

Date = 2/02/22

OE Civil

(\*) test retest  
PAGE NO.   
DATE:   
(short story)

Unit 1:-

Population Growth (PG)

- + Birth Rate - (per thousand population)
- + Death Rate - "
- + Immigration Rate -
- + Emigration Rate -

- \* Tubectomy (F)
- \* Vasectomy (M)
- \* IUD (Intrauterine Device)

Sub Saharan Country  
↓  
southern part

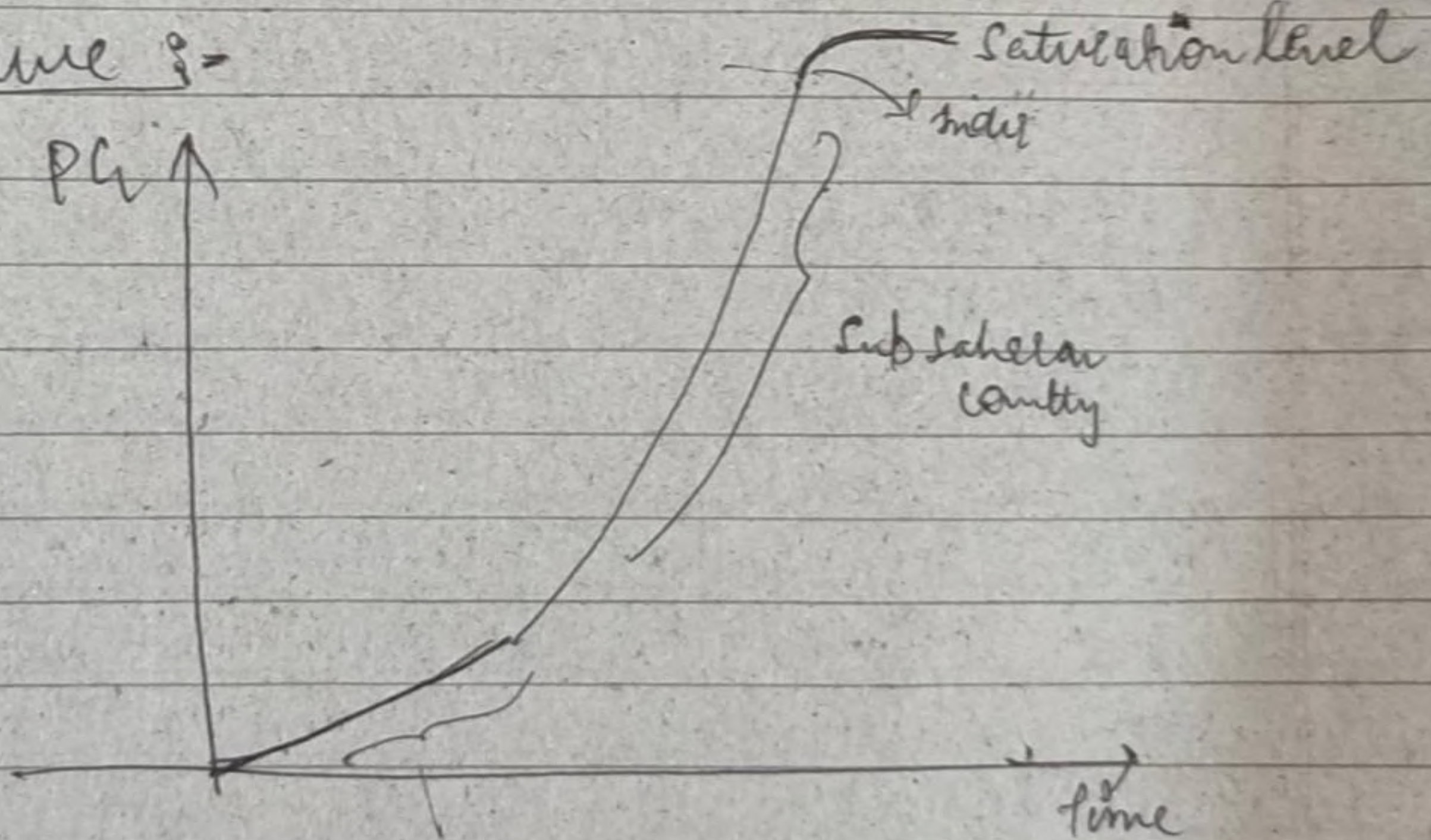
$$PG = [(CBR + IR) - (CDR + ER)]$$

India population growth is much less than sub Saharan country  
B.R = 1.57

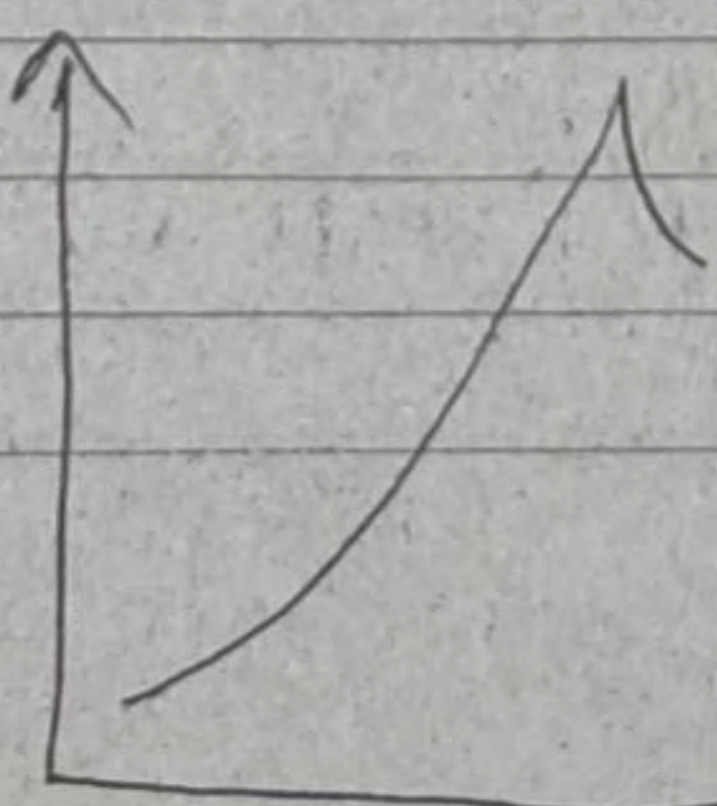
Australia population = 1.8 Cr - population  
"we add Australia every year"

(\*) PG curve :-

PG



(S-curve)



lg → (Insert flies after rainy time)

Influence (Pop. ↑ all of sudden and decrease drastically)



date 16/09/23 OG

Unit

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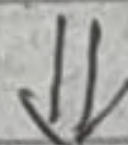
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## \* Population Growth :-

Region	BR	DR	
World	22	9	11
developing	11	10	1
Europe	25	9	16
Africa	38	14	24
N. America	14	9	5
Europe	10	11	-1
Asia	22	8	14
South Am.	24	6	18

Stationary phase

→ tribes (Shewtinel and shompen)



Andaman + Nicobar Island

\* 16.9% world population

2) 2.4% a

3) 305 persons/km<sup>2</sup> pop. density — 1998 → No. of person residing in 1 km<sup>2</sup>  
415 persons/km<sup>2</sup> — 2025

## \* Reasons of Population Growth

- early puberty
- early marriages
- social pressure for desire of male child
- hesitation in adoption of family planning measures
- polygamy
- improved health care
- diff B/w BR and DR

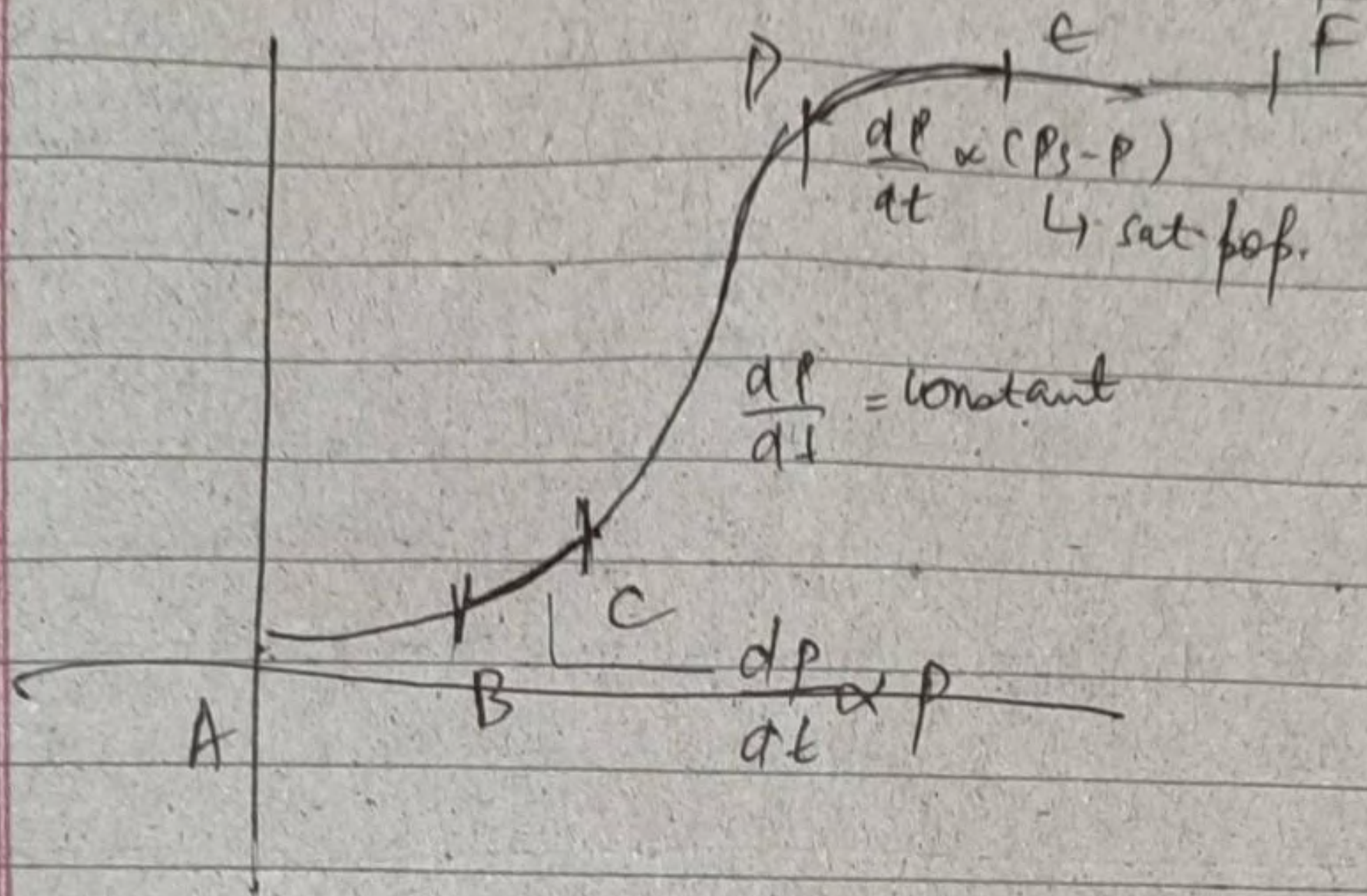
+ tubectomy (Female)  
+ vasectomy (Male)  
+ MTP.



tubectomy - Fallopian tube

Vasectomy - Vas deference cut

MTP - medical termination of pregnancy (Abortion)



AC

AB - lag phase  
BC - first accelerated  
CD - exponential phase  
DE - (second) accelerated  
EF - stationary phase

AB - lag phase  
BC - first accel  
CD - exponential phe  
DE - (second) accelerated  
phase.  
EF - stationary phase

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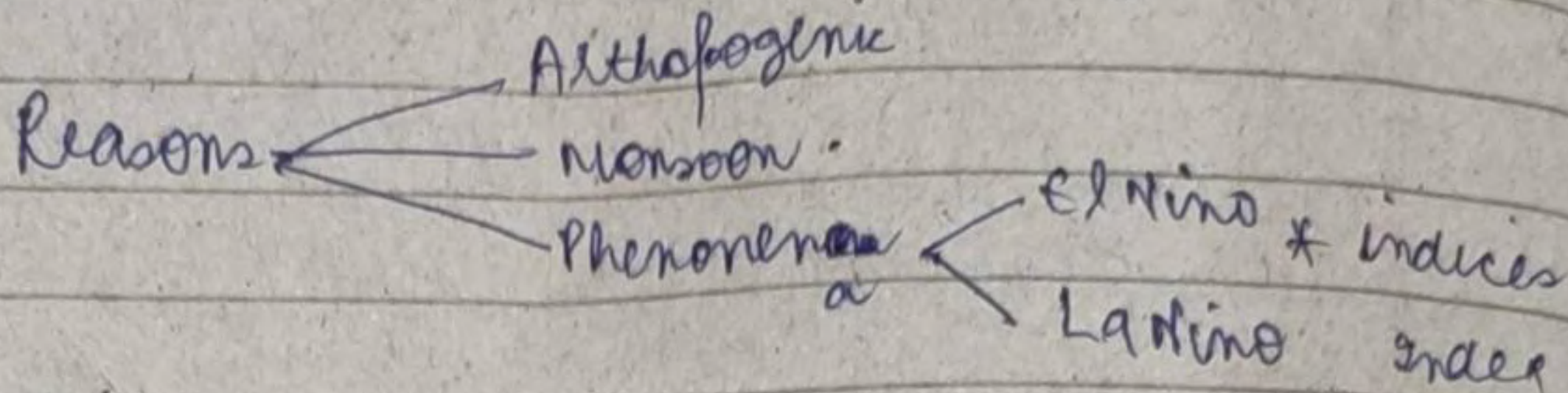
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Date:- 07/10/22

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\* Climate change - IPCC (inter governmental panel on climate change)



→ Initiatives to control climate change :-

\* UNFCCC - United Nation framework on climate change.

(Stockholm)  
Capital of Sweden

# COP (Conference of Parties) - Berlin

COP2 - Geneva (Switzerland)



COP3 - Kyoto

Brazil cap.  
Rio de Janeiro

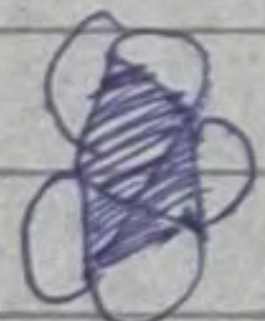
COP4 - Capital of

COP5 -

COP6 -

COP7 - Morocco

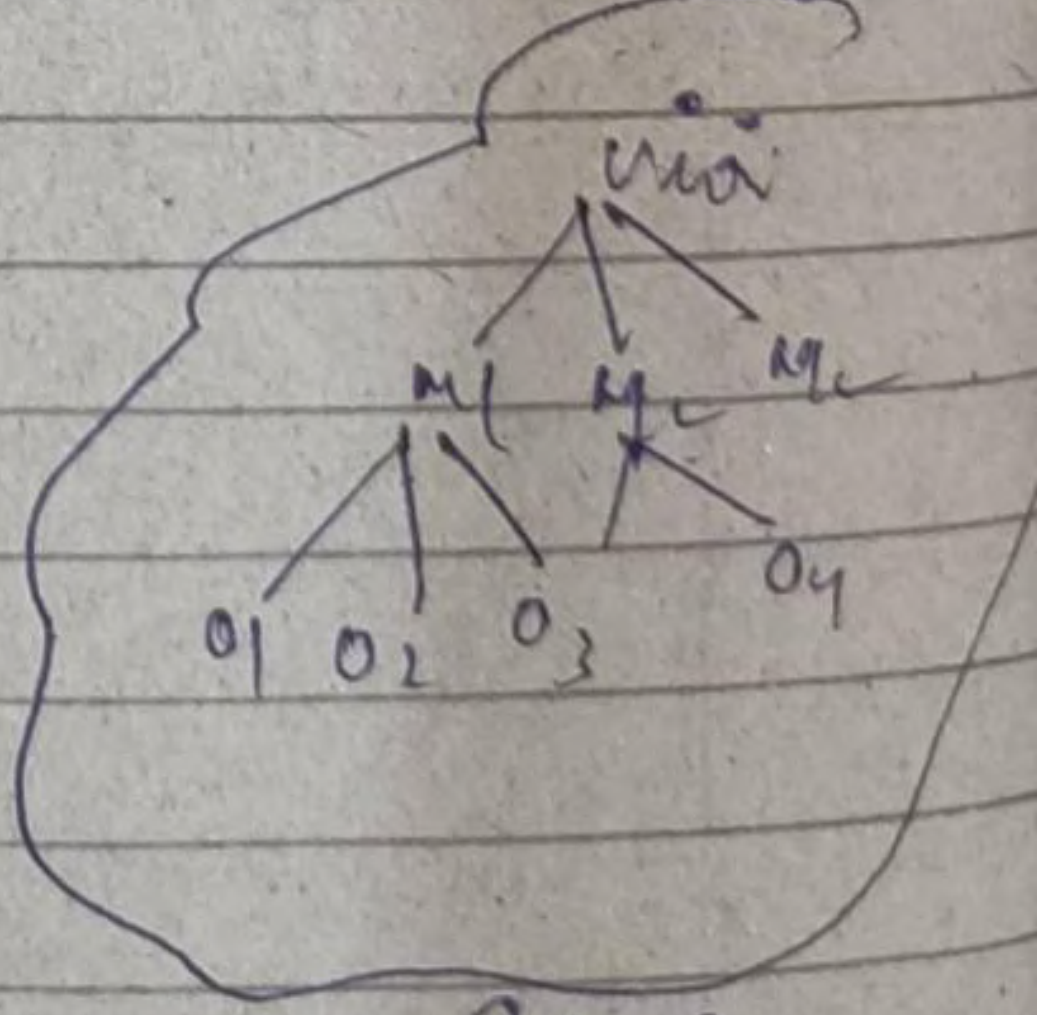
COP8 - India



COP

\* Rio Earth Summit

Latest COP25 - Glasgow



\* Learn about COP3 - Kyoto

→ Emission Trading

\* Cap and Trade

\* NAPCC :-

London action Plan on climate change

→ June 8th 2008

SDG  
Sustainable development goals

7-6  
8-5  
9-4  
10-3



(SDG-6 - (development of water and sanitation problem)

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N/AFCE

60

8 missions

- 1) Mission for solar mission ✓
- 2) Enhanced energy efficiency ✓
- 3) Sustainable habitat ✓
- 4) Sustainable agriculture ✓
- 5) Water mission ✓
- 6) Mission for Green state ✓
- 7) Strategic knowledge mission ✓
- 8) Mission for sustaining Himalaya ecosystem ✓

60x40

2400

40

#UNFCCC  
#NAPCE



Date - 06

14/10

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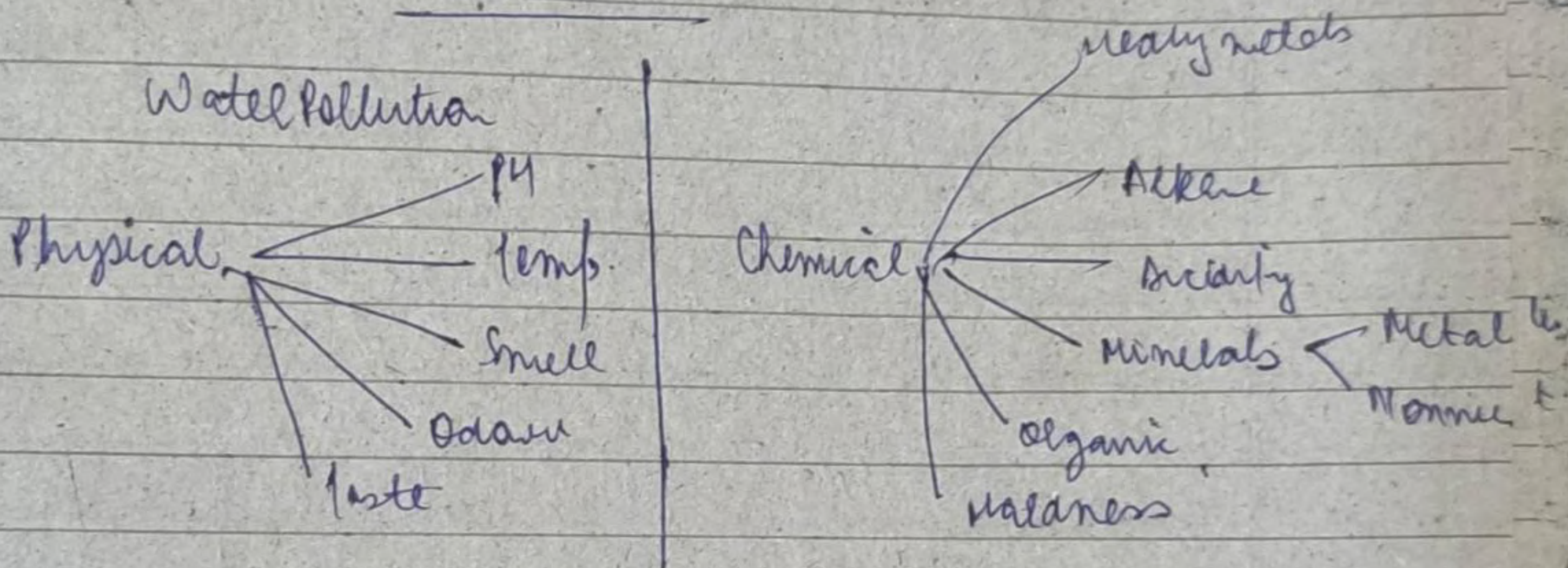
# Deepest pt on earth  $\Rightarrow$  Mariana Trench.

Biosphere

ecosystem

# Ecology -

Unit 2



\* Chromium is used in tannery

\* Clin

Sources - 

- \* fluoride.
- \* Nitrate.
- \* Chromium.

\* Minamata Bay - Incident

$\hookrightarrow$  Death of thousands of fishes.

\* r



(06-04/11/22)

Water pollution :-

Therefore WP, & WP water pollution

\* Sources — Physical, Chemical, Biological

↓  
Nitrate  
contamination

Classification :-

\* Eutrophication → Lakes (Process of natural ageing of lakes)

a) Oligotrophic

→ No Pollution

→ No N & P & clear lake

oligotrophic (1)

mesotrophic  
(algae) (2)

(3) eutrophic

b) water hyacinth

# Organic : — BOD  
— COD

\* Dissolve of  $O_2$  — Health of water  
Bodies

(time of lake)

these all are stages

1) oligotrophic

2) mesotrophic

3) eutrophic

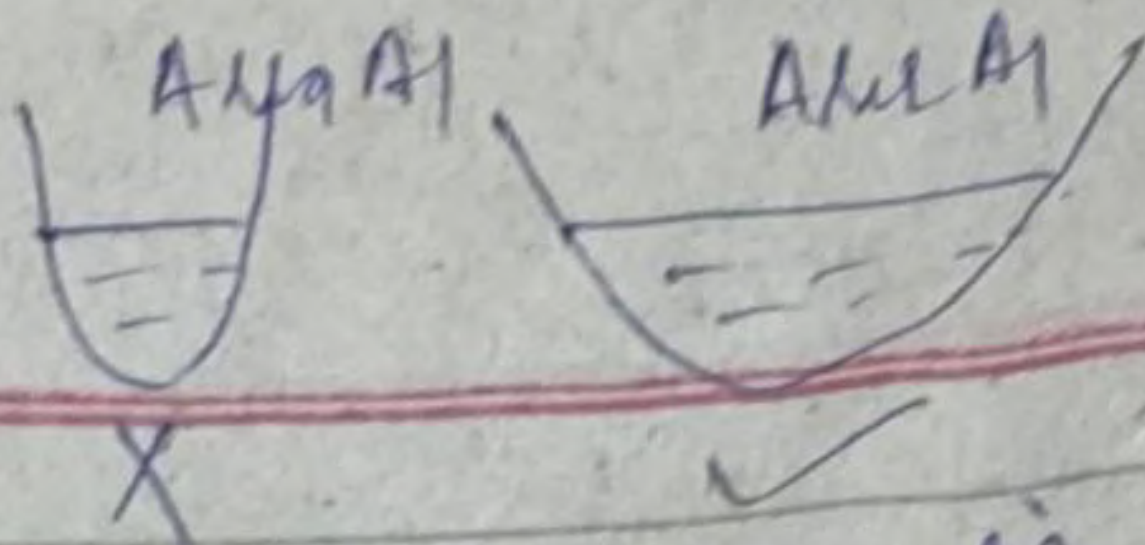
4) marshy  
(sludge)

BOD — Biochemical Oxygen Demand

COD — Chemical Oxygen Demand

DO — Dissolve oxygen





Better cross section

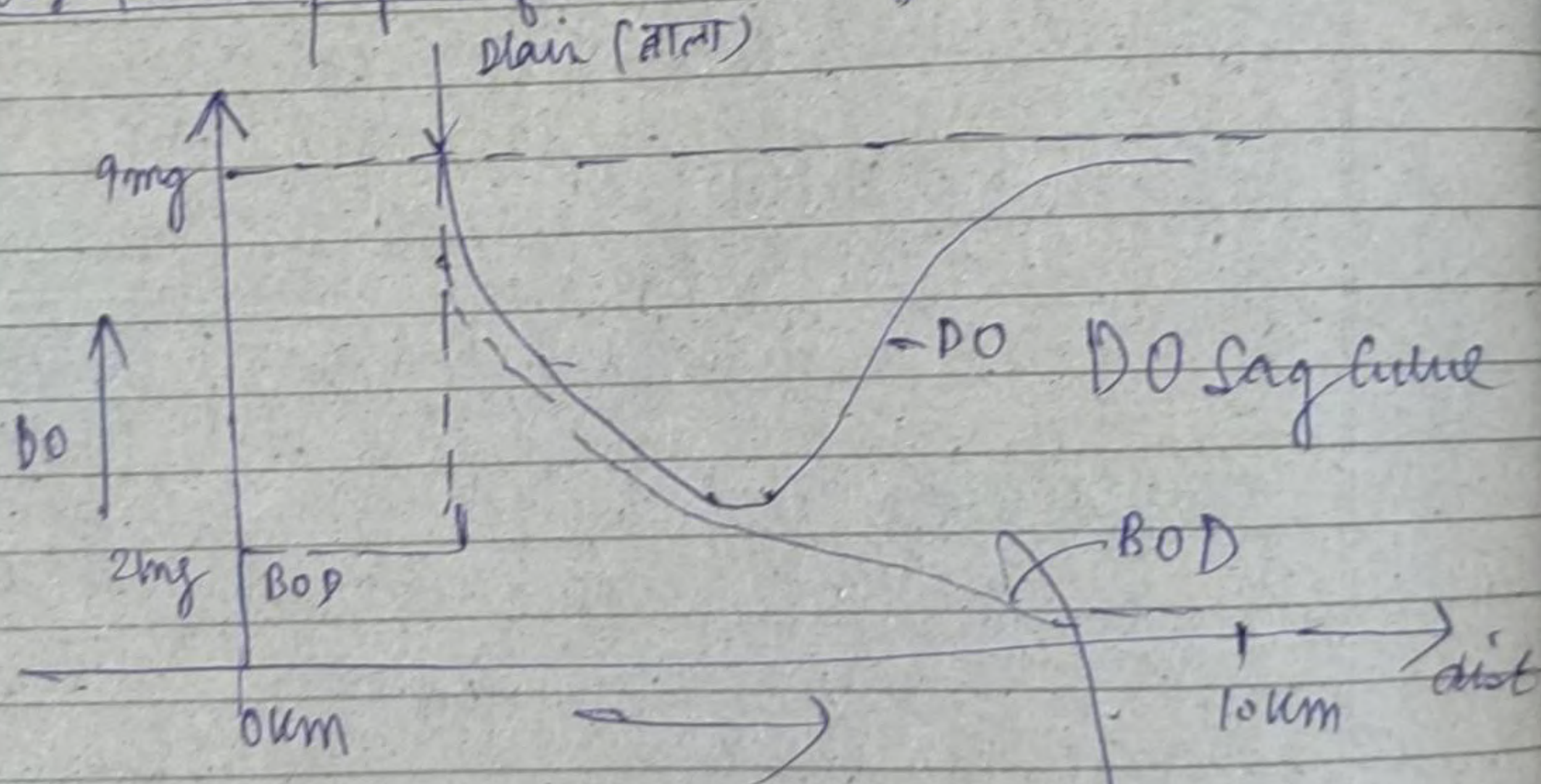
\* Hydrogeology :-

\*

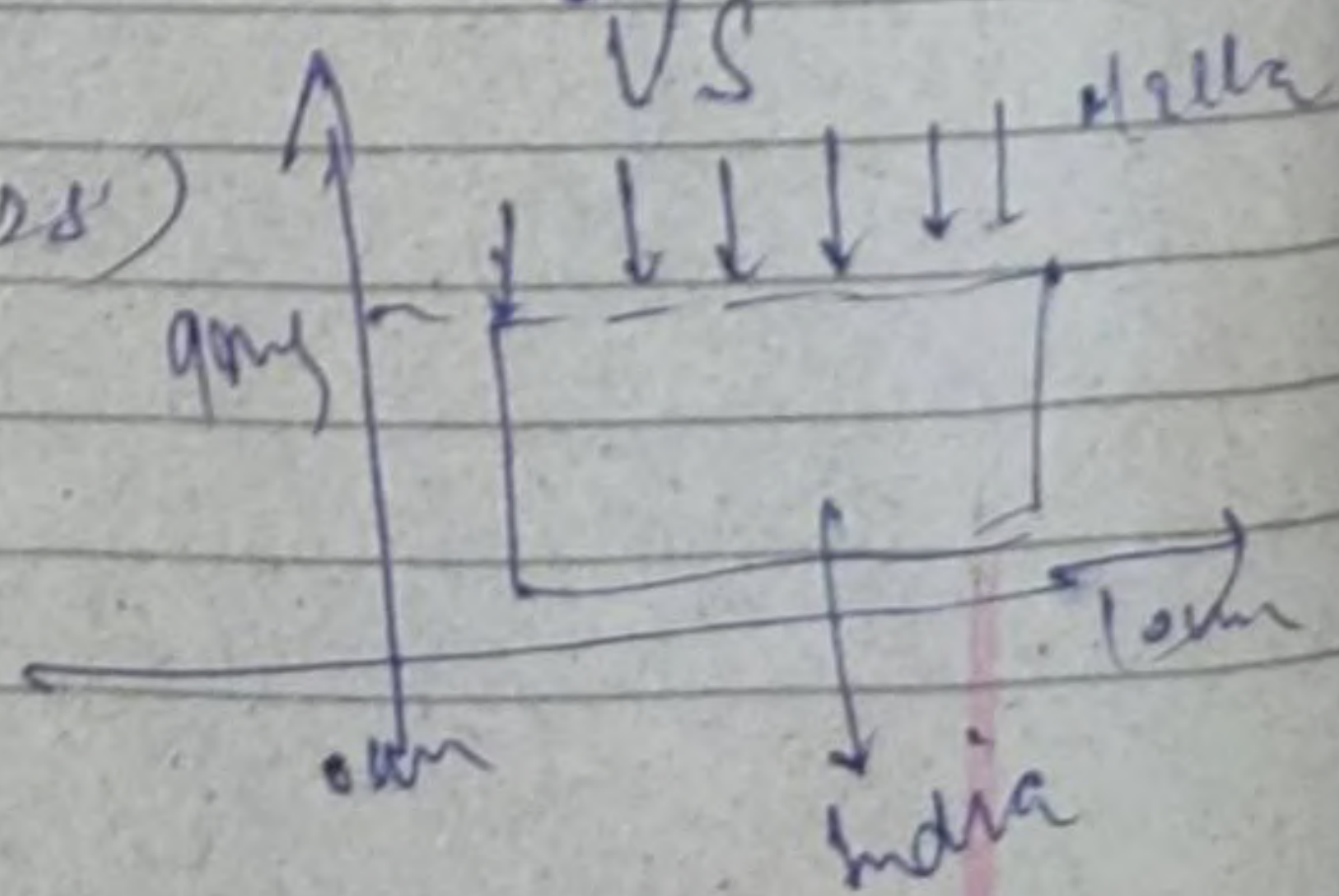
BOD - Amt of  $O_2$  to oxidise organic matter present in waste water

COD - Amt of  $O_2$  require to oxidise organic / inorganic matter present in water

\* Longitudinal profile of Dissolve Oxygen :-

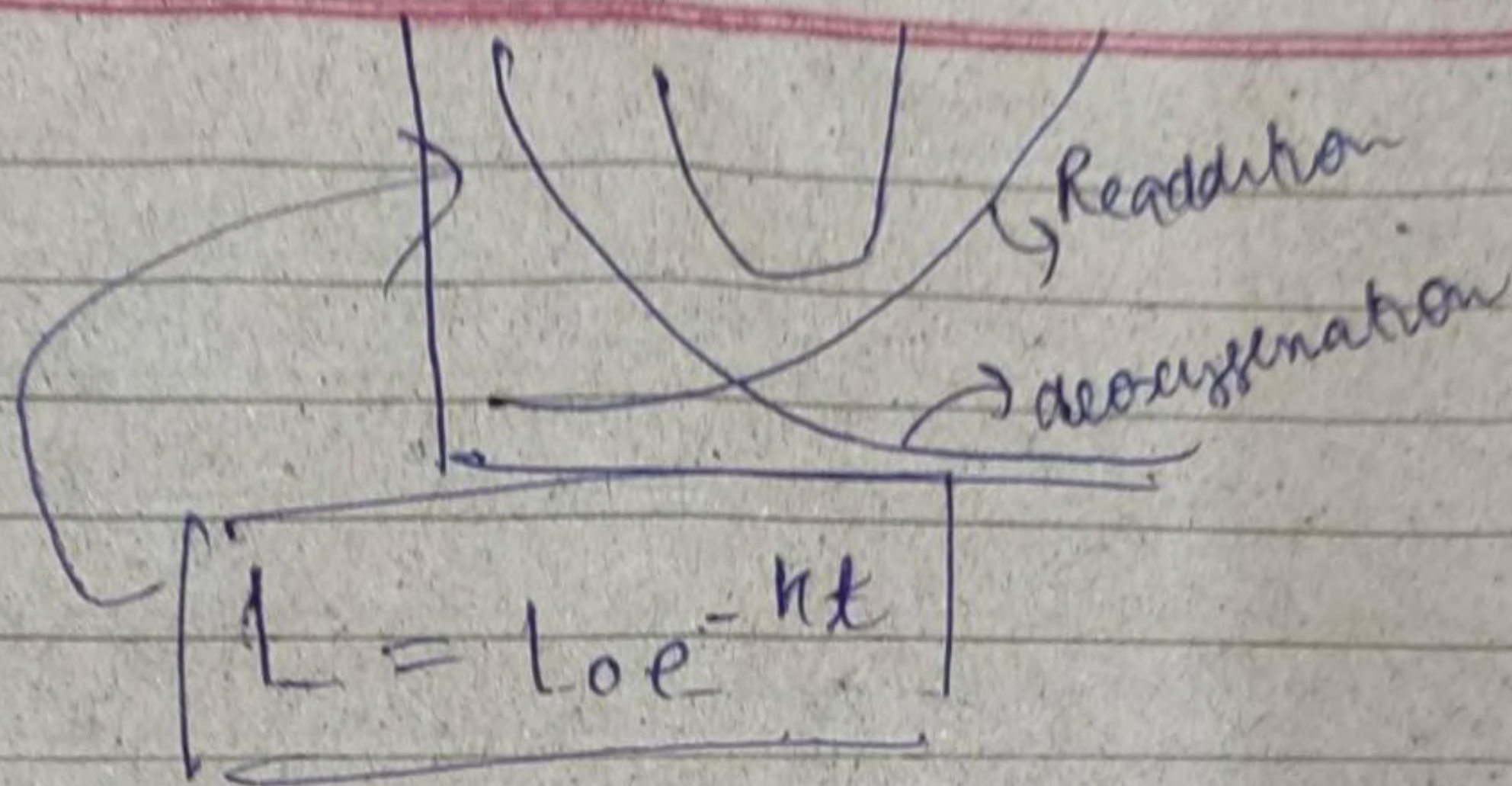


\* Steel & Phelps (1928)  
↳ Ohio lines

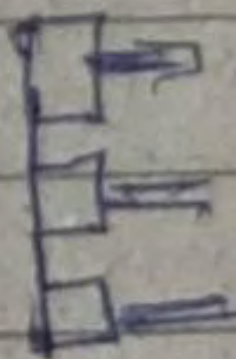


at 2 ft  
at 1 ft





Date.  $\Rightarrow$  9/11/22



Law



Date - 18/11/22

OE

(MPN/100ml sample)

# Water Bodies

+

# CPCB - Headquarters Delhi → (MOEF & CC)

+ State Dept.

+ \*\* Water Bodies in 5 classes :-

DO  
BOD

effect on water Bodies

1) Drinking water

	DBU	Class	Criteria
1)	Drinking water w/o Conventional source	A	$DO \geq 6$ and $BOD \leq 6$ . $MPN \leq 50$ . $6.5 \leq pH \leq 8.5$ .
2)	Organised outdoor	B	$DO \leq 5$ ; $BOD \leq 3$ $MPN \text{ per } 100\text{ml} < 500$ , $pH \text{ II}$
3)	Drinking water with Conventional source	C	$DO \geq 4$ ; $BOD \leq 5.5$ $MPN \leq 5000$ ; $6 < pH < 9$ .
4)	Wildlife propagation	D	$pH: 6.5 \text{ to } 8.5$ , $DO \geq 4$ $BOD \leq 2$ ; Ammonia $N \leq 0.2$
5)	Irrigation industry & controlled disposal of waste	E	$pH = 6 \text{ to } 8.5$ ; $EC = 2.25 \text{ micro moles/cm}$ . $SAR \leq 25$ ; $Boles \leq 2$ ↓ sodium absorption Ratio



(Classification of SWR Based on Designated Best Use Criteria)