

JANUARY

04

Friday

Week 01

December 2018

January 2019

Wk	S	M	T	W	T	F	S	Wk	S	M	T	W	T	F	S
49	30	31					1	01		1	2	3	4	5	
50	2	3	4	5	6	7	8	02	6	7	8	9	10	11	12
51	9	10	11	12	13	14	15	03	13	14	15	16	17	18	19
52	16	17	18	19	20	21	22	04	20	21	22	23	24	25	26
53	23	24	25	26	27	28	29	05	27	28	29	30	31		

Photosynthetic pigment →

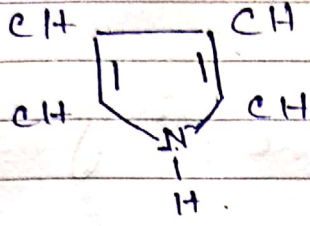
1) Chlorophyll → chl a, chl b, c, d, e

2) Carotenoids → Carotene & xanthophyll

3) Phycobillins → Phycocyanin & Phycorerythrin

Wk	S	M	T	W	T	F	S	Wk	S	M	T	W	T	F	S
05								06	3	4	5	6	7	8	9
06	6	7	8	9	10	11	12	07	10	11	12	13	14	15	16
07	13	14	15	16	17	18	19	08	17	18	19	20	21	22	23
08	16	17	18	19	20	21	22	09	24	25	26	27	28		
09	19	20	21	22	23	24	25								

Structure of chlorophyll



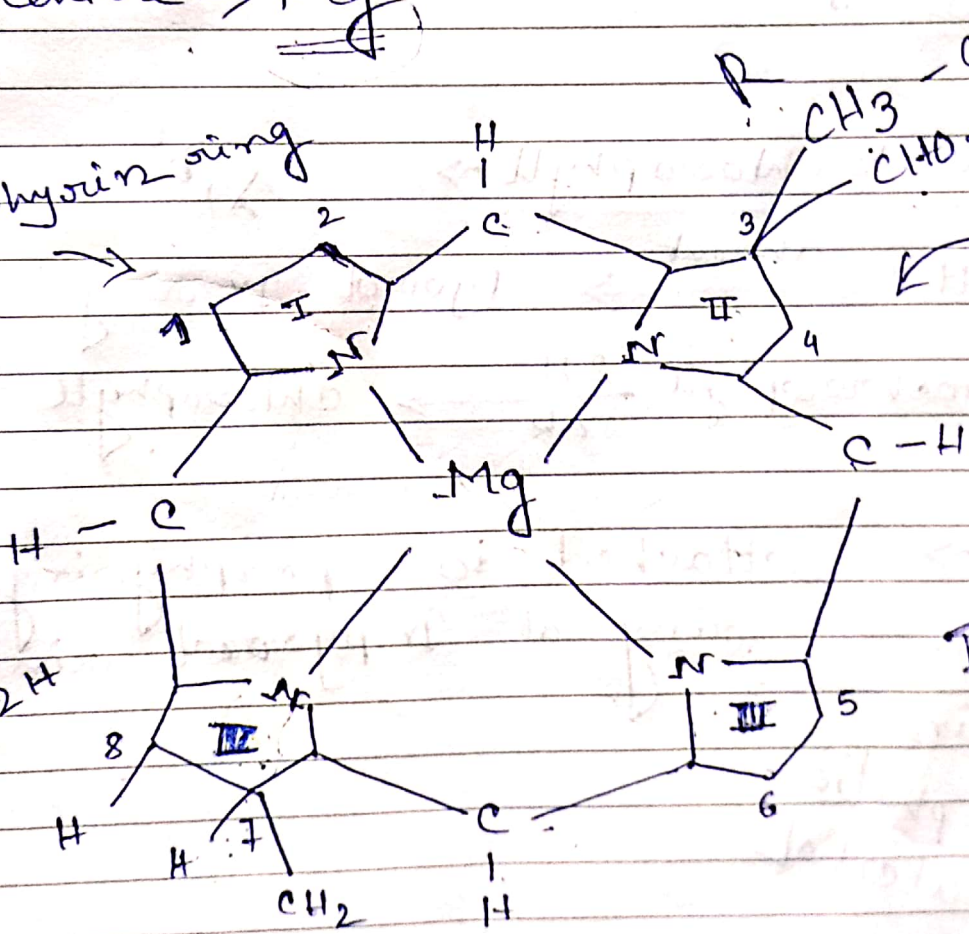
Pyrrole ring → 4

Centre → Mg

linked by e-H bridge

Porphyrin ring

Tetra pyrrole structure

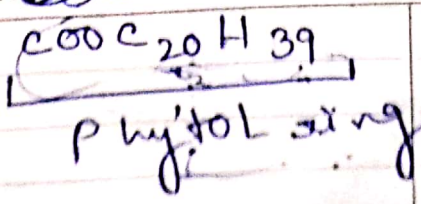


Sunday 06

III → cyclopentane ring

A good politician is quite as unthinkable as an honest burglar. - HL Mencken

Notes:



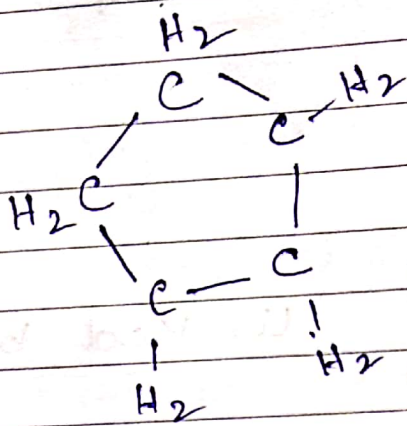
Appointment:

December 2018

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Monday



cyclopentane ring

* ~~Proto~~ Proto chlorophyll → $\Delta^1, 8^1$

2H $\xrightarrow{\text{absent}}$ Pycnol IV ring

Protochlorophyll $\xrightarrow[\text{ab}]{2H}$ chlorophyll

* Phytol → attached to porphyrin ring at IV pycnol ring

long chain aliphatic alcohol

A fanatic is someone who can't change his mind and won't change the subject. - Winston Churchill

Notes :	Appointment :

Wk	S	M	T	W	T	F	S	Wk	S	M	T	W	T	F	S
01			1	2	3	4	5	05						1	2
02	6	7	8	9	10	11	12	06	3	4	5	6	7	8	9
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* Phaeophytin →

Chlorophyll $\xrightarrow{\text{treat}}$ weak acid

Mg $\xrightarrow{\text{replaced}}$ H atom

↓ produce
Compound

Phaeophytin

* Phaeophorbide-a →

Chlorophyll $\xrightarrow{\text{treat}}$ Strong acid

↓ removes
Metal & Phytol

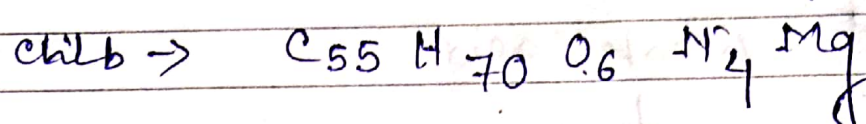
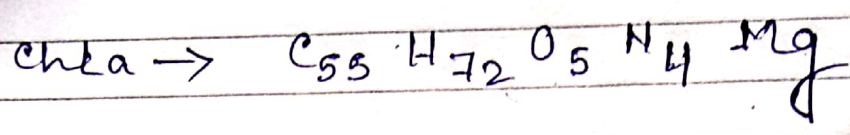
↓
Compound → Phaeophorbide-a

A leader is one who knows the way, goes the way and shows the way. - John Maxwell

Notes :

Appointment :

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chl a

chl b

Pyrrrol 118

Pyrrrol 118

\downarrow
C₃ atom

\downarrow
C₃ atom

\downarrow
CH₃ group

\downarrow
CHO group

2) 2H atom - Extra
10 atom \rightarrow less

2) 2H atom - less
10 atom \rightarrow extra

3) 430 - 662 nm

3) absorption spectrum
453 - 642 nm

4) Solubility
petroleum ether

4) methyl alcohol

A good plan implemented today is better than a perfect plan implemented tomorrow. - George Patton

Notes :

Appointment :

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* Antenna chlorophyll →

* Antenna chlorophyll → chl-a

chl-a. $\xrightarrow{\text{absorb photon}}$ directly takes part in photochemical reaction

* Accessory plant pigment → others pigment

↓
trapped photon

↓
supply chl-a

* Carotenoids → fat soluble

orange → β -carotene

yellow → xanthophyll

A smile is worth a million, but it doesn't cost a cent. - Henry C. Mobry

Notes :

Appointment :

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Functions → 1) Protect chl

2) Supply solar energy to chl

* Phycobilin → water soluble.

algae → Cyanophyta, Rhodophyta & Cryptophyta

Blue → Phycocyanin

red → Phycoerythrin

conjugate with protein

Phycobiliprotein

Phycocyanin → absorb 630 nm
Cyanophyta

Phycoerythrin → 500, 545, 570 nm
Rhodophyta

Be a first rate version of yourself, not a second rate version of someone else. - Judy Garland

Notes :

Function → Accessory pigment.

Appointment :

Dipanswita Pal
09/09/2020