

GEOLOGY

Notes by-

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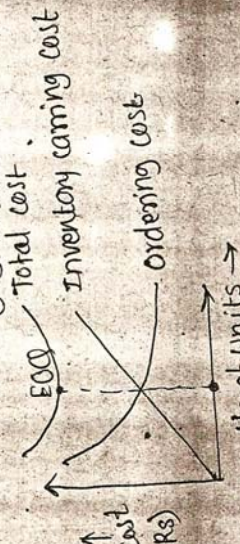
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GEOLOGY

- * Inventory (Form No. 7) - ordering form
- * Inventory: A list of available material & money value of each.
- * Economic Order Qty (EOQ) :-

- Inventory cost: ① Processing / ordering
- ② Inventory carrying cost
- ③ Stock out cost



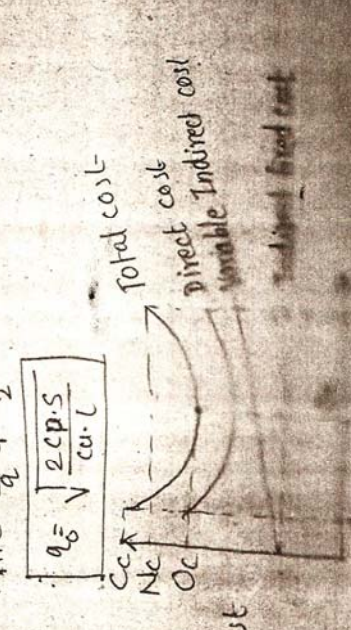
for EOQ, ordering cost = Inve. carrying cost.
Qty. at which total cost is min. is EOQ.

Expression: Assumption ① Uniform Demand,
② Lead Time = 0 ③ Price per item is fixed.

Inventory carrying cost = $\frac{C_p \cdot Q}{2}$

Ordering cost = $\frac{S \cdot C}{Q}$

ATC = $\frac{S}{Q} \cdot C + \frac{1}{2} C_u \cdot Q$



Petrology: - Study of natural history of rock, including origin, present condⁿ & decay.

Petrography: - classifⁿ of rock.

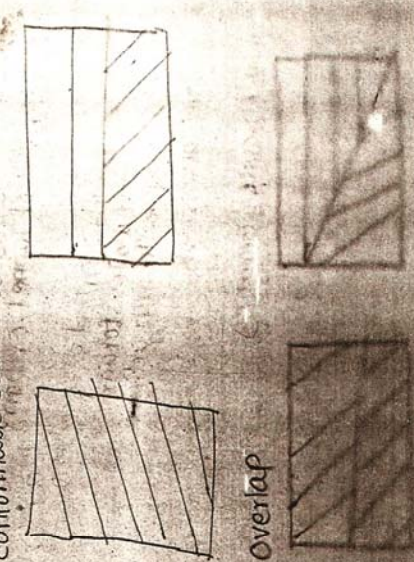
- * Rock forming mineral - Felspar, Felspathoids, Mica, Amphiboles, Pyroxenes, Quartz, Crystalline Calcium carbonate

FMCOAP

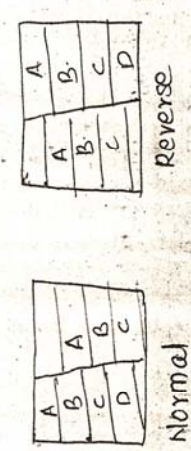
Weathering: ① Decomposition ② Disintegration
 a) chemical b) oxidation c) Hydration d) solution
 change in chemical comp. No change.

Kinds of Metamorphism: Heat - elastic Contact, Pre - cata-clastic, Heat + Pre - Dynamothermal, Heat + U Pre - Plutonic

conformable series, Unconformity

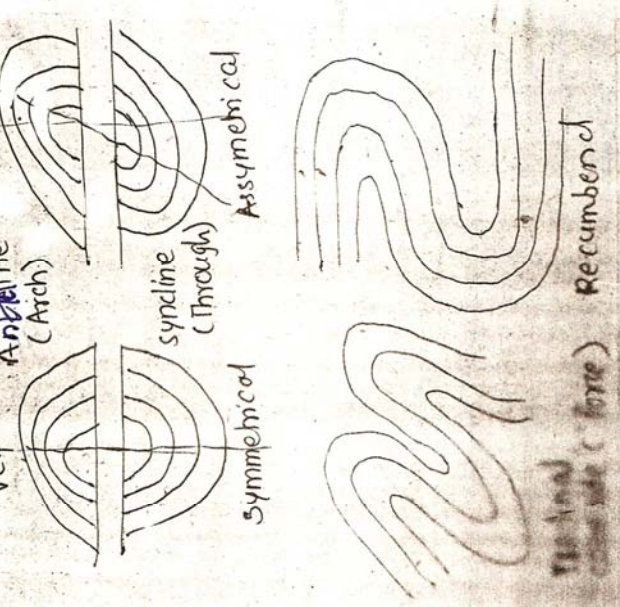


- * Fault: ① Normal / Reverse
- ② Dip/Strike
- ③ Dead / Live
- ④ Vertical / Inclined.



- Fold: ① Symmetrical / Asymmetrical
- ② Isoclinal / Recumbent
- ③ Overthrust / Thrust Fault

* Lateral comp. Force & Inclined plane



Stress calculation at a depth 'z' & 'y' - radially

Dispersion model

Rect. $\sigma = q \sqrt{B/L}$

$\sigma = q \sqrt{B/L}$

Smooth wheel rollers

Sheep foot

Pneumatic

cohesive

Both - cohesive & non cohesive

Non-cohesive

STRESSES IN SOIL

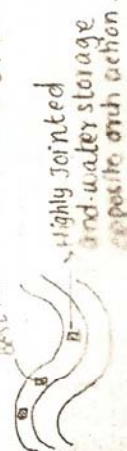
- Effect of wind -
- 1) Dunes
 - 2) Deflation - Oasis
 - 3) Abrasion
 - 4) Attrition → Shape

Indian Geology

- 1) Peninsula - Δ lar
- 2) Indo-Gangetic Plain (RUPZ)
- 3) Extra-peninsula - Mountain (M)

Geology	Peninsula	Extra Peninsula
Structure	No fold, faults	Inclined beds
Physical condn.	Mountain - Relict type (Denudation)	Mountain - orogenic earth movement, i.e. fold
Engg. problems	Old stage River (Rejuvenated)	Young stage River

Compact Basalt: closely jointed (columnar)
 Amygdaloidal: poorly jointed → well compacted



Fault: along / across - etc



Overthrust/Thrust fault

Concordant Inclusion - Sills
 Locolith
 Lopolith
 Phacolith



Dyke swarm - No. of dikes.



Types of mountains:-

- Due to earth movement - Tectonic
 - Fold - Orogenic - Himalaya
 - Fault - Epeirogenic - Icharas
- Denudation or Relict - Sahyadri - Erosion
- Accumulation -

Volcanic - Eruption

Igneous Inclusion

Modes of occurrence of Igneous Rock

- Batholiths / Major Inclusion
- Dykes / Minor Inclusion