

**ALL INDIA MOCK TEST**  
**TEST – 5 KEY WITH EXPLANATION**

**1.ANSWER: D**

Only Archaeological ruins of Mohanjadaro and city of Dholavira is included in the UNESCO world heritage list

- Harappa – Pakistan
- Dholavira – India

**2.ANSWER: B**

Centuries, India's intellectual exploration of truth has come to be represented by six systems of philosophy. These are known as Vaishesika, Nyaya, Samkhya, Yoga, Purva Mimansa and Vedanta or Uttara Mimansa. These six systems of philosophy are said to have been founded by sages Kanada, Gautama, Kapila, Patanjali, Jaimini and Vyasa, respectively. These philosophies still guide scholarly discourse in the country. German-born British Indologist, Friedrich Max Muller, has observed that the six systems of philosophy were developed over many generations with contributions made by individual thinkers.

**3. ANSWER: A**

Mahavira taught the doctrine of anekantavada (many-sided reality). Although the word does not appear in the earliest Jain literature or the Agamas, but the doctrine is illustrated in Mahavira's answers to questions posed by his followers. Truth and reality is complex, and have a number of aspects. Reality can be experienced, but it is impossible to express it fully with language alone; human attempts to communicate are nayas (partial expression of the truth"). Language itself is not truth, but a means of expressing it. From truth, according to Mahavira, language returns – not the other way around. One can experience the 'truth' of a taste, but cannot fully express that taste through language. Any attempt to express the experience is syat: valid "in some respect", but still perhaps, just one perspective, incomplete".

Spiritual truths are also complex, with multiple aspects, and language cannot express their plurality; however, they can be experienced through effort and appropriate karma

**4. ANSWER: B**

According to Arthashastra, conditions required for becoming a King are:

1. Must belong to a noble family
2. Must have the knowledge of Artha (Economics) and Shastra (war).

**5. ANSWER: B**

Akbar's Mansabdari, system was greatly-inspired form Mongolians.

## 6. ANSWER: B

Vatsyayana in his book Kamasutra mentioned about 6 main principles / limbs or shadanga of paintings. They are:

- (i) Rupabheda: variety of form, knowledge of appearances
- (ii) Sadrisyam: Portrayal of likeness of the subject, similitude
- (iii) Bhava: Creation of luster and gleam with the colours (Thus, pair 1 is incorrect)
- (iv) Varnikabhanga: Mixing of colours to resemble the effects of modeling (Thus, pair 2 is correct)
- (v) Pramanam: Proportion of the object or subject
- (vi) Lavanyayoganam: Immersion of emotions, infusion of grace (Thus, pair 3 is incorrect)

## 7. ANSWER: B

Magasthenes was a Greek ambassador sent by Seleucus to the court of Chandragupta Maurya. He lived in the Mauryan capital of Pataliputra and wrote an account not only of the administration of the city but also of the Mauryan empire as a whole

Statement 1 is correct: Megasthenes mentions a committee with six subcommittees for coordinating military activity. Of these, one looked after the navy, the second managed to transport and provisions, the third was responsible for foot-soldiers, the fourth for horses, the fifth for chariots and the sixth for elephants. The activities of the second subcommittee were varied: arranging for bullock carts to carry equipment, procuring food for soldiers and fodder for animals, and recruiting servants and artisans to look after the soldiers

Statement 3 is not correct: Megasthenes notes that he did not notice any slave in India. However, the Arthashastra of Kautilya mentions that slaves were employed in agricultural operations in the Mauryan period

Statement 2 is correct: Megasthenes also mentions that in the Mauryan empire officers measured the land as in Egypt and inspected the channels through which water was distributed to smaller channels

## 8. ANSWER: B

(i) The Vijayanagara kings claimed to rule on behalf of the god Virupaksha. All royal orders were

Signed – Shri Virupakshah, usually in the Kannada script. Rulers also indicated their close links with the gods by using the title – Hindu Suratanall. This was a Sanskritisation of the Arabic term Sultan, meaning king, so it literally meant Hindu Sultan. Hence statement 1 is not correct.

(ii) Land revenue was the main source of income. The land was carefully surveyed and taxes were collected based on the fertility of the soil. Great attention was paid to agriculture and the construction of dams and canals. Besides land revenue, tributes and gifts from vassals and feudal chiefs, customs collected at the ports, taxes on

various professions were other sources of income to the government. Hence statement 2 is correct.

(iii) The King was the supreme judge. The civil cases were decided on the basis of Hindu Law. Severe punishments were inflicted on the guilty. Fines were collected from those who violated the law

(iv) The Empire was divided into six Provinces. Each Province was under a Governor called Naik. The Provinces were divided into districts which were further divided into smaller units namely Villages. The Village Assembly carried on the administration of the villages through its hereditary officers like accountants, the weights men, watchmen and officers incharge of forced labour. The Central administration maintained contact with the villages through an officer called Mahanayakacharya. Hence statement 3 is correct.

### **9. ANSWER: D**

Statement 1 is correct: Kinship was the basis of social structure and a man was identified by the clan to which he belonged. People gave their primary loyalty to the tribe, which was called Jana

Statement 2 is not correct: Women could attend assemblies and offer sacrifices along with their husbands. There are instances of five women who composed hymns although the later texts mention 20 such women.

Statement 3 is correct: Slaves were given as gifts to the priests. They were mainly women slaves employed for domestic purposes.

### **10. ANSWER: C**

Ashtadhyayi, a Sanskrit treatise on grammar was written in the 6<sup>th</sup> to 5<sup>th</sup> century BCE by the India grammarian Panini. This work set the linguistic standards for Classical Sanskrit. It sums up in 4,000 sutras the science of phonetics and grammar that had evolved in the Vedic religion. Panini divided his work into eight chapters, each of which is further divided into quarter chapters. Beyond defining the morphology and syntax of Sanskrit language, Ashtadhyayi distinguishes between usage in the spoken language and usage that is proper to the language of the sacred texts.

The Indo-Greek ruler Menander (165-145 BC) also known as Milinda was converted to Buddhism by Nagasena or Nagarjuna. Menander asked Nagasena many questions relating to Buddhism. These questions and Nagasena's answers were recorded in the form of a book known as Milinda Panho (Questions of Milinda).

Charaka Samhita, a work on Indian medicine and ayurveda in Sanskrit was composed around 100 CE. Charaka divided the treatise into eight parts, or ashtanga Sthanas: Sutra, Nidana, Vimana, Sarira, Endriya, Chikitsa, Kalpa, and siddha; each part contained multiple chapters. While Charaka delved into all aspects of medicine, including the logic and philosophy behind the Indian medicinal system, he placed special emphasis on the diagnosis of disease and treated Ayurveda as a comprehensive system of health care that dealt with both preventive and curative aspects. He also dealt elaborately with subjects such as fetal generation and development, anatomy of the human body, and function and malfunction of the body

according to the tridosha (the three humours of the body)- vata, pitta, and kapha. He also discussed the classification of various diseases.

Hence option (c) is correct

### 11. ANSWER: A

In Mugal period during 17<sup>th</sup> century, Milkiyat was extensive personal lands held by the Zamindars. Milkiyat lands were cultivated for the private use of zamindars, often with the help of hired or servile labour. The zamindars could sell, bequeath or mortgage these lands at will.

### 12. ANSWER: D

Mahajanpada, their capital & modern cities are given in below table

S.No.	Mahajanapadas	Capital	Modern location
1	Anga	Champa	Munger and Bhagalpur
2	Magadh	Girivraja/Rajagir	Gaya and Patna
3	Kasi	Kasi	Banaras
4	Vatsa	Kausambi	Allahabad
5	Kosala	Sravasti	Eastern Uttar Pradesh
6	Saurasena	Mathura	Mathura
7	Panchla	Ahichchatra and Kampilya	Western Uttar Pradesh
8	Kuru	Indraprastha	Merrut and S.E> Haryana
9	Matsya	Viratnagar	Jaipur
10	Chedi	Sothivati/Banda	Bundelkhanda
11	Avanti	Ujjain / Mahismati	Madhya Pradesh & Malwa
12	Gandhar	Taxila	Rawalpindi
13	Kamboj	Pooncha	Rajori & Hajra (Kashmir)
14	Asmaka	Pratisthan / Paithan	Bank of Godavari
15	Vajji	Vaishali	Vaishali
16	Malla	Kusinara	Deoria & U.P.

### 13. ANSWER: B

Mithila painting (also known as Madhubani Painting) originated in a small village, known as Maithili, of the Bihar state of India.

Themes of the Maithili painting revolve around Hindu deities like Krishna, Rama, Lakshmi, Shiva, Durga and Saraswati. The natural themes that are used include the Sun, the Moon and the religious plants like tulsi

The painging was traditionally done by womenfolk on freshly plastered mud walls and One can also find paintings based on scenes from the royal courts and social events, like weddings. If any empty space is left after painting the main theme, it is filled up with the motifs of flowers, animals and birds or geometric designs.

Mithila paintings, as a domestic ritual activity, was unknown to the outside world until the massive India- Nepal border earthquake of 1934 when the houses and walls tumbled down. Then British colonial officer in Madhubani District, William G. Archer,

while inspecting the damage 'discovered' the paintings on the newly exposed interior walls of Mithila homes.

**14. ANSWER: B**

Rashbehari Bose had fled to Japan in 1915 following the failed revolutionary activities. In Japan, Rashbehari Bose eventually became a naturalised citizen. He made a lot of effort in getting the Japanese interested in the Indian independence movement. He became active in Pan-Asian circles, founded the Indian Club of Tokyo, and gave lectures on the evils of Western imperialism.

Very early itself he was impressed by Subhas Chandra Bose. When the Indian National Army was formed by Mohan Singh in Singapore, Rashbehari Bose was greatly excited and left Tokyo for Southeast Asia. It was at a conference in Bangkok (also under Japanese occupation at the time) that it was decided to place the INA under an Indian Independence League whose chairman would be Rashbehari Bose himself. He had created the League in 1942 in Tokyo.

**15. ANSWER: D**

Rebellion by Naval Ratings On February 18, 1946 some 1100 Royal Indian Navy (RIN) ratings of HMIS Talwar went on a strike to protest against

- racial discrimination (demanding equal pay for Indian and white soldiers)
- unpalatable food
- abuse by superior officers
- arrest of a rating for scrawling 'Quit India' on HMIS Talwar
- INA trials
- Use of Indian troops in Indonesia, demanding their withdrawal.

The rebellious ratings hoisted the tricolour, crescent, and the hammer and sickle flags on the mast of the rebel fleet. Other ratings soon joined and they went around Bombay in Lorries holding Congress flags threatening Europeans and policemen. Crowds brought food to the ratings and shopkeepers invited them to take whatever they needed.

**16. ANSWER: C**

**Plan Balkan**

Between March and May of 1947, Mountbatten decided that the Cabinet Mission Plan had become untenable and formulated an alternative plan. This plan envisaged the transfer of power to separate provinces (or to a confederation, if formed before the transfer), with Punjab and Bengal given the option to vote for partition of their provinces. The various units thus formed along with the princely states (rendered independent by lapse of paramountcy) would have the option of joining India or Pakistan or remaining separate. The plan was quickly abandoned after Nehru reacted violently to it. Nehru rejected the plan right away and told him that this plan would invite Balkanisation of India and would provoke conflict and violence.

**17. ANSWER: D**

'Bombay Plan', authored by a group of Indian industrialists and technocrats in 1944, was meant as a fifteen year investment plan for India. The strategy of the government's five year plans after independence was very similar to the Bombay Plan's. First three

five year plans had almost the same sectoral outlay pattern and together they can be described as a scaled down version of the Bombay Plan. The Plan remained at the centre of news and interest for more than a year. But thereafter it was as completely forgotten as it was at the centre of interest previously.

A key principle of the Bombay Plan was that the economy could not grow without government intervention and regulation. Under the assumption that the fledgling Indian industries would not be able to compete in a free-market economy, the Plan proposed that the future government protect indigenous industries against foreign competition in local markets. Other salient points of the Bombay plan were an active role by government in deficit financing and planning equitable growth, a transition from an agrarian to an industrialized society, and—in the event that the private sector could not immediately do so—the establishment of critical industries as public sector enterprises while simultaneously ensuring a market for the output through planned purchases.

**18. ANSWER: B**

Word 'Khalistan' was first used by Jagjit Singh Chauhan in UK in 1971 when he arrived from Pakistan with a beer of Guru Granth Sahib he obtained from Nankana Sahib with the assistance of Pakistan authorities during the confrontation between India and Pakistan prior to Bangladesh war. He arrived in Southall UK but he was not allowed to enter the Gurdwara Sahib in Havelock Rd in view of him being perceived as an agent of Pakistan govt. He even advertised in a Punjabi weekly from Southall a full page ad for 'Khalistan Airways' in which a PIA plane (PIA crudely painted over but visible) was shown painted yellow and the name Khalistan Airways showing. The term was obviously coined for a separate state for Sikhs. Idea of a similar state was earlier voiced by Master Tara Singh during early sixties but he called it 'Sikh Homeland' to counter the rising influence of Sant Fateh Singh. A Sikh Homeland front was formed to fight elections but the front lost heavily.

**19. ANSWER: B**

Jayaprakash Narayan's Concept of Total Revolution:

Jaya Prakash once stated that Total Revolution is a combination of seven revolutions, viz., political, social, economic, cultural, ideological or intellectual, educational and spiritual; and the main motive being to bring in a change in the existing society that is in tune with the ideals of the Sarvodaya. JP had a very idealistic notion of society and it is in this endeavor, he shifted from Marxism to Socialism and later towards Sarvodaya. By the early 1970s, JP completely withdrew from party and power politics, and concentrated more on social regeneration through peaceful means. This did not mean that JP kept quiet while there was social and political degeneration taking root in political freedom. In order to better the situation, despite his old age, he embarked on the task of working towards bringing in a complete change in the political and economic life of India.

**20. ANSWER: D**

Gandhi's special instructions were spelt out at the Gowalia Tank meeting but not actually issued. They were directed at various sections of society. Government servants

: Do not resign but declare your allegiance to the Congress . Soldiers: Do not leave the Army but do not fire on compatriots. Students: If confident, leave studies.  
Peasants: If zamindars are anti-government, pay mutually agreed rent, and if zamindars are progovernment, do not pay rent.  
Princes: Support the masses and accept sovereignty of your people. Princely states' people: Support the ruler only if he is anti-government and declare yourselves to be a part of the Indian nation. Gandhi followed up with the now-famous exhortation: "Here is a mantra, a short one that I give you. You may imprint it on your hearts and let every breath of yours give expression to it. The mantra is: 'Do or Die'. We shall either free India or die in the attempt; we shall not live to see the perpetuation of our slavery

**21. ANSWER: C**

Bose expressed the opinion that in India there should be "a synthesis of what modern Europe calls Socialism and Fascism . We have here the justice, the equality, the love, which is the basis of Socialism, and combined with that we have the efficiency and the discipline of Fascism as it stands in Europe today." He called this 'samyavada' . Bose admired discipline and orderly approach to anything. He admired these qualities in the Fascists of Italy and in the Nazis of Germany. Indeed, it is clear from his letters that, despite his dislike of colonial power and his desire to oust the alien British rule from India, he was impressed by the methodical and systematic approach of the British and their disciplined way of life.

**22. ANSWER: A**

The Quit India movement saw participation on many levels.

- The Communists did not join the movement; in the wake of Russia (where the communists were in power) being attacked by Nazi Germany, the communists began to support the British war against Germany and the 'Imperialist War' became the 'People's War'.
- The Muslim League opposed the movement , fearing that if the British left India at that time, the minorities would be oppressed by the Hindus.
- The Hindu Mahasabha boycotted the movement. · The Princely states showed a lowkey response.

**23. ANSWER: B**

Quit India Movement (1942)

C. Rajagopalachari Formula (March 1944)

Desai-Liaqat Pact (1945)

- Congress and League nominees to have equal representation in Central Executive
- 20% of seats reserved for minorities
- Wavell Plan (Shimla Conference—June 1945)

**24. ANSWER: D**

Surendranath Banarjee (1048-1925]

\* One of the founding members of INC

\* 2nd person to clear Indian civil service examination.

But dispute over his age led to disqualify.

- \* He was also called as Indian Burke
- \*1876, he founded Indian national Association.
- \*1070 -> He founded "Bengalee Newspaper"
- \*He was the President of INC for two time (1895, 1902)

**25. ANSWER: D**

Given statements all are correct.

- \* Read Arabindo Ghosh

**26. ANSWER: D**

The National Stock Exchange (NSE) has listed the first green bonds on its platform from Indore Municipal Corporation. Green bonds are debt securities designated to finance environment-friendly projects.

India's municipal bond market is growing rapidly, with fund raising growing three-fold since 2017. Indore Municipal Corporation had filed for another round of ₹250 crore fund raising. It has raised ₹6,252 crore through this route, compared to ₹2,342 crore in 2017.

Municipal bonds are also referred to as 'muni bonds'. The urban local government and agencies issue these bonds. Municipal bonds are issued when a government body wants to raise funds for infrastructural. SEBI circulated detailed guidelines in 2015 for the urban local bodies to raise funds by issuing municipal bonds.

Municipal bonds provide an alternative means of financing for urban local bodies, reducing dependence on central and state grants. Most urban infra bonds may be categorised as green bonds given that proceeds are predominantly targeted towards energy, transport, water management, sewage treatment, energy saving and so on. Green municipal bonds will also bring in new foreign investors who specialise in sustainable financing for investment in projects with environmental, social and governance considerations, NSE said.

The public issue of Indore municipal bonds was subscribed 5.91 times the issue size.

**27. ANSWER: D**

It is released annually by the US Chamber of Commerce.

The index evaluates IP rights in 55 global economies across 50 unique indicators.

The indicators include patent and copyright policies to commercialization of IP assets, and ratification of international treaties.

The index aims to help nations navigate toward a brighter economic future marked by greater innovation, creativity, and competitiveness.

International IP Index 2023: The United States is ranked first, followed by the UK and France. India is ranked 42nd in the index.

**28. ANSWER: D**



Year	Operation's Name	Event details
2022	Operation Ganga	An evacuation mission to bring back all the Indian citizens currently stranded in Ukraine.
2020	Vande Bharat	During the initial phase of the Covid-19 pandemic, the Centre launched the Vande Bharat Mission to bring back Indian citizens stuck in foreign countries.
2020	Operation Samudra Setu	It was a naval operation to bring home Indian citizens from other countries during the Covid-19 pandemic. 3,992 Indian citizens were brought back to their homeland by sea through this mission. Indian Naval ships Jalashwa (Landing Platform Dock), and Airavat, Shardul and Magar (Landing Ship Tanks) were used in this operation. It lasted over 55 days and involved traversing more than 23,000 km by sea.
2015	Operation Raahat	In 2015, a conflict raged between the Yemeni government and Houthi rebels. Thousands of Indians were stranded and Yemen was not accessible by air due to a no-fly zone announced by Saudi Arabia.
2015	Operation Maitri	It is the joint relief and rescue operation by the Indian government and the Indian Armed forces in the aftermath of the 2015 Nepal earthquake. The joint Army-Air Force operation brought over 5,000 Indians back from Nepal by Air Force and civilian planes. The Indian army successfully evacuated 170 foreign nationals from the US, the UK, Russia and Germany.
2011	Operation Safe Homecoming	India launched 'Operation Homecoming' to bring back Indian citizens stranded in conflict-torn Libya. Under the operation, India evacuated 15,400 Indian nationals. The air-sea operation was conducted by the Indian Navy and Air India.

## 29. ANSWER: B

Among the 75 listed PVTG's the highest number are found in Odisha (13), followed by Andhra Pradesh (12), Bihar including Jharkhand (9) Madhya Pradesh including Chhattisgarh (7) Tamil Nadu (6) Kerala and Gujarat having five groups each. The remaining PVTGs live in West Bengal (3) Maharashtra (3), two each in Karnataka and Uttarakhand and one each in Rajasthan, Tripura and Manipur. All the four tribal groups in Andamans, and one in Nicobar Islands, are recognised as PVTGs.

The criteria for identifying Particularly Vulnerable Tribal Groups are: -

1. Pre-agricultural level of technology,
2. Low level of literacy,
3. Economic backwardness,
4. A declining or stagnant population.

### **30. ANSWER: C**

In an electric vehicle or hybrid electric vehicle, the electric motors are powered by a rechargeable battery. Their use is becoming increasingly adopted by many countries.

An executive order signed by US President Joe Biden mandates that by 2030, electric vehicles must account for 50% of all new car sales. A similar requirement that calls for electric cars to account for 40% of all sales is in place in China, the largest EV market in the world. Additionally, the European Union wants at least 30 million zero-emission vehicles on its highways by that time. Currently, there are an estimated 5 million electric cars in circulation in China, making it the nation with the most electric cars. With about 1.77 million cars, the US comes second, followed by Germany with 570,000 cars.

### **What are the Main Components of Electric Vehicle Batteries?**

The most important component of electric vehicle technology is the battery. Modern electric vehicles mainly have lithium-ion and lithium polymer batteries due to the relatively higher energy density compared to weight.

The major materials required in lithium-ion batteries are the chemical components lithium, manganese, cobalt, graphite, steel, and nickel. These components all have different functions in the typical electric vehicle battery that contribute to improved performance.

#### **Lithium**

Lithium-ion batteries internally move lithium ions from one layer, known as the anode, to another, known as the cathode, to generate power. Lithium-ion batteries are more convenient to use in electric vehicles because compared to lead-acid or nickel-metal hydride batteries, lithium-ion batteries offer higher energy densities, making it possible to reduce battery size while maintaining storage capacity.

#### **Manganese**

Safety is the main reason manganese is used in lithium-ion batteries. Because of its increased energy density properties and reputation for stability, manganese is known to increase capacity and improve driving range. Additionally, manganese reduces the combustibility of electric vehicle batteries, which is problematic with lithium-ion batteries that contain cobalt.

#### **Cobalt**

Cobalt helps extend the life of batteries, which manufacturers typically guarantee for eight to ten years, and it also guarantees that cathodes do not quickly overheat or catch fire.

#### **Graphite**

Graphite plays a critical role in the anode that stores lithium ions. Most commercially available lithium-ion batteries employ graphite due to its good cycle stability and energy density.

## **Steel**

Steel provides the best balance of strength, mass reduction, performance, cost, and environmental impact. Steel is the preferred material for today's automobiles and will continue to be the preferred material for vehicles in the future.

## **Nickel**

Electric vehicle batteries contain nickel, jet engine turbines employ nickel alloys, and passenger trains and subways use stainless steel that contains nickel. Materials containing nickel provide improved corrosion resistance as well as dependable and effective electrical and spark systems

### **31. ANSWER: C**

Food Safety and Standards Authority of India (FSSAI) releases the State Food Safety Index (SFSI) to measure the performance of States across five parameters of food safety.

SFSI was started from 2018-19 with the aim of creating a competitive and positive change in the food safety ecosystem in the country. The index will help in providing safe and nutritious food to our citizens.

#### **Food safety parameters**

**Human Resources and Institutional Data (with 20% weightage):** The objective is to check availability of strong culture and ecosystem of enforcement commensurate with the size and population of the State/UT as well as participation of other departments and stakeholders in food safety activity at State and district levels. This parameter measures the availability of human resources like number of Food Safety Officers, Designated Officers, facility of adjudications and appellate tribunals, functioning of State/ District level Steering Committees, pendency of cases and their monitoring and participation in Central Advisory Committee meetings of the Food Authority.

**Compliance (with 30% weightage):** This is the most important parameter and measures overall coverage of food businesses in licensing & registration commensurate with size and population of the State/UTs, special drives and camps organized, yearly increase, promptness and effectiveness in issue of state licenses/ registrations. Also, this parameter considers the inspections carried out for high risk food businesses through FoSCoRIS and the number of samples drawn for testing. Promptness in attending to the consumer grievances and availability of help desk and web portals are also examined under this parameter.

**Food Testing- Infrastructure and Surveillance (with 20% weightage):** This parameter measures availability of adequate testing infrastructure with trained manpower in the States/ UTs for testing food samples. The States/ UTs with NABL accredited labs and adequate manpower in the labs score more in this parameter. The availability and effective utilization of Mobile Food Testing Labs and registration and utilization of InFoLNet (Indian Food Laboratories Network) are also examined under this parameter.

**Training and Capacity Building (with 10% weightage):** This parameter focuses on training and capacity building of regulatory staff (Dos and FSOs), number of trainings held under FoSTaC (Food Safety Training and Certification) and the availability of trained Food Safety Supervisors in food businesses across the State/UT.

**Consumer Empowerment (with 20% weightage):** This parameter measures the performance of States/ UTs in various consumer empowering initiatives of FSSAI like participation in Food Fortification, Eat Right Campus, BHOG (Blissful Hygienic Offering to God), Hygiene Rating of Restaurants, Clean Street Food Hubs, etc. Further, action taken for coverage of food fortification in open market, government safety net programmes and availability of fortified products in all districts are taken into consideration. State initiated activities for creating consumer awareness are also considered.

Further, based on the fact that similar States should be compared to ensure comparability among similar entities for the generation of ranks of States/UTs under SFSI, the States/UTs are classified into 3 categories namely Large States, Small States and UTs for the evaluation and assessment.

The assessment and evaluation of each category are done by separate teams comprising of outside experts for food testing and food & nutrition professionals in addition to FSSAI officials. The teams examine the details received from States/UTs and also interacts with States/UTs through video-conferencing for verification and confirmation of data.

### **SFSI 2021-22**

The major findings of State Food Safety Index 2021-2022 are:

a) Ranking of States/UTs:

Among the Large States: Tamil Nadu is the top-ranking state, followed by Gujarat and Maharashtra.

Among the Small States: Goa is the top-ranking state followed by Manipur and Sikkim.

Among UTs: Jammu & Kashmir is the top-ranking UT, followed by Delhi and Chandigarh.

b) States/UTs with significant improvement in ranking during last year :

Uttarakhand in Large State Category

Tripura in Small States Category

Ladakh in the category of UTs.

### **32. ANSWER: C**

It has the highest concentration of one-horned rhinos in the world. Under the Indian Rhino Vision 2020 (IRV 2020), rhinos were trans-located from Pobitora and re-introduced into Manas National Park.

### **33. ANSWER: C**

It is an explosive outburst of plasma from the sun.

The blasts originate in magnetically disturbed regions of the sun's upper atmosphere, or corona.

The blast of a CME carries about a billion tonnes of material out from the sun at very high speeds of hundreds of kilometres per second.

It contains particle radiation, mostly protons and electrons, and powerful magnetic fields stronger than what is normally present in the solar wind.

They can cause geomagnetic storms on Earth that can have a significant impact on both ground- and space-based technological systems. Scientists observed a large prominence near the sun's north pole.

They appear very bright and hot but are actually much cooler and denser than the surrounding plasma in the Sun's corona.

These are shaped by the Sun's complex magnetic field, often forming loops with each end anchored to the Sun's surface.

These are enormous, extending out for many thousands of kilometres, and can last for several days or up to several months.

**34. ANSWER: C**

The Constitution (99th Amendment) Act introduced three key articles (124 A, 124 B, and 124C) and amended clause 124(2). Article 124A created NJAC. Article 124B vests the NJAC with the power to make appointments to the Supreme Court and various high Courts. Article 124C authorized the Parliament to make laws to regulate NJAC's functioning. NJAC was to be composed of:

- Chief Justice of India as ex-officio chairperson
- Two of the senior-most Supreme Court judges as ex-officio members
- The Union Minister of Law and Justice as an ex-officio member

**35. ANSWER: B**

The Convention on Biological Diversity (CBD) adopted the Aichi Biodiversity Targets at the Nagoya conference in 2010. It laid out a 10-year plan that had 20 global biodiversity targets, divided into five goals, with a deadline of 2015. Of 2020. These targets are non-binding in nature. No single country met all 20 Aichi Targets within its own borders, according to a September 2020 UN assessment.

**36. ANSWER: B**

The meeting concluded with the "Singapore Declaration," through which participants agreed to bolster efforts to achieve social justice and decent work for all. It sets ten-point priorities of national action for the member countries to deal with the issue of dwindling wages of workers, inflation, and unemployment. The declaration said social dialogue is key to building trust.

**37. ANSWER: C**

The Sun Temple at Modhera, Gujarat, has been added to the tentative list of UNESCO World heritage sites. It is located on the left bank of the river Pushpavati, a tributary of the river Rupan.

Unakoti Rock Carvings in Tripura have been added to the tentative list of UNESCO World heritage sites. Unakoti means one less than a crore, and it is said that these many rock cut carvings are available here.

Ramappa Temple is popularly known as the Thousand Pillar Temple and Rudreshwara temple, located in Telangana. It is a Kakatiya-style Hindu temple dedicated to the god Shiva

The G20 countries and invitees from countries and international Organisations recently visited the famous Kumbhalgarh Fort in Udaipur, Rajasthan.

**38. ANSWER: C**

The first delimitation exercise was carried out by the President in 1950–51. Delimitation Commissions had been set up four times in 1952, 1963, 1973, and 2002 under the Acts of 1952, 1962, 1972 and 2002.

No delimitation exercise was conducted after the 1981 and 1991 Censuses.

Its orders cannot be called into question before any court. These orders come into force on a date to be specified by the President of India on this behalf.

**39. ANSWER: C**

Utkarsh 2.0 harnesses the strengths of Utkarsh 2022 by retaining the six vision statements as well as Core Purpose, values, and mission statement.

FSR is published biannually and includes contributions from all the financial sector regulators. It reflects the collective assessment of the Sub-Committee of the Financial Stability and Development Council (FSDC) on risks to financial stability.

**40. ANSWER: B**

It is located on Nalabana Island in the Chilika Lagoon area of Odisha. It was declared a bird sanctuary in 1987. The island disappears during the monsoon due to inundation, only to re-emerge after the monsoon. It is home to many native and migratory birds and aquatic animals that thrive due to the endless flow of water in Chilika Lake.

**41. ANSWER: C**

According to a 2020 report by the Central Pollution Control Board, India generated 10,14,961 metric tonnes of e-waste in FY 2019–2020, up 32% from FY 2018–2019.

- Of this, only 3.6% and 10% were actually collected in the country in 2018 and 2019, respectively.

- The informal sector controls more than 90% of e-waste collection and handling processes.

- The main sources of e-waste are the government, public, and private (industrial) sectors, which account for almost 70% of total waste generation.

**42. ANSWER: C**

The 52-week programme will be based on 52 themes (52 episodes of 15 minutes) covering all the aspects of voter ecosystem.

- To create awareness among voters across the country.
- To increase voter participation
- To encourage young and first-time voters to make informed decisions.

**43. ANSWER: A**

Amended Article 15 to additionally permit government to provide for advancement of EWS. Up to 10% of seats may be reserved for such sections for admission in educational institutions. (Not applicable to minority educational institutions).

Amended Article 16 to permit government to reserve up to 10% of all posts for EWS of citizens.

SC verdict (Janhit Abhiyan v Union of India case, 2022) - Reservation on economic criteria alone did not violate Basic Structure of Constitution. EWS is deemed a separate and distinct category.

**44. ANSWER: D**

Provisions for UCC come under Article 44 (Directive Principles of State Policy) of Constitution.

Thus, UCC comes under non justiciable part of constitution.

Also, "Personal laws" comes under Concurrent List.

Different religious communities are currently governed by a system of personal laws, which have been codified over years through various pieces of legislation.

for example, Hindu personal law is codified in four bills: Hindu Marriage Act, Hindu Succession Act, Hindu Minority and Guardianship Act, and Hindu Adoptions and Maintenance Act.

Term 'Hindu' also includes Sikhs, Jains and Buddhists for purpose of these laws.

**45. ANSWER: B**

Sedition is a cognisable, nonbailable and non-compoundable offence under the law.

A person charged under sedition law is barred from a government job.

**46. ANSWER: C**

Constitution gives protection against arrest and detention under Article 22 (1) and 22 (2).

These protections are not available to a person arrested or detained under preventive detention laws (Article 22(3)).

**47. ANSWER: C**

However, Article 21 of the Indian Constitution says that "No person shall be deprived of his life or personal liberty except according to procedure established by law."

The expression 'personal liberty' includes 'right to privacy'. A citizen has a right to safeguard his personal privacy and his family, education, marriage, motherhood, childbearing, and procreation, among other matters.

**48. ANSWER: D**

Cases under UAPA are investigated by both State police and National Investigation Agency (NIA).

UAPA gave powers to central government to impose all-India bans on associations. Act had provisions for a tribunal to review or to hear an appeal against the ban. Both Indian nationals and foreign nationals can be charged under act. Also, act holds offenders accountable in same manner if crime is committed on foreign land outside India.

UAPA was amended in 2004, 2008, 2012 and most recently in 2019 to enhance the scope of the Act.

**49. ANSWER: B**

Constitution does not define the word Minority.

Rights of the minorities under Article 29 and 30.

Article 350B mentions about special officer for linguistic minorities.

However, Centre, using National Commission for Minorities Act, 1992, has declared Muslims, Christians, Sikhs, Buddhists, Jains and Zoroastrians as 'minority'.

National Commission for Minority Educational Institutions (NCMEI) Act, 2004 has been enacted to safeguard educational rights of minorities.

**50. ANSWER: C**

**President Election**

Under Article 62(1) of Constitution, an election to fill a vacancy caused by expiration of term of office of President shall be completed before expiration of term (5 years).

Electoral College: MPs of both Houses of Parliament and MLAs of states and Delhi and Puducherry.

Not included: Nominated members of Rajya Sabha, Lok Sabha and Assemblies, and members of state Legislative Councils.

Election is held as per system of proportional representation by means of a single transferable vote.

Winning candidate has to secure the required quota of votes to be declared elected, i.e., 50% of valid votes polled +1.

Anti-defection law is not applicable in presidential election; thus, electors are not bound to vote along party lines.

Under Article 324 of constitution, Election Commission of India has authority to conduct presidential elections.

**51. ANSWER: B**

Under Article 161, governor of a state also possesses the pardoning power.

But it differs from that of the President in following two respects:

President can pardon sentences inflicted by court martial (military courts) while governor cannot.

President can pardon death sentence while governor cannot.

However, the governor can suspend, remit or commute a death sentence.

**52. ANSWER: C**

It provides for establishment of a statutory body of Lokpal for Union and Lokayukta for States.



It aims to inquire into allegations of corruption against certain public functionaries and for matters connected therewith or incidental thereto.

Power of superintendence and direction over any investigation agency including CBI for cases referred to them by Lokpal.

Transfer of officers of CBI investigating cases referred by Lokpal would need approval of Lokpal.

**53. ANSWER: A**

NRC is an official record of those who are legal Indian citizens and identify migrants from erstwhile East Pakistan, now Bangladesh.

At present, Assam is the only state to have an NRC. It was first prepared in 1951 and finally updated in 2019.

NRC was updated as per provisions of Citizenship Act, 1955 and Citizenship (Registration of Citizens and Issue of National Identity Cards) Rules, 2003.

Section 6A of Citizenship Act: Under it, foreigners who had entered Assam before January 1, 1966, would have all rights and obligations of Indian citizens.

It includes persons whose names appear in any of the electoral rolls up to the midnight of 24th March 1971 or NRC, 1951, and their descendants.

Its origin can be traced back to Assam Accord 1985.

Non-inclusion of a person's name in NRC does not by itself amount to him/her being declared a foreigner.

Such individuals will have option to present their case before foreigners' tribunals.

**54. ANSWER: C**

Based on recommendations of Dileep Singh Bhuria Committee, PESA Act was enacted in 1996 for tribal empowerment and to bring them into mainstream.

**55. ANSWER: D**

This power lies with state governments, who can pass a law in Assembly or simply issue an order and notify it in gazette. Centre does not have a say in the matter.

The permission of centre is required when a change of name of a district or railway station is contemplated.

**56. ANSWER: C**

SC ruled that Speaker of LA does not have power to take away the status of former MLA's while deciding a disqualification plea against a lawmaker under 10th schedule of Constitution (Anti- defection).

In 2014, Bihar LA Speaker not only disqualified some of speakers under 10th schedule but also took away their status of being treated as former lawmakers, depriving them of pension and other benefits.

In Kihoto Hollohan v Zachillhu and Others (1992), SC ruled that power of speaker under 10th Schedule is subject to judicial review.

**57. ANSWER: B**

The right to travel is a part of personal liberty under Article 21 of the constitution.

**58. ANSWER: A**

Economic Advisory Council to Prime Minister (EAC-PM) released the State of Inequality in India report.

The report compiles information on inequities across sectors of health, education, household characteristics and the labour market.

Inequities in these sectors make the population more vulnerable and trigger a descent into multidimensional poverty.

The report stretches the narrative on inequality by presenting a comprehensive analysis that shapes the ecosystem of various deprivation in the country, which directly impacts the well-being of the population and overall growth.

**59. ANSWER: B**

Poverty is usually measured as either absolute or relative poverty, based on a poverty threshold or

poverty line, with people falling under this threshold/line being considered poor.

Absolute poverty, or extreme poverty, represents the lack of sufficient resources to secure basic life necessities, such as safe drinking water, food, or sanitation.

Relative Poverty represents the worse income and resource status of a person or a household than what is thought to be adequate or socially acceptable in the society in which they live.

**60. ANSWER: C**

Monthly Per Capita Consumption Expenditure (MPCE) computed on the basis of data from the National Sample Survey Organisation (NSSO).

Findings: 21.9% of total population was below poverty line in 2011-12.

**61. ANSWER: C**

Launched by India Post Payments Bank (IPPB), it is a joint initiative to collaborate with Fintech Startup community to co-create and innovate solutions for financial inclusion.

It will be a permanent platform of IPPB to co-create financial solutions with start-ups.

IPPB (launched in 2018) was established under the Department of Posts, Ministry of Communication with 100% equity owned by Government of India.

**62. ANSWER: C**

Doom loop is the circle of vulnerability where a country's banking system can be severely hurt by volatility in the price of the sovereign bonds, they hold for reserves resulting in a contraction in lending provided by the banks.

It is a phenomenon whereby a shock to one part of its economic system is amplified by its effect on another.

**63. ANSWER: B**

**64. ANSWER: C**

RBI carries out the general banking business of the governments through its own offices and commercial banks, both public and private, appointed as its agents (called

Agency Banks). Section 45 of the Reserve Bank of India Act, 1934, provides for appointment of scheduled commercial banks as agents at all places or at any place in India.

A network comprising the Government Banking Division of RBI and branches of agency banks appointed under Section 45 of the RBI Act carry out the government transactions. At present all the public sector banks and select private sector banks act as RBI's agents. Only designated branches of agency banks can conduct government banking business.

**65. ANSWER: A**

This recapitalization programme has been integrated with an ambitious reform agenda, under the rubric of an "Enhanced Access and Service Excellence (EASE)" programme and the six pillars to achieve this include customer responsiveness, responsible banking, credit offtake, PSBs as Udyami Mitra, deepening financial inclusion, and digitalisation and developing personnel.

**66. ANSWER: C**

A bail-in is rescuing a financial institution on the brink of failure by making its creditors and depositors take a loss on their holdings. A bail-in is the opposite of a bail-out, which involves the rescue of a financial institution by external parties, typically governments using tax payers money. Typically, bail-outs have been far more common than bail-ins, but in recent years after massive bail-outs, some governments now require the investors and depositors in the bank to take a loss before taxpayers.

**67. ANSWER: C**

A line of credit is a preset amount of money that a bank has agreed to lend to a company/individual. The company can draw from the line of credit when it needs up to the maximum amount. The company will pay interest only on the amount used.

**68. ANSWER: C**

Twin deficit refers to a nation's current account deficit and a simultaneous fiscal deficit.

**69. ANSWER: A**

Tobin tax is a tax levied on spot currency conversions, with the intention of disincentivizing short-term currency speculation.

It generates a revenue stream for countries that see great deal of currency movement.

**70. ANSWER: C**

As per annual data from Switzerland's central bank, funds parked by Indian individuals and firms

in Swiss banks jumped to a 14-year-high in 2021.

To fight tax fraud and evasion, an automatic exchange of information (AEOI) in tax matters between Switzerland and India has been in force since 2018.

AEOI provides for the automatic exchange of a predefined set of information between tax authorities.

Under this framework, detailed financial information on all Indian residents having accounts with Swiss financial institutions is provided every year.

**71. ANSWER: C**

RRBs were set up on the recommendations of the Narasimha Working Group (1975), under the provisions of the Ordinance promulgated in 1975 and Regional Rural Banks Act, 1976.

Objectives of RRBs: To provide sufficient banking and credit facilities in rural and semi-urban areas. They also provide Para-banking facilities like locker facilities, debit and credit cards, mobile and internet banking, etc.

Carry out government operations like disbursement of MGNREGA wages, distribution of pension etc.

Features: They are region-based and rural-oriented with features of a cooperative bank in customer experience and of commercial banks in mobilization of financial resources.

**72. ANSWER: C**

Under the faceless assessment system, a taxpayer or an assessee is not required to visit an I-T department office or meet a department official for income tax-related businesses.

The faceless assessment scheme was launched in 2019.

Faceless assessment is administered through separate units within the tax department each of which has a specific and important role in the process, viz assessment units, verification units, technical units and review units. All these units work closely with the National e-assessment Centre (NeAC) and Regional e-assessment Centre (ReAC).

**73. ANSWER: C**

Sapta Kosi High Dam is a multipurpose project proposed to be constructed on the Saptakoshi River of Nepal (Known as Kosi River in India).

The project is primarily aimed to control floods in south-east Nepal and northern Bihar and to generate hydropower.

The project will provide irrigation, control floods and generate 3,000 MW of electricity.

**74. ANSWER: A**

Recently, Turkey witnessed a 7.8 magnitude earthquake which is one of the most powerful earthquakes in the past two decades with more than 1,300 people killed and thousands still believed to be trapped under rubble.

**What makes Turkey a hotbed of seismic activity?**

Turkey's proneness to earthquakes comes from its tectonic location.

Turkey, a hotbed of seismic activity, sits on the Anatolian Plate, which borders two major faults as it grinds northeast against Eurasia.

**Tectonic plates:**

The North Anatolian fault traverses the country from west to east, and the East Anatolian fault, rests in the country's south-eastern region.

The North Anatolian fault (NAF) line, the meeting point of the Eurasian and Anatolian tectonic plates — is known to be "particularly devastating".

The NAF, one of the best-understood fault systems in the world, stretches from the south of Istanbul to north-eastern Turkey and has caused catastrophic earthquakes in the past.

**75. ANSWER: C**

**Lithium deposits:**

Iran discovered the second largest lithium reserves.

According to the US Geological Survey, the world's largest identified lithium resources (not counting Iran) are as follows: Bolivia, 21 million tons; Argentina, 20 million tons; Chile, 11 million tons; Australia, 7.9 million tons; China, 6.8 million tons.

Rising global lithium demand and surging prices have drawn increased interest in the so-called 'lithium triangle' that spans parts of Argentina, Bolivia and Chile.

Lithium has become the new 'white gold' as the demand for high performing rechargeable batteries is rising.

**Lithium in India:**

India recently established inferred lithium resources of 5.9 million tons in the Reasi district of Jammu and Kashmir.

**Other Major Sites:**

The major mica belts are in Rajasthan, Bihar, and Andhra Pradesh.

Pegmatite (igneous rocks) belts in Odisha and Chhattisgarh.

Brines of Sambhar and Pachpadra in Rajasthan, and Rann of Kachchh in Gujarat.

**76. ANSWER: D**

The ancient Uttarakhand town has become a cause of concern.

Located at a height of 6,000 feet in Uttarakhand's Chamoli district, the town on the route to Badrinath and Hemkund Sahib falls in high-risk seismic 'Zone-V'.

- It is located on the top of Main Central Thrust (MCT) line.

- The geography of entire state of Uttarakhand is fragile. And, Joshimath in particular is situated on old land deposits.

-The Jyotirmath Hindu monastery, one of the most important sites in Hinduism, is here.

-It also has nearby one of the closest military stations to the border with China.

- Ground subsidence, Tunnelling and slope cutting, Tapovan-Vishnugad hydro project and ongoing construction of Helang bypass are considered as the main reasons.

**77. ANSWER: D**

<b>Shield volcano</b>	<b>Islands</b>
-----------------------	----------------

- |                |                                    |
|----------------|------------------------------------|
| a)Mauna Loa    | - the Island of Hawaii,            |
| b)Wolf volcano | - the Galapagos Islands,           |
| c)Nyamuragira  | - the Democratic Republic of Congo |
| d)Kilauea      | -Reunion Island                    |

**78. ANSWER: A**

- 1.Baghelkhand made of limestones and sandstones
- 2.Bundelkhand ,a GNEISSIC plateau
- 3.The Rajmahal Hills are mostly made of basalt

**79. ANSWER: B**

**80. ANSWER: D**

**81. ANSWER: C**

1. Askot Wildlife Sanctuary -Green Paradise on the Earth'
2. Kuno Palpur Wildlife Sanctuary – second home for the Asiatic lion
3. The Singalila National Park- Redpandas breeding programme
4. The Chilika Lake- Shrimp farming; Very first time Enumeration of fishing cats is carried out

**82. ANSWER: B**

**Bhil tribal community**

1. The Bhil tribe is called “Dhanush Purush of India”
2. Bhils are the largest tribal group in India, they constitute approximately 38% of the total scheduled tribal population of India.
3. Bhils are known for their Pithora painting.
4. Ghoomar is a traditional folk dance of Bhil tribes

**83. ANSWER: D**

A desert is an area of land that receives no more than 25 centimeters (10 inches) of precipitation a year. **Rain normally occurs as violent thunderstorms of the convectional type.** It ‘bursts’ suddenly and pours continuously for a few hours over small areas. The thunderstorm is so violent, and comes so suddenly that it has disastrous consequences on desert landforms (flash floods).

There are mainly two types – hot like the **hot deserts** of the Saharan type and temperate as are the **midlatitude deserts** like the Gobi. The **annual range of temperature in mid-latitude deserts is much greater** than that of the hot deserts. **Continentality** accounts for these extremes in temperature

The aridity of the hot deserts is mainly due to the effects of **off-shore Trade Winds**, hence they are also called **Trade Wind Deserts**. The major hot deserts of the world are located on the western coasts of continents between latitudes 15° and 30°N and S. The temperate deserts are rainless because of either **continentality or the rain-shadow effect**. Gobi desert is formed due to continentality and Patagonian desert due to rain-shadow effect.

**Desert soil** is mostly sandy soil (90–95%) found in low-rainfall regions. It has a low content of nitrogen and organic matter **with very high calcium carbonate and phosphate**, thus making it infertile. The amount of calcium is 10 times higher in the lower layer than in the topsoil.

**84. ANSWER: C**

A **food chain** is a linear sequence of organisms that shows the **transfer of energy and nutrients from one species to another in an ecosystem**.

The food chain begins with the primary producers, which are typically plants that convert sunlight into food through photosynthesis.

Sequence of a **grassland food chain** is **grasses (primary producers) -> Grasshoppers (herbivores) -> Frogs (carnivores)**

A **terrestrial grazing food chain** sequence is: **Caterpillar (primary consumer) -> Lizard (secondary consumer) -> Snake (tertiary consumer).**

**Aquatic food chain** involving zooplankton, crustaceans, and squid:

**Zooplankton** (tiny floating animals) consume phytoplankton (microscopic floating plants)

**Crustaceans** (e.g. copepods) eat zooplankton

**Squid** and small fish consume crustaceans

**85. ANSWER: B**

The **Global Environment Facility (GEF)** is a financial mechanism established to assist developing countries in addressing the global environmental issues of biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants.

It is jointly managed by UNDP, UNEP and **World Bank**

**86. ANSWER: C**

Recently Global Carbon Project Report 2022 was released by Global Carbon Project. Global Carbon Project was established in 2001. It is a **shared partnership between International Geosphere-Biosphere Programme, International Human Dimensions Programme on Global Environmental Change and World Climate Research Programme and Diversitas.**

It was formed to work with the international science community to establish a common and mutually agreed knowledge base to support policy debate and action to slow down and ultimately stop the increase of greenhouse gases in the atmosphere, mainly **concentrations of the greenhouse gases, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O).**

**87. ANSWER: A**

**SYNGAS:** Gasification is a technological process that can convert any carbonaceous (carbon-based) raw material such as coal into fuel gas, also known as synthesis gas (syngas for short).

**Syngas is a mixture consisting primarily of methane (CH<sub>4</sub>), carbon monoxide (CO) with smaller amounts of hydrogen (H<sub>2</sub>), carbon dioxide (CO<sub>2</sub>) and water vapour (H<sub>2</sub>O).** □

**88. ANSWER: A**

Amoebiasis', sometimes seen in the news, is a **common infection of the human gastro-intestinal tract more closely related to poor sanitation, common in developing and under developed countries**

**89. ANSWER: D**

The Energy Conservation (Amendment) Act, 2022, that came into force amends Energy Conservation Act, 2001 which provides a framework for regulating energy consumption and promoting energy efficiency and energy conservation.

The 2001 act deals with saving energy, 2022 amendment deals with saving the environment and tackling climate change, thus broadening scope and objective of principal Act.

**Carbon credit trading: It empowers central government to specify a carbon credit trading scheme.**

The 2001 Act empowered the central government to specify energy consumption standards. **The amendment adds that government may require designated consumers to meet a**

**minimum share of energy consumption from non-fossil sources like green hydrogen, green ammonia, etc.**

**The amendment requires State Governments to constitute energy conservation funds for promotion of energy efficiency and conservation measures.** This fund shall receive contributions by both Union and State govt.

Composition of governing council of BEE: The 2022 amendment increases and diversifies number of members and secretaries in governing council of BEE.

**90. ANSWER: C**

The Global Snow Leopard and Ecosystem Protection Program (GSLEP) seeks to address high-mountain development issues using the conservation of the charismatic and endangered snow leopard. The 12 snow leopard range countries (Afghanistan, Bhutan, China, India, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Pakistan, Russia, Tajikistan and Uzbekistan.) established the Global Snow Leopard and Ecosystem Protection Program (GSLEP) to help achieve the goals of the Bishkek Declaration. The program also brings together multilateral agencies, NGOs, funding agencies and conservationists as partners on a single platform.

GEF has a long history of supporting conservation of the snow leopard (*Panthera uncia*) and its habitat, having approved 24 total projects and invested nearly USD \$100 million toward UNDP implemented projects in all 12 range countries since 1991.

**91. ANSWER: C**

Government of India has published **National Policy on Bio Fuels of 2018** with effect from 16th May 2018 which aims to increase the usage of biofuels in the energy and transportation sectors of the country during the coming decade.

**CBG has calorific value and other properties similar to CNG** and hence can be utilized as green renewable automotive fuel. Thus it can replace CNG in automotive, industrial and commercial areas, given the abundance of biomass availability within the country.

While CNG is a by-product of petroleum, CBG can be produced from any biomass, be it crop residue, cattle dung, sugarcane press mud, municipal wet waste or effluents from a sewage treatment plant.



**Compressed Biogas (CBG) plant in Sangrur district of Punjab, largest in Asia**, has now started commercial production. The plant has a total capacity of 33.23 tonne CBG per day.

**92. ANSWER: A**

**93. ANSWER: A**

The UN Decade on Ecosystem Restoration aims to prevent, halt and reverse the degradation of ecosystems on every continent and in every ocean. It can help to end poverty, combat climate change and prevent a mass extinction. **It is coordinated by the U.N. Environment Programme (UNEP) and the U.N. Food and Agriculture Organisation (FAO).**

Namami Gange is selected as one of the top 10 flagship projects under this initiative.

**94. ANSWER: C**

**95. ANSWER: A**

**At COP27, the '123 Pledge' kicked off to accelerate action to reduce food loss and waste worldwide.**

The way food is produced and consumed today results in high rates of food loss and waste. An estimated 14% of food is lost in the food supply chain from post-harvest up to wholesale included.

Meanwhile, 17% of food is wasted at the retail and consumer levels. This food loss and waste cost the global economy over USD \$1 trillion annually. It's also responsible for more than four times the greenhouse gas emissions of all annual aviation combined.

The '123 Pledge' is coordinated by **Champions 12.3, UN Environment Programme (UNEP), and UN Food and Agriculture Organization (FAO).**

**Champions 12.3** is a coalition of executives from governments, businesses, international organizations, research institutions, farmer groups, and civil society dedicated to inspiring ambition, mobilizing action, and accelerating progress toward achieving Sustainable Development Goal Target 12.3 by 2030.

**96. ANSWER: C**

The Fujiwhara Effect is any interaction between tropical storms formed around the same time in the same ocean region with their centers or eyes at a distance of less than 1,400 km.

The interaction could lead to changes in the track and intensity of either or both storm systems. In rare cases, the two systems could merge, especially when they are of similar size and intensity, to form a bigger storm.

**97. ANSWER: D**

Any hydrocarbon fuel that is produced from an organic matter (living or once living material) in a short period of time is considered a Biofuel. Biofuels may be solid, liquid or gaseous in nature.

Biodiesel is derived from vegetable oils like soybean oil or palm oil, vegetable waste oils, and animal fats by a biochemical process called "Transesterification."

Biobutanol is produced through the fermentation of starch, in the same way as bioethanol.

Biohydrogen like biogas, can be produced using a number of processes such as pyrolysis, gasification or biological fermentation

**98. ANSWER: D**

Yaya Tso, known as birds' paradise for its beautiful lake located at an altitude of 4,820 metres, has been proposed as Ladakh's first biodiversity heritage site (BHS).

It is a nesting habitat for a large number of birds and animals, such as the bar-headed goose, black-necked crane and Brahminy duck.

**99. ANSWER: A**

Leith's Softshell Turtle (*Nilssonina leithi*) is a large fresh water soft-shelled turtle which is endemic to peninsular India and it inhabits rivers and reservoirs. The species has been subject to intensive exploitation over the past 30 years.

It is classified as 'Critically Endangered' by the IUCN.

The species is listed on Schedule IV of the Wild Life (Protection) Act, 1972, which gives it protection from hunting as well as trade.

Leith's Softshell Turtle has been **moved from Appendix II to Appendix I** of the Convention on International Trade in Endangered Species of wild fauna and flora (CITES)

**100. ANSWER: C**

Mangroves are a group of trees and shrubs that live in the coastal intertidal areas at tropical and subtropical latitudes because they cannot withstand freezing temperatures.

MISHTI scheme an initiative for mangrove plantation along the coastline and on salt pan lands, through convergence between MGNREGS, CAMPA Fund, and other sources.

Mangrove Alliance for Climate (MAC): Launched at the 27th session of the Conference of Parties (COP27) UN climate summit, with India as a partner. It is an initiative led by the United Arab Emirates (UAE) and Indonesia, the Mangrove Alliance for Climate (MAC) includes India, Sri Lanka, Australia, Japan, and Spain.

**South Asia houses some of the most extensive areas of mangroves globally, while Indonesia hosts one-fifth** of the overall amount. India holds around 3 percent of South Asia's mangrove population. Besides the **Sundarbans in West Bengal, the Andaman region, the Kachchh and Jamnagar areas in Gujarat to have substantial mangrove cover.**