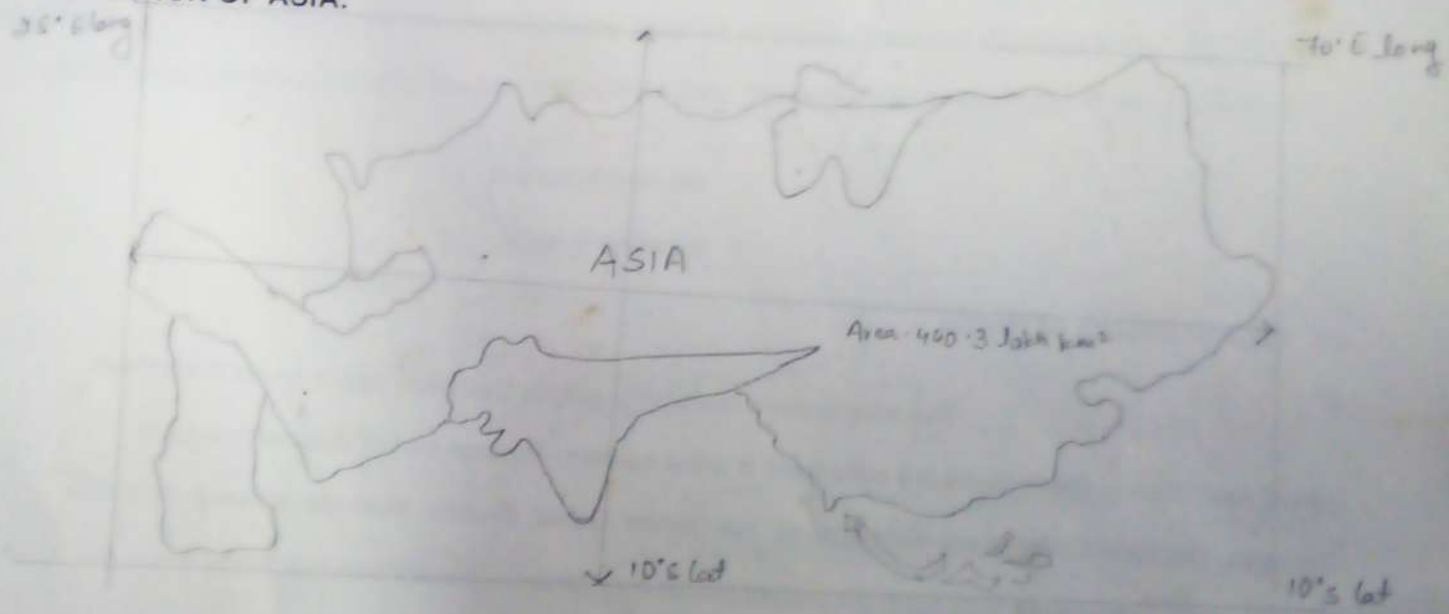
STRUCTURE OF ASIA

Introduction:

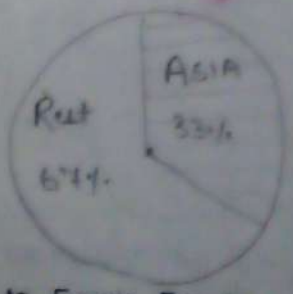
The term 'Structure' indicates the component parts of an area which type of rocks and minerals are found in geological rocks

LOCATION OF ASIA:



from	To		Extension
10° S. Lat.	80° N. Lat.	=	90° Parallels of lat.
25° E. Long.	170° E. Long.	=	165° meridians

Geographical area = 440.3 lakh km² i.e. 33% of the world's area.



Rocks which are found in Asia belong to Eozoic Era to Quaternary Era i.e. the whole geological periods. But there is a large variation among rocks belonging to different era. Structurally, Asia can be divided into four structural regions.

1. Ancient Blocks of north
2. Ancient Block of south
3. New folded Mt. ranges
4. Residual parts.

01. Ancient Blocks of North:

The most ancient rocks belonging to Cambrian age is found in northern part of Asia. Hence, these rocks are quite hard. It is the northern displace part of Wagner's ancient Pangaea. The rock contents are metamorphic, like Genies, Schist, Granite, Slate etc. Igneous rock also found in large magnititude. The northern ancient blocks may be sub – divided into four parts. ---

a) Russian Platform – located in European parts .

b) Angara Land.

c) Chinese Massif.

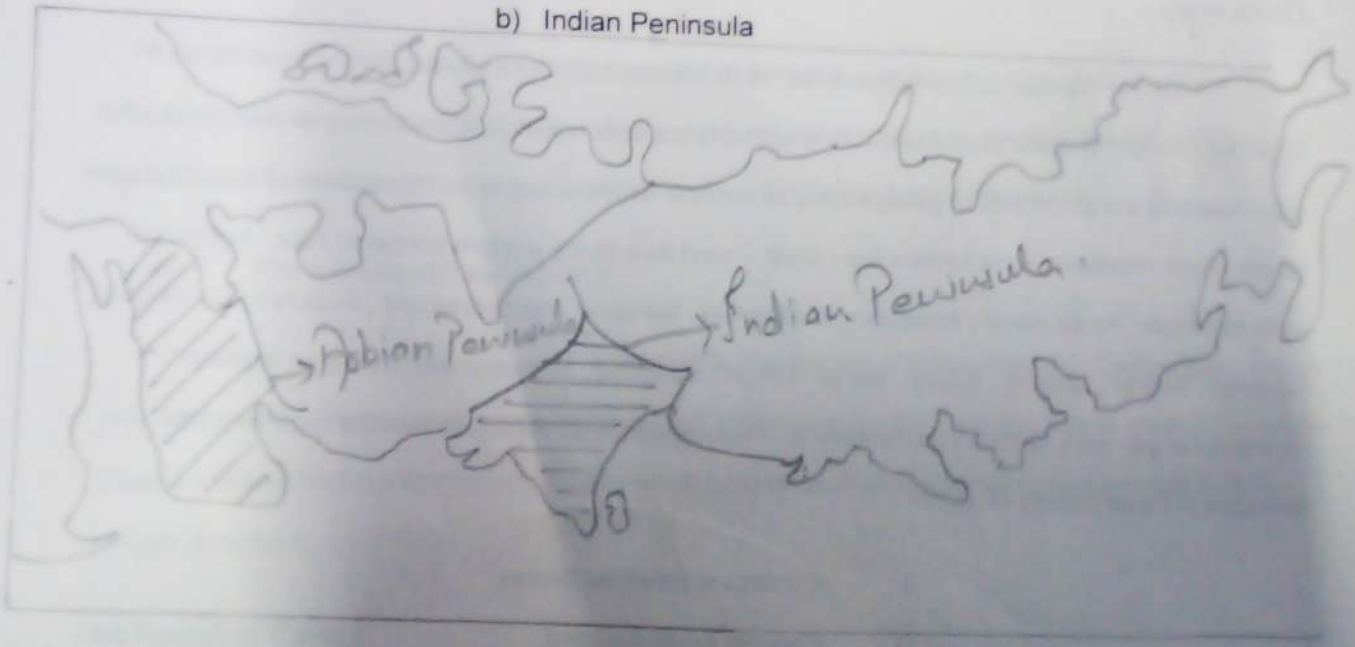
d) Sardinian Massif

02. Ancient Blocks of South:

The southern ancient blocks are also a part of ancient Pangaea. So, it consists hard rock's which are mostly metamorphic. In ancient period, these are the part of Gondwanaland. According to lernate geographers, Gondwanaland was disintegrated into S-America, S-Africa, S- Asia and Australia. Most of the rocks are of igneous and metamorphic type. Genies, Schist, basalt, granite, and quartzite are chief contents. Later on all these continents were separated. Northern part of Gondwanaland became the part of Southern Asia. These are two parts southern ancient blocks.

a) Arabian Peninsula

b) Indian Peninsula



Both of blocks of ancient igneous and metamorphic rocks having Genise , schist , granite etc. These blocks were so hard and rigid that they never submerged into yhe sea , no any fold or fault or shrink appeared on their surface .

03. New Folded Mountain Ranges:

New fold mountain ranges found in the middle part of Asia belongs to tertiary period. Through, the formation of these ranges started in Mesozoic era. Proper development of mountains became during tertiary period. Several mountain ranges are found in different directions from

Pamir Knot. These mountains have numerous plant & animal. The origin of this mountain became geosynclines named Tethys. Residual part of Tethys are scattered and known by different sea etc. The depth of such geosynclines was 10,000 m according to De – Terra

Several rivers from Northern Angara land and also from southern Gondwanaland fell to the Tethys geosynclines. These rivers brought ample magnititude of sediments deposited in Tethys geosynclines for lakh of yrs. As a consequent of it, the geosynclinals level of Tethys uplifted. Thickness of the deposited sediments increased up to thousands of meters. Deposition of sediments continued from Permian age of Paleozoic era to Eocene age of Cenozoic era.

Due to internal earth's movements, Northern ancient blocks started shifting towards south while the southern ancient blocks particularly ancient peninsula remained constant on its own place. the result was that the sediments of geosynclines turned into fold resulting in fold mountains of Himalaya and others. Fold mountains were formed from south – west Asia to the eastern border of Asia. Important were Himalaya, Asian minor, Armenian, Karakoram, Nansang, Aarakaniyoma, Peguma, Hindukush, Suleman, Kirther, Jaygros, Elburj, tourus, Pontik, Yablonyg, Stonobye etc. Europian alpinian mountain ranges were formed simultaneously. Fllowing concepts were propounded regarding the formation of these tertiary mountain.

i) Concept of Edwered Swess.

ii) Concept Emile Aargand.

iii) Concept of Afred Wegner.

iv) Concept of Plate Tectonic.

i) Concept of Edward Swiss :

According to Swiss Tethys geosynclines from west to west direction. Northern part was known as Angara Land and Southern part was known as Gondwanaland. With the passage of time interval earth's movement appeared due to which Northern ancient blocks known as

Angara land started shifting towards south while the southern ancient blocks ,a part of Gondwanaland and remained stand steel or stiff on its own place . Result was that thick sediments of geosynclines termed into tertiary mountain .

ii) Concept of Alfred Wegner :

Wegner stressed on the fact that due to internal earth's movement both boarding ancient block of Tethys shifted towards each other . Due to which geosynclinals sediments of Tethys turned into flood to landform tertiary mountains .

iii) Concept of Emile Aargand :

The concept of Aargand regarding the formation of tertiary mountain is more or less smite to that of Swiss . Aargand also stressed on the fact that Northern ancient block shifted towards south due to which thick strata of the Tethys turned into tertiary .

iv) The concept of Plate Tectonic :

According to the concept of Plate Tectonic , Tethys geosynclines was bordered by Tibetan plates from the north and Indian plate from the south . Due to earth's movement Tibetan plate shifted towards south . Due to which sediments of geosynclines turned into fold to form tertiary mountain .

04.Residual Parts :

All those parts of Asia which remain untouched by above mentioned , three structural divisions are included under this forth structural divisions or residual parts . In this residual parts of Asia rocks were formed from Paleozoic era to Mesozoic era. During these period earth wide , earth movement appeared . Due to which some parts uplifted while some parts submerged .

AGE :

- Devonian - Caledonian earth movement appeared to form Caledonian mountain