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### AAROHAN EDUCATION GENERAL STUDIES SSC JE 2025

1. GENERAL KNOWLEDGE & ECONOMICS
2. PHYSICS AND CHEMISTRY
3. GEOGRAPHY
4. HISTORY
5. INDIAN POLITY
6. LIFE-SCIENCE

By- **SAURBH PANDEY SIR**

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# General Knowledge & General Awareness

By Saurabh Kumar Pandey Sir

# General Knowledge, Current Affairs & Economy

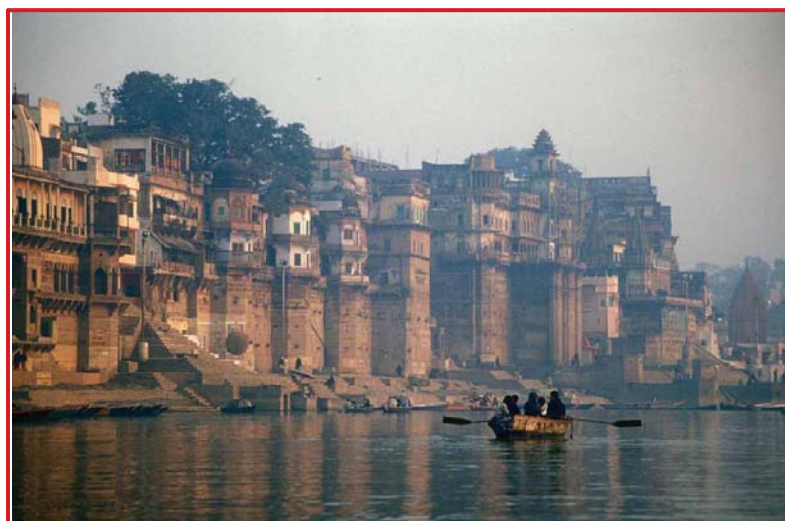
## Syllabus:-

1. National Symbols
2. Banking Economy
3. International Organization
4. Awards & Honours
5. Persons in News
6. Ist Among the Indians, Invention & Investors
7. Capital, Currency, Parliament
8. Sports
9. Space
10. Defence
11. Misc.



सत्यमेव जयते

# National Symbols



# CH: 1:- National Symbols

## 1. National Flag:-



→ Saffron:- Courage, Sacrifice, Renunciation (परित्याग)



→ White:- Truth & Purity in thoughts, (Peace)



→ Dark Green:- Life abundance & Prosperity (भाईचारा)

Chakra:- 24 Spokes – Symbolizes Progress & Movement



These meanings were given by S. Radha Krishnan (India's 1st Vice - President & 2nd President)

Philosophy Teacher (5th Sep Teachers day)

- Ist time flag was hoisted by Sachhindraprasad Bose in 1906 in Calcutta Session.

During Swadeshi & Boycott movement

Vande Mataram Flag

Against partition of Bengal:- Done by Curzon (Viceroy) in 1905

- In 1907, another tricolour flag was hoisted by Madam Bhikaji Cama (Parsi Lady) in Stuttgart (Germany) & later on in Paris also.

This flag was brought to India by Indulal Yagnik (Revolutionary)

He is associated with Gandhi ji during Kheda Satyagrah in 1918. V.B. Patel also associated with this movement.

- In 1921, Pingali Venkaiyya (Andhra Pr.) designed Tricolour flag for Congress Party with Charkha (Symbol of Self Reliance) at its centre.
- On 22nd July 1947, Constituent Assembly adopted our present flag with Chakra at its centre.  
(On the recommendation of J.L. Nehru)
- Flag committee was headed by Dr. Rajendra Prasad.
- Flag specification are given by BIS (Bureau of Indian Standard)  
Dimension:- 3:2  
Cloth:- Cotton Silk (Khadi), but later other material also allowed.
- Flag Manufacturing rights are hold by KVIC (Khadi Development & Village Industries Commission).
- Till 2009 Karnataka Khadi Gramodaya Samyukta Sangha was the only manufacturer.

Note:-

In 2002, Supreme Court gave decisions against the PIL (Public Interest Litigation) filed by Naveen Jindal.

In this decision, S.C. said "Flag hoisting is an Fundamental Right or every citizen under Article 19 (i) (a) but flag code 2002 must be followed"

Article 19 (i) (a):- Right to freedom of speech & expression

- Press also works under it. Press also known as 4th pillar or 4th estate of democracy.

Flag code 2002:- also got amended in 2005, 2021

Note:-

PIL (Public Interest Litigation):- It was borrowed from USA

- In India it was introduced by Justice P.N. Bhagwati (Chief Justice of India) in 1985.

Current CJI:- D.Y. Chandarchud.

1st CJI:- Harilal J Kania

- PIL can directly be filed in High Court or Supreme Court for Public Welfare issues, but not for Individual cases

Note:- 2

First Bharat Ratna Awards:- **India's Highest Civilian Honour**

In 1954:- Dr. C.V Raman, Dr. S. Radhakrishnan & Dr. C. Rajagopalachari

On 28 Feb 1928:- Dr. C.V Raman discovered "Raman Effect" (Scattering of light). He conferred with Noble Prize in physics category in 1930.

This day also celebrated as National Science Day

#Mountbatten:- Last Governor General of British India & 1st Governor General of Free India.

C. Rajagopalachari:- First Indian governor general of Free India.

# Bharat Ratna:-

- Can be confer to Citizen as well as Non - Citizen
- No cash prize.

Ex:-

S. Africa Current President

- Cyril Ramaphosa

• Khan Abdul Gaffar Khan, he is also known as Frontier Gandhi or Badshah Khan. He led Red Shirt Movement Khudai Khidamatgar.

• Nelson Mandela:- first African president democratically elected. 18th July:- Anti - Apartheid Day or Mandela Day.

• Autobiography:- A Long walk to freedom

• Mandela spent 27 yrs in prison (Including 18 yrs of Robben Island Prison)

- Bharat Ratna can be confer to 3 persons at a time (Exception:- 1999, confer to 4 persons)
- People leaf shaped medal

Given in:-

- Art
- Social Science
- Science
- Literature
- \*\*\* Any field of Human endeavour



Note:-

Cabinet Mission:- 1946

Members:-

- Pathick Lawrence (Chairman)
- A.V. Alexander
- Stafford Cripps

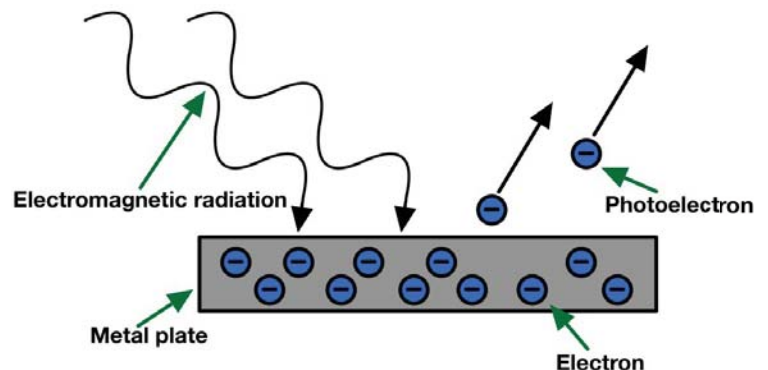
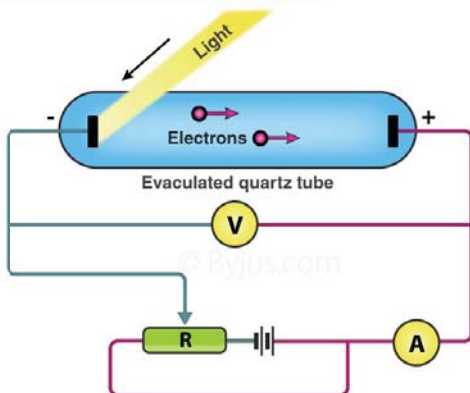
Idea:- To Establish Constituent Assembly

Function:- To prepare our own constitution

Note:-

Albert Einstein conferred with Noble Prize in Physics in 1921 for "Photoelectric effect" – When light falls on a metal surface it emit Photoelectrons

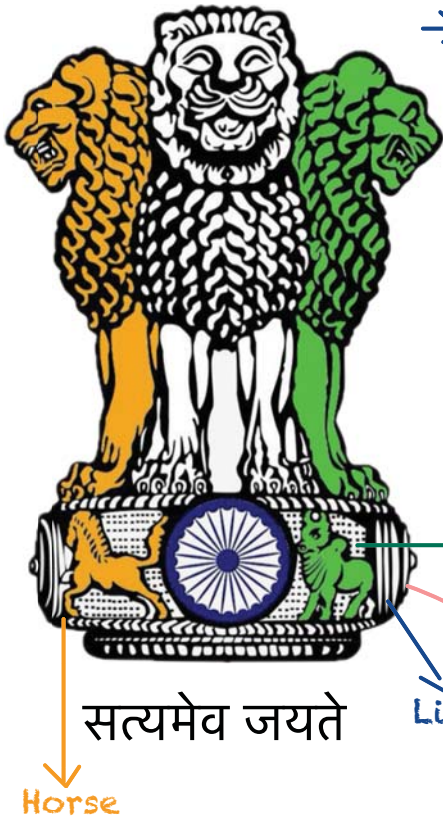
**PHOTOELECTRIC EFFECT**



Theory of relativity was given by Einstein



# National Emblem



→ National Emblem taken from Sarnath Lion capital of Ashoka

Near Varanasi (U.P)

- 1st Sermon of buddha
- Beginning of buddhism
- "Dharmchakra Pravartan" (Turning the wheel of Law)

Satyameva Jayate:- (Truth Alone Triumphs) - taken from Mundaka Upanishad

Bull

Elephant

Lion

Horse

- Our National Emblem was adopted by Constituent Assembly on 26th Jan 1950.
- It consist four overhead Asiatic Lion which symbolizes Power, Courage, Confidence & Faith & below this 4 more animals & each separated by Dammachakra.

## Note:-

Recently, 9500 kg, 6.5m tall bronze structure of our national emblem unveiled at New Parliament building

Part of central Vista redevelopment project

Main Company:- Tata

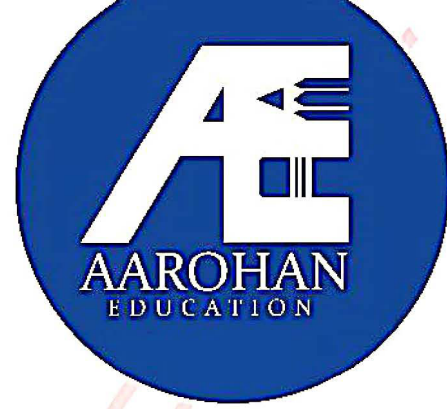
Bull - Right  
 Horse - Left  
 Elephant  
 Lion

Guardian of 4 directions

- Vasudev Kutumbakam:- Taken from Maha Upanishad
- Atithi Devo Bhava:- Taken from Taittiriya Upanishad
- Gayatri Mantra:- 3rd Mandal of Rigveda

# 4 Vedas - 108 Upanishad (or Vedanta)

Rigveda, Samaveda, Yajurveda, Atharvaveda



# GEOGRAPHY (INDIA & WORLD) BY SAURABH KR. PANDEY SIR

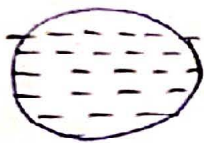
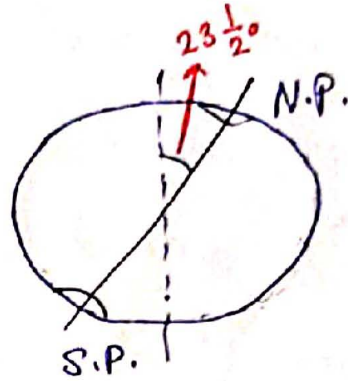
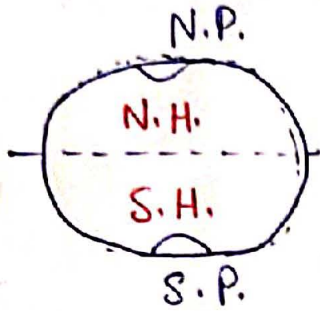


# Geography

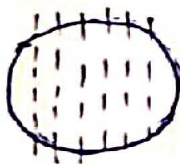
India

World

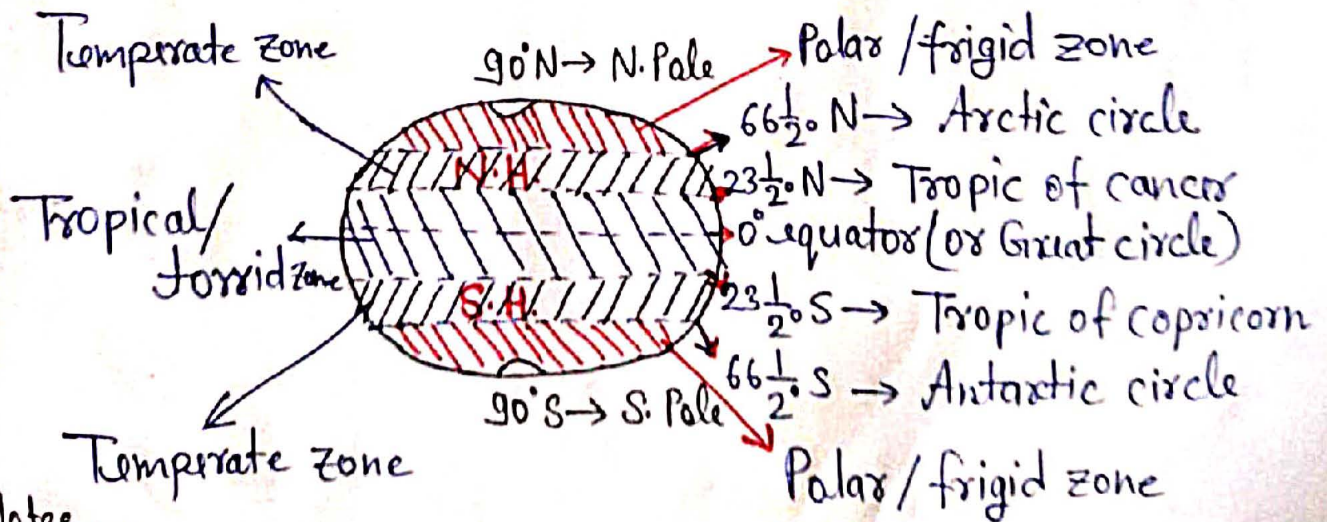
- Age of earth :- 4.5 billion yrs
- Shape of earth : Geoid or oblate spheroid



≡≡≡ Latitude :- Temp<sup>r</sup> coordinates



|||| Longitude :- Time coordinates



## Note:-

In Northern hemisphere, more landmass lies as compared to Southern hemisphere landmass whereas more water lies in Southern hemisphere than Northern hemisphere.

Note :-

About India :-

→ India lies in Northern hemisphere



South Asian country

→ It lies in tropical & Sub-tropical zone

→ Population wise, India is 2<sup>nd</sup> largest country whereas area wise it is 7<sup>th</sup> largest country.

India's total area :- 3.28 million sq. Km  
(which is 2.4% of World's total area)

→ India consists 28 states & 8 UTs

easternmost state :- Arunachal Pradesh

westernmost state :- Gujarat

(It has longest coastline in India : 1600 Km)

2<sup>nd</sup> :- Andhra Pradesh (974 Km)

→ Tropic of Cancer passes through 8 Indian states & these are :-

\* Mizoram (Aizawl)

\* Tripura (Agartala, Udaipur)

\* West Bengal (Bardhaman)

→ Tripura Sundri temple located here

\* Jharkhand (Ranchi)

\* Chhattisgarh (near Raipur)

\* Madhya Pradesh (Sanchi, near Bhopal)

Ashoka ↓ UNESCO heritage site

\* Rajasthan (Banswara, Durgapur)

\* Gujarat (Gandhinagar)

→ A & N lies nearest to equator

→ India's length :- North to South : 3214 Km

East to West : 2933 Km

→ India shares its longest boundary with Bangladesh & shortest boundary with Afghanistan

→ Durand line :- Separates Pak & Afghanistan

→ McMahon line :- " India & China

→ Radcliffe line :- " India & Pak

→ Sikkim shares its boundary with only 1 state

(West Bengal)

→ Siachen :- highest battlefield in the world

(1984 :- op<sup>r</sup> Meghdoot launched

by India against infiltrators)

Wakhan Corridor

Territory ceded by Pakistan to China in 1963 (Shaksgam Valley)

CHINA



Gilgit

Pakistan Occupied Kashmir

Baltistan

Skardu

Biaford La

NJ 9842

Zoji La Kargil

Nuora Valley

Leh

Karakoram Pass

Siachen Glacier

Depsang La

Aksai Chin

Patrol Point 14

Galwan Valley

Pangong-TSO Lake

Shyok

LADAKH

Jammu & Kashmir

LOC Line Of Control

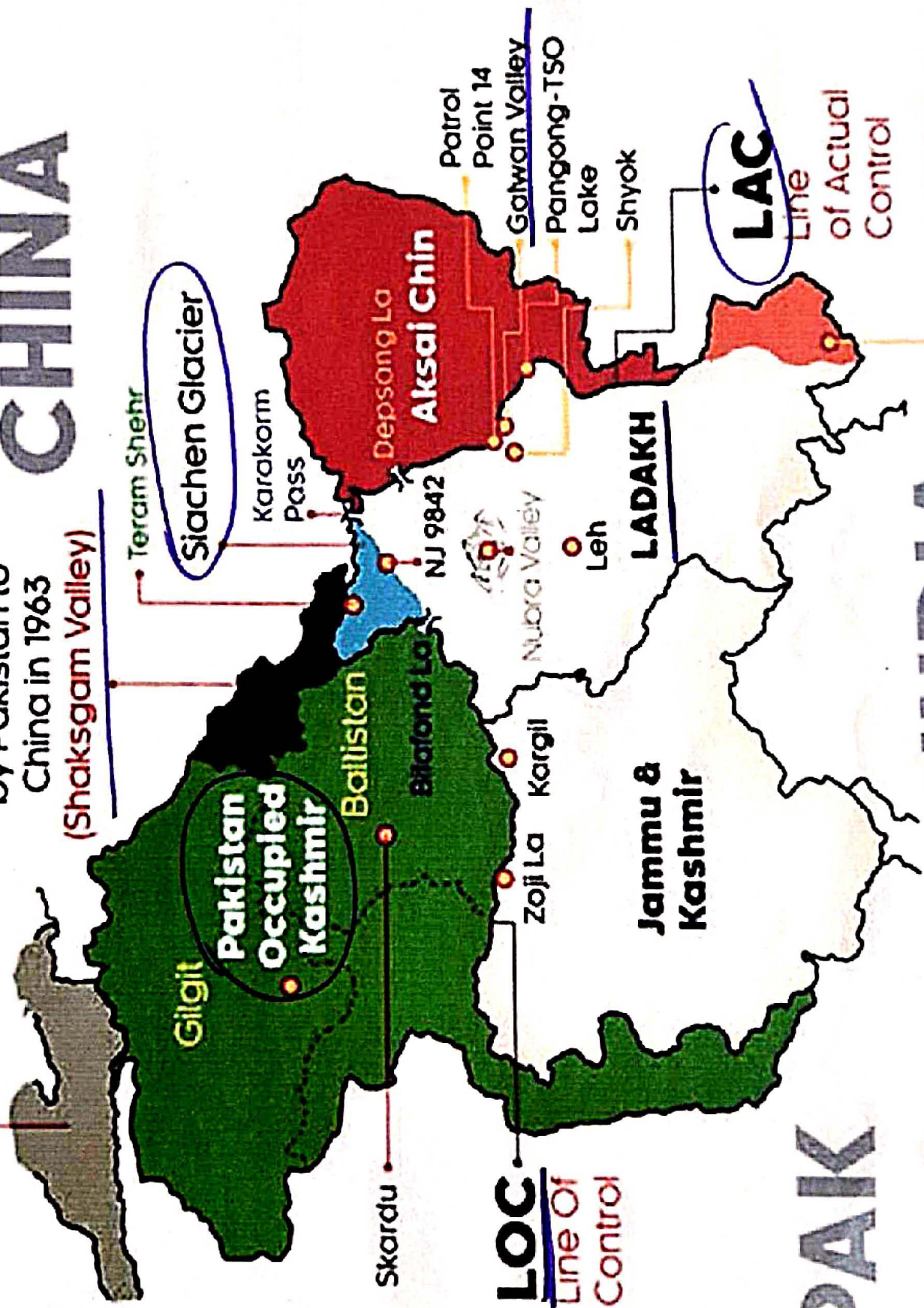
PAK

LAC

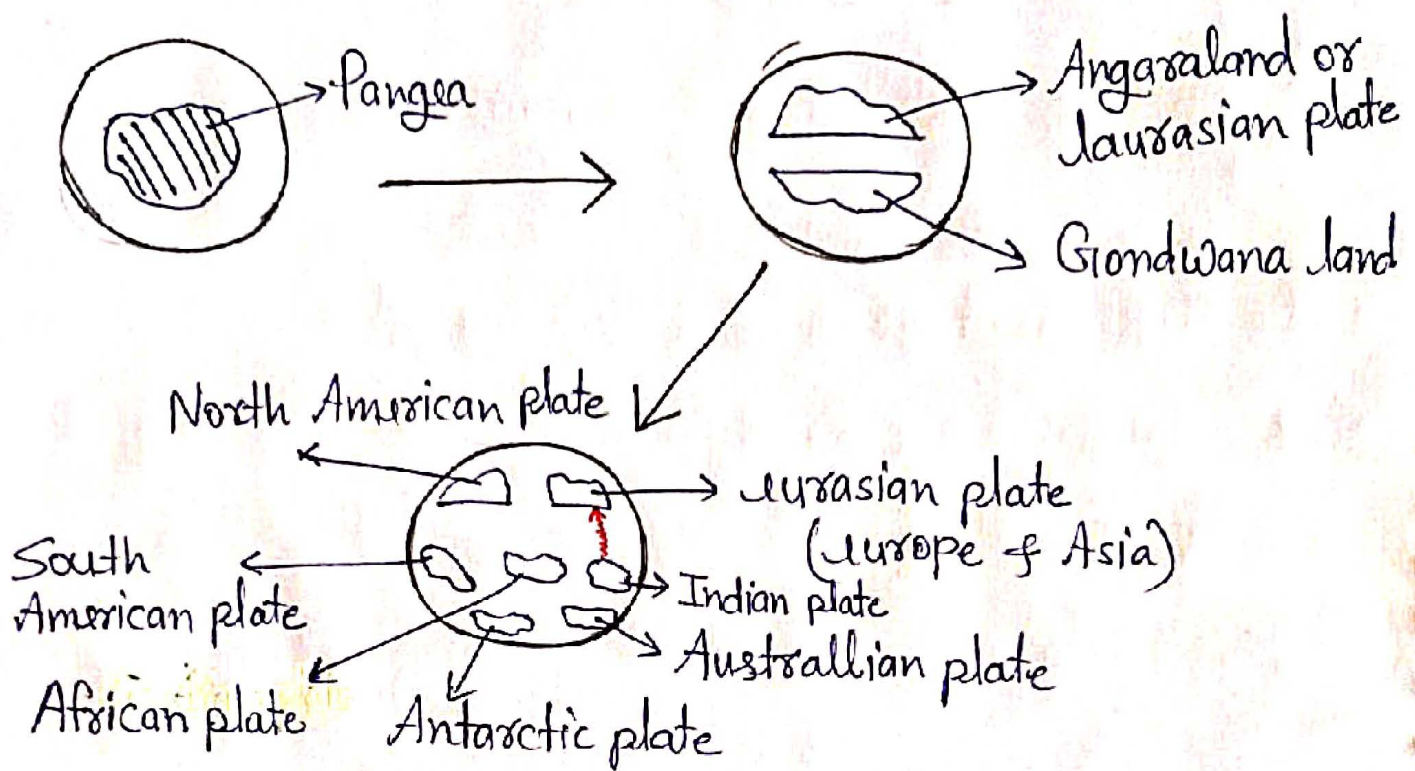
Line of Actual Control

Demchok

INDIA



Continental drift theory :- given by Alfred Wagner  
in 1912.



Continents :-

- Africa :- 55 countries
- Europe :- 44 countries
- Asia :- 49 countries
- South America :- 13 countries
- North America :- 23 countries
- Australia / Oceania
- Antarctica
- Zealandia → Newly discovered  
(95% area submerged)  
→ New Zealand lies here

# 5 Oceans in the World

Pacific Ocean

Atlantic Ocean

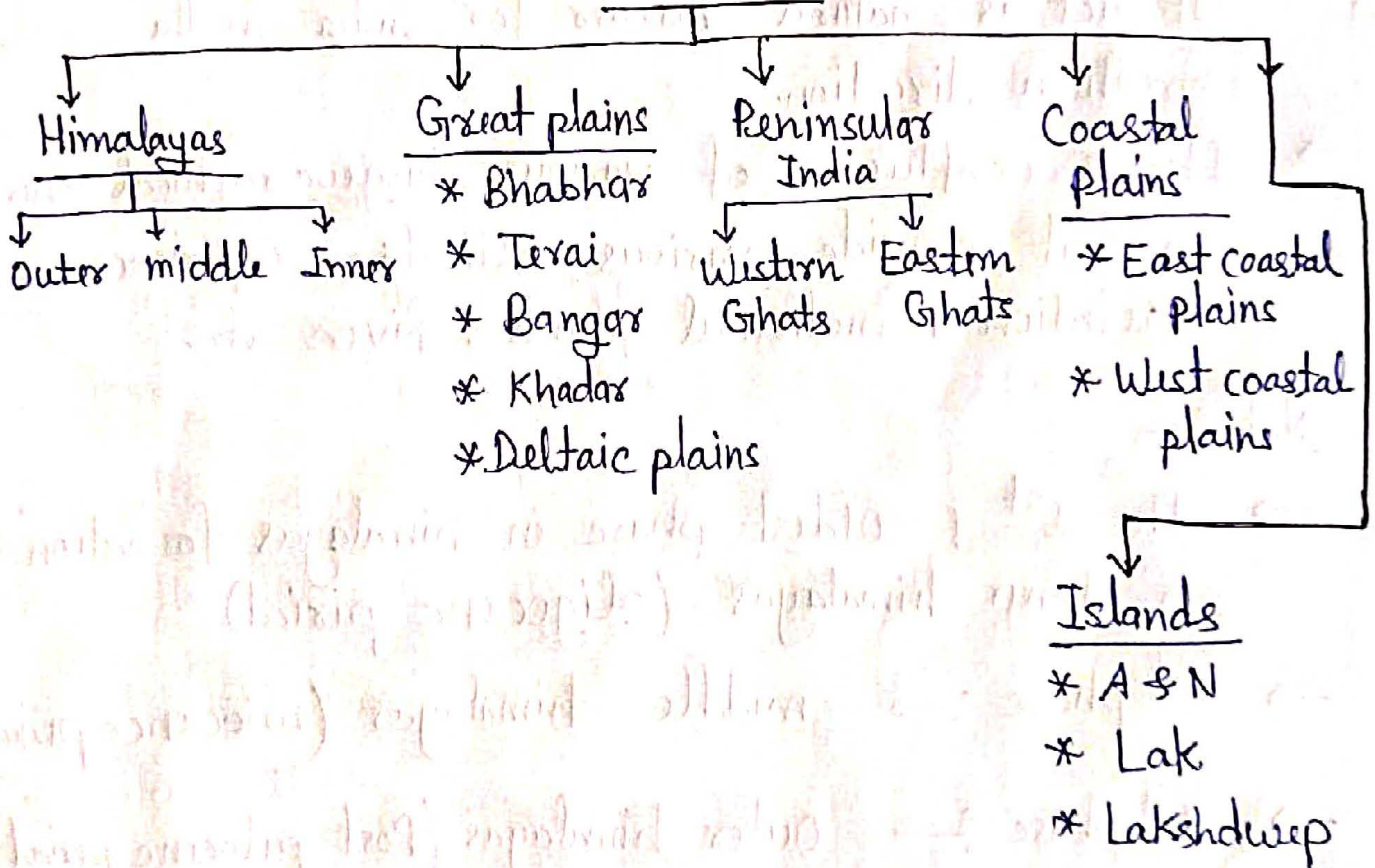
Indian Ocean

Arctic Ocean

Southern Ocean

## 1. Physical Geography of India

India is divided into 5 regions





## • Himalayas :-

→ It is young fold tertiary period mountain.

↓  
under formation  
mountain

66 millions yrs - 2.6 millions yrs

↓  
beginning of  
Quaternary Period

→ It is also known as Alpine period mountain.

[When Alps formed in Europe]

→ World's highest mountain

→ It protect us against polar or cold siberian winds.  
It act as natural barrier for India in the  
northern direction.

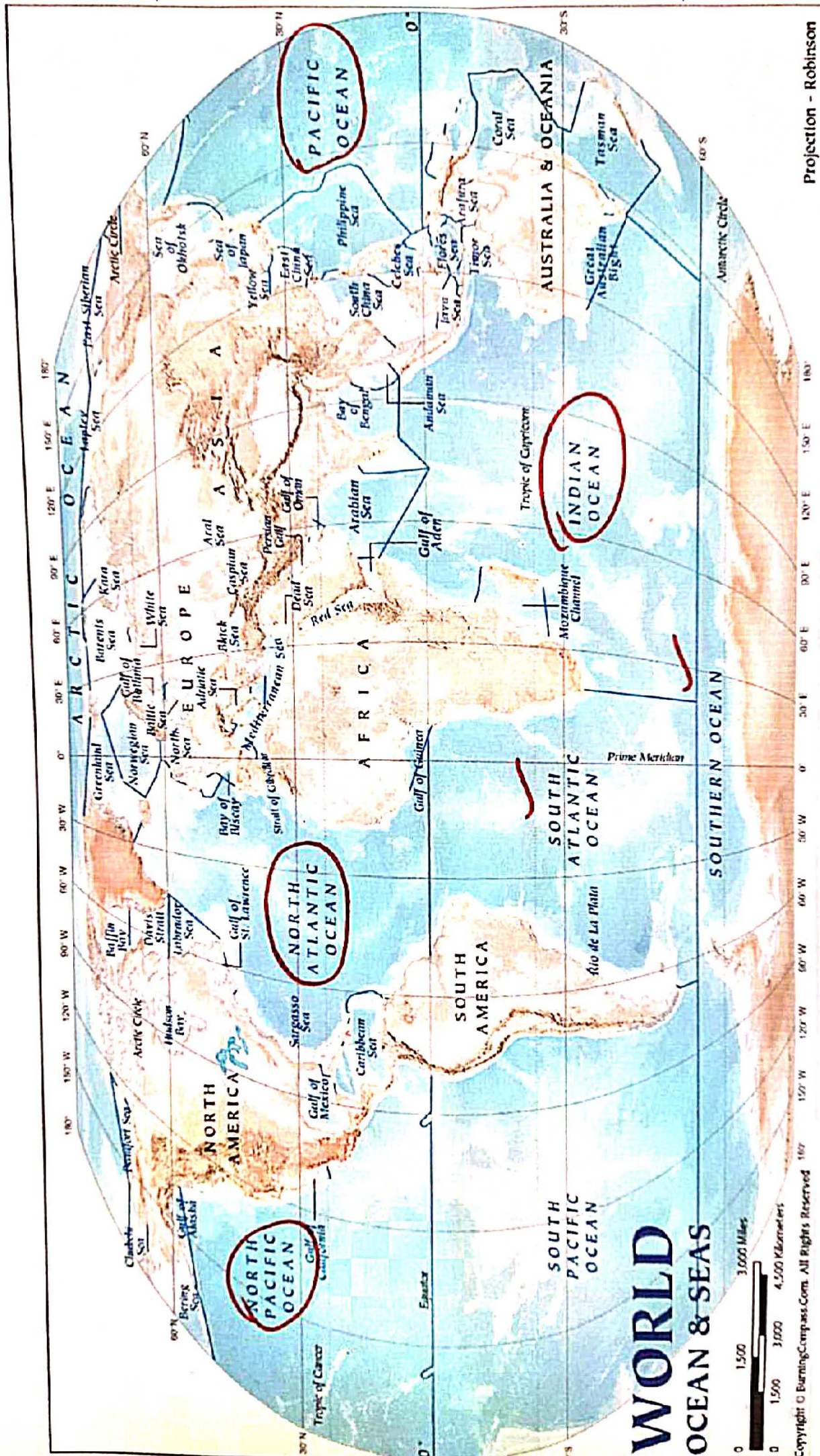
→ It is confluence of various biogeographical zones.  
So, it provide various climatic experience,  
vegetation, medicinal plants, Rivers etc.

### Note :-

→ The 1<sup>st</sup> & oldest phase in Himalayas formation  
is Inner Himalayas (Oligocene period)

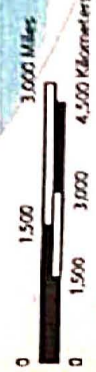
→ 2<sup>nd</sup> phase :- middle Himalayas (Miocene period)

→ 3<sup>rd</sup> phase :- Outer Himalayas (Post Miocene period)



Projection - Robinson

# WORLD OCEAN & SEAS



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Himalayas divided into 3 regions :-

(i) Outer Himalayas :- Vedic name : Shiwalik

→ It is youngest & lowest range of Himalayas

Avg. height : 600 m to 1500 m

Important hills :- Dofla, Miri, Mishmi, Abox,  
Patkai → Ar. pr.

Jammu hills

Churia, Muria (Dundwa range) → Nepal

(ii) Middle Himalayas :- Vedic Name : Himachal

Avg. height : 3700 m to 4500 m

→ most of the hill stations lies in it

Ex :- Dalhousie, Shimla, Darjeeling, Mussorie, Nainital

↓  
located on  
Dhauladhar  
range

↓  
W. Bengal

Middle Himalayas is divided into following ranges :-

\* Pir Panjal Range (J & K) → longest range

\* Dhauladhar Range → Himachal Pradesh

\* Mussorie Range → Uttarakhand

\* Nag Tibba Range → Uttarakhand

\* Mahabharat Range → Nepal

Important passes in middle himalayas :-

\* Pirpanjal Pass :- Jammu — Srinagar

\* Banihal Pass :- Jammu — Srinagar

\* Rohtang Pass :- Kullu — Keylong  
(H.P.)

(iii) Inner himalayas or Great Himalayas :-

Vedic name : Himadri or Bahisgiri

→ highest mountain range & peaks of the world lies in Inner himalayas.

Important Peaks :-

\* Mt. Everest (8848m) → also known as  
Sagarmatha  
(Nepal)

or Chomolangma  
(China)

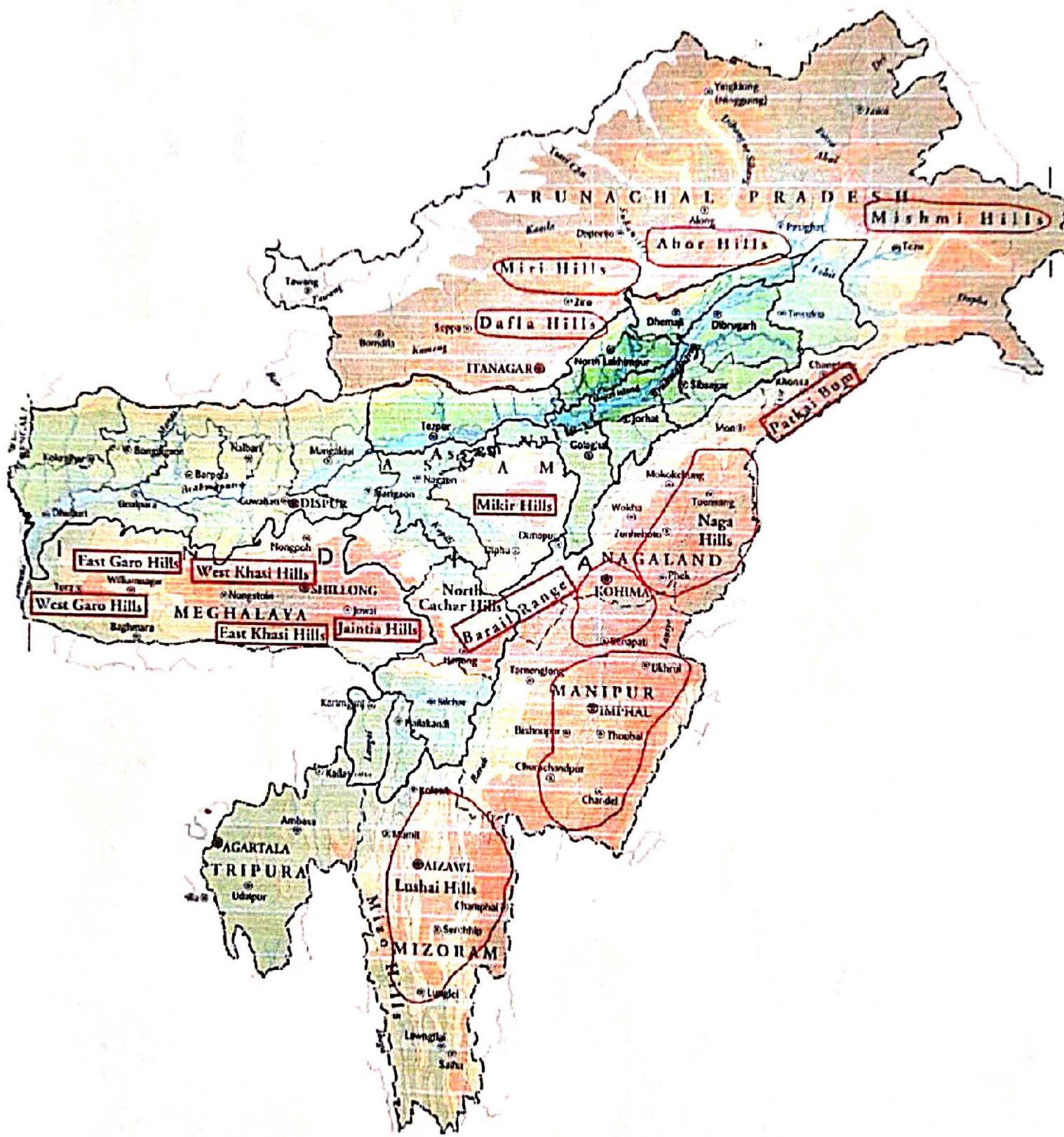
\* K-2 (or Qagis or Godwin Austin) :-  
(8611m)

→ 2<sup>nd</sup> highest in the world & highest in  
→ lies in Karakoram range India.

\* Kandchenjunga → Sikkim  
(8586m)

3<sup>rd</sup> highest peak in the world & 2<sup>nd</sup> highest  
in India.

\* Makalu & Dhaulagiri → Nepal



\* Nanga Parbat → J & K

\* Nanda divi → Uttarakhand

\* Namcha barwa → Ar. Pr., China

\* Kamet → Uttarakhand

Important passes in Inner Himalayas :-

• Karakoram → Connects India to China

• Buzzil Pass → " Kashmir to central Asia

• Zojila Pass → " Srinagar to Leh

• Nathu-la Pass ] Sikkim

• Telep-la Pass ]

• Pangsad Pass → connects Dibrugarh to Myanmar

• Bomdi-la Pass → Ar. pr.

• Mana Pass ]

• Niti pass ] Uttarakhand

• Lipulekh ]

• Shipki-la pass ] H.P.

• Basalacha-la Pass ]

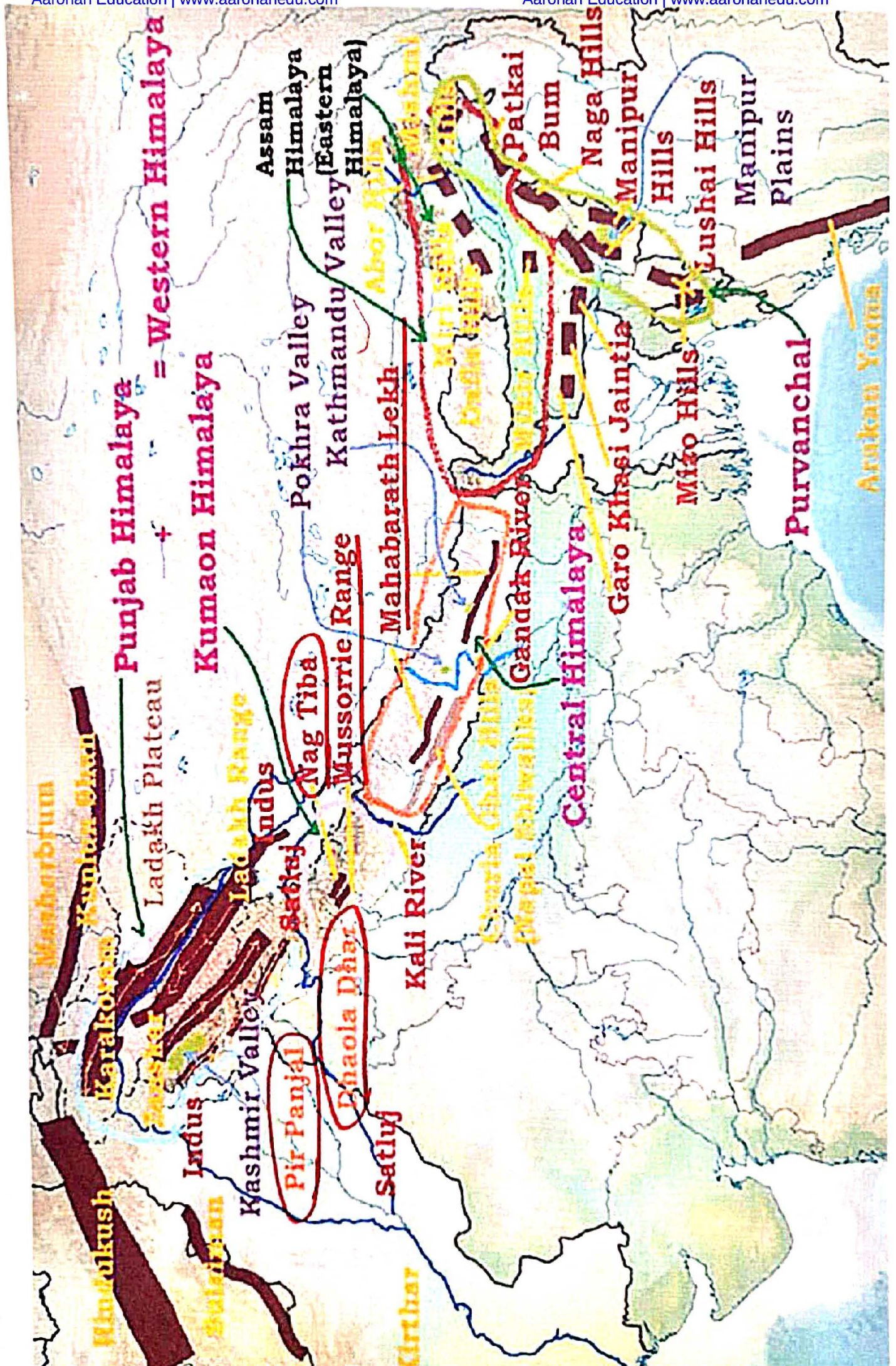
↓  
Satluj enters into India through this Pass

Note:-

Tanngup Pass :- connects India with Myanmar

- India's longest Rail tunnel :- Pir Panjal (J & K)  
11.3 Km long
- World's highest Railways bridge :- located over  
Chenab river (J & K)
- Asia's longest all weather bidirectional tunnel  
:- Zojila tunnel  
14.3 Km long  
under construction  
→ connects Srinagar - Kargil - Leh
- India's longest Road tunnel :- Chenani - Nashri  
(J & K)  
9.2 Km  
→ also known as Shyama Prasad Mukherjee  
tunnel

Trans himalayas :- lies in western part of  
himalayas  
↓  
It comprises Karakoram, Ladakh, Zaskar range  
↓  
highest peak :- mt.  
Rakashposhi





(i) Bhabhar region :- 8 to 16 Km wide

- ~~on the basis of land features~~
- It lies along the foothills of Himalayas between Indus & Teesta rivers.  
(flows through Sikkim)

- It contains pebbles, stones
- not suitable for Agriculture.

(ii) Terai region :- 15 Km to 30 Km wide

- marshy region with high dampness
- forest rich, Wildlife rich area.
- Speed of river flow is less.
- flood prone region.
- Suitable for some crops cultivation like  
Paddy crop  
↓  
(Rice)  
emit methane gas  
(Green house gas)

(iii) Bhangar Region :-

- It is higher part of the plains where flood water cannot reach.
- It is made up of old alluvium & it contains pebbles & coarser sediments
- less fertile region.

(iv) Khadar region :-

- It is made up of new alluvium soil.
- In this region, floods bring new alluvium soil every year.
- this region is mainly lies along the river bank & it contains fine particles or clay.
- fertile region

(v) Deltaic region :- very fine alluvial soil

formed by the rivers

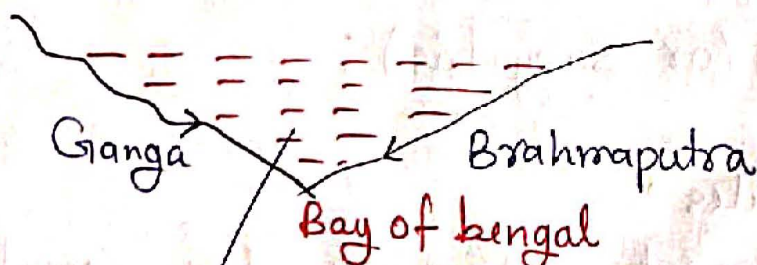
- suitable for Rice & jute cultivation.

↓  
Known as "Golden fibre"

- Some of the East flowing river form delta whereas some of the West flowing river form estuary.

ex: → Ganga, Mahanadi, Krishna, Kaveri, Brahmaputra

ex: - Narmada, Tapi



Sundarbans :- 70% in Bangladesh  
+ 30% in W. Bengal  
delta (named after Sundri mangroves)

→ Sunderbans :- World's largest riverine delta

↓  
Royal Bengal tiger, Salt water crocodile  
(India's national symbol)

Note :-

Gir forest :- Asiatic lion  
(Gujarat) (till 1972, it was our national animal)

1973 :- Tiger declared as our National animal

Alligator (or Gharial) :- fresh water animal  
↳ mainly found in Chambal river  
(M.P., Raj., U.P.)

• Peninsular India

→ It is part of Gondwana land.

→ avg. height : 600 m to 900 m

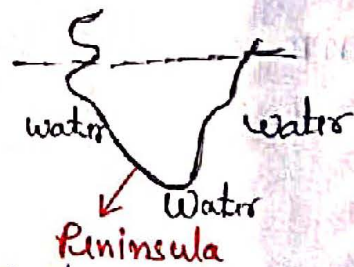
→ It also contains eastern ghats, western ghat, Deccan lava plateau.

(1) Western Ghats (or Sahyadris) :-  
Vedic name

→ lies in 6 states :-

Gujarat, Maharashtra, Goa, Karnataka,  
Kerala, T.N.

→ Avg. height : 1200 m



## History

Ancient India :- Prehistoric times - 750 A.D.

Medieval India :- 750 A.D. - 1707 A.D.

Modern India :- 1707 A.D. - 1947 A.D.

A.D. (Anno domin) :- Christian Era or Common Era  
→ After Birth of Christ

B.C. :- Before Christ

B.C.E :- Before Common Era or Before Christian Era.

Calendar :- Christian Calendar or Gregorian Calendar

### Bhimbetka Caves :-

Prehistoric rock cave paintings

→ UNESCO world heritage site

→ Madhya Pradesh

> 10,000 B.C = Paleolithic Age

⇒ Paleo → old, ⇒ lithic → stone

⇒ Hunting / Food gathering with crude stone tools.

10,000 B.C - 4000 B.C = Mesolithic Age

⇒ Meso - Middle, lithic - stone

⇒ Middle Stone Age.

⇒ Weapons known as microliths

4000 B.C - 1800 B.C = Neolithic Age

⇒ Neo - New, lithic - Stone

→ New stone age

⇒ Animal Husbandary & Agriculture

18

1800 B.C - 1000 B.C = Chalcolithic or Bronze Age

= Copper - stone age (first metal used)

1000 B.C = Iron Age

### Chronology of Events :-

2350 B.C - 1750 B.C ⇒

→ Indus Valley ~~City~~ Civilization / Harappan Period

1500 B.C - 600 B.C ⇒

→ Aryan Age / Vedic Age

① 1500 B.C - 1000 B.C ⇒

→ Early Vedic Age

② 1000 B.C - 600 B.C ⇒

→ Later Vedic Age / Iron Age

⇒ Aryans were settled in Saptasindhu region

↳ Indus, Rhelum, Chenab, Satluj, Ravi, Beas, Kubha

→ Aryans → Nomadic → Rural ~~People~~ Area.

600 B.C. ⇒

→ Aryans were reached to Ganga-Yamuna basin

→ In 600 B.C. Age of Transformation.

\* Political changes

\* State formation

\* Religions changes - Rise of New sets

\* Rise of 16 Great state (महाजनपद)

Ex - Rise of New religions like Buddhism, Jainism.

600 B.C - 25 B.C ⇒

⇒ Magadh Empire

\* Nanda dynasty (343 B.C - 321 B.C)

\* Maurya dynasty (321 B.C - 185 B.C)

\* Foreign dynasty (150 B.C - 250 A.D)

(Post maurya dynasty)

319 A.D - 550 A.D ⇒

⇒ Gupta Empire

550 A.D - 750 A.D ⇒

⇒ Post Gupta Period

① 606 A.D - 647 A.D ⇒

⇒ Harsha (capital - Kannauj)

750 A.D - 1000 A.D. ⇒

- ⇒ Three Party Struggle
- \* Gujara - ~~Pr~~ Pratihara of West India
- \* Palas of West Bengal
- \* ~~Rak~~ Rashtrakutas of Deccan.

All above an Occupation of Kannauj.

1000 A.D ⇒

- ⇒ Mahmud of Ghazni
- ⇒ from Afghanistan
- ⇒ Mahmud Ghazni death 1030 A.D.
- ⇒ Attacked India 17 times
- ⇒ He plundered Somnath temple 1025 A.D.  
(મુઢેર)

1175 A.D - 1206 A.D ⇒

- ⇒ Mohammad Ghori
- ⇒ Gon Captured North India
- ⇒ Delhi sultanate time 1206 A.D - 1526 A.D.
- ⇒ Mughal empire time 1526 A.D - 1707 A.D.

Mughal ⇒

Mongolian (Taimur, Chenghis Khan)

1498 A.D - 1757 A.D ⇒

- ⇒ Advent of European Companies.

⇒ Vasco da gama reached Calicut via Cape of Good Hope in 1498

↳ Vasco da gama was Portuguese

↳ Calicut - Zamorin ruler welcomed

1757 A.D - 1857 A.D. ⇒

⇒ In this duration, East India Company captured whole of India.

Revolt of 1857 in 1857

→ 1st great challenge to East India Company  
(Sepoy's Mutiny)

1857 A.D - 1947 A.D ⇒

→ Rule of Crown.

1885 A.D - 1947 A.D ⇒

⇒ Freedom Struggle

⇒ Moderate Phase - 1885 - 1905

⇒ Extremist Phase - 1905 - 1918

⇒ Gandhian Phase - 1917 - 1947.

**Note:-** Ghandiji returned to India from South Africa on 9th Jan. 1915.



9th Jan. 1945 - Organized by Ministry of External affairs

→ 1st public appearance BHU foundation Day in 1916.

Founder of BHU - Madan Mohan Malviya

Movement :-

⇒ Swadeshi & Boycott movement - 1905-1908  
(against partition of Bengal)

⇒ Home Rule Movement - 1916-1917

⇒ Anti Rowlatt Satyagraha - 1919

⇒ Non-cooperation Movement - 1920-1922

⇒ Civil Disobedience Movement - 1930-1934

⇒ Quit India Movement - 1942

Note:- Mount Batten Plans - 1947

India Independence Act - 1947

## Indus Valley Civilization :

- 2350 B.C. - 1750 B.C.

Harappa :- 1921

- Under the supervision of Dayaram Sahni
- Located on the bank of ravi river
- 1st site village near Punjab.
- Also known as Harappan Civilization

Evidence :-

6 Granaries, Cemetery, Stone symbol of lingam, votary box, Dice, Natraj form (Male Dancer.)

Mohan Jodaro :- 1922

- Mohan Jodaro sindhi word
- lateral meaning of Mohan Jodaro is Mound of Dead.
- Under the supervision of R.D. Banerjee
- Located on the bank of Indus

Evidence :-

Great Bath, Great Granary, Assembly Hall, Yogi Seal, Dice, Dancing Girl ~~Statue~~ (Bronze statue), wells

Chanhudaro :- 1925

(Sindh)

- Located on the bank of Indus
- Discovered by Mackay & N.G. Mazumdar

### Evidence :-

Lipstick, city without citadel, Inkpot, Imprint of dogs paw on a brick, Terracotta model of bullock cart, Bangles.

### Kalibangan :- 1953

- It is located on the Bank of Saraswati River (Ghaggar) Rajasthan. (Now flow Ghaggar river).
- Under the supervision of Amalanand Ghosh.

### Evidence :-

Ploughed field, cylindrical seal

### Lothal :- 1957 (City of dead)

- Lothal (Gulf of Cambay, Gujarat)
- located on the bank of bhakra river.
- Largest structure of whole Indus valley civilization found here.

### Evidence :-

Dockyard, Rice husk, floor, measurement

⇒ Rice vedic Name Vrihi

### Rakhigarhi :- 1963 (Amarendra Nath)

- located on the bank of Ghaggar, Hakra river (Hisar, Haryana)

### Evidence :-

Sukkotada :- 1964 (Gujarat) (J.P. Joshi)

Evidence :- Horse bone, oval graves, pot burials

Banawali :- 1974 (Haryana) (R.S. Bisht)

→ located on the bank of Ghaggar

Evidence :- Lack of chess board / Grid pattern

Dhoulavira :- 1992 (Gujarat)

→ Under the supervision of J.P. Joshi

→ water cisterns & reservoirs found

→ India's 40th UNESCO world Heritage site

→ It is located on the bank Luni river.

Urban Sanitation :- Drainage System

- Harappa

- Mohenjo-daro

- Lothal - Underground sewer.

- Rakhigarhi

## Features of Indus Valley Civilization :-

- First Urbanization
- Town planning divided into 2 parts
  - West - Citadel / Fort
  - East - lower town

## Features of Mohenjo-daro - 3 part divided

- Citadel, Middle town, lower town
- Stadium was also found
- Lower town found in chess board / block / grid pattern (Roads cut each other at 90°)

Houses - \* stairs  
\* Mud bricks  
\* Burnt Brick

- Aware about hygiene & sanitation

Economy - \* Agriculture - wheat, cotton, Barley, oilseeds, Pulses

- 1st commercial crop in India - cotton
- Oldest Indian trade
- Cotton Name Sindon

Rice - Evidence from Rangpur (near Jothal)

\* Crafts - Metal working (Gold, Silver, Copper),  
weaving, pottery, bead making, measurement  
scale

\* Seal Making - Most important art work

→ Made up of steatite

→ Mostly square shape - Animal figure + script  
(mostly bull)

→ Used for trade

Note:- Mesopotamia -

- So many seals were found  
here also

- Mesopotamia now Iraq

- Most important trading partner at  
that time

- Records / Incriptions were found

\* Meluha - Indus Region

\* Dilmun - Bahrain

\* Makau - Makran Coast (Pakistan)

- No currencies evidence were found.

- Barter System (Exchange of Goods)

Trade - Export - Food grains, Cotton  
Import - Metals, precious stones

Domestic Animals - Sheep, Goat, Rhino, dog  
Tiger, buffalo, Horse,  
Elephant, Cat, Deer

Religion :-

Pashupati Seal (Mohen. Jodaro) - Yogi  
image surrounded by animals  
(Yogi - Trident (Lord Shiva))

Domestic Animal - Buffalo, elephant, Rhino, Tiger  
Deer

\* Mother Goddess -

\* Phallus worship (Ling)

\* Great bath - Ritualistic bathing

\* Peepal tree worship

\* They were superstitious in their system they  
believed in the concept of "Life after death"

\* It means Indus people used burial system

# INDIAN POLITY

CLASS NOTES

**(AAROHAAN 2024 BATCH)**

**By: Saurabh Kumar pandey**





# Indian Polity

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- Introduction
- Basic of Constitution
- Features of Constitution
- Fundamental Rights
- Directive Principle of State Policy (DPSP)
- Fundamental Duties
- Union Executive
- Union Legislature
- Union Judiciary
- CAG & AG
- Election Commission
- State Legislature
- Schedules
- Amendments
- Misc.

World War - I:- 1914 - 1918

India was participated in this war.

- Ends:- 11th Nov 1918

World War - II:- 1939 - 1945

Some Extra Points:-

India Gate:-

- Granite Statue of Subhash Chander Bose

Birth Place:- Cuttack (Orissa)

- Cuttack located on the Bank of Mahanadi River (Hirakund Dam Located here (Longest Dam))
- Highest Dam:- Tehri Dam (Bhagirathi River)
- Central Rice Research Centre:- Cuttack

23 January celebrated as Parakarm Diwas

- New War Memorial:- New Delhi.

Dominion Status:-

Autonomous administration within the British empire

Equal Status with British but allegiance to crown

14th August 1947

- Dominion of India
- Dominion of Pak

Till 26 January 1950

Mountbatten

First Governor General of free India & Last Viceroy of Gov. - Gen of British India

In Dominions Status:-

Army Chief & Governor General:- British

1940:- August Offer or Linlithgow's Offer

Viceroy

Indian National Congress rejected.

- India must support us in WW - II & as a response, we will benefit Indians in various ways like dominion status

1942:- Cripps Proposal

After WW - II, dominion Status shall be given to India

- Gandhiji refused Cripps Proposal & he said "It is post dated check of crumbling bank".
- After that, Gandhiji gave slogan "Do or Die" (Non-Violent Basis)

August 1942:- "Started Quit India Movement"

- Most violent movement in our freedom struggle.
- Leaderless movement.

1945:- End of WW - II

In Britain, Labour party came into power, Clement Attlee became PM

1946:- Cabinet Mission:- Came to India

Members:-

1. Pathick Lawrence (Chairman)
2. S. Cripps
3. A.V. Alexander

— Cabinet Mission Plan:-

Idea:- To prepare our own Constitution.

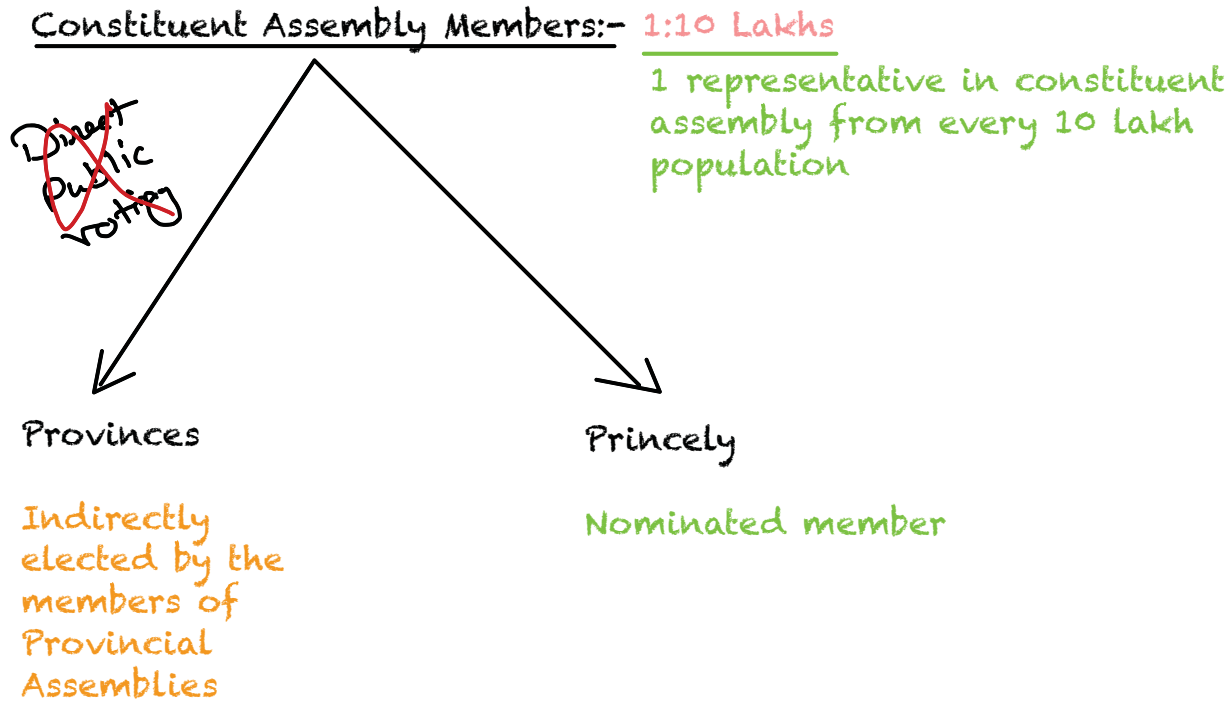
To make constitution we need Constituent Assembly (Group of Indian People)

Note:-

After finalisation of constitution, then transfer power will happen.

## 1946: Constituent Assembly

Provinces (60)	Princely States (40)	→ Directly ruled by the King, Nawabs, Nizams.
Directly ruled by Britishers	Indirectly ruled by Britishers	



- Constituent Assembly Members (before Independence):- 389
- Constituent Assembly Members (After Independence):- 299

229  
(from 12 Provinces)

70  
(From 29 Princely States)

Gandhi Ji & Md. Ali Jinnah:- Not member of C.A  
Muslim League as a party joined C.A but boycotted it

9th Dec 1946:- 1st Meeting of Constituent Assembly (In Delhi)

- Provisional President:- Sachchidanand Sinha (For 2 days)

11th Dec 1946:-

- Permanent President of C.A.:- Dr, Rajender Prasad

Constituent Assembly:- Partly Elected & Partly Nominated

13th December 1946:- Objective Resolution was Introduced

- Drafted by J.L Nehru
- Defined the aims of C.A.
- It also contains the aspiration and values behind the constitution

January 1947:- C.A. adopted "Objective Resolution"

- After that different committees were formed and works assigned.....

8 Major Committees were formed & Most of them Headed by:-

1. J.L Nehru
2. V.B Patel
3. Maulana Abdul Kalam Azad
4. Dr. Rajendar Prasad
5. Dr. B.R Ambedkar

Ex:-

- Fundamental Rights & Minorities Committee:- Headed by V.B Patel
- States Committee (Negotiation with the states):- Headed by J.L Nehru

Where is Committee prepared their reports and submitted to B.N Rau  
Adviser to C.A. But not member

- On the basis of these reports, B.N Rau prepared a draft.

29th August 1947:-

Drafting committee was constituted

Last meeting of Constituent assembly:- 24th Jan 1950

7 Members  
(6+1)

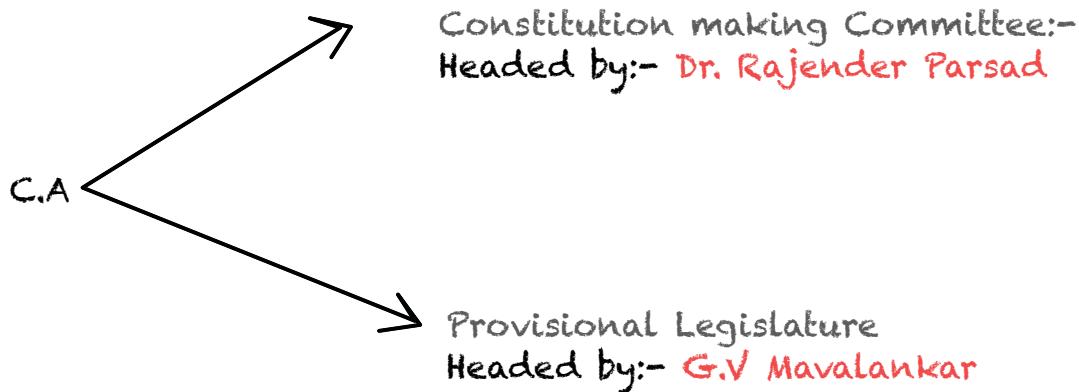
Chairman:- Dr. B.R Ambedkar

- 1st Law Minister
- Father/Architect of Constitution of India
- Birth Place:- Mhow (M.P)

Another 6 Members:-

- Alladi Krishnaswami Iyer
- N.Gopalswami Iyengar
- K.M Munshi
- B.L Mitter (Replaced by Madav Rao)
- D.P. Khaitan (Replaced by T.T. Krishnachari)
- Mohd. Sadullah

14th August, 1947:- Partition



February 1948:-

Drafting committee prepared & presented "Draft Constitution"

Contains 315 Articles + 8 Schedules

1948 - Nov, 1949:-

Debates, discussion & amendments on the Draft Constitution in the C.A.

On this day 284 C.A members were present, and they appended their signature as constitution finally passed

26 Nov, 1949:- Also celebrated as Constitution Day

Constitution was adopted partially (Partially Enforcement)

26 January 1950:- Full Commencement of the Constitution (Full Enforcement)

Why we choose 26 Jan?

Historical Importance:-

Nehru hoisted Tri - Colour flag on the bank of Ravi River in Lahore in 1930 (New Year)

Congress adopted poorna Swaraj Resolution or complete Independence

Constitution of India:- Written in Art 393  
(Actual Name)

Constitution contains Preamble + Parts + Schedules

- Based on objective resolution
- Drafted by Jawaharlal Nehru
- Idea preamble was borrowed from US Constitution

Originally, constitution contains:- Preamble + 22 Parts + 8 Schedules

Articles  
(395)

Some part contain  
chapter - Chapter  
contain Articles

# CLASS NOTES


**Life Sciences (class notes) by  
Saurabh Kr. Pandey  
Useful for All GS Related Exams**



**SAURABH  
KR. PANDEY**



# Life Science by Saurabh Pandey Sir

Mohit Parashar  
8287892341 for  
any correction in  
this Pdf 

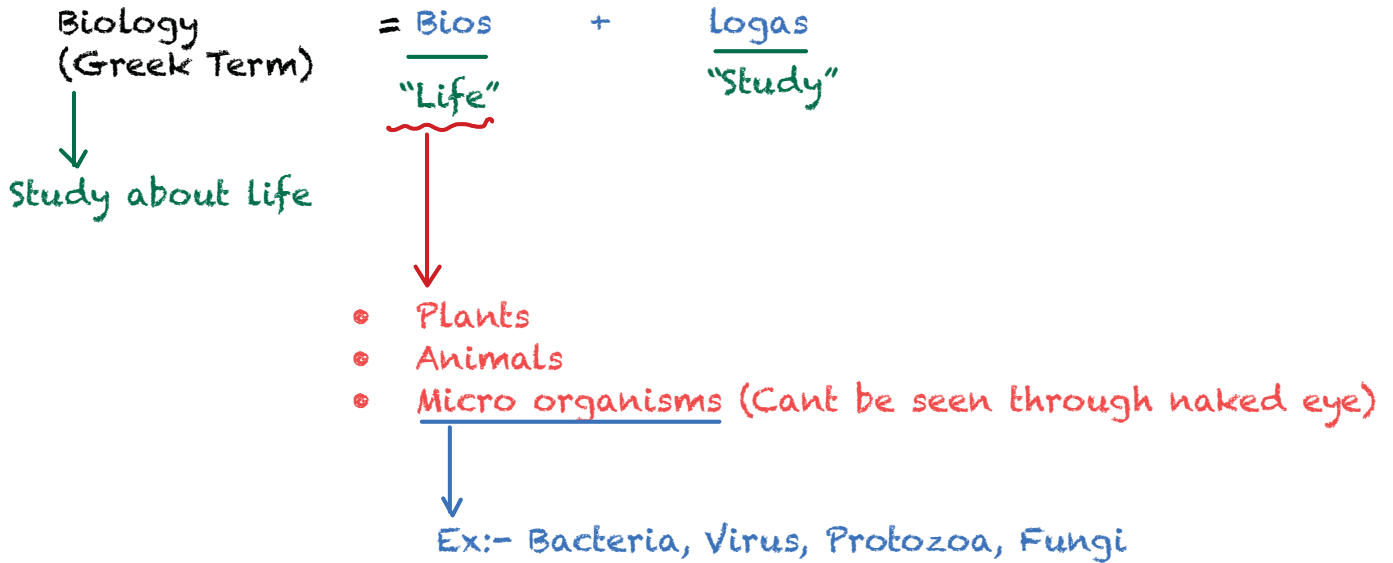
# Life Science

## Syllabus

1. Basics
2. Cell Biology/Cytology
3. Human Diseases
4. Human Genetics & Genetic Disorder
5. Human Physiology
6. Plant Kingdom
7. Misc.



## Chapter :- 1: Basics



### Note:-

- Bacteria:- Unicellular organism
- Protozoa:- Unicellular organism Ex:- Amoeba, Paramecium, euglena, Plasmodium
- Virus:- Non-Cellular, connecting link btwn living & Non- Living.
- Fungus:- Unicellular as well as multicellular  
Ex:- Yeast
  
- Euglena:- Photosynthetic protozoa, connecting link between plant & animal.
  
- "The term biology was given by Jean Lamarck, Thomas beddoes, Treviranus"
- Aristotle:- Father of biology or Father of Zoology  
Greek Study of Animals
  
- Theophrastus:- Father of Botany (Study of Plants)
- Hippocrates:- Father of Medicine

### Note:-

#### Indian context

- Charaksamhita:- Book on Ayurveda (Medicine)
- Written by Maharishi Charak around 2nd Century B.C - 2nd Century A.D

- Charak was the court physician of Kanishka
- Sushrutsamhita:- Written by Maharishi Sushruta around 6th Century B.C. It is based on Ayurveda (Medicine)
  - Mainly emphasised on "Surgery"
- Ayurveda:- taken from Atharvaveda
- Yogasutra:- Maharishi Patanjali (He performed Ashwamedha Sacrifice for Pushyamitra Shunga)
  - (International Yoga day:- 21st June)
  - Yogasutra written in several volumes between 2nd Century BC - 5th Century AD
  - Mahabhashya → written by Maharishi Patanjali. It is commentary on "Ashtaadhyayi" book on sanskrit grammar. Written by Maharishi Panini

## Branches.

## Study of related to:-

### 1. Microbiology

### Micro-organisms

Louis Pasteur → Father of Microbiology

- He developed vaccine against "Hydrophobial Rabies"

- Goa India's 1st Rabies free State

Responsible virus:- Rhabdo Virus, enter into human body through dog bite (Packet), bat bite sometimes due to monkey, cats also.

Rhabdo virus affect our nervous system & cause Inflammation on the brain

- He developed pasteurisation technique to kill micro - organisms. He take milk sample and boiled at 70° c. & cooled at 4° c. & then get stored.
- He developed fermentation technique in 1857. Conversion of Sugar into alcohol with the help of yeast. (Unicellular fungi)
- He disproved theory of Spontaneous Generation, regarding origin of life. Given by Aristotle. This theory says life could arise from non-living matter.

## 2. Genetics

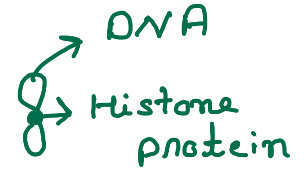
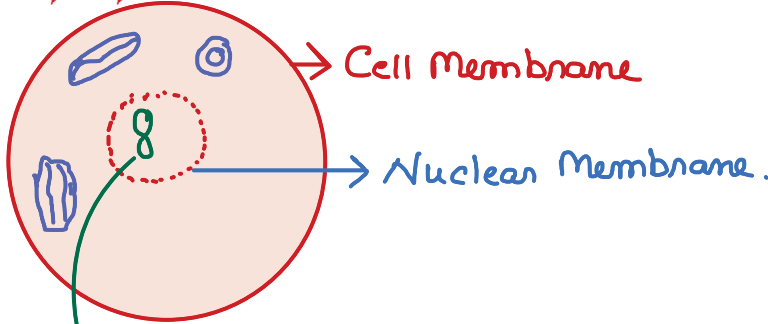
>> Heredity & Variation

—Father of genetics:- **Gregor & J. Mendel**

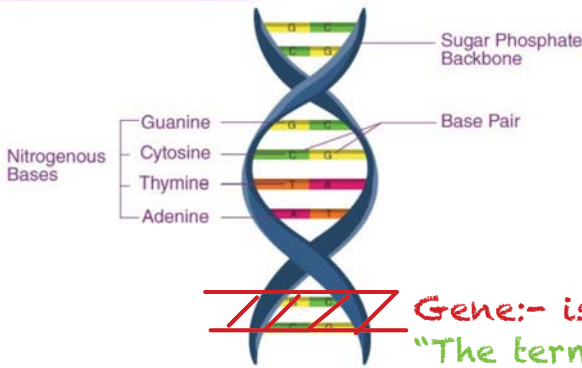
Transfer of characters from one generation to another with the help of Chromosomes

Note:-

Cell is the basic structural & function Unit of Life



### DNA STRUCTURE

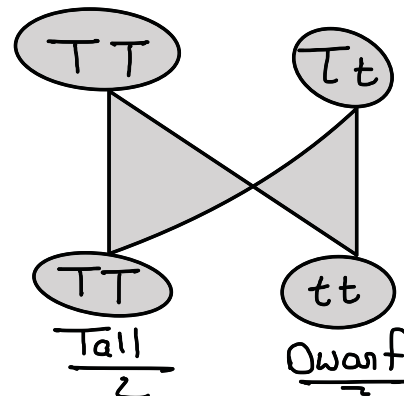
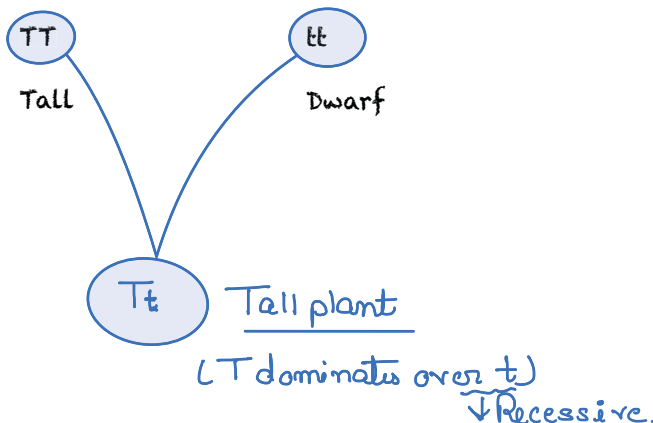


DNA (Deoxyribose Nucleic Acid) :- **Double Helical Structure**. It was given by **Watson & Crick** (Conferred with Nobel Prize)

Gene:- is the basic unit of heredity & part of DNA. "The term Gene was coined by **Wilhelm Johannsen** in 1909"

Note:-

- Atavism:- Reappearance of distant or suppressed characters
- **Gregor J. Mendel (Priest)** -> He performed an experiment on Garden Pea (Scientific Name:- *Pisum Sativum*), regarding heredity.



### 3. Oncology:- Study of Cancer

Uncontrolled growth or  
Division of cells

- Oncogene:- gene causing cancer.
- Carcinogen:- Chemicals causing cancer.

Tobacco smoke contains  
CO + Benzene  
Carcinogenic in Nature

#### Note:-

- 4th Feb:- World Cancer day
- 7 minute Jab Treatment:- developed by UK.  
(Related Cancer)
- CAR - T Cell (Chimeric Antigen Receptor) Therapy

### 4. Sericulture ————— Silk cultivation

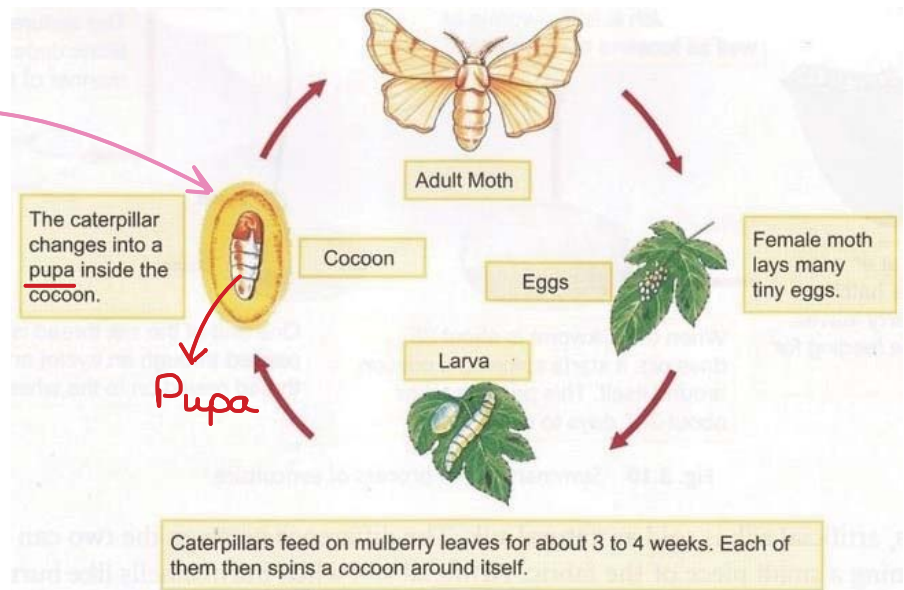
Silk is predominantly protein

Name:- Fibroin

#### Silk Moth:- Bombyx Mori

Pupa secretes  
silk fibre  
inside the  
cocoon

- Silk secretion mainly  
takes place on  
mulberry leaves



- Some of the famous silk varieties:- Eri, Muga, Tashar, Kanchivaram (T.N).

Artificial/Synthetic Silk:- Rayon

- Silk introduced into India from China.

Tea

Bamboo (Longest Grass)

- Silk Production:

World	State
<ul style="list-style-type: none"> <li>• China</li> <li>• India</li> </ul>	<ul style="list-style-type: none"> <li>• Karnataka</li> <li>• Andhra Pradesh</li> <li>• Assam</li> </ul>

Note:-

- Central silk board :- Bengaluru
- Central tea board :- Kolkata
- Central Tobacco board:- Guntur (Andhra Pr.)
- Central Rubber Board:- Kottayam ( Kerala)

What is Protein or Polypeptide ?

- Long chain of Amino acids. Protein also known as Polypeptide.



↓  
Peptide bond:- Covalent bond

At least min 20 amino acids chain make simple protein

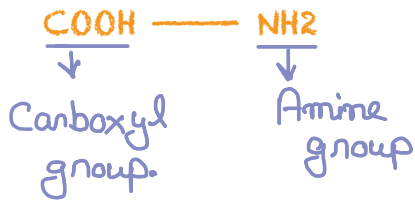
Ionic bond:- Gaining or loosing of electrons

Ex: NaCl

Covalent bond:- Sharing of electrons

Ex:- CH<sub>4</sub>

Amino acid contains:-



Carbohydrate Contains:- C, H, O

Protein contains:- C, O, N, H, S

Structure:- Single Helical

Given by Linus Pauling

Conferred with  
Nobel Prize

- Protein energy malnutrition (PEM):- Disease:-
  - Kwashiorkor
  - Marasmus

- Protein rich sources:-

Spirulina & Chlorella :- > 60%

Both are Algae

Soyabean:- > 40%

Lamb Meat:- > 36%

Egg:- 12%

Milk:- around 8%

Pulses:- 6-8%