Qa) Define network and its types.

Networking

"Networking is a computer connection which connect computers to cooperate and transfer data."

Networking is a set of computers network. In fact, computer networking is a connection of multiple sources of computers that help in transferring and sharing data. Thus, networking is a computers cooperation.

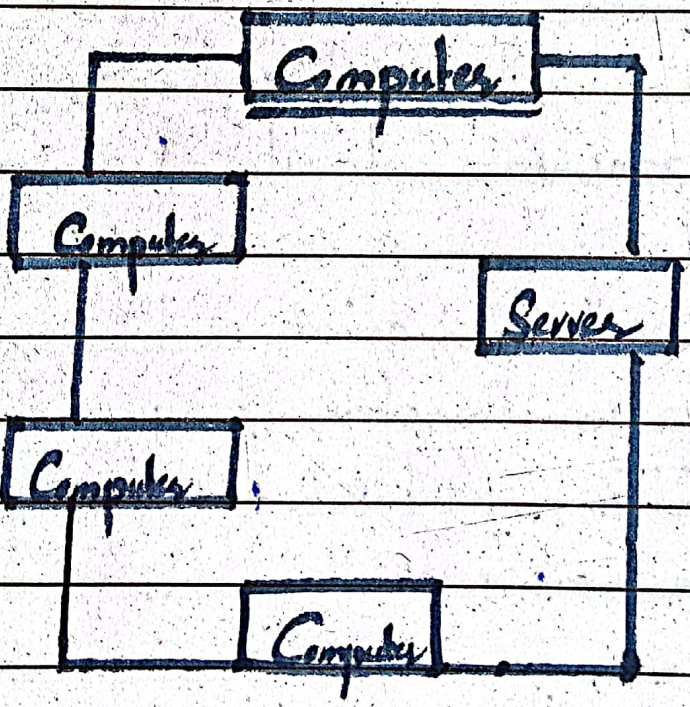
Types of networking

Following are types:

1) Local Area Network (LAN)

"LAN is a short range of network."

LAN is used in short area or a smaller area. For example, offices, homes, schools etc



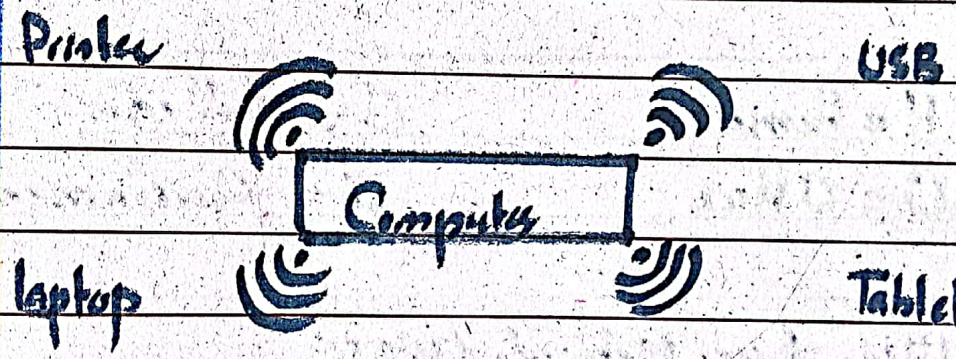
• Local Area Network

ii) **Personal Area Network (PAN)**

"PAN is a personal computer."

PAN is used for one's personal use.

E-e, laptop, tablet, USB, etc



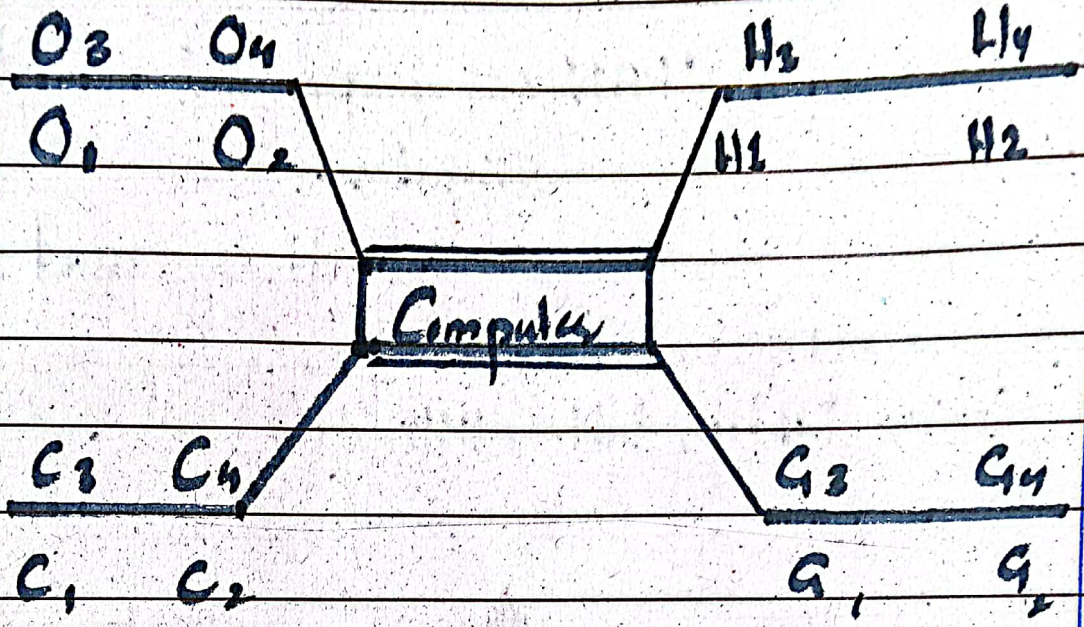
iii) **Metropolitan Area Network (MAN)**

"MAN is smaller than WAN and larger than LAN."

MAN is used for medium or middle range computer.

For example, wireless connections

throughout city.



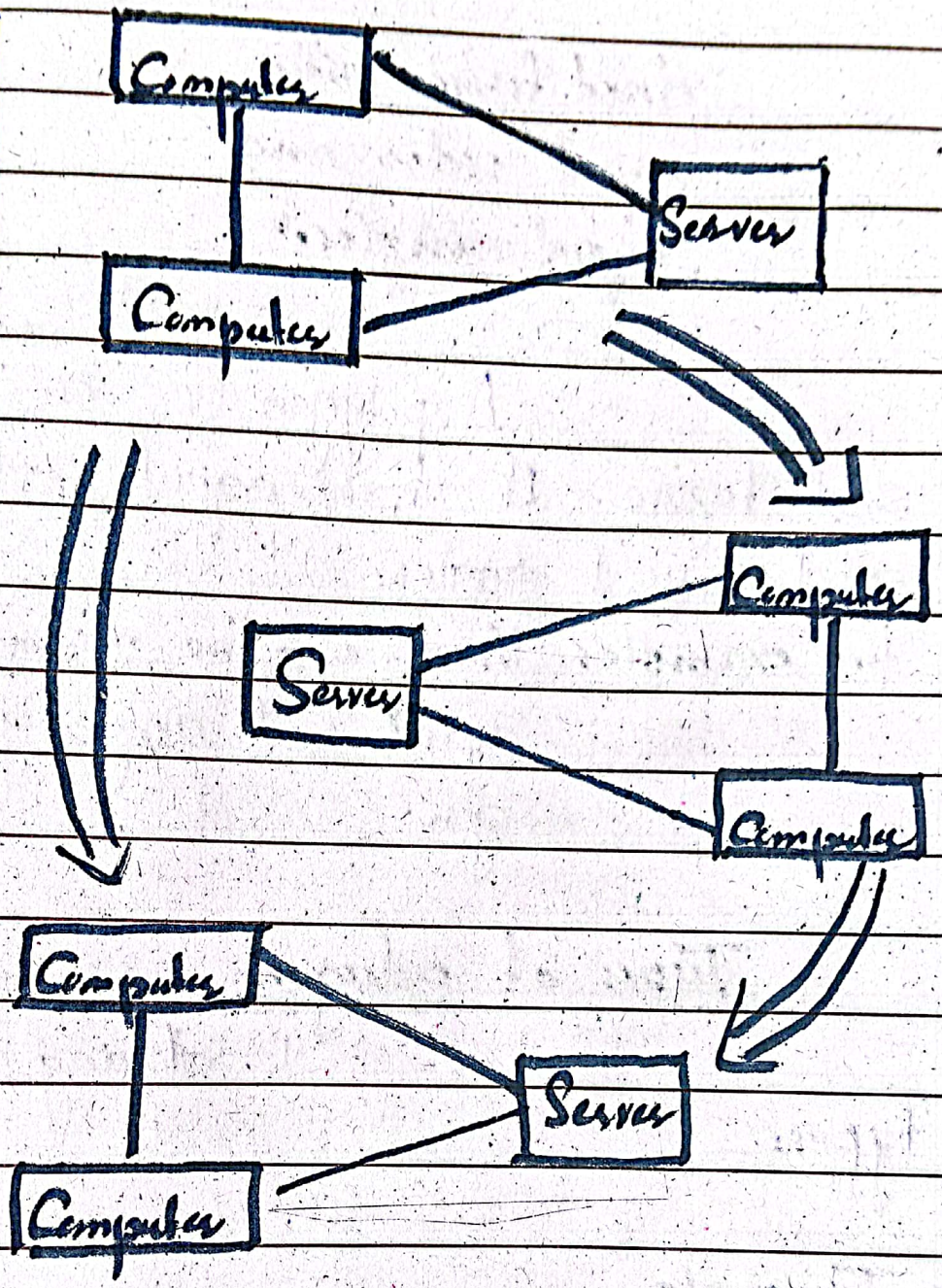
H = Home
O = Office
C = College
G = Government

ii) **Wide Area Network (WAN)**

'WAN is used for wide range of area.'

WAN is used for wider area.

For example: internet



Q b) Describe Polygon. Also describe its types.

Polygon

"Polygon is a regular,

closed figure with equal sides and equal angles."

A polygon is a closed figure. It has equal sides and equal angles.

for example: Triangle - the minimum sided and angled polygon.

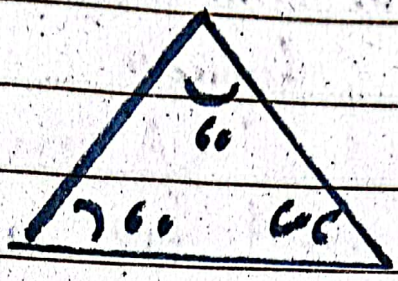
Types of polygon

Following are types:

i) **Triangle**

"A triangle is three dimensional figure."

A triangle has three sides and three angle. It has sum of 180° angles.

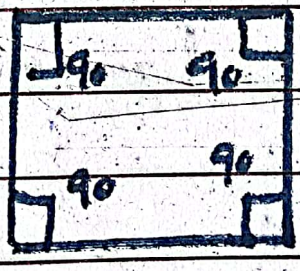


• triangle = 360 degrees

ii) **Square**

"A square is a four dimensional figure."

A square has four angles and four sides.



• Square = 360° degrees

iii) **Pentagon**

"A pentagon is a

five dimensional figure.

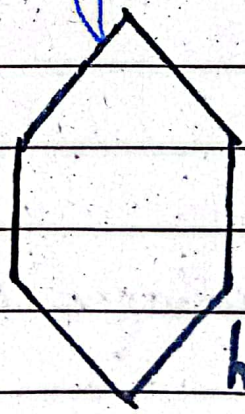
A pentagon has five sides and five angles.

• pentagon = 540° degrees

iv) **Hexagon**

"A hexagon is a six dimensional figure."

A hexagon is a six dimensional having six sides and six angles.

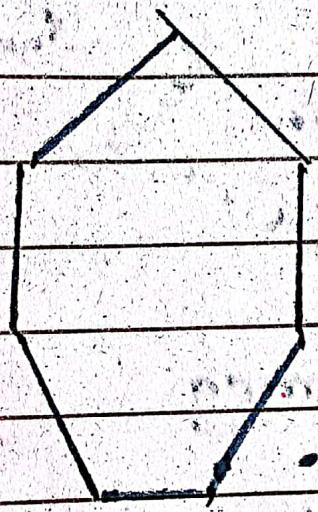


hexagon = 700° degrees

v) **Heptagon**

"A heptagon has seven dimensions."

A heptagon is a seven dimensional figure. It has seven sides and seven angles.



• heptagon

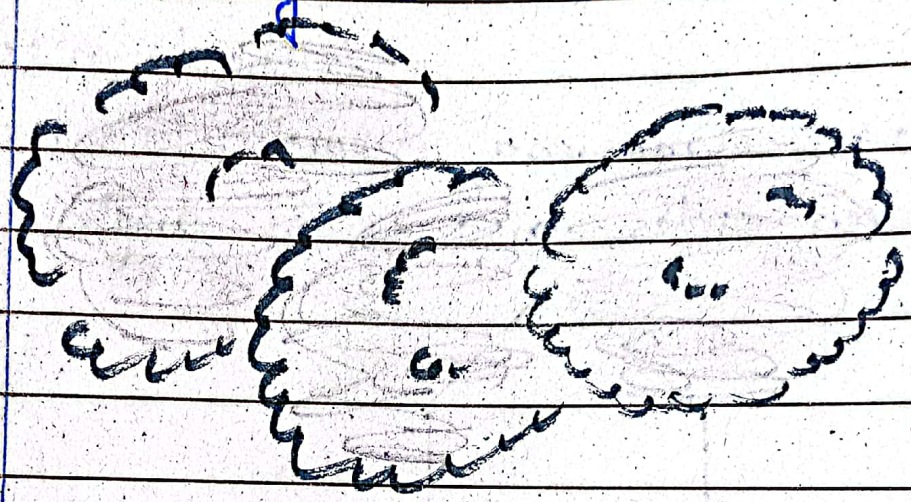
Therefore, above discussed figures are types of polygon.

Q6) Describe smog. How it is formed?

Smog

"Smog is combination of smoke and fog."

Smoke is combination of smoke and fog. In fact, joint mixture of smoke and fog is known as smog



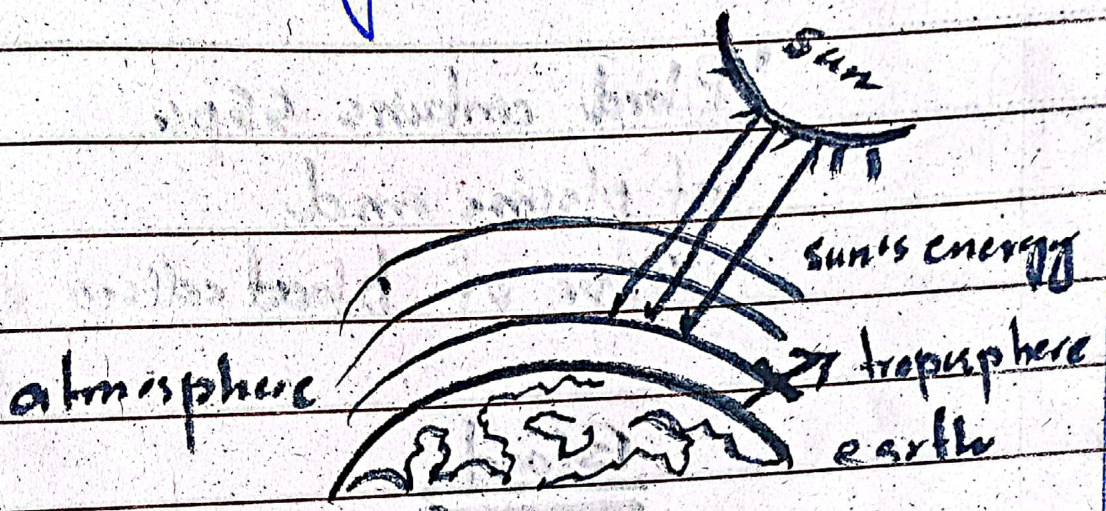
• Smog

Formation of smog

"Smog is the atmospheric pollution."

Smog is the atmospheric pollution. When gases in the layer, troposphere mix up and then react to form

a fuel. With the assistance of sunlight, it results as smog.



• atmosphere

Thus, smog is formed as above discussed process.

d) Write a note on "blood".

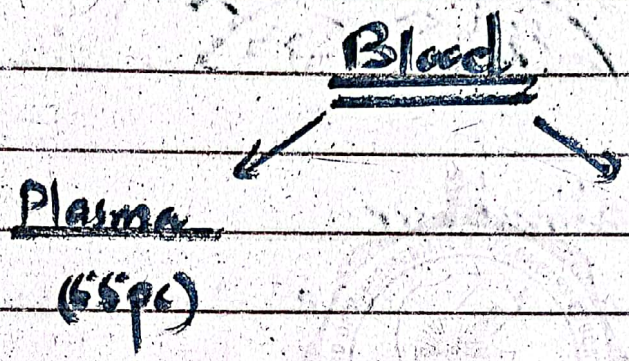
Blood

"Blood is a reddish liquid-fluid."

Blood is a red-colored liquid. In fact, it is a

combination of plasma and blood cells.

"Blood contains 55% of plasma and 45% of blood cells."



- **Detail of combination of blood**

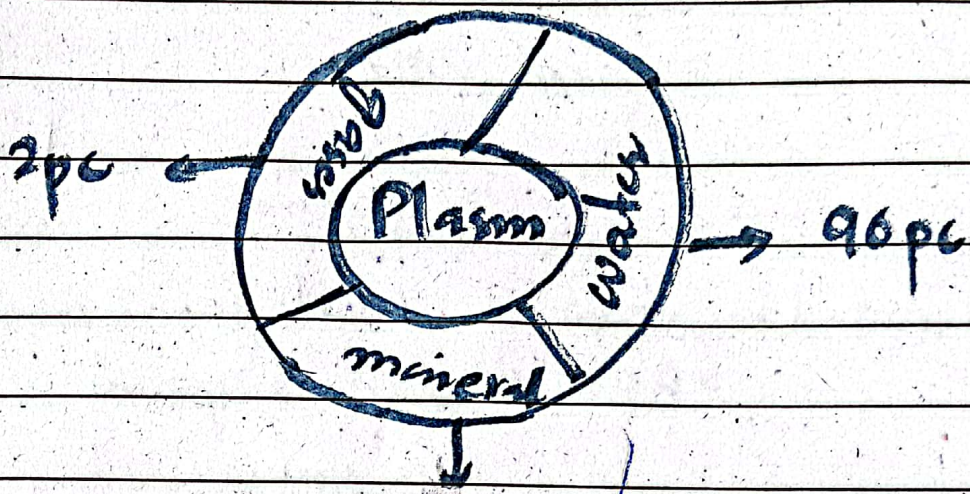
Combination of blood is as follows:

i) **Plasma of blood**

"Plasma is a liquid part of blood."

Plasma is a liquid part of blood. It contains

90pc of water, 8pc of minerals, and 2pc of gases.



- **Blood cells**

Blood cells are of three types:

Blood cells

Red blood cells (Erythrocytes)

White blood cells (Leucocytes)

Platelets (Thrombocytes)

i) **Red Blood Cells (RBCs)**

"RBCs are red colored cells."

RBCs are red colored. These are oval biconcave in shape and has life span of 120 days.

"RBCs help in transport of gases such as oxygen."

i-e, haemoglobin

ii) **White Blood Cells (WBCs)**

"WBCs are colorless cells."

WBCs are colorless. These are oval in shape and has life span of one week.

"WBCs defend the body."

i-e, leukocytes

iii) **Platelets**

"Platelets are also colorless cells."

Platelets are colorless cells. These are circular in shape and has life span of months to years.

• "Platelets help in blood clotting.

Therefore, above is detailed note on Blood.

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Q.a) What do you know about mental ability scales? Differentiate between Aptitude and Intelligence.

Mental Ability Scales

'Mental ability scales use to measure memorial ability of individuals.'

Mental ability scales are measurement scales. These scales are used to measure mentality and intelligence capacity of individuals.

Difference between aptitude and intelligence

Following is comparison:

	Comparison	Aptitude	Intelligence
i)	Meaning	Ability is one's intelligence.	Intelligence quotient is comparison of individuals' intelligence.
ii)	Focus	Aptitude has a single focus of only one person's intellect.	Intelligence is a pluralism focus.
iii)	Factors affect	Age of a person affects.	Age does not matter.
iv)	Achievements	It is highly predictive of job performance.	It is moderately predictive of job performance.

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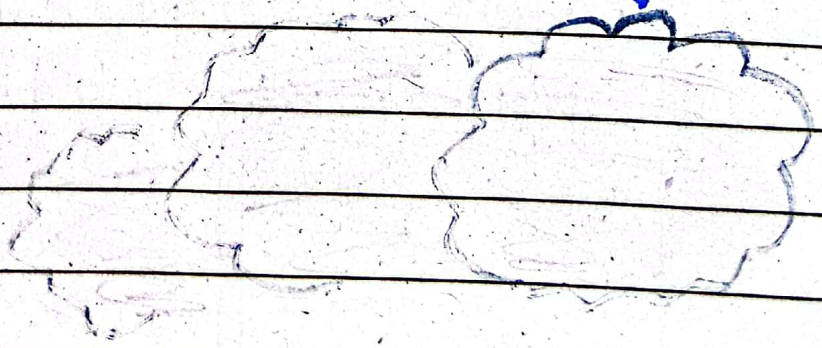
Q6) Describe smog. Differentiate between smog and fog.

Smog

"Smog is the atmospheric pollution which is combination of smoke and fog."

Smog is the atmospheric pollution. When gases in the troposphere reacts with fuels, and with the assistance of suns energy, smog - the atmospheric pollution is formed.

Smog = smoke + fog



Difference between smog and fog

Following is comparison:

	Comparison	Smog	Fog
i)	Meaning	Smog is a combination of smoke and fog.	Fog is droplets of water.
ii)	Nature	Smog is the atmospheric pollution.	Fog is condensation.
iii)	Affect	Smog causes health hazardous such as: eye irritation, asthama, chest pain etc.	Fog is not similar to fog - as health hazardous.
iv)	Nature of process	It is a man-made process.	It is a natural process.

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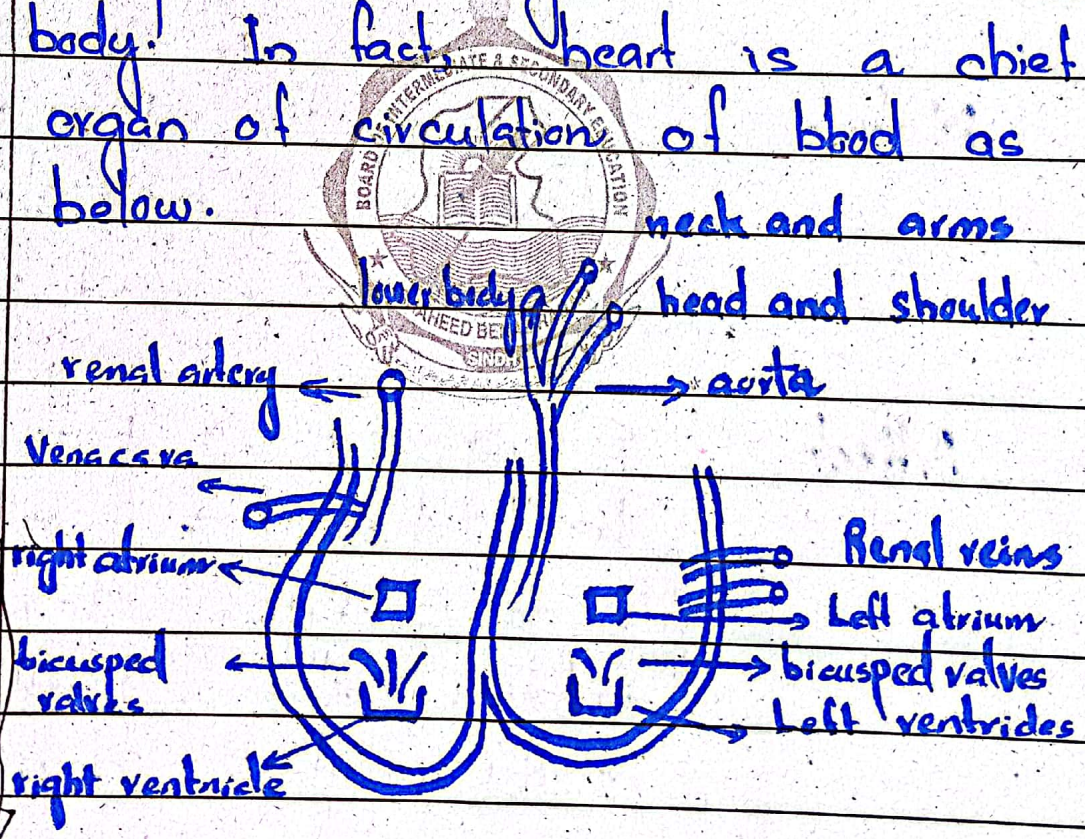
Q:c Describe circulation of blood.

Blood circulation

"Circulation of blood is transportation of gases within the body."

Blood circulation is transportation of gases within human body. In fact, heart is a chief organ of circulation of blood as below.



Right side Left side

Structure of heart

i) **Vena cava**

Vena cava carries deoxygenated blood to right atrium.

ii) **Right atrium**

In right atrium, 'contradion' and 'relaxation' occur to produce sound as 'lub' and 'dub'.

iii) **Tricusped valves**

Tricusped valves prevent backward flow of blood.

iv) **Right ventricle**

Blood moves in right ventricle.

v) **Renal artery**

Renal artery carries deoxygenated blood to lungs for oxygenation.

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vi) **Renal veins**

Renal veins carry oxygenated blood from lungs.

vii) **Left atrium**

Left atrium further passes oxygenated blood.

viii) **Bicusped valves**

Like tricusped, bicusped valves also prevent backward flow of blood.

ix) **Left ventricle**

Blood then moves into left ventricles.

x) **Aorta**

Aorta is mainly responsible for transport of blood into the whole body.

Q d) Describe elements of weather and climate.

Weather

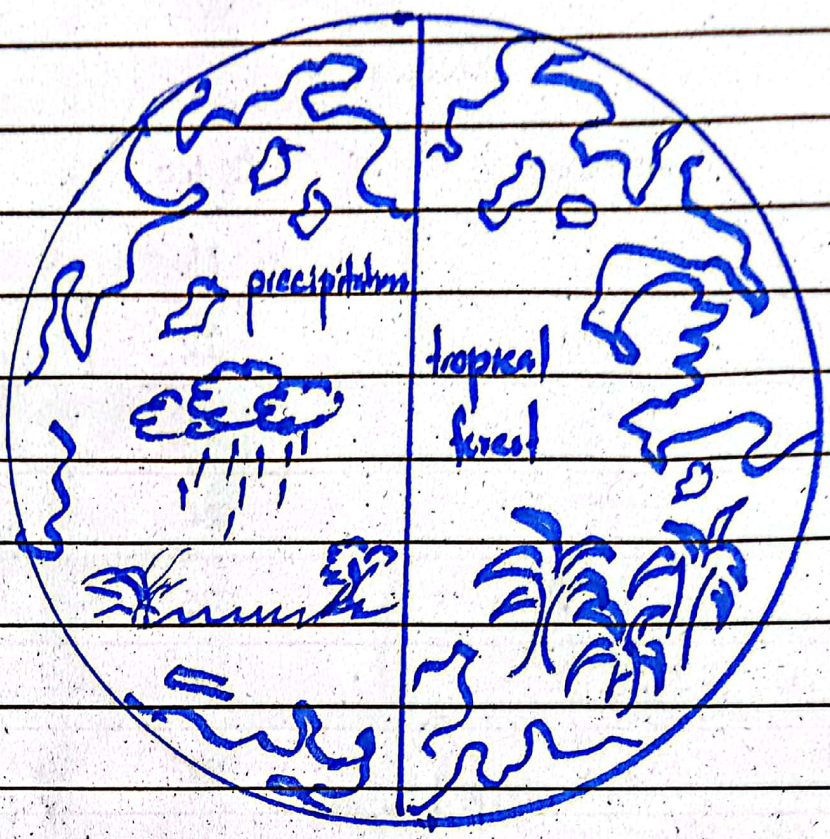
"Weather is a change in the atmospheric condition."

Weather is a change in the atmosphere. In fact, it is a short term change.
For example, humidity, wind, precipitation etc

Climate

"Climate is a weather of a particular place."

Climate is a weather of any region. In fact it is a long term condition.
For example, tropical forests



- Weather
- Climate

Elements of weather and climate

Following are elements:

i) **Temperature**

Temperature is responsible for 'hotness' and 'coldness'

ii) **Atmospheric pressure (air pressure)**

Atmospheric pre-

ssure is pressure of wind on the earth.

iii) **Wind direction and speed**

Wind is movements of air on the planet.

iv) **Humidity of air**

Humidity is moisture of air condition.

v) **Precipitation**

Precipitation is any kind of raining on the earth.