

Weekly Quiz Answers (7th-13th Jan)

Ans1. B

Explanation:

Project Tiger	
Initiation (1973)	<ul style="list-style-type: none"> Launched in 1973, Project Tiger introduced Tiger Reserves, evolving from an administrative category to a statutory one in 2006. Currently, there are 54 Tiger Reserves in 18 States, covering 78,135.956 sq. km, constituting 2.38% of India's total land area. Critical Tiger Habitats (CTH) encompass 42,913.37 sq. km, constituting 26% of the area under National Parks and Wildlife Sanctuaries.
Tiger Population Growth	<ul style="list-style-type: none"> In 1972, the tiger count was 1,827 (pug-mark method); by 2022, estimates using the more reliable camera-trap method ranged from 3,167 to 3,925. India claims to host 75% of the world's tigers, with an annual growth rate of 6.1%.
Legislative Impact	<ul style="list-style-type: none"> The Wildlife (Protection) Act in 1972 established National Parks and Wildlife Sanctuaries but altered forest-dwellers' rights. Project Tiger, initially a Centrally Sponsored Scheme, introduced CTHs and Buffer Areas, leading to conflicts over displacement.

Ans2. D

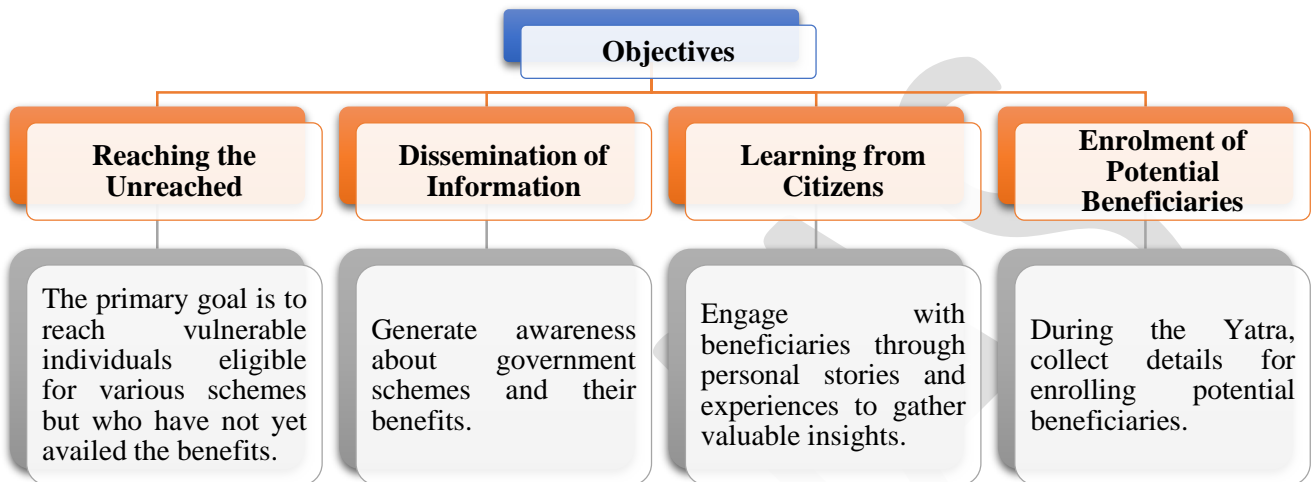
Key Highlights of the Insolvency and Bankruptcy Code, 2016	
About	<ul style="list-style-type: none"> IBC, 2016 provides a framework for resolving bankruptcy and insolvency for companies, individuals, and partnerships in a time-bound manner. The IBC (Amendment) Act, 2021 aims to provide an efficient alternative insolvency resolution framework for micro, small, and medium enterprises (MSMEs).
Objectives	<ul style="list-style-type: none"> Maximizing the value of debtor's assets. Promoting entrepreneurship. Ensuring timely and effective resolution of cases. Balancing the interests of all stakeholders. Facilitating a competitive market and economy. Providing a framework for cross-border insolvency cases.
IBC Proceedings	<ul style="list-style-type: none"> Insolvency and Bankruptcy Board of India (IBBI) oversees insolvency proceedings. National Companies Law Tribunal (NCLT) adjudicates proceedings for companies, while Debt Recovery Tribunal (DRT) handles proceedings for individuals. Courts play a crucial role in approving the initiation, appointing professionals, and endorsing final decisions.
Procedure for Insolvency Resolution	<ul style="list-style-type: none"> Initiated by debtor or creditor upon default. Insolvency professionals manage the process. A 180-day period prohibits legal action against the debtor. Committee of Creditors (CoC) decides on debt revival or liquidation.

Liquidation Process

- Proceeds from the sale of debtor's assets follow a specific order, ensuring resolution costs and payments to various creditors.

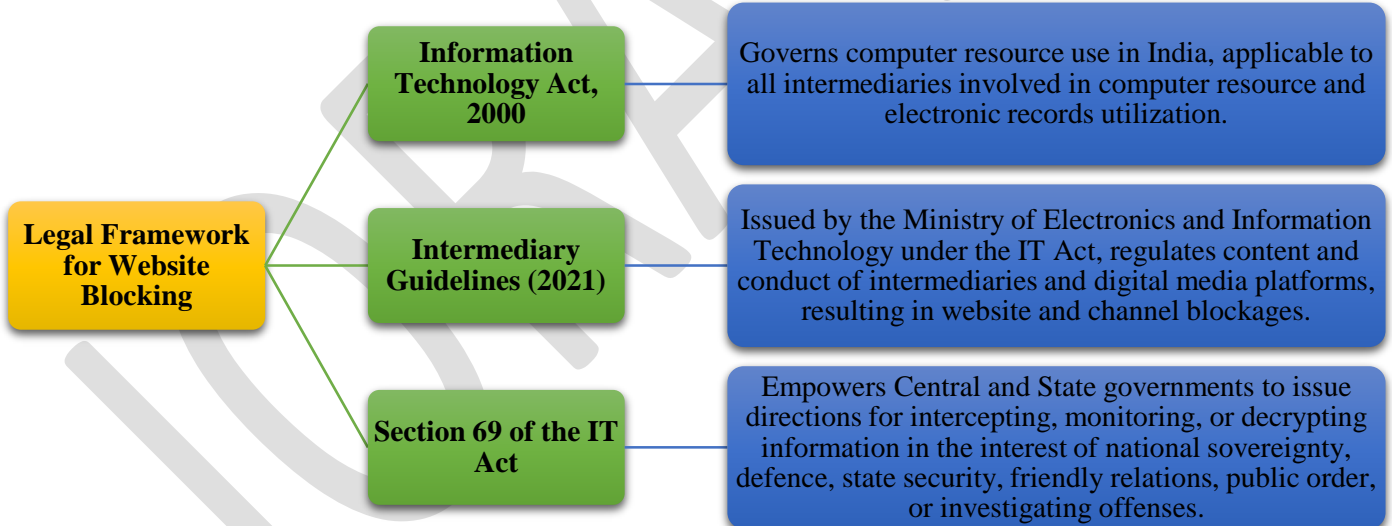
Ans3. D

Explanation:



Ans4. B

Explanation:



Ans5. B

Explanation:

EU's Carbon Border Tax (CBAM)

- Objective and Framework: Part of the "Fit for 55 in 2030 package," CBAM aims to price carbon emissions in goods imported into the EU.
- Applicability: Initially covering cement, iron, steel, aluminum, fertilizers, electricity, and hydrogen from countries with less stringent climate policies.

- Mechanism: Importers must purchase carbon certificates reflecting embedded emissions, priced equivalent to the EU Emissions Trading System.
- Purpose: Encourage cleaner production globally, prevent carbon leakage, and align with the EU's goal to reduce greenhouse gas emissions by 55% by 2030.

Ans6. A

Explanation:

Since November, the Houthi militia in Yemen has targeted cargo ships in the Red Sea, disrupting the fastest marine route between Asia and Europe via the Suez Canal.

- **Reasons for Attacks:** The Houthi militia's attacks are a display of support for Hamas in the conflict against Israel. The attacks have compelled cargo ships to take a longer route around the Cape of Good Hope, increasing both shipping costs and delivery times.

Significance of the Red Sea Trade Route

Historical Importance	Economic Significance	Geopolitical Importance
<ul style="list-style-type: none"> •The Red Sea has historically connected civilizations and continents, including Asia, Africa, and Europe. 	<ul style="list-style-type: none"> •The Suez Canal, operational since 1869, serves as a vital trade route, reducing the distance between Europe and Asia by 7000km. 	<ul style="list-style-type: none"> •Due to its economic and strategic significance, especially the narrow width of the Suez Canal, the region holds geopolitical importance.

Impact on Freight Rates

- **War Risk Surcharges:** Global shipping firms have imposed war risk surcharges, leading to increased freight rates.
- **Potential Surge in Freight Rates:** Indian exporters anticipate a potential surge of 25-30% in freight rates for shipments to Europe and Africa, impacting labor-intensive sectors.

Implications for India's Imports

Increased Costs	Fuel Price Impact	Tanker Market Dynamics
<ul style="list-style-type: none"> •Longer transit times and the crisis may result in costlier imports, necessitating better inventory management. 	<ul style="list-style-type: none"> •The crisis could affect India's plans to reduce fuel prices, given its high dependence on crude oil and petroleum product imports. 	<ul style="list-style-type: none"> •Despite increased rates, widespread rerouting of tankers has not been observed.

Ans7. D

Explanation:

Antimicrobial Resistance (AMR)	
Definition	AMR occurs when microorganisms no longer respond to medicines, making infections harder to treat and increasing the risk of severe illness and death.
Causes	Can arise through genetic mutation, species acquiring resistance from others, spontaneous occurrences, or horizontal gene transfer.

Main Causes

- Misuse and overuse of antimicrobials.
- Lack of clean water and sanitation.
- Inadequate infection prevention and control.
- Lack of awareness.

Ans8. B

Explanation:

Superconductivity

- Superconductivity involves materials with zero electrical resistance, allowing efficient flow of electricity.
- Current superconductors operate at extremely low temperatures, often below -250 degrees Celsius.
- The Meissner effect is a characteristic of superconductors, showcasing their ability to conduct electric currents without resistance.
- Scientists aim to discover materials displaying superconductivity at room temperature and normal pressure conditions.

Ans9. A

Explanation:

What are cosmic rays?

- Nature: High-energy particles, nearly reaching the speed of light, originating from the Sun, our galaxy, and distant galaxies.
- Composition: Includes protons, alpha particles (helium nuclei), and heavier ions.
- Ultra-High-Energy Cosmic Rays (UHECRs): Subatomic particles from extragalactic sources with energies surpassing 1 EeV..

Ans10. C

Explanation:

About Hybrid Mustard DMH-11

- Dhara Mustard Hybrid-11 (DMH-11) is a genetically modified hybrid variety of the mustard species Brassica juncea.
- Developed by Professor Deepak Pental from the University of Delhi to reduce India's dependence on edible oil imports.
- Contains two alien genes from *Bacillus amyloliquefaciens*, enabling the breeding of high-yielding commercial mustard hybrids.
- Created through transgenic technology involving the Bar, Barnase, and Barstar gene systems, conferring male sterility, restoring fertility, and providing resistance to Glufosinate.

Ans11. C

Explanation:

- **PM2.5 Reduction Disparities:** Out of 49 cities with consistent PM2.5 data over five years, only 27 displayed a decline in PM2.5 levels.
 - Merely four cities met or exceeded the targeted decline set by the National Clean Air Campaign (NCAP) Goals.
 - NCAP aims for a 40% reduction in average particulate matter (PM) concentrations by 2026 in 131 cities, with an initial goal of 20-40% reduction by 2024, later extended to 2026.
- **Mixed Progress Across Cities:** Varanasi, Agra, and Jodhpur demonstrated significant reductions in PM2.5 levels.
 - Delhi reported marginal declines (5.9%) or increased pollution loads.

- Varanasi showed the most substantial reduction with a 72% average decrease in PM2.5 levels and a 69% reduction in PM10 levels from 2019 to 2023.
- **Regional Vulnerabilities:** The Indo-Gangetic Plain (IGP) remains highly vulnerable, hosting 18 of the top 20 most polluted PM2.5 cities.
 - Only Guwahati and Rourkela, outside the IGP, were among the 20 most polluted cities.
- **Monitoring Challenges:** Availability and distribution of continuous ambient air quality monitors significantly influence annual pollutant concentrations.
 - Many Indian cities lack an adequate number of monitoring stations, with only four out of 92 cities having more than 10 stations.
 - Disparities exist, with Mumbai and Delhi having several stations while most cities have only a handful.
- **Factors Impacting Pollution:** Pollution variations attributed to geographical locations, diverse emission sources, meteorological influences, and the interplay between emissions and meteorology, necessitating further investigation.

Ans12. A

Explanation:

National Clean Air Programme (NCAP)	
Launch and Goal	<ul style="list-style-type: none"> ● Initiated by the Ministry of Environment, Forests and Climate Change (MoEFCC) in January 2019. ● Aims to reduce average PM concentrations by 40% by 2026 in 131 cities, initially targeting a 20-40% reduction by 2024.
Coverage	<ul style="list-style-type: none"> ● Encompasses 131 non-attainment cities identified by the Central Pollution Control Board (CPCB). ● Non-attainment cities are those falling short of National Ambient Air Quality Standards (NAAQS) for over five years.
Pollutants under NAAQS	NAAQS cover pollutants such as PM10, PM2.5, SO2, NO2, CO, NH3, Ozone, Lead, Benzene, Benzo-Pyrene, Arsenic, and Nickel.
PRANA Portal	PRANA serves as a monitoring portal for implementing NCAP.

Ans13. D

Explanation:

World Economic Forum (WEF) Overview	
About WEF	Swiss nonprofit foundation established in 1971, based in Geneva, Switzerland.
Mission	<ul style="list-style-type: none"> ● Committed to improving the state of the world by engaging leaders to shape global, regional, and industry agendas. ● Founder and Executive Chairman: Klaus Schwab.
Major Reports	<ul style="list-style-type: none"> ● Energy Transition Index. ● Global Competitiveness Report. ● Global IT Report. ● Global Gender Gap Report. ● Global Travel and Tourism Report (in collaboration with INSEAD and Cornell University).

Ans14. C

Explanation:

International Labour Organization (ILO)	
Overview	<ul style="list-style-type: none"> • The International Labour Organization (ILO) is a specialized agency within the United Nations, focusing on matters related to the world of work. • Its primary purpose is to promote social and economic justice by establishing and upholding international labor standards.
Mandate	<ul style="list-style-type: none"> • The ILO's commitment to fostering peace is encapsulated in its motto, "Decent Work for all."
Headquarters and Affiliation	<ul style="list-style-type: none"> • Headquartered in Geneva, Switzerland, the ILO operates under the umbrella of the Economic and Social Council of the United Nations (ECOSOC). • Additionally, it is a member of the United Nations Development Group (UNDP), working towards achieving the Sustainable Development Goals.
History and Membership	<ul style="list-style-type: none"> • Established in 1919 after World War I, the ILO officially became a specialized agency under the United Nations in 1946. • It boasts a membership of 187 states, including 186 out of the 193 UN member states, along with the Cook Islands.
Structure	<ul style="list-style-type: none"> • Uniquely, the ILO functions as the sole tripartite U.N. agency, bringing together representatives from governments, employers, and workers' organizations from its 187 member states to address labor-related issues and promote fair working conditions.

Ans15. A

Explanation:

Article 72 says that the president shall have the power to grant pardons, reprieves, respites remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence. A similar kind of power is given to the Governor of a state under Article 161.