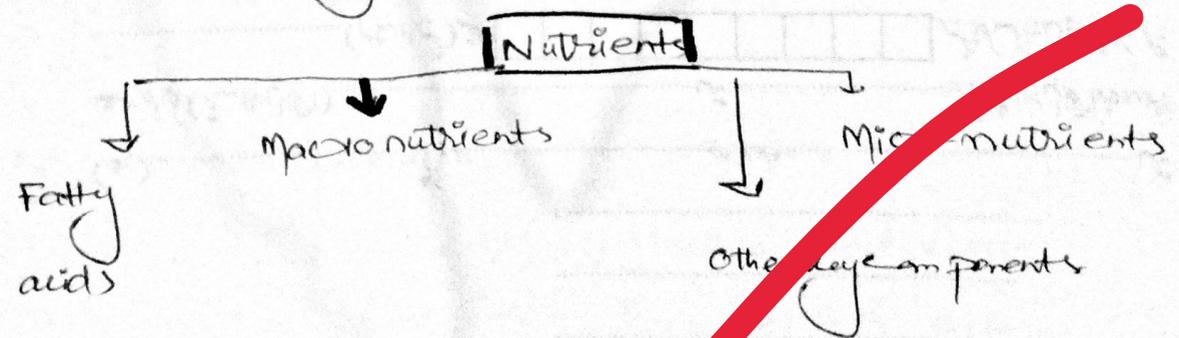
too much nutrition in the body or

defeciency of nutrition.

OR

Lack of excess of Carbohydrate, Proteins, fats, minerals, vitamines or absence of any of above or excess of any of nutrients is called unbalance intake of nutritions

Important Nutrients the human body needs-
   Division af ou nutrients in human body is in such way:-

Nutrients
Macro nutrients   Micro nutrients
Fatty
acids   Other eye componerts

EFFect on Body due to deficiency
   of nutrients

1- Macro-nutrients

Macro-nutrients included:

1- Protein
2- Fats
3- Carbohydrate

1 Effect on human body

1- Lack of absence of Carbohydrate cause fatigue poor appetite, and loss of energy as it is the main provider of energy.

2- Fats work for protection of organ, regulation of hormone, and storage of energy. absence of fat affect all these domains
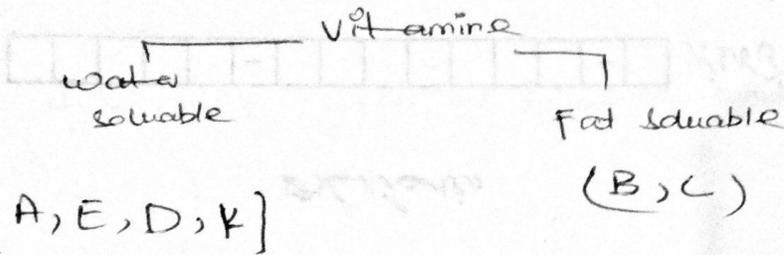
3- Carbohydrate are main source of energy by breaking glucose and work as a fuel to your brain & body. It halt functioning of brain and body if not taken in Balanced amounts.

Micro-nutrients

They Contain:

1) Vitamin
2) Minerals

1 - Vitamins

```
            Vitamins
   water                    Fat soluable
   soluable                  (B, C)
 (A, E, D, K]
```

EFFETS:-

- absence disturbe Hormone, metabolism
  and cell function

2- Defeiency vitamine B-3 Cause hairfall

3- Vitamin D - defieceny lead to Poor absorption
   of Calcium in bones

4- Vitamine-A defcieency cause night
   Blindness

Minerals:-

EFFETS
Minerals Contain, IRON, Zinc, Pottassium
and Calcium-

- Defeciency of Pottasium and Calcium Cause osteoporesis.

- It also Compromise neverous systen as Calcium is main part and essential for neurons

- It also work to Balance bone fluieds

Fatty Acid

EFFECTS!

a- Fatty acid like Omega-3 help in healthy functing heart

2- Manage Brain functims

3- It also reduce flimation

Other key Componets

EFFECTS!

They include water and fiber.

1- water is essential as 70% of body cotain water .It manage food digestion

2- fiber help in maintaining Blood Sugar by acting as a web.

QUESTION NO: 8

Question: 1

There are five different house in A Row. A is to the right of B and E is to the left C. B is to the right of D.

Which of the house are in middle?

↓ ANSWER:-

→ Given Data:-

→ According to the given Data:

1 (A) is to the (right) of (B).

2 - (E) is to the (left) of (C)

3 - (E) is to the (right) of (A)

4 (B) is to the (right) of (D)

→ Required Data:

which house is in the middle?
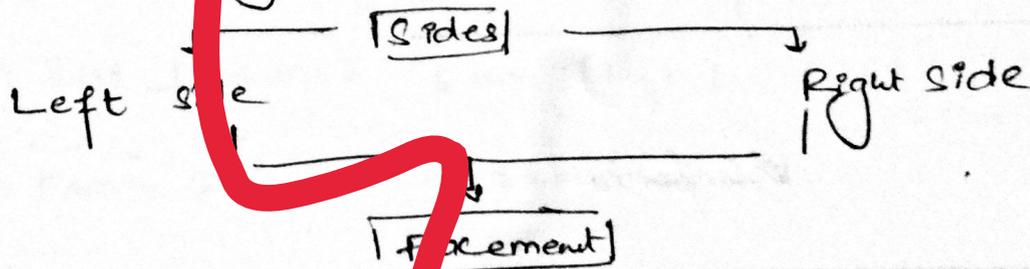
Solution:

Arrange the houses according to the data

1- A is to the right of B

2- E is to the left of C

3- E is to the right of A

4- B is to the right of D

Determine left and right

Sides

Left side   Right side

Placement

(i) B A   a A is to the right of B

ii) B A E C   E is to the left of C, and right of A

iii) D B A E C   D to the right of B

Final Positions

D, B, A, E, C.

Middle are:

A is in the middle.
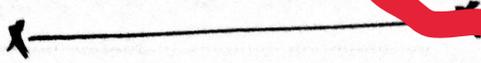
QUESTION NO: 2

Given Data:

i) Starting Point = "O".

ii) First t**Distance** = 4 km (N)

iii) 2nd Distance = 5 km (left of North)

iv) Third Distance = 5 km (left)

v) Fourth Distance = 8 km (Left)

vi) Last distance = 1 km Left

Required Data:-

i) How many km are you from the place you started

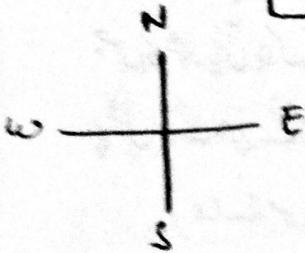ii) In which direction you will be running while finishing.

iii) Position / Direction after 2nd turn

iv) Direction from end point toward starting

∵ Solution :-

Step : 1

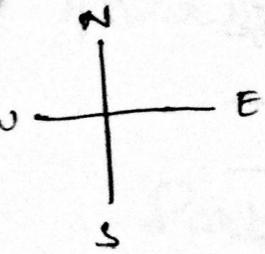∴ | Determining positions !- |

← | Cardinal Direction |

∴ Step : 2 ∴

| Solving the Questions |

1- How many km are you from the place you started ?

Find Map 1

(1st-Turn)
5 km (W)

(2nd-turn)
5km (s)

4 KM (N)

Point "O"

End-Point
KM (N)

5km (E)

N
E
S

ANSWER:- According to of above figure
Distance from starting point is 1 km

Final Answer = 1 KM

2- In which direction will you be running while finishing.
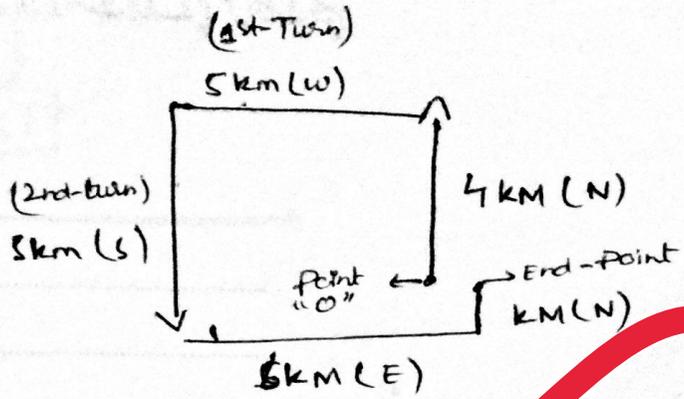
Answer: According to above figure:- Direction
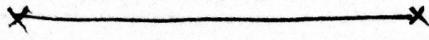would be (North)

Final Answer:- North

3- Direction after taking 2nd turn
ANSWER:- South

4- From the finishing point if you have reached
a Point when you started, in which

direction will you run.

ANSWER :- |WEST| .

Part : 3

-: Find the odd man out :-

a) THRSI

b) AOTC

c) EOUBSL

d) KTRIS

e) RETAEWS

To find the odd amoung following we have to rearrange the above words

a) THRSI = SHIRT = Shirt

b) AOTC = COAT = Coat

c) EOUBSL = BLOUSE = Blouse

d) KTRIS = SKIRT = Skirt

e) RETAEWS = SWEATER = Sweater

Amoung the following words:-

Shirt, Coat, Blause, Skirt and Sweater-

Skirt is the odd one, as all other are the piece of cloath that are wed abave | Limbs- Mile Skirt is supposed to wear over Limbs-

Final answER:

Skirt is the odd one out

X————————X
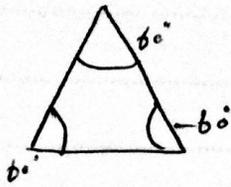
∴ Part IV :-

How many triangle can you find in figure
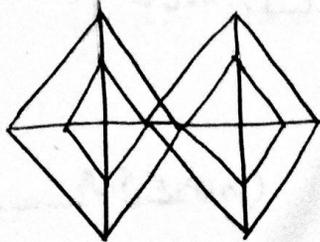
∴ Solution:-

Figure of triangle:- △ , ◁ , ▷ , ▽

Angle in triangle:- A triangle have Three sides
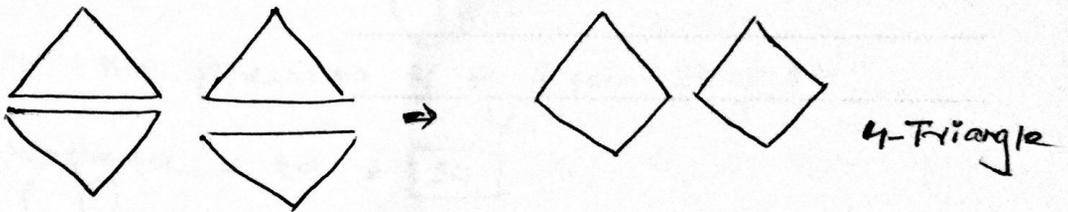
and 60° angle amaung each side.

Let's find the No of triangle in above figure on the Bases of shape and angle
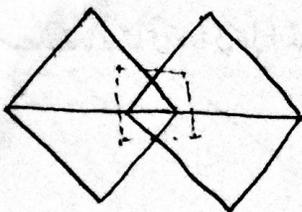
Step : 1

- Breaking the shape:-

4-Triangle

Above figure have to faur main triangle fhom the original figure.
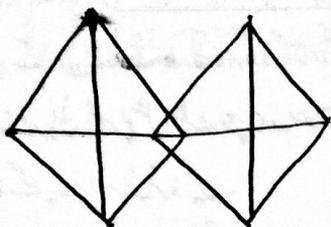
Step:2

Cambing above two figures

6-Triangles

By Combining abaue two figure

∴ Two Triangle's formation Can be seen, Thus total number yet is $\boxed{6}$.
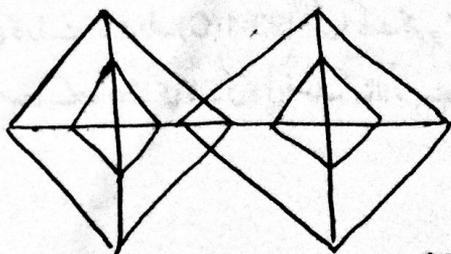
Step:3

Let's divide the figure from step 2

8- New Triangle formation will occur with in the previous 4 of from step 1:-

Bringing total to = $\boxed{14}$

Step:4

Formation of same figure with in the larger figure

Same figure male 8 - new triangle

Formation of the

Bringing total to

$$14 + 8 = 2$$

Thus No. of triangle are $= \boxed{22}$

$\longleftrightarrow$

-: QUESTION NO:4 :-

Part 1:-
Pointing to a woman, Ahsan said

" Her grand-daughter is the only daughter

of my brother "- How woman is related
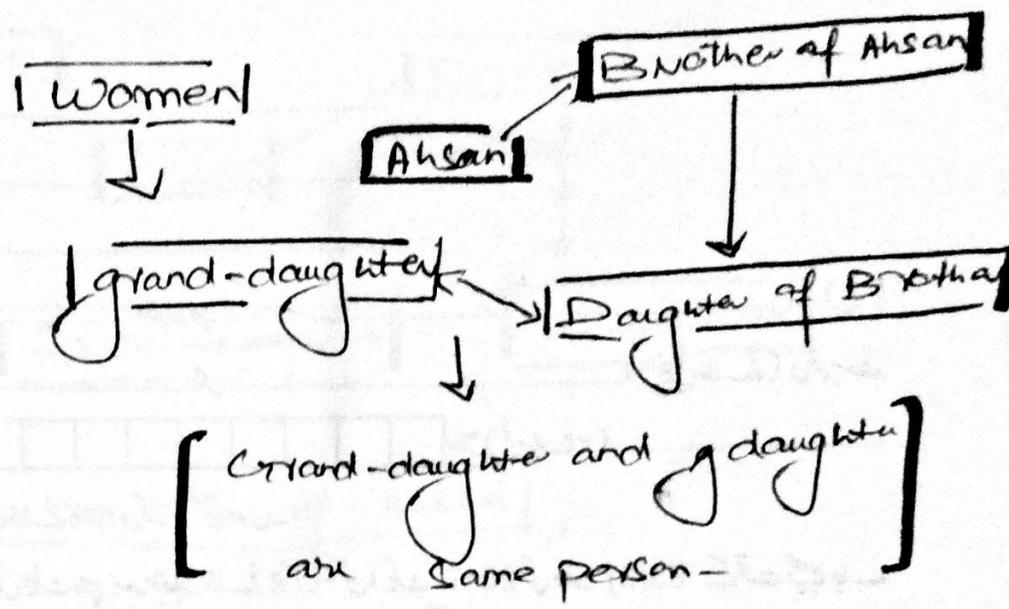
to Ahsan?

[Answer:]

Given Data:-

i) woman have a grand-daughter

ii) Grand-daughter is only daughter of
   Ahsan's brother.

Required:-
Relation between woman and
Ahsan

Mind-Map:

| Women |

↓

| grand-daughter |

| Ahsan |

| Brother of Ahsan |

↓

| Daughter of Brother |

↓
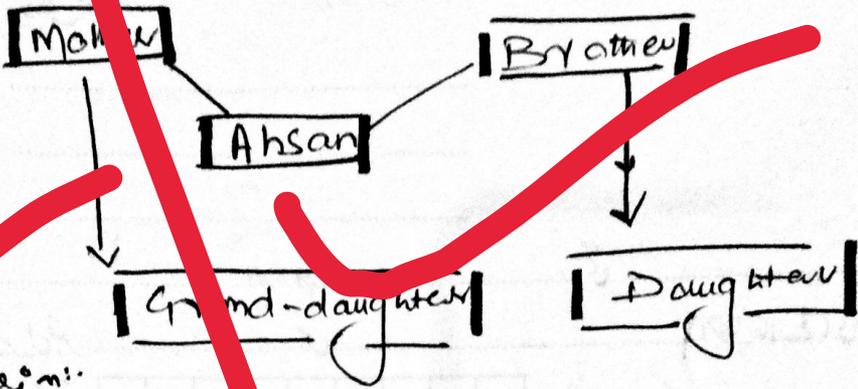
[Grand-daughter and daughter
are same person-]

Conclusion — from mind map:-

a) As, Ahhsan's Brothers
daughter is the grand-daughter of women
thus women must be da
mother of Ahsan's Brother.

b) As women is the mother of Ahsans Brother
She is also the mother of
Ahsan.

| Mind Map restructured |

Ahsan ⟷ women
Son ⟷ mother

Mother   Brother

Ahsan

Grand-daughter   Daughter

Conclusion:-

Women is the mother of Ahsan,

✗ ———————————— ✗

[Part D]

Given Data:-

L.C.M of two number = 48

Ratio = 2:3

Required Data:-

Sum of two number = ?

[Solution]

Step 1: Let's assume

$2x$ and $3x$ ⟶ ①

L.C.M of $2x$ and $3x$ would be = $6x$

$(2x, 3x) = 6x$ ⟶ ②

Step 2:

Comparison of L·CM of numbers and ratio

$$6x = 48$$

$$x = \frac{48}{6}$$

$$x = 8$$

Step 3:

Put the values of x in equation 1

i) $2x = 2(8) \Rightarrow 16$

ii) $3x = 3(8) = 24$

Final Step Find the sum of numbers

$$\text{Sum} = 16 + 24 = \boxed{40}$$

Thus sum of two number are

40.