



SSC GK

PYQs Class Notes

PART-2

Parmar Sir

Lecture:- 13

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1.

Which part of human brain is responsible for walking in straight line?

मानव मस्तिष्क का कौन सा भाग सीधी रेखा में चलने के लिए उत्तरदायी है?



Brain -

1. Medulla
2. Cerebrum
3. Pons
4. Cerebellum

FOREBRAIN

Ventricles

MIDBRAIN

Cerebrum

Corpus callosum

Thalamus

Hypothalamus

Pituitary gland

Pons

Cerebellum

HINDBRAIN

Medulla

Brain stem

Brain is divided into 3 parts -

Fore Brain -

- **Cerebrum** - Responsible for thinking, intelligence, consciousness and memory.
- **Thalamus** - Controls sensory and motor signals (such as Pain), as well as regulation of consciousness and alertness.
- **HypoThalamus** - Regulates Body temperature. Heart rate. Hunger. Mood.

Mid Brain -

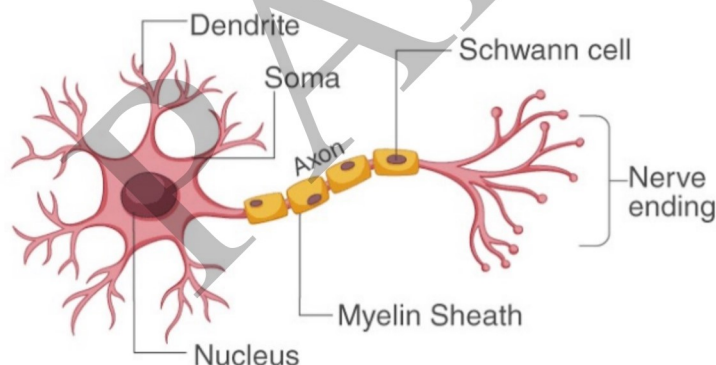
- Controls Involuntary Movements.
- Centre for visual and auditory reflexes.
- Regulates Eye movement and Pupil dilation.

Hind Brain -

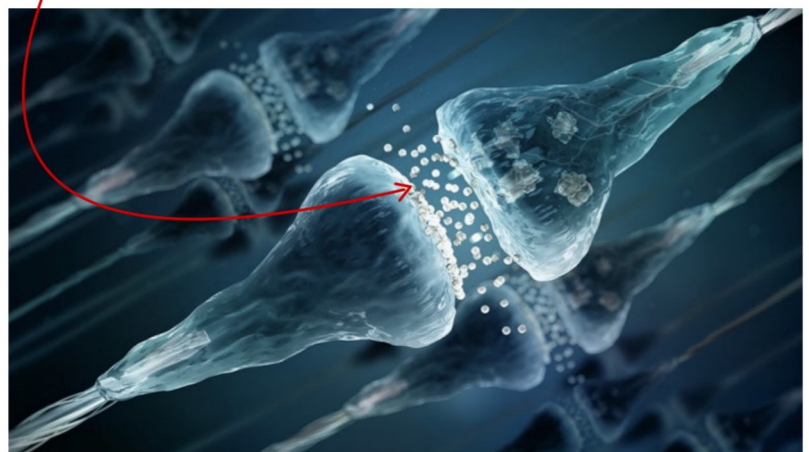
- **Cerebellum** - Coordination of movements, Posture and Balance.
- **Pons** - Links Brain to Spinal Cord.
- **Medulla** - Deals with the autonomic functions of breathing, heart rate, blood pressure, and sleep-wake cycle.

Functional Unit of Brain - **Neuron**.

Neuron Structure -



Synapses - Gap between Nerve Ending of One Neuron and Dendrite of other Neuron.



2.

The Indira Sagar Dam is built over river Narmada in which of the following states of India?

इंदिरा सागर बांध भारत के निम्नलिखित में से किस राज्य में नर्मदा नदी पर बनाया गया है?

1. Karnataka
2. Gujarat
3. Madhya Pradesh ✓
4. Kerala

Narmada River - Flows in Rift Valley.
Flows between Vindhya and Satpura.
Originates from Amarkantak Plateau.

Important Dams -

Highest Dam - **Tehri Dam** - Bhagirathi River.
Largest Dam - **Bhakra Nangal Dam** - Sutlej River.
Longest Dam - **Hirakud Dam** - Mahanadi.

Sardar Sarovar Dam - Narmada River (Gujarat).
Ukai Dam - Tapi River (Gujarat).
Nagarjuna Sagar Dam - Krishna River (Andhra Pradesh & Telangana).
Amatti Dam - Krishna River (Karnataka).
Mettur Dam - Kaveri River (Tamil Nadu).
Maithon Dam - Barakar River (Jharkhand).
Panchet Dam - Damodar River (Jharkhand & West Bengal).

3.

The total pressure of a mixture of ideal gases is the sum of partial pressures. This is _____ law of partial pressures.

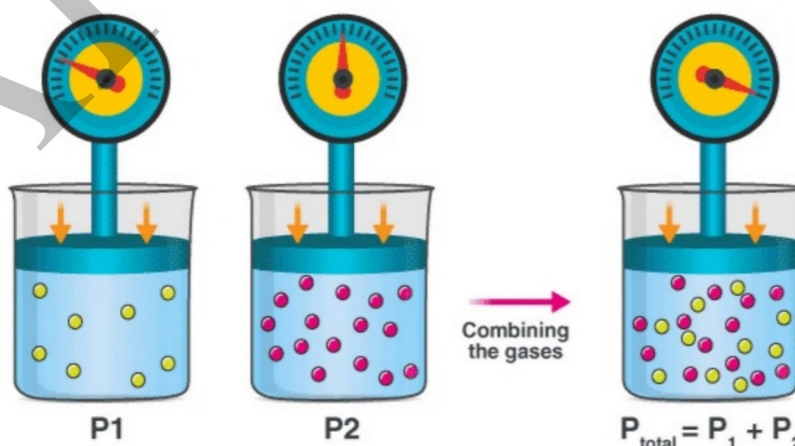
आदर्श गैसों के मिश्रण का कुल दबाव आंशिक दबावों का योग होता है। यह आंशिक दबाव का _____ नियम है।

1. Dalton's ✓
2. Boyles'
3. Charles'
4. Avogadro's

Dalton's Law of Partial Pressure (1802) - the total pressure by a mixture of gases is equal to the sum of the partial pressures of each of the constituent gases.

Formula -
Dalton's Law

$$P_{\text{mix}} = \sum_{i=1}^k P_i = P_1 + P_2 + P_3 + \dots + P_k$$

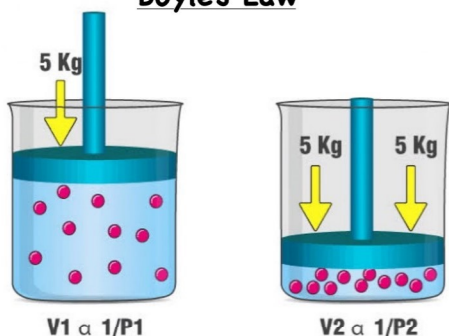


Dalton's Law of Partial Pressures

Boyle's Law (1662) - a gas's pressure and volume are inversely proportional.

Formula - $PV = \text{Constant}$

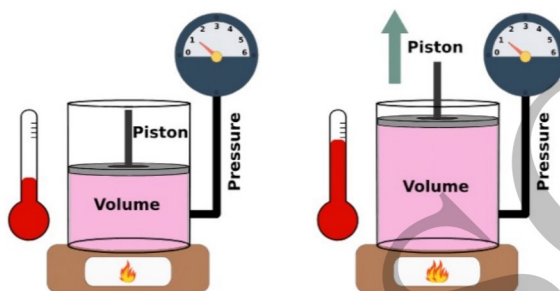
Boyle's Law



Charles's Law - the volume of a given mass of gas varies directly with the absolute temperature of the gas when pressure is kept constant.

Formula - $V \propto T$

Charles's Law



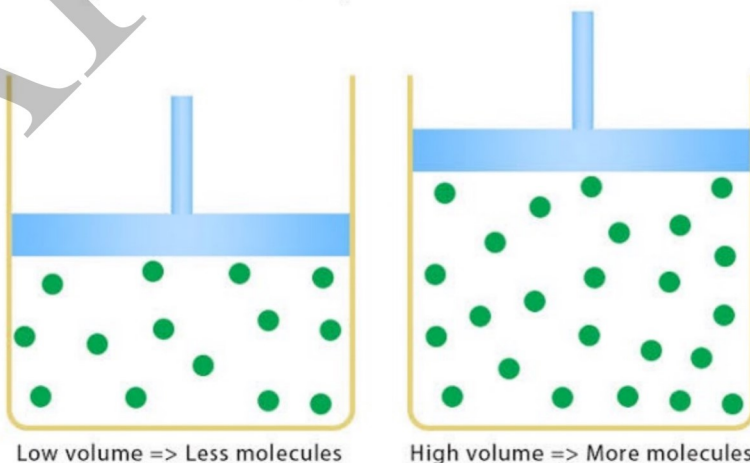
Gay Lussac's Law (1809) - (also known as **Law of combining volumes of gases**) the pressure of a given mass of gas varies directly with the absolute temperature of the gas, when the volume is kept constant.

Avogadro's Law - Under the same conditions of temperature and pressure, equal volumes of different gases contain an equal number of molecules.

Formula -
$$\frac{V_1}{n_1} = \frac{V_2}{n_2}$$

Avogadro's Law

At constant temperature and pressure, equal volumes of all gases contain an equal number of molecules



4.

Which of the following statements is NOT correct regarding laterite soil?

लैटेराइट मिट्टी के संबंध में निम्नलिखित में से कौन सा कथन सही नहीं है?

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Red laterite soils in Tamil Nadu, Andhra Pradesh and Kerala are more suitable for crops like cashew nut. 2. They are generally rich in humus. ✓ 3. This soil is very useful for growing tea and coffee. 4. The laterite soil develops in areas with high temperature and heavy rainfall. | <ol style="list-style-type: none"> 1. तमिलनाडु, आंध्र प्रदेश और केरल में लाल लेटेराइट मिट्टी काजू जैसी फसलों के लिए अधिक उपयुक्त है। 2. वे आम तौर पर ह्यूमस से भरपूर होते हैं। 3. यह मिट्टी चाय और कॉफ़ी उगाने के लिए बहुत उपयोगी है। 4. लैटेराइट मिट्टी उच्च तापमान और भारी वर्षा वाले क्षेत्रों में विकसित होती है। |
|--|---|

Soil -

Study of soil - **Pedology**

Alluvial Soil - is the most common type of soil found in India.

- Alluvial soil is rich in Potash and poor in Phosphorous.
- New Alluvial Soil - **Khadar**.
- Old Alluvial Soil - **Bhangar**.

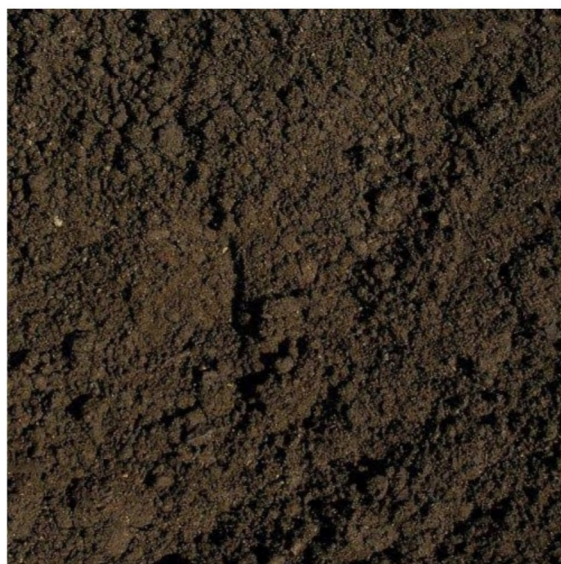
Alluvial Soil



Black Soil - Also Known as **Regur**.

- Good for cotton farming.
- Self Ploughing characteristics. (it can retain or absorb water and gets swelled up in presence of moisture).

Black Soil



Cotton is one of the crops that need 210 frost-free days and sunshine to grow properly.

Red and Yellow Soil – Also known as soil of omnibus group.

- Are found in Piedmont Zone of Western ghats.
- Found in area with low rainfall.
- Red soil becomes Yellow when hydrated.
- It's red due to presence of Iron Oxide.

Red Soil



Laterite Soil – Leaching is a characteristic of this type of Soil.

- Found in high rainfall areas.
- It's made out of decomposition.

Laterite Soil



Indian Soils lack Nitrogen and Humus (Amorphous Substance).

6.

Which among the following articles of the Indian constitution deals with the right to equality of opportunity in the matters of public employment?

भारतीय संविधान का निम्नलिखित में से कौन सा अनुच्छेद सार्वजनिक रोजगार के मामलों में अवसर की समानता के अधिकार से संबंधित है?

1. 17

Article 14

Equality before law and equal protection of law

2. 18

Article 15

Prohibition of discrimination on grounds only of religion, race, caste, sex or place of birth

3. 15

Article 16

Equality of opportunity in matters of public employment

4. 16 ✓

Article 17

Prohibition of untouchability

Article 18

Abolition of titles, Military and academic distinctions are, however, exempted

Mandal Commission (1979) – Increased the political representation of OBCs. And provided 27% Reservation.

Indra Sawhney (1992) – Related to Mandal Commission.

Which among the following is Asia's largest freshwater oxbow lake?

7.

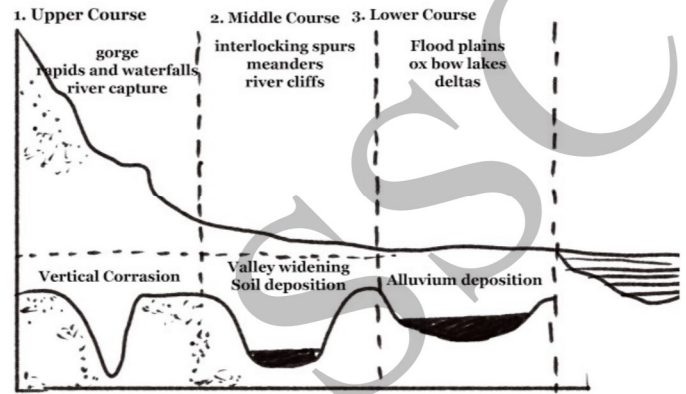
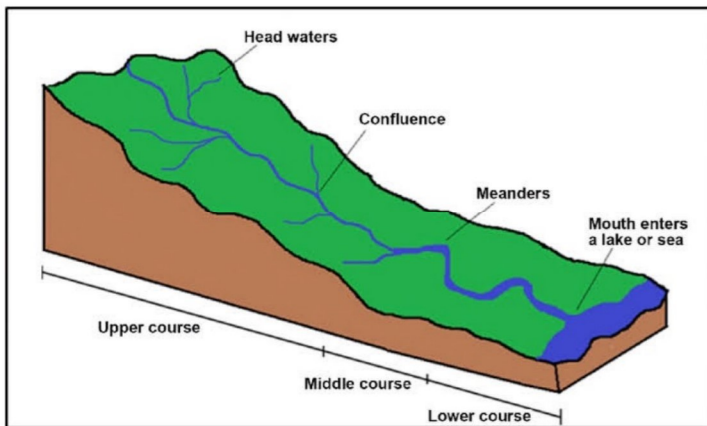
निम्नलिखित में से कौन एशिया की सबसे बड़ी मीठे पानी की ऑक्सबो झील है?



Largest Lake in Asia.

1. Wular
2. Kanwar
3. Bhojtal
4. Nakki

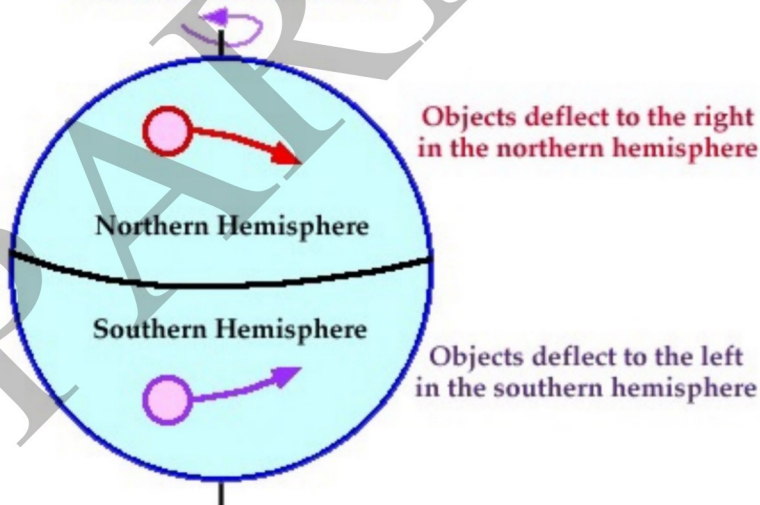
Oxbow Lakes In India are generated by river bends that are U-shaped or curved and cut off from the main river flow. In addition, it goes by the names cutoff lake, loop lake, and horseshoe lake. These are the bodies of water that form when a river portion diverges from its main channel.



The graded long profile and typical cross section of a river from source to mouth

Coriolis force - Applies to movement on rotating objects. The Earth spins on its axis from west to east. The Coriolis force, therefore, acts in a north-south direction.

Due to the earth's rotation



Loktak - Floating Lake (Manipur).

Lonar Lake - Crater lake (Maharashtra).

Flute instruments comes under which type of instrument category?

8.

बांसुरी वाद्ययंत्र किस प्रकार के वाद्ययंत्र श्रेणी में आते हैं?



1. Ghana Vadya

2. Sushira Vadya ✓

3. Avanaddha Vadya

4. Tata Vadya

Tantu - Stringed Musical Instruments (Veena, Tanpura and Sarangi).

Sushira - Hollow Musical Instruments (Flute, Shankh, Shehnai).

Ghana - Solid Musical Instruments (Ghatam).

Avadha - covered Musical Instruments (Dholak, Tabla).

Surat is also known as _____ of India.

10.

सूरत को भारत का _____ भी कहा जाता है।

1. Diamond city ✓

2. Blue city

3. Pink City

4. City of Lakes

Pink city - **Jaipur**

Blue City - **Jodhpur**

City of Lakes - **Udaipur**

Manchester of India - **Ahmedabad**

Venice of East - **Alappuzha (Kerala)**

Silicone Valley of India - **Bengaluru**

Manchester of South India - **Coimbatore**

City of Pearls - **Hyderabad**

Steel City - **Jamshedpur**

Queen of Arabian Sea - **Kochi**

City of Joy - **Kolkata**

Coal Capital - **Dhanbad**

City of Blood - **Tezpur**

Oxford of East - **Pune**

Queen of Hill Stations - **Ooty**.

When was the Champaran Agrarian Act passed?



11.

चंपारण कृषि अधिनियम कब पारित किया गया था?

1. 1920

2. 1922

3. 1918 ✓

4. 1924

Rajkumar Shukla invited Mahatma Gandhi to protest against Tinkathia System. Which resulted in Champaran Satyagrah of 1917 (first Civil Disobedience Movement).

Indigo Revolt (1859) – Dinabandhu Mitra wrote Neel Darpan (Central theme was Indigo Revolt).

Ahmedabad Mill strike – 1918.
Khera Satyagrah – 1918.

12.

Which of the following statements is correct regarding the direct taxes?

- I. Levied on taxable income earned by individuals and corporate entities.
- II. Gift tax is a type of direct tax.

प्रत्यक्ष करों के संबंध में निम्नलिखित में से कौन सा कथन सही है?

- I. व्यक्तियों और कॉर्पोरेट संस्थाओं द्वारा अर्जित कर योग्य आय पर लगाया जाता है।
- II. उपहार कर एक प्रकार का प्रत्यक्ष कर है।

1. Only I

2. Neither I nor II

3. Both I and II ✓

4. Only II

Direct Tax – Imposed Directly on Individuals.

- Paid to the Government.
- CBDT is the Responsible Authority.
- It's a Progressive Tax.

Examples – Income tax, Corporate tax, Capital gain tax, property tax and gift tax.

Indirect Tax –

- Paid by the End User.
 - It's a regressive tax.
 - Responsible Authority is GST Council.
- example – GST.

GST –

- Implemented on 1st July 2017.
- Added through 101st Amendment.
- Assam was the the first state to ratify GST bill.
- Article 279 Talks about GST council headed by the Finance Minister of India.



13.

पुहार या कावेरीपट्टिनम, निम्नलिखित में से किस राजवंश का बंदरगाह था ?

1. Cheras
2. Cholas ✓
3. Pandyas
4. Vaktakas

The era of Chera, Chola and Pandyas is known as **Sangam Age**.

Sangam age - The Sangam Age is so called because it refers to the gatherings of poets and bards where the bulk of Tamil literature was written. These Sangams prospered under the royal patronage of the Pandya kings of Madurai.

Chera - Capital - Vanchi (Muziri).

- Ports - Musiri and Tondi.
- Symbol - Bow and Arrow.

Pandya - Capital - Madurai

- Port - Korkai.
- Symbol - Fish.

Chola - Capital - Tanjore (Thanjavur) and Gangaikondacholapuram.

- Ports - Poompuhar port and Kaveripattinam port.
- Symbol - Jumping Tiger.
- Used **Lost Wax Technique** to make statues.

14.

Which of the following pair of "player - sports" is correct?

- I. Bajrang Punia - Boxing
- II. Yash Dhull - Cricket

निम्नलिखित में से "खिलाड़ी-खेल" का कौन सा युग्म सही है?

- I. बजरंग पुनिया - बॉक्सिंग
- II. यश दुल - क्रिकेट

1. Only II ✓
2. Only I
3. Both I and II
4. Neither I nor II

Bajrang Punia - **Wrestling**.

Yash Dhull - **Cricket**.

15.

Which of the following statements is NOT correct regarding sound?

ध्वनि के संबंध में निम्नलिखित में से कौन सा कथन सही नहीं है?

1. Sound can travel through vacuum. ✓
2. In human beings, the vibration of vocal cords produces sound.
3. Unpleasant sounds are called noise.
4. Frequency is expressed in hertz.

Sound -

- Is a Mechanical Wave.
- A Longitudinal Wave.
- Speed though different forms of matter - Solid > Liquid > Gas.
- Maximum speed of sound in Aluminium.
- Can't travel through vacuum.
- Can't be Polarised.

Light -

- Transverse Wave.
- Can be Polarised.
- Can travel through vacuum.

Hertz - Also known as Second Inverse.

- SI unit of frequency.

Decibel - Unit used to measure loudness of sound.

The reproduction in yeast happens by the process of _____.

यीस्ट में प्रजनन _____ की प्रक्रिया से होता है।

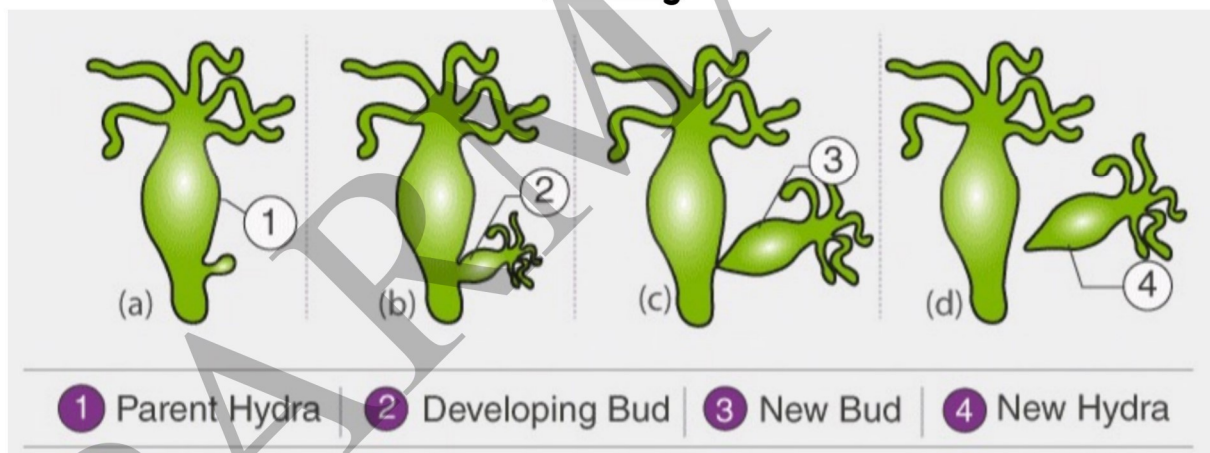
1. Budding ✓
2. Fragmentation
3. Spore formation
4. Fertilisation

1. नवोदित होना
2. विखंडन
3. बीजाणु निर्माण
4. निषेचन

Budding - Budding is an asexual reproduction method in which a new organism develops from a bud of an existing organism.

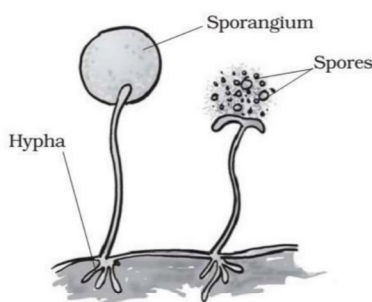
Examples - Hydra and yeast.

Budding

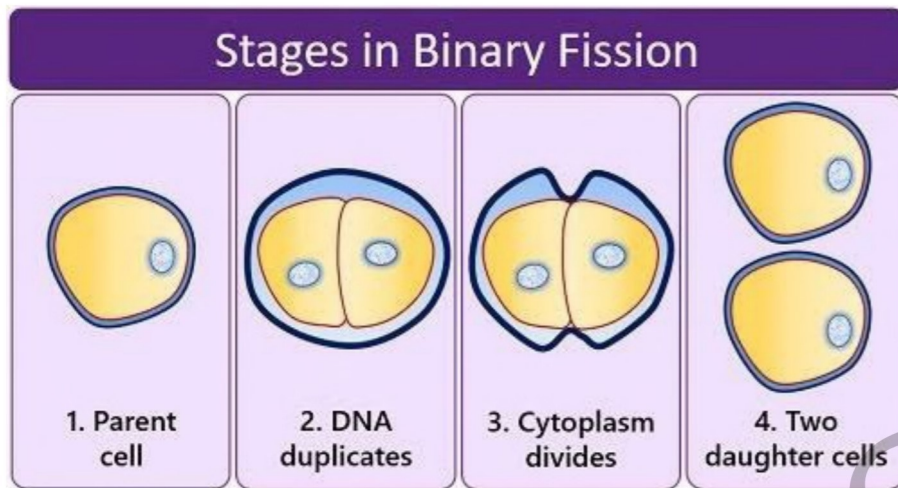


Spore Formation

Spore formation - Spore Formation is a method in Asexual Reproduction. Many Spores are stored in sacs called Sporangia. When Sporangia burst; minute single-celled, thin or thick walled structures called spores are obtained.



Binary Fission - In this method of asexual reproduction, there is a separation of the parent cell into two new daughter cells. Example - Algae.



Multiple Fission - Multiple fission is the process of asexual reproduction in which instead of 2 daughter cells, many daughter cells are produced from the parent cell.

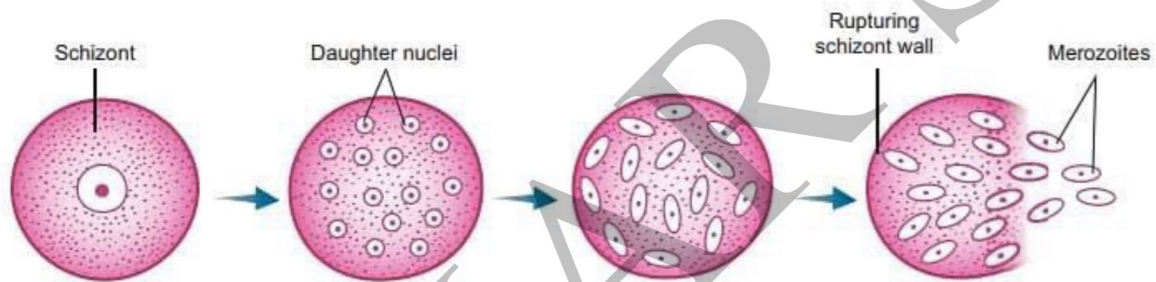
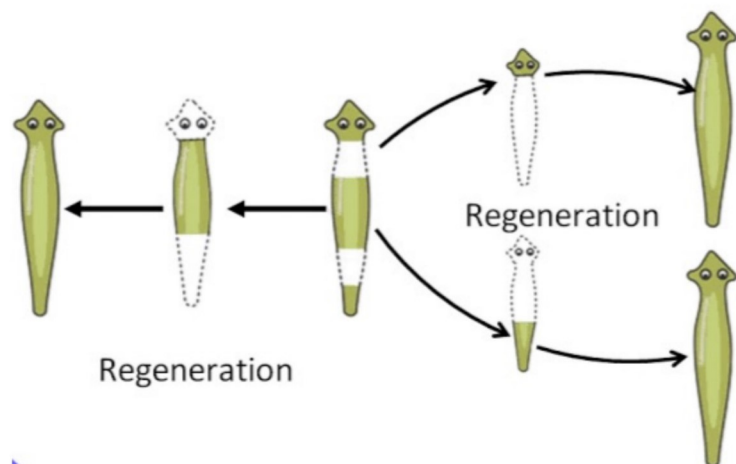


Fig. 1.4 Multiple Fission in *Plasmodium*

Plasmodium is the Protozoa responsible for Malaria.

REGENERATION IN PLANARIA

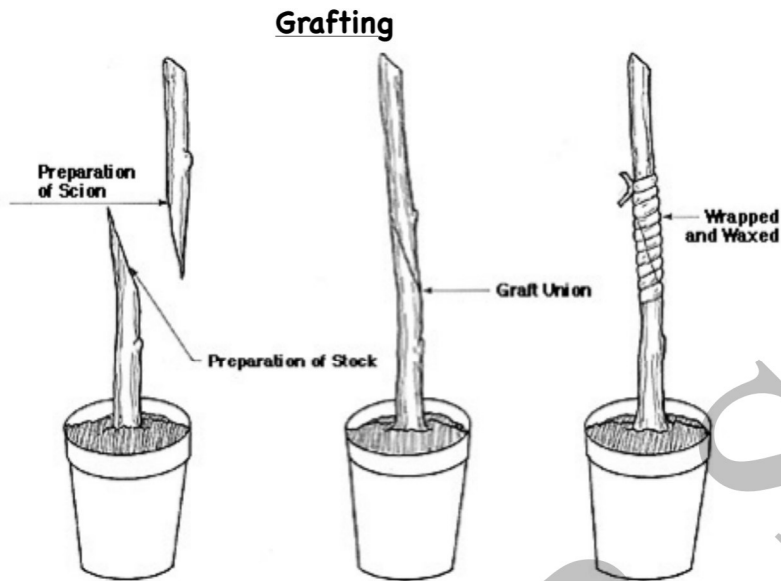
Regeneration - The process by which an organism repairs or regenerates the missing part of the body.



Vegetative Reproduction -



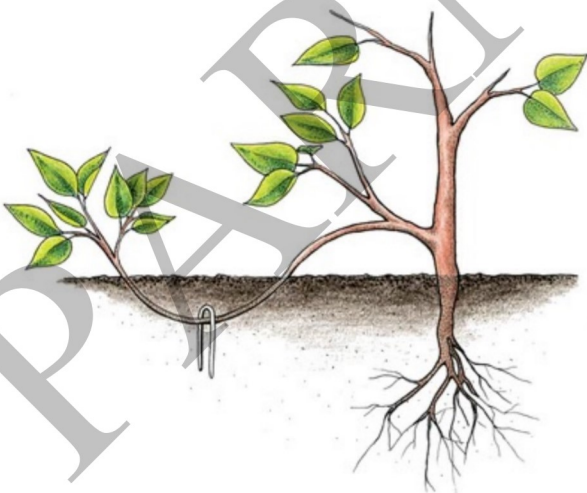
Grafting - Grafting is a method of asexual plant propagation that joins plant parts from different plants together so they will heal and grow as one plant.



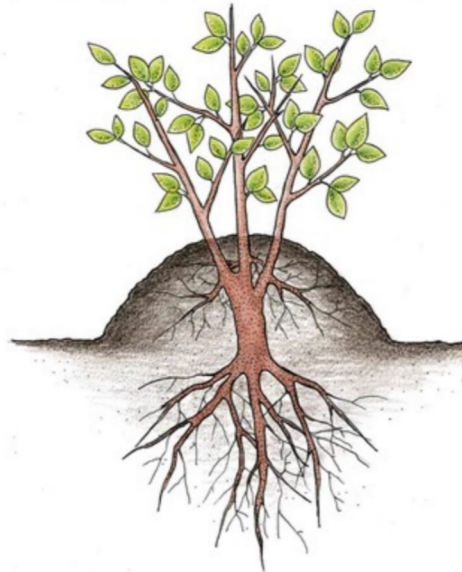
Layering - one of the plant branches is covered with moist soil, and after some time, that branch develops roots and starts to grow as an individual plant.

Layering

SIMPLE LAYERING



MOUND (STOOL) LAYERING



17.

PSLV Orbital Experimental Module (POEM) is associated with which organization?



PSLV ऑर्बिटल एक्सपेरिमेंटल मॉड्यूल (POEM) किस संगठन से संबंधित है?

1. DRDO

2. HAL

3. BHEL

4. ISRO ✓

PSLV (Polar Satellite Launch Vehicle) -

- 4 stages.
- Used in launching of earth observing and remote sensing satellites.

GSLV (Geosynchronous Satellite Launch Vehicle) -

- 3 stages.
- Used in launching Communication satellites.

18.

Who was professor Prasanta Chandra Mahalanobis?

प्रोफेसर प्रशांत चंद्र महालनोबिस कौन थे?

1. Economist who won a Nobel Prize

2. An artist who painted the painting of Bharat Mata

3. Indian Scientist and Statistician ✓

4. A doctor who invented a new surgical method

1. नोबेल पुरस्कार जीतने वाले अर्थशास्त्री

2. एक कलाकार जिसने भारत माता का चित्र बनाया

3. भारतीय वैज्ञानिक एवं सांख्यिकीविद्

4. एक डॉक्टर जिसने एक नई शल्य चिकित्सा पद्धति का आविष्कार किया

- First Indian to win noble prize - [Rabindranath Tagore](#).
- Economists who won noble prize - Amartya Sen (1998) and Abhijit Banerjee (2019).
- Second five year Plan based on - [Mahalanobis Model](#).
- 29th July - International Tiger Day.
- Project Tiger - [1973](#) in Jim Corbett National Park.
- father of surgery - [Sushruta](#).
- Father of medicine - [Charak](#).

19.

The Dronacharya Award was first handed out in 1985, and the first Dronacharya Award winner was _____.

द्रोणाचार्य पुरस्कार पहली बार 1985 में प्रदान किया गया था, और पहले द्रोणाचार्य पुरस्कार विजेता _____ थे।

1. Hansa Sharma
2. Karan Singh
3. Bhalchandra Bhaskar Bhagwat
4. Hawa Singh

Other Awardees -

Hansa Sharma - 1st female to get Dronacharya award.

Omprakash Bharadwaj - Boxing

Om Nambiar - Athletics.



20.

The important system components like the central processing unit (CPU) and random access memory (RAM) modules are connected directly to the _____.

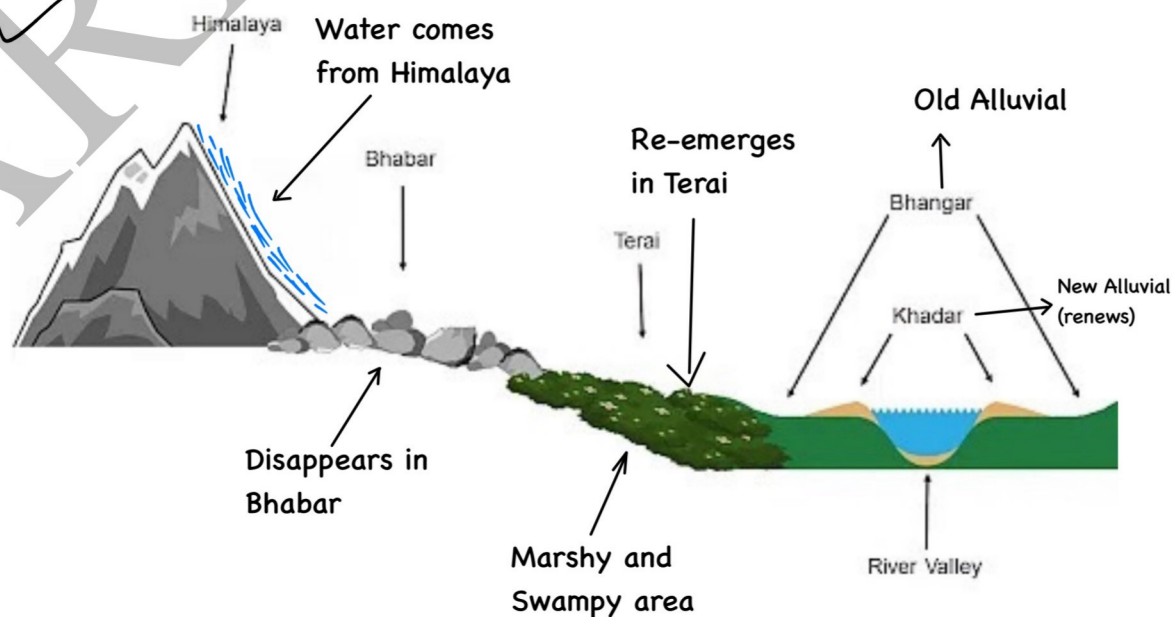
सेंट्रल प्रोसेसिंग यूनिट (सीपीयू) और रैंडम एक्सेस मेमोरी (रैम) मॉड्यूल जैसे महत्वपूर्ण सिस्टम घटक सीधे _____ से जुड़े होते हैं।

1. Magnetic Tape
2. Mother Board
3. Optical Disk
4. Flash Memory

The northern plains of India are formed up of which soil?

भारत के उत्तरी मैदान किस मिट्टी से बने हैं?

1. Alluvial
2. Peaty
3. Black
4. Laterite



21.

22.

Start Up India Scheme which aims at developing an ecosystem that promotes and nurtures entrepreneurship across the country was launched in _____.

स्टार्ट अप इंडिया योजना जिसका उद्देश्य एक ऐसा पारिस्थितिकी तंत्र विकसित करना है जो देश भर में उद्यमशीलता को बढ़ावा देता है और उसका पोषण करता है, _____ में शुरू किया गया था।

1. 2016 ✓

16 January - [StartUp Day](#)

2. 2020

[Startup India Scheme](#) - Managed by BPIIT (The Department for Promotion of Industry and Internal Trade).

3. 2012

- Startup should be no older than 10 years.

4. 2018

- Turnover should be less than 100 crore.

[MUDRA](#) (Micro Units Development & Refinance Agency Ltd.) - started in 2015.

- Offers loan upto 10 Lakhs.
- Shishu loan - upto ₹50 Thousand.
- Kishor Loan - ₹50 Thousand to ₹5 Lakhs.
- Tarun Loan - ₹5 Lakhs to ₹10 Lakhs.

23.

In _____ the Muslim League had moved a resolution demanding "Independent States" for Muslims in the north-western and eastern areas of the country

_____ में मुस्लिम लीग ने देश के उत्तर-पश्चिमी और पूर्वी क्षेत्रों में मुसलमानों के लिए "स्वतंत्र राज्य" की मांग करते हुए एक प्रस्ताव पेश किया था।

1. 1940 ✓

Muslim League was established in 1906 in Dhaka.

2. 1942

3. 1946

4. 1935

- Cripps Mission - [1942](#).
- Quit India Movement - [Do Or Die](#) by Gandhiji.
- Cabinet Mission - [1946](#).
- Government of India Act [1936](#) - abolished provincial dyarchy and Introduced central dyarchy, made 6 out of 11 provinces [BiCameral](#) and extended Separate electorate.
- Government of India Act [1858](#) - Secretary of State.

[RBI](#) - Established in 1935 by Reserve Bank of India Act 1934.

- on the recommendation of Hilton Young Commission.
- First chairperson - [Osborne Smith](#).
- First Indian Chairperson - [C.D Deshmukh](#).

24.

Thangka painting style depicts _____ deity.

थांगका पेंटिंग शैली _____ देवता को दर्शाती है।



1. Islamic
2. Buddhist ✓
3. Jewish
4. Hindu

Madhubani Painting - Bihar
Thangka Painting - Arunachal Pradesh
Warli Painting - Maharashtra
Kalighat Painting - Kolkata
Phad Painting - Rajasthan
Kalamkari Painting - Andhra Pradesh
Pattachitra Painting - Odisha
Miniature Painting - Introduced by Mughals.

25.

Who among the following was the first-ever badminton player from India to clinch an Olympic medal?

निम्नलिखित में से कौन ओलंपिक पदक जीतने वाला भारत का पहला बैडमिंटन खिलाड़ी था?

1. Srikanth Kidambi
2. Saina Nehwal ✓
3. Chirag Shetty
4. PV Sindhu