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एसएससी CGL/CHSL/CPO SERIES

Good Evening

GS

Geo
Hist
Polity

Previous Year Questions - Science **With Detail Analysis** **(विज्ञान विषय के विगत वर्षों में आये प्रश्नों पर चर्चा)**

LIVE

6:30 PM





The scientist who explained about blood circulation for the first time was

जिस वैज्ञानिक ने पहली बार रक्त परिसंचरण के बारे में बताया था ^{1st living}

(1) Antonyvan Leewen Hock

~~(2) William Harvey~~

(3) Gregor Mendel

(4) Ronald Ross

Bacteriology





Heart → Pump / Pulsation
Cardiac
Imp =

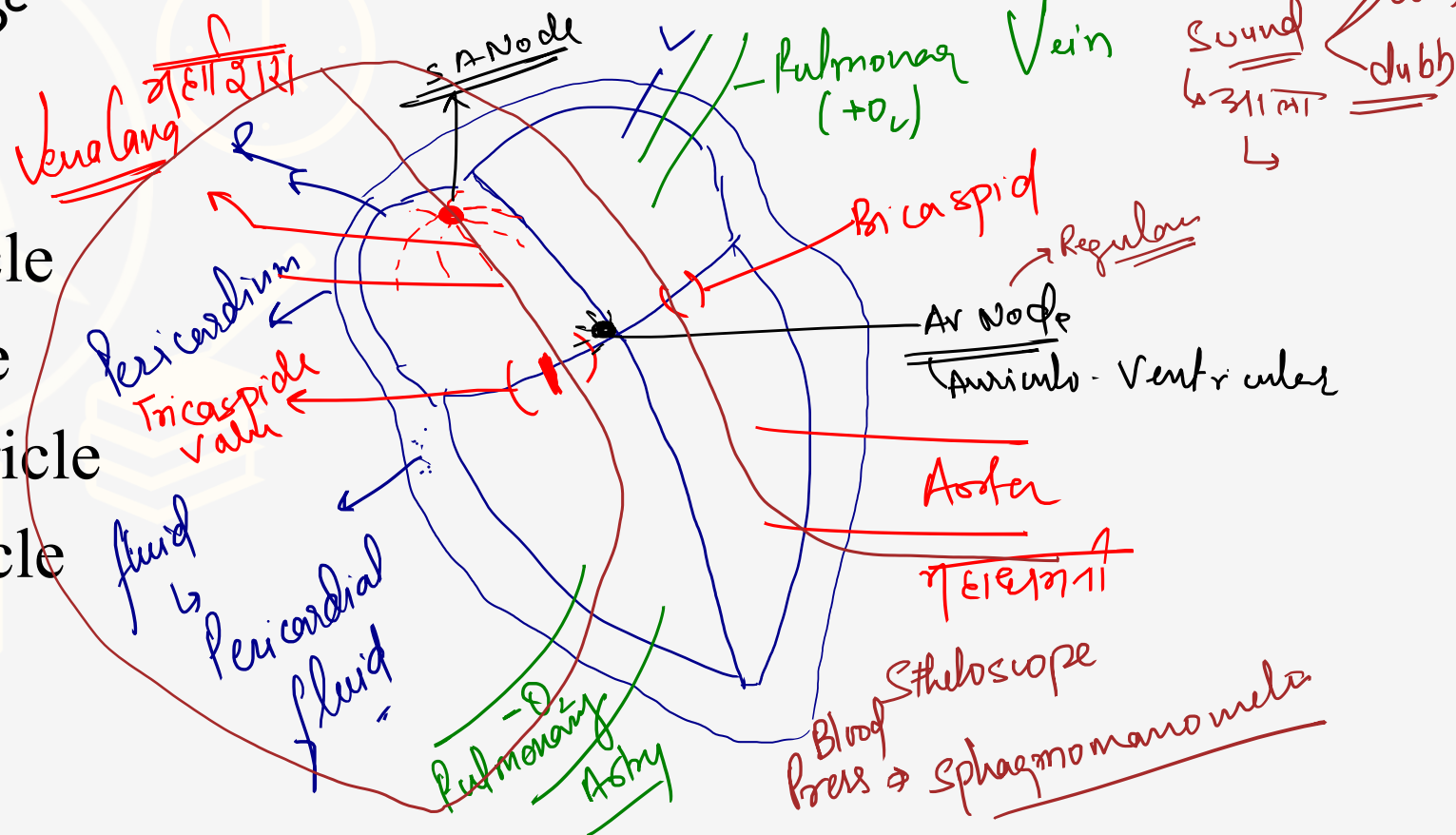
weight ⇒ Male = 250 - 340 gm
Female = 230 - 280 gm

Circular ⇒ Double
Sino Auricular

The natural Pacemaker in the Human Heart is located in the SA node which is present in which among the following chambers?

मानव हृदय में प्राकृतिक पेसमेकर एसए नोड में स्थित है जो निम्नलिखित कक्षों में मौजूद है?

- [A] Right Auricle
- [B] Left Auricle
- [C] Right Ventricle
- [D] Left Ventricle





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ET4267

wed →

10x

UPCOMING ONLINE BATCHES MAY 2021

📞 1800-103-5225

05 May 2021

08:00 AM to 10:00 AM
LIVE PREMIUM SILVER CARD
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03:00 PM to 05:00 PM
LIVE PREMIUM GREEN CARD
(IBPS PO & CLERK)

BILINGUAL

12 May 2021

01:00 PM to 03:00 PM
LIVE PREMIUM SILVER CARD
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05:30 PM to 07:30 PM
LIVE PREMIUM GREEN CARD
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BILINGUAL

19 May 2021

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BILINGUAL

26 May 2021

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(CGL & CHSL)

05:30 PM to 07:30 PM
LIVE PREMIUM SILVER CARD
(CGL & CHSL)

BILINGUAL

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LIVE PREMIUM GREEN CARD
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ENGLISH MEDIUM

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ENGLISH MEDIUM



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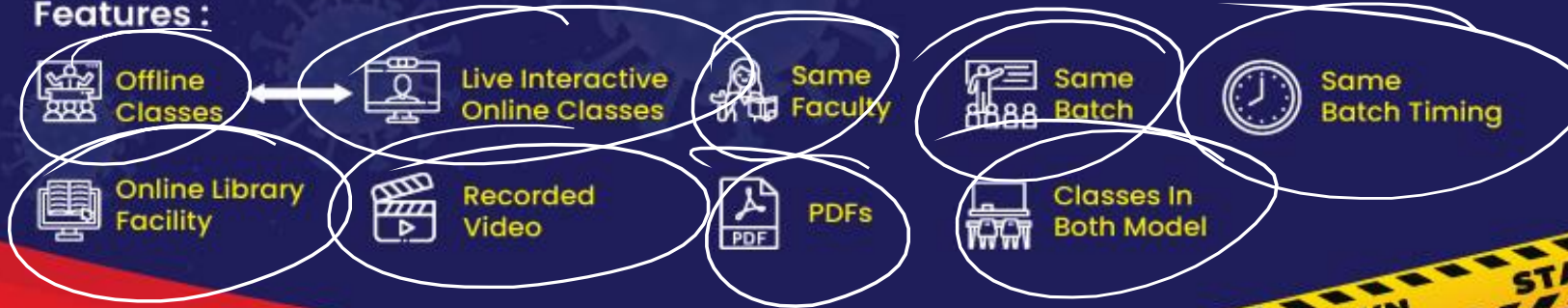
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What is the normal blood sugar level of a human being?

मनुष्य का सामान्य रक्त शर्करा स्तर कितना होता है?

Q2

Meaning of Blood Glucose Levels

Blood Glucose Levels (mg/dL)	Blood Glucose Levels (mmol/L)	Interpretation
< 53	< 3	Severe hypoglycemia
< 70	< 3.9	Hypoglycemia
< 125	< 7	Normal
< 200	< 10	High (Take action)
>200 - 500+	>10 - 27.7+	Metabolic Consequences (Take action)

Dr. Insulin



✓ "होमो सेपियन्स" शब्द का शाब्दिक अर्थ है

The literal meaning of the term "Homo Sapiens" is

(1) Man - The Wise

मनुष्य - बुद्धिमान

(2) Man - The Supreme

मनुष्य - सर्वोच्च

(3) Man The Omnivore

मैन द ओमनिवोर

(4) Man - The Fool

आदमी - मूर्ख

Kingdom:	Animalia
Phylum:	Chordata
Class:	Mammalia
Order:	Primates
Suborder:	Haplorhini
Infraorder:	Simiiformes
Family:	Hominidae
Subfamily:	Homininae
Tribe:	Hominini
Genus:	<u>Homo Linnaeus, 1758</u>



Homo sapiens, (Latin: “wise man”) the species to which all modern human beings belong. Homo sapiens is one of several species grouped into the genus Homo, but it is the only one that is not extinct.

होमो सेपियन्स, (लैटिन: “बुद्धिमान आदमी”) वह प्रजाति जिससे सभी आधुनिक मनुष्य संबंधित हैं। होमो सेपियन्स जीनस होमो में वर्गीकृत कई प्रजातियों में से एक है, लेकिन यह एकमात्र ऐसी प्रजाति है जो विलुप्त नहीं हुई है।

The name Homo sapiens was applied in 1758 by the father of modern biological classification, Carolus Linnaeus. It had long been known that human beings physically resemble the primates more closely than any other known living organisms, but at the time it was a daring act to classify human beings within the same framework used for the rest of nature.



#Chadler
Lamle

होमो सेपियन्स नाम 1758 में आधुनिक जैविक वर्गीकरण के जनक, कैरोलस लिनिअस द्वारा लागू किया गया था। यह लंबे समय से ज्ञात था कि मनुष्य शारीरिक रूप से किसी भी अन्य ज्ञात जीवित जीवों की तुलना में अधिक निकटता से मिलते-जुलते हैं, लेकिन उस समय मनुष्यों को उसी ढांचे के भीतर वर्गीकृत करने का एक साहसी कार्य था जो बाकी प्रकृति के लिए उपयोग किया जाता था।

Linnaeus, concerned exclusively with similarities in bodily structure, faced only the problem of distinguishing *H. sapiens* from apes (gorillas, chimpanzees, orangutans, and gibbons), which differ from humans in numerous bodily as well as cognitive features. (Charles Darwin's treatise on evolution, On the Origin of Species, would come 101 years later.)

लिनिअस, विशेष रूप से शारीरिक संरचना में समानता से संबंधित था, केवल एच। सेपियन्स को वानर (गोरिल्ला, चिंपैंजी, ऑरंगुटान और गिबन्स) से अलग करने की समस्या का सामना करना पड़ा, जो कई शारीरिक और साथ ही संज्ञानात्मक विशेषताओं में मनुष्यों से भिन्न होता है। (चार्ल्स डार्विन का विकास पर ग्रंथ, ऑन द ओरिजिन ऑफ स्पीशीज़, 101 साल बाद आएगा।)



Which one of the following is INCORRECT?

1. Veins are the vessels which carry carbon dioxide-rich blood from all parts of the body back to the heart
2. Pulmonary vein carries carbon dioxide-rich blood from the lungs to the heart
3. Dialysis, blood is filtered periodically through an artificial process, is for kidney failure
4. The major excretory product in humans is urea

निम्नलिखित में से कौन सा INCORRECT है?

1. नसें वे जहाज हैं जो शरीर के सभी हिस्सों से कार्बन डाइऑक्साइड युक्त रक्त को वापस हृदय तक ले जाते हैं
2. ~~फुफ्फुसीय शिरा फेफड़ों से हृदय तक कार्बन डाइऑक्साइड युक्त रक्त पहुंचाती है~~
3. डायलिसिस, एक कृत्रिम प्रक्रिया के माध्यम से रक्त को समय-समय पर फ़िल्टर किया जाता है, गुर्दे की विफलता के लिए है
4. मनुष्यों में प्रमुख उत्सर्जन उत्पाद यूरिया है

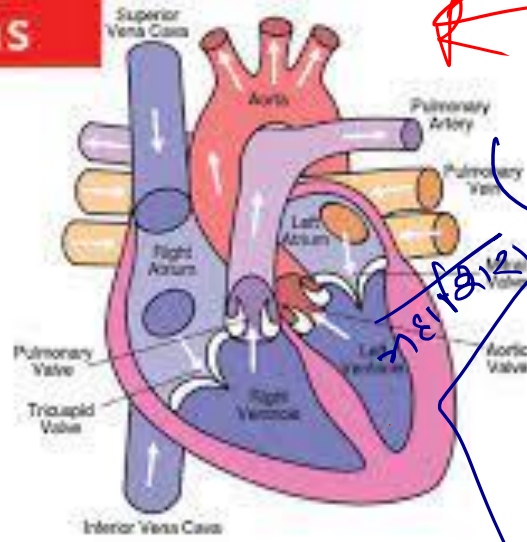
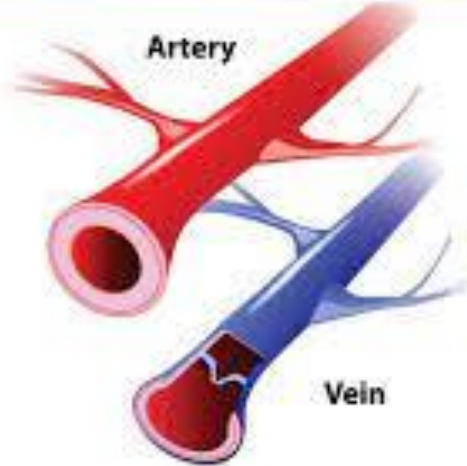


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दाहिने धमनी

Arteries vs Veins



Right pulmonary artery

Superior vena cava

Right pulmonary veins

Pulmonary trunk artery

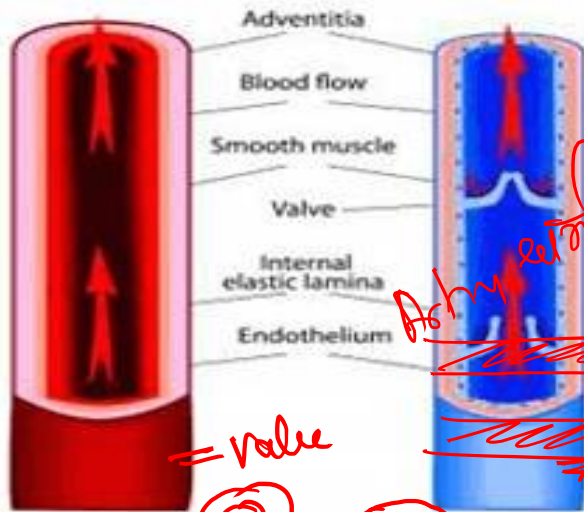
Inferior vena cava

Aorta

Left pulmonary artery

Left pulmonary veins

Descending aorta



Artery

Vein

= valve

value

BP

140/90

Nor.

Hyper

Hypo

H Bp

valve

Pulse Rate

70-100

72



~~The~~ The term 'gene' was coined by
'जीन' शब्द किसके द्वारा गढ़ा गया था?

(1) T. H. Morgan

(2) W. L. Johanssen

(3) G. Mendel

(4) De Vries

→ Genetics

↳ Pea = M.C.



Which of the following is a correct description of tissue culture?

निम्नलिखित में से कौन ऊतक संवर्धन का सही विवरण है?

- (1) Conservation of forests and plantation
- (2) Growth and propagation of horticultural crops
- ← (3) Science of cultivating animal tissue in an artificial medium

(4) Protection of wild animals

- (1) वनों का संरक्षण और वृक्षारोपण
- (2) बागवानी फसलों की वृद्धि और प्रसार
- (3) कृत्रिम माध्यम में पशु ऊतक की खेती का विज्ञान
- (4) जंगली जानवरों का संरक्षण

Imp

Stem cell



Cell → Tissue → Organ → Organ Syst
कोशिका → ऊतक → अंग → अंग संयुक्त

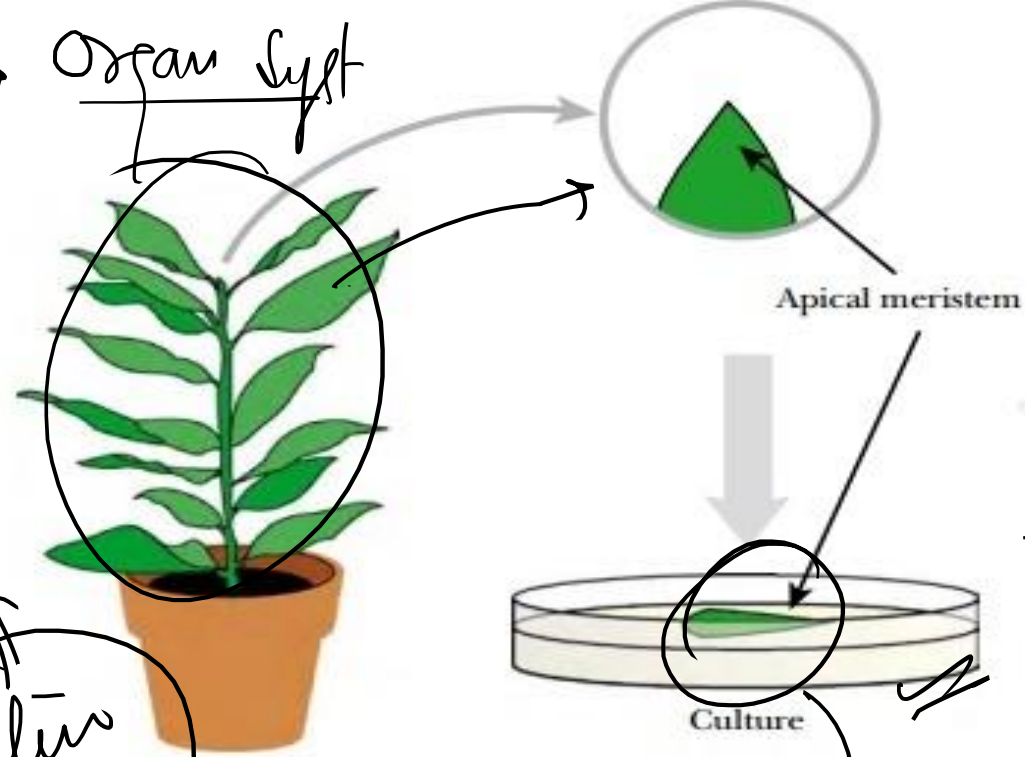
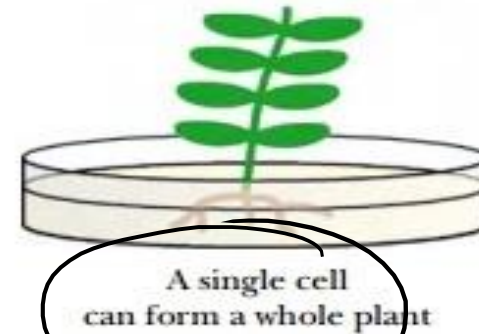


FIGURE 14.2 An Entire Plant Can Be Regenerated from a Single Cell

Small samples of tissue, or even single plant cells may be cultured *in vitro*. Under appropriate conditions, these may regenerate into complete plants.

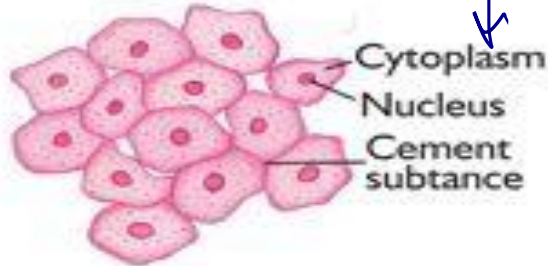
Agriculture
Pise
Api



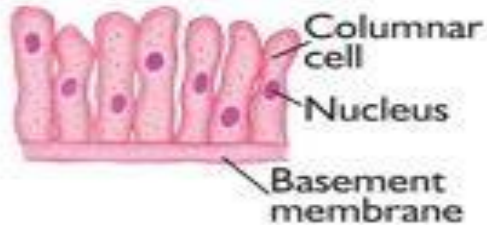
ANIMAL TISSUES

EPITHELIAL

Squamous



Columnar



Stratified Squamous



Glandular



Cuboidal



Ciliated



MUSCULAR

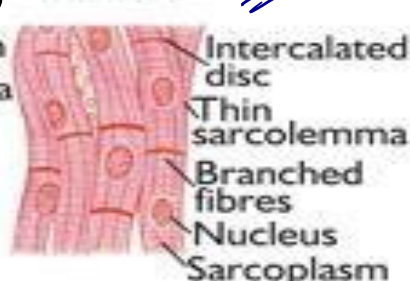
Striated



Unstriated (smooth)



Cardiac



cartilage:

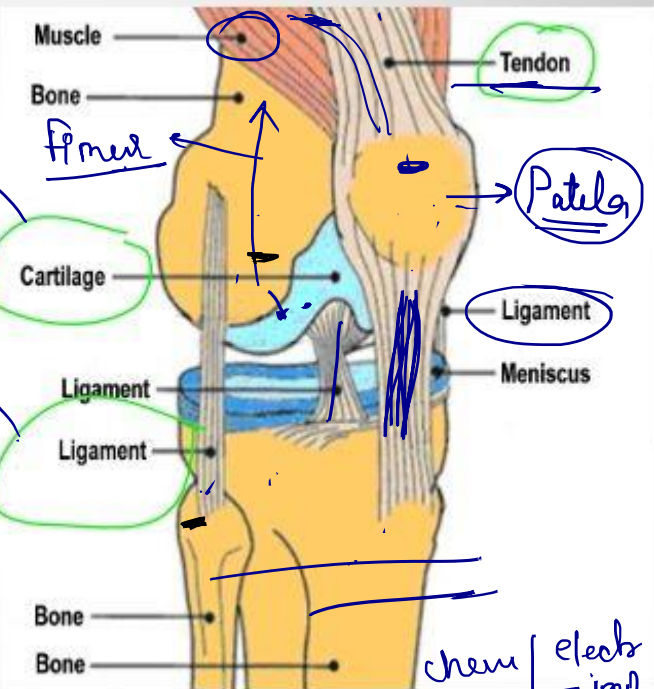
cushion between joints; not as rigid as bone, not as flexible as muscle

ligaments:

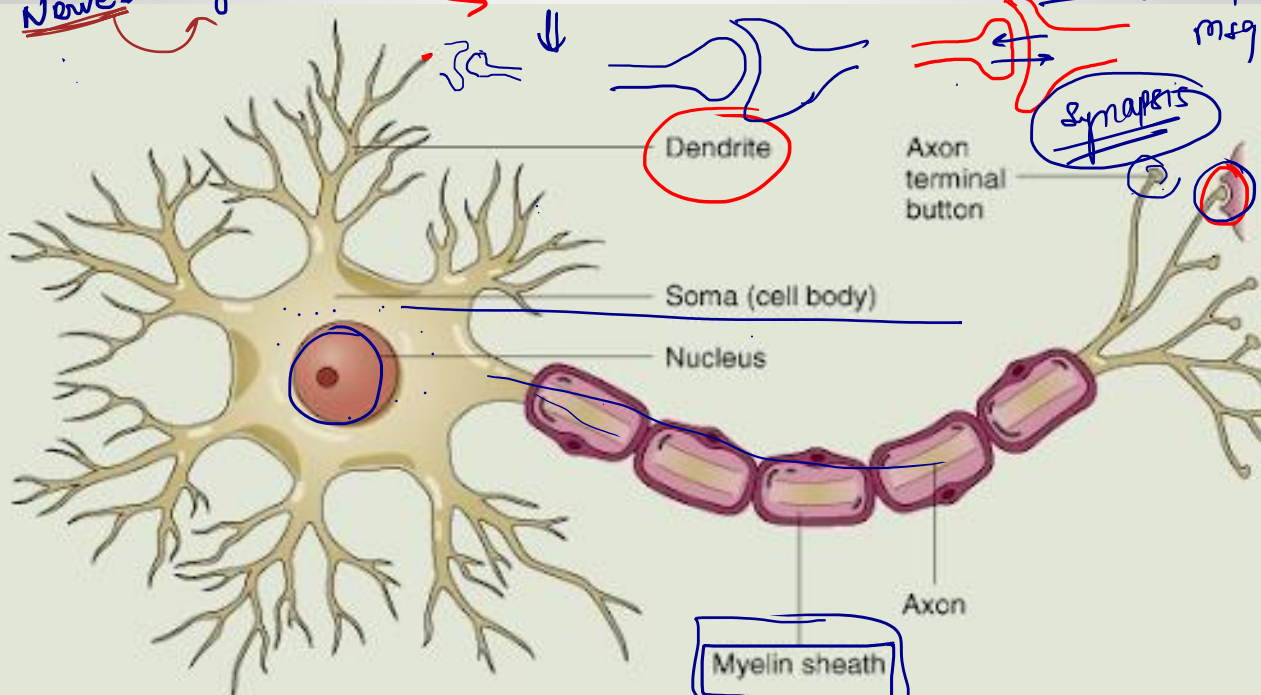
connect bones to bones

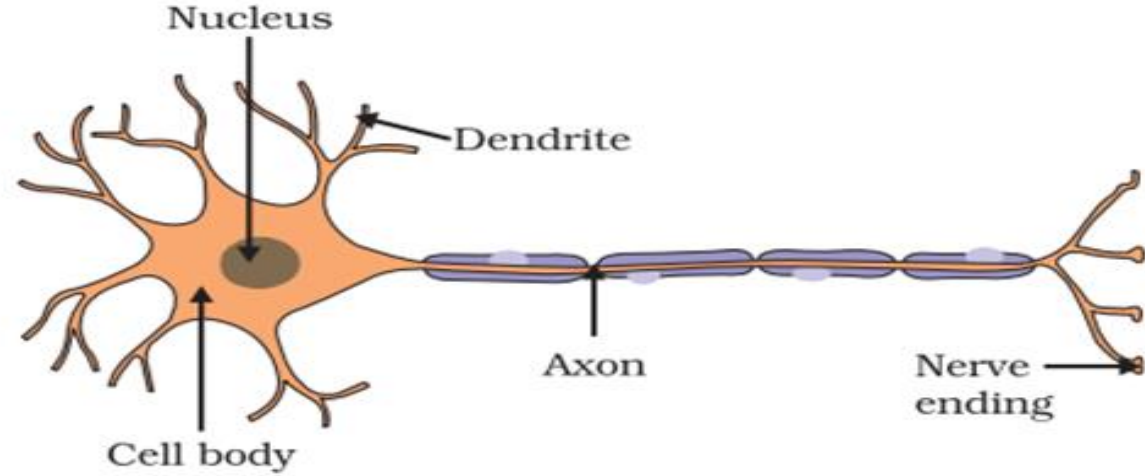
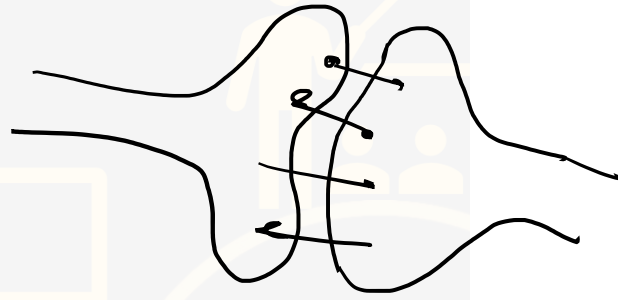
tendons:

connect muscle to bone

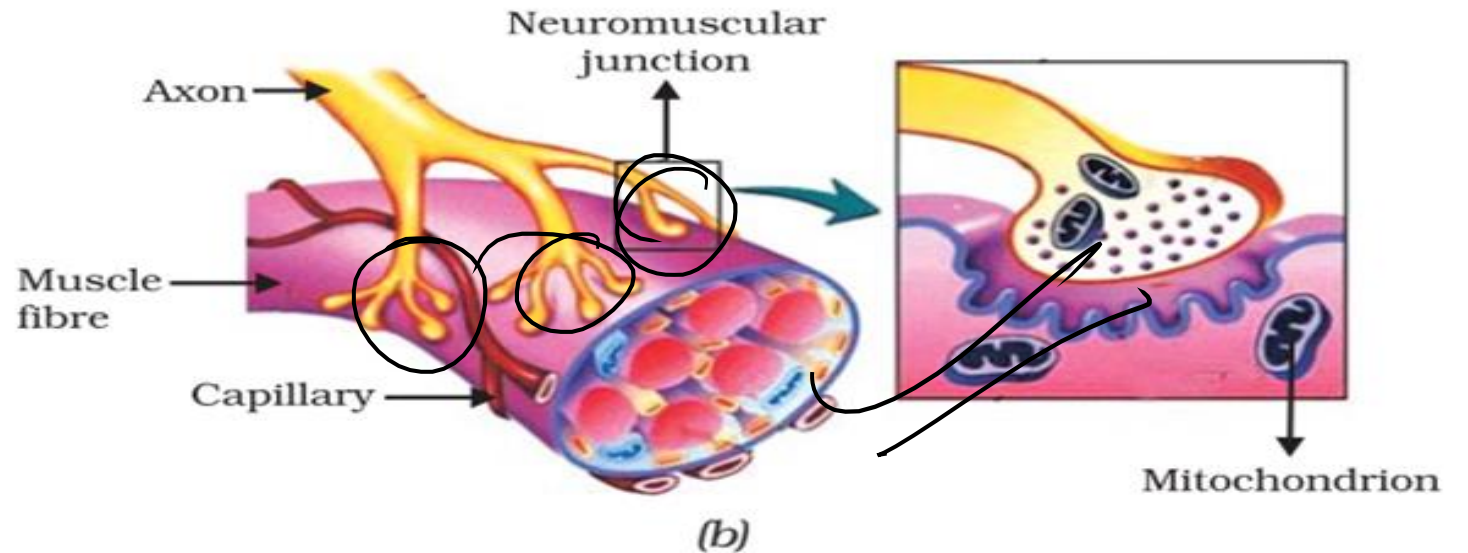


no divide = Centriole x
Nerve = longest cell





(a)

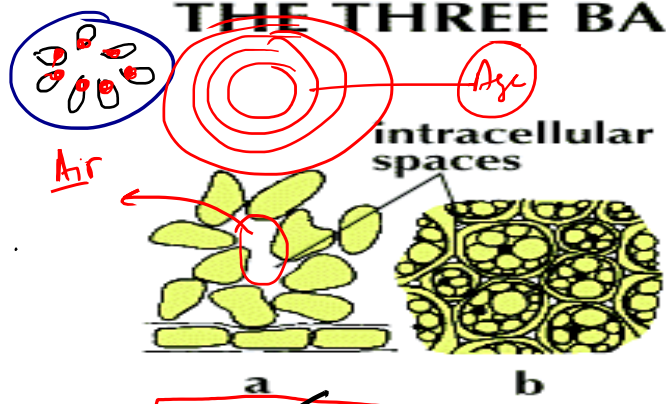
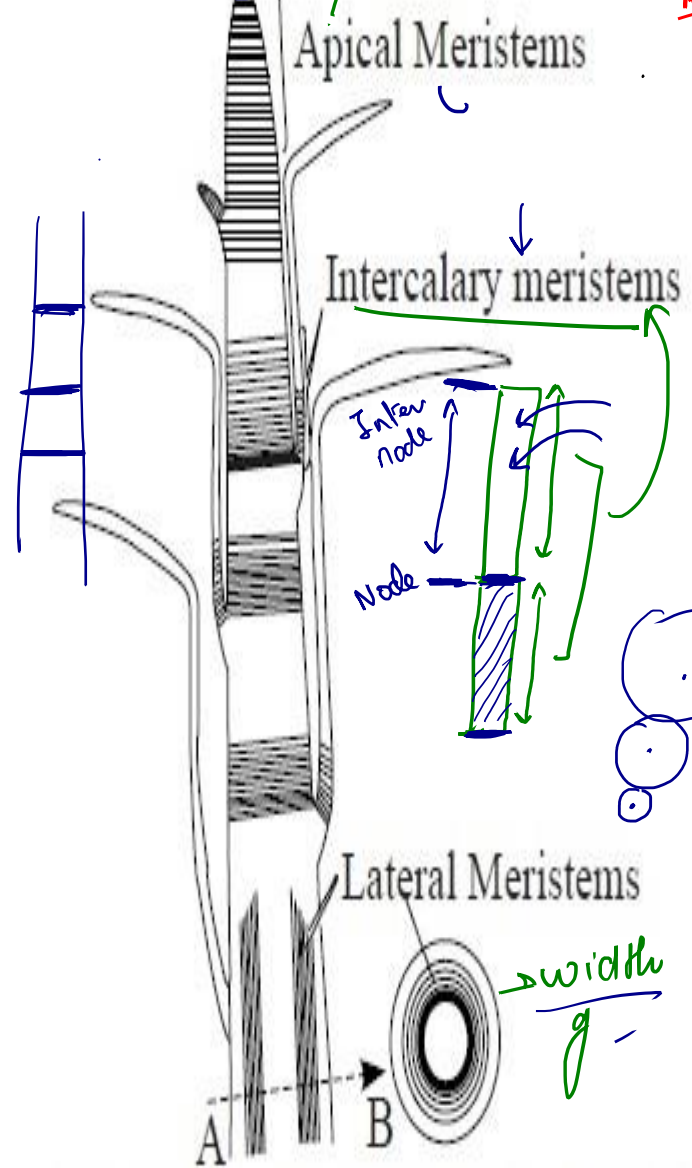


(b)

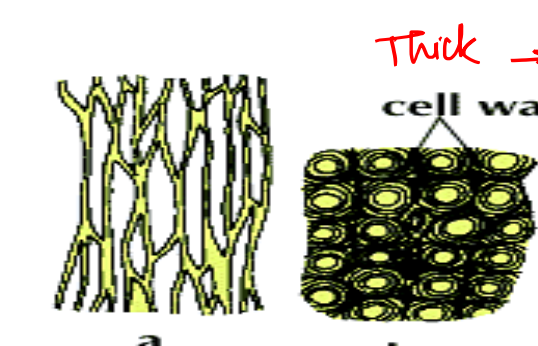
Figure 7.1 (a) Structure of neuron, (b) Neuromuscular junction

THE THREE BASIC TYPES OF PLANT TISSUE

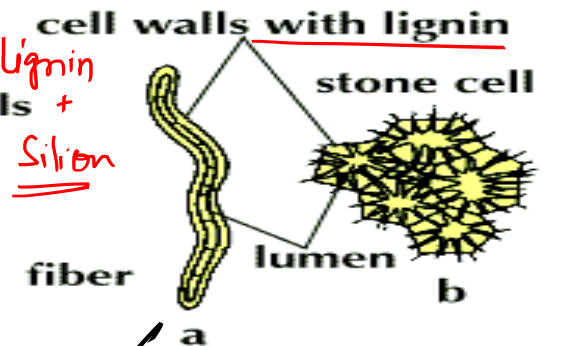
Growth $\begin{cases} 1^\circ \rightarrow \text{Meristem} \\ 2^\circ \rightarrow \text{Vascular tissue} \end{cases}$



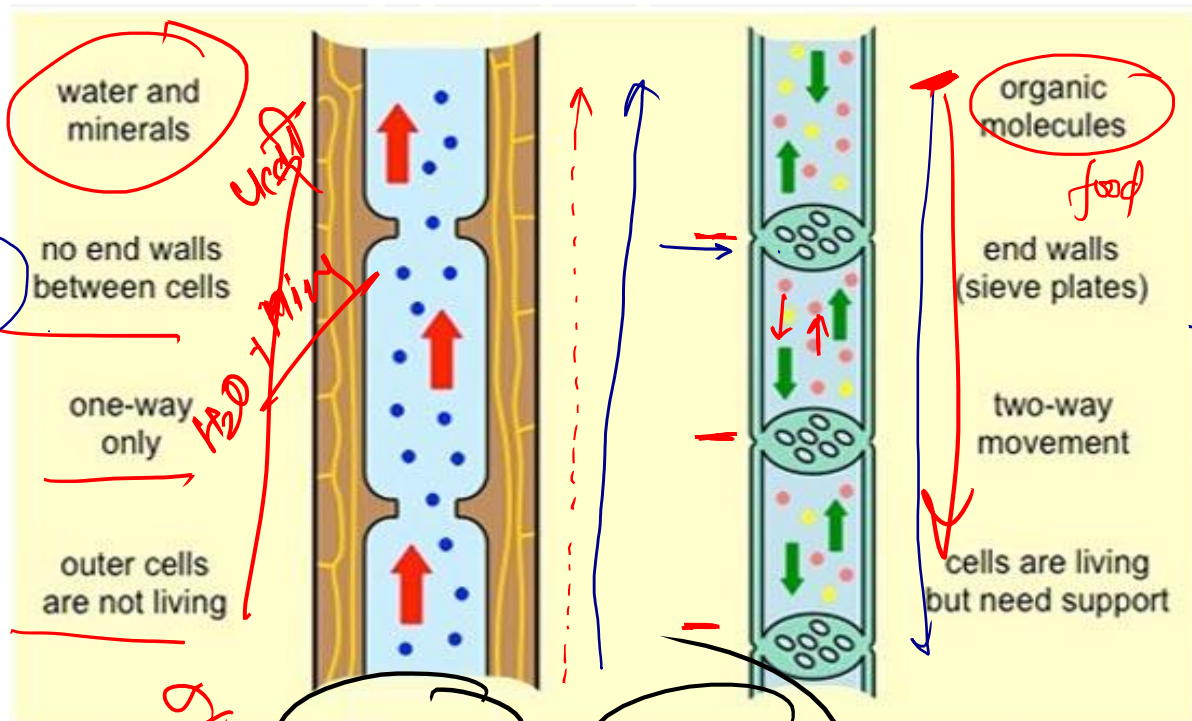
Parenchyma Tissue
a lengthwise
b cross section



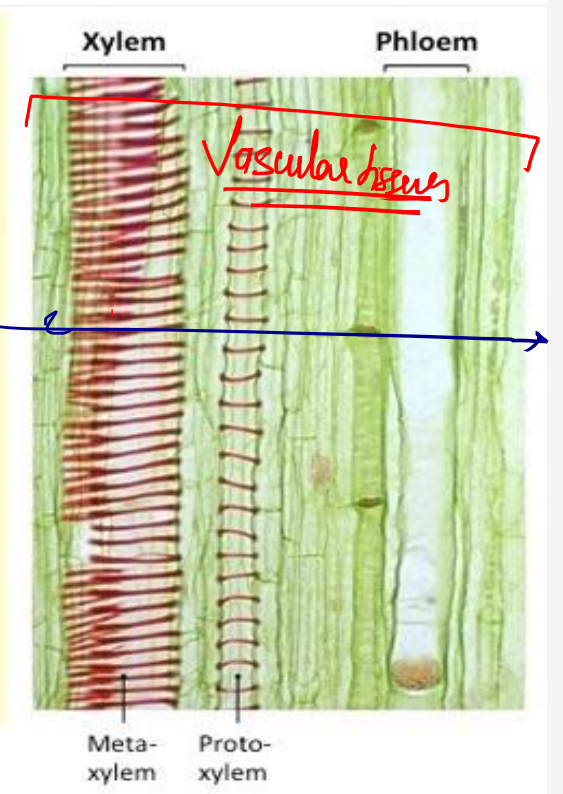
Collenchyma Tissue



Sclerenchyma Tissue
Bark



Xylem **Phloem**

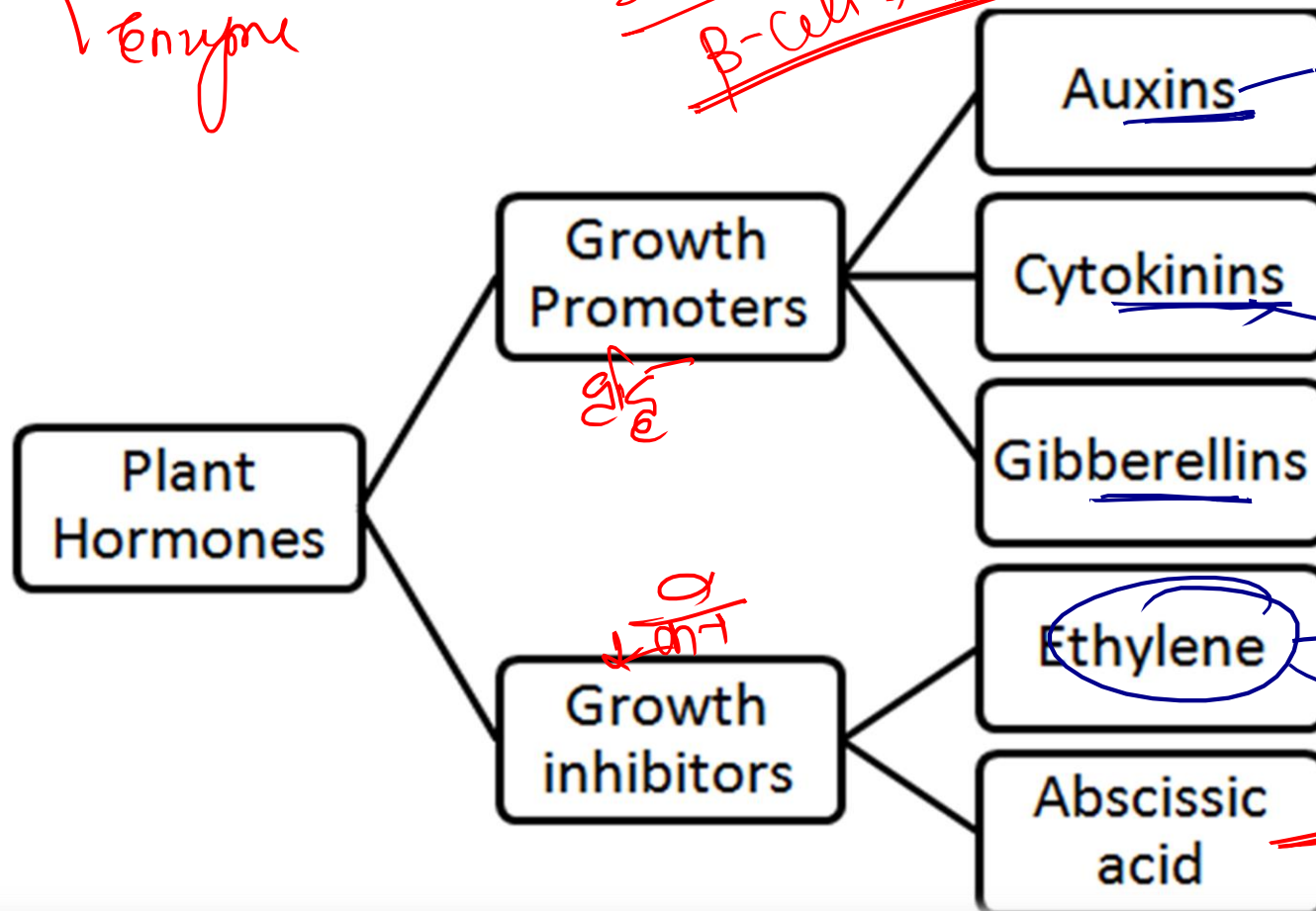


Meta-xylem Proto-xylem



Which of the following is a plant hormone?

निम्नलिखित में से कौन एक पौधे का हार्मोन है?



Imp

Q3 = Diff Hormons Enzyme

Insulin P-Cell → Pancreas

Human

Thyroid

Pancreas / अग्न्याशय

Insulin

Thyroxine

Oestrogen

Cytokinin

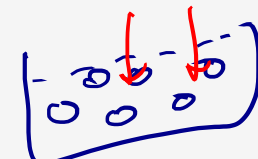
Apical growth

Call

Nodule

Internode

Ripen



Ripen

?



Who discovered Neutrons?

न्यूट्रॉन की खोज किसने की थी?

Chadwick

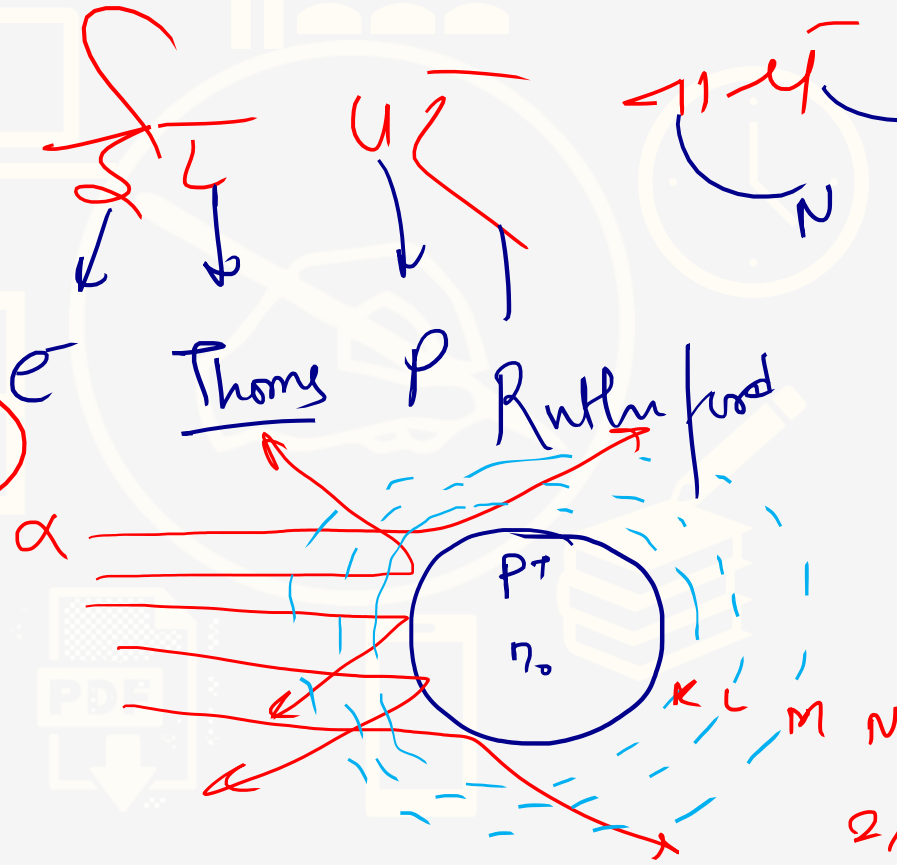
α -canal

Cathode e^-

Canal $+P$

α -Ray

He
 $2p^+$



A. James Chadwick.

B. J.J. Thomson

$e^- \rightarrow -1 \rightarrow 9.1 \times 10^{-31}$ C. Rutherford

$p \rightarrow +1 \rightarrow 1.67 \times 10^{-27}$ D. Goldstein

$n \rightarrow$ Neutron $\rightarrow 1.67 \times 10^{-27}$

2, 8, 18, 32

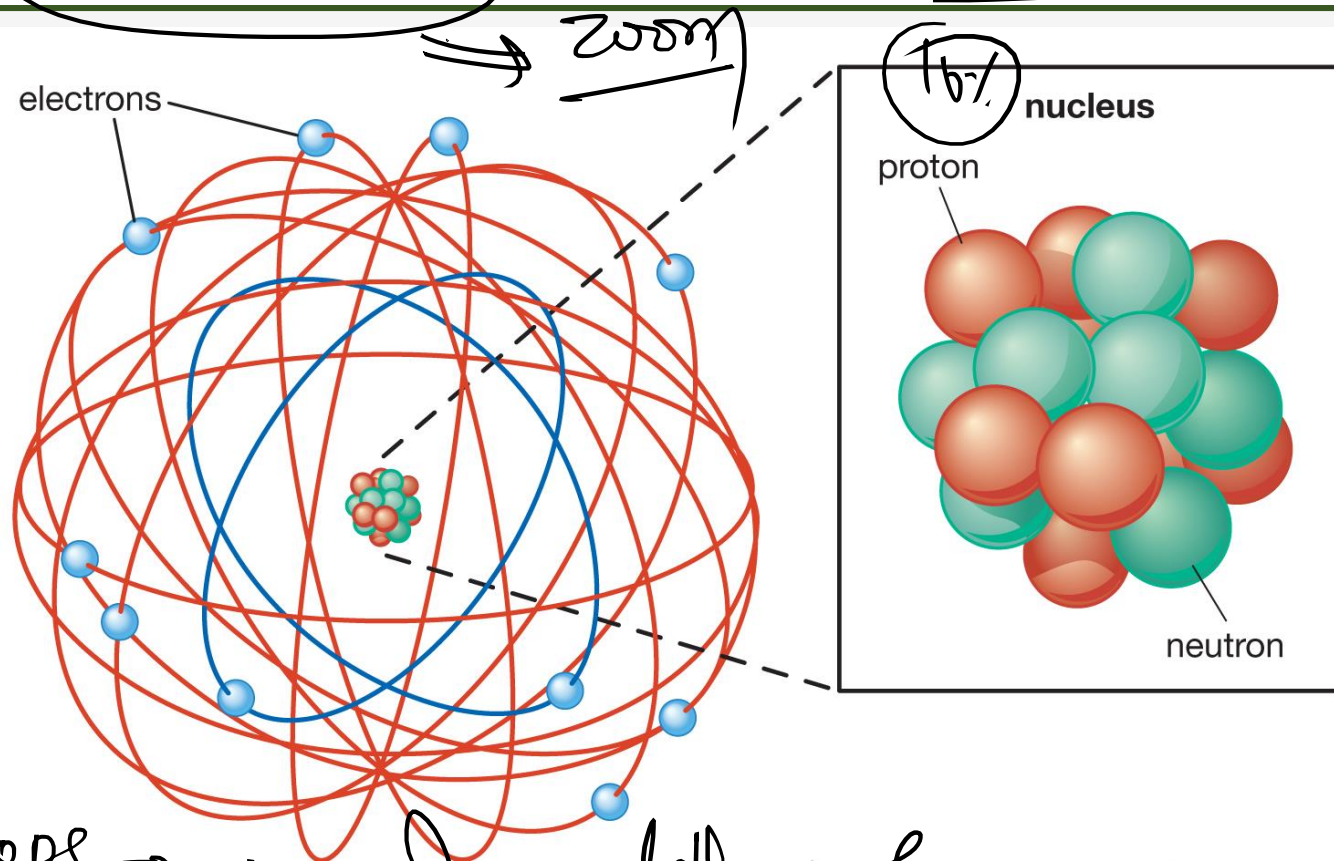
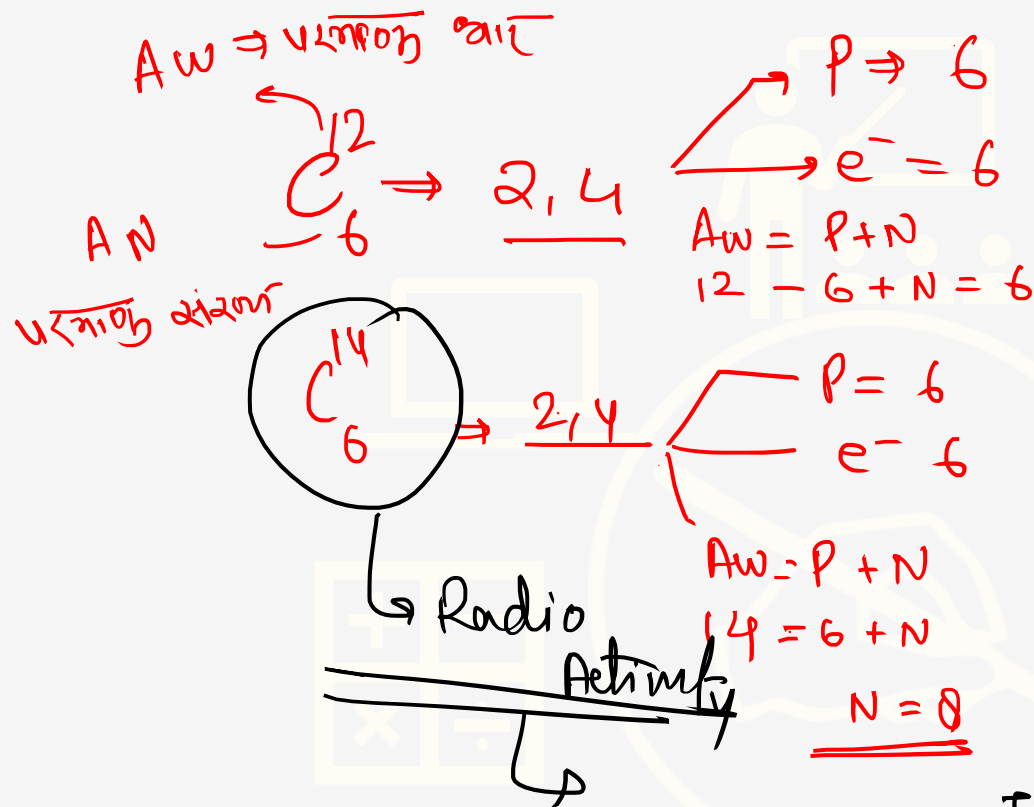
Na₁₁ $\xrightarrow{\text{electron}} 2, 8, 1$
 $\xrightarrow{\text{ion}} \text{Na}^+$

Valence



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Isotopes \Rightarrow अनुरूपता diff = ex

Isobars = अनुरूपता diff = ex

$(TQ) \rightarrow$

GA - Mah @
 GS - Mah @

GA us with Sanjay Sir