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UPSC Mains 2023

4 am Batch Test

(DAY-24 - Answers)

1) Discuss the importance of millet cultivation in the context of climate change.

UPSC Mains Syllabus topic	**Miscellaneous**
Why was this question asked?	• **Mention the advantages of the cultivation of pulses because of which the year 2016 was declared as the International Year of Pulses by United Nations. (150 words)(2017)**
Introduction	**Climate change poses significant challenges to global agriculture, making it crucial to explore resilient and sustainable crop options. Millet cultivation has gained importance due to its adaptability to adverse conditions, lower carbon footprint, and contribution to food security in the face of climate change.**
Body	**Importance of Millet Cultivation:** **Adaptability to Adverse Conditions:** • Millets exhibit traits that enable them to thrive in diverse climatic and soil conditions. • They have deep root systems, allowing efficient water and nutrient uptake, enhancing drought resistance. • Different millet varieties, such as sorghum, pearl millet, finger millet, and foxtail millet, possess specific

	characteristics to withstand salinity, water stress, and short growing seasons. **Low Carbon Footprint:** • Compared to major cereal crops like wheat, rice, and maize, millet cultivation has a lower carbon footprint. • Millets contribute to carbon sequestration, reducing atmospheric CO2 levels and mitigating global warming. • Their ability to grow with limited water input and adapt to adverse conditions reduces the environmental impact of agriculture. **Ensuring Food Security:** • Millets offer a sustainable solution for ensuring food security in the face of climate change. • They can be grown in marginal lands with low rainfall, where other crops may struggle. • Millets have long storage life under proper conditions, making them reliable "famine reserves" and reducing the vulnerability of communities to food shortages.
Conclusion	**By promoting millet cultivation, we can enhance farmer resilience, reduce the environmental impact of agriculture, and ensure a more secure and sustainable food system.**

2) Indo-pacific region has assumed great geopolitical significance in the present context. Comment.

UPSC Mains Syllabus topic	**Miscellaneous**
Why was this question asked?	• **South China Sea has assumed great geopolitical significance in the present context. Comment.(2016)**
Introduction	**The Indo-Pacific region has emerged as a crucial geopolitical domain due to its strategic and economic importance. It encompasses the Indian Ocean, the Pacific Ocean, and the surrounding land masses. This region plays a**

	pivotal role in shaping global power dynamics, maritime security, and trade flows.
Body	**Geographical Interpretations:** • The Indo-Pacific concept varies among countries. The US defines it from the Western shore of the Americas to the Indian subcontinent, while India and Japan have a broader interpretation, extending to the shores of Africa. • Major stakeholders in the Indo-Pacific include India, USA, Australia, Japan, ASEAN member states, and other maritime nations. France also holds interests due to its overseas territories in the region. **Sea Lines of Communication (SLOC):** • The Indo-Pacific hosts vital Sea Lines of Communication, which are primary maritime routes for trade, logistics, and naval forces. • Choke points like the Mozambique Channel, Bab-el-Mandeb, and Lombok Strait are crucial for maintaining smooth trade flows and shaping power dynamics. **Flourishing Trade and Economy:** • The Indo-Pacific region encompasses 44% of the world's surface area, 65% of the world's population, and contributes to 62% of the world's GDP. • It serves as a major market and orchestrates global supply chains, making it a vital economic hub. **Rise in Non-Traditional Threats:** • The vastness of the region presents multiple non-traditional threats, including piracy, illegal fishing, trafficking, terrorism, and environmental hazards. • Addressing these challenges necessitates integrated efforts and collaboration among nations. **Wealth in Natural Resources:** • The Indian and Pacific Oceans hold firm reserves of marine resources, such as offshore hydrocarbons, methane hydrates, seabed minerals, rare earth metals, and fisheries.

	• The competition for exploiting these resources within the sizable coastlines and Exclusive Economic Zones (EEZs) of littoral countries adds to the geopolitical dynamics. **China Factor:** • China's foreign policy, economic expansion, military modernization, and power projection have raised concerns among regional and extra-regional countries. • Issues related to China's Belt and Road Initiative (BRI) and its disregard for international rules and customs have drawn attention and led to geopolitical tensions. • China's increasing militarization and establishment of commercial ports in the Indo-Pacific region have raised speculations about their potential military use.
Conclusion	**Therefore, the region serves as a critical theater for major global powers, influencing trade, security, and power balances.**

3) In the context of climate change what are the challenges to Indian urban cities and suggest measures to mitigate the looming crisis from it.

UPSC Mains Syllabus topic	**Important Geophysical Phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location-changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.**
Why was this question asked?	• **Smart cities in India cannot sustain without smart villages. Discuss this statement in the backdrop of rural urban integration.** • **How is efficient and affordable urban mass transport key to the rapid economic development in India? (Answer in 250 words) 15(2019)**
Introduction	**Climate change poses significant challenges to urban cities in India, as the country undergoes rapid urbanization and faces the impacts of rising temperatures, changing precipitation patterns, and sea-level rise.**
Body	**Challenges Faced by Indian Urban Cities:** 1. **Sea Level Rise:**

- Rising sea levels pose a threat to coastal cities like Mumbai, Kolkata, and Chennai.
- Flooding of lands, salinization of water sources, and destruction of ecosystems are potential consequences.

2. Water and Sanitation:

- Changes in precipitation patterns exacerbate existing water supply and quality problems.
- Cities in three regions, like Delhi, face increased challenges in water availability and quality.

3. Health and Diseases:

- Climate change increases the risk of environment-related diseases and mosquito-borne diseases.
- Poor sanitation and contaminated water contribute to the spread of diseases like cholera and typhoid.

4. Heat Waves:

- Urban areas experience the "urban heat island effect," leading to more frequent and intense heat waves.
- Heat waves have adverse effects on public health and economic productivity.

5. Infrastructure Vulnerability:

- Storms, floods, and cyclones pose risks to transportation, communication, water supply, and power infrastructure.
- Informal and traditional housing is particularly vulnerable to natural disasters.

6. Population Migration:

- Climate change-induced droughts and floods may lead to rural-to-urban migration.
- Overpopulation in cities, particularly in slums and informal settlements, increases vulnerability and strains resources.

Measures to Mitigate the Crisis:

1. Sustainable Urban Development:

- Promote compact and mixed-use urban planning to reduce energy consumption and commute distances.

	• Encourage green building practices and energy-efficient infrastructure. **2. Climate-Resilient Infrastructure:** • Develop and upgrade infrastructure with climate change adaptation strategies. • Implement flood-resistant designs, sustainable drainage systems, and coastal protection measures. **3. Integrated Water Management:** • Enhance water resource management through rainwater harvesting, waste water treatment, and efficient irrigation practices. • Promote water conservation measures and reduce water losses in distribution systems. **4. Health Protection:** • Strengthen public health systems to address climate-related health risks. • Improve sanitation facilities, access to clean water, and waste management practices. **5. Inclusive Planning:** • Ensure participation of vulnerable communities in urban planning and decision-making processes. • Provide affordable housing, basic amenities, and social safety nets for marginalized populations.
Conclusion	**It is crucial to take proactive measures now to mitigate the crisis and create livable, climate-resilient urban environments for all.**

4) How do the virtues of trustworthiness and fortitude get manifested in public service? explain with examples.

Trustworthiness and fortitude are virtues that play a vital role in public service. Trustworthiness involves being honest, reliable, and acting with integrity, while fortitude entails the courage and resilience to uphold ethical principles even in challenging situations. These virtues are essential for public servants to fulfill their responsibilities effectively and maintain the trust of the public.

Examples:

1. **Trustworthiness in Financial Management:** A public official responsible for managing public funds must exhibit trustworthiness by ensuring transparency, accountability, and responsible financial stewardship. By maintaining accurate records, preventing corruption, and safeguarding public resources, the official builds trust among citizens. For instance, a finance minister who implements stringent financial regulations and audits public spending demonstrates trustworthiness, instilling confidence in the public.
2. **Trustworthiness in Decision-Making:** Public officials are often confronted with ethical dilemmas that require making tough decisions. Demonstrating trustworthiness involves basing decisions on unbiased and well-informed judgment, free from personal or vested interests. For instance, a judge who maintains impartiality, avoids conflicts of interest, and upholds the rule of law showcases trustworthiness, ensuring fair and just outcomes.
3. **Fortitude in Whistleblowing:** A public servant who encounters corruption or wrongdoing within their organization may face a difficult decision. The virtue of fortitude is demonstrated when they have the courage to speak up against misconduct, even in the face of potential backlash or personal risk. For example, a whistleblower in a government agency who exposes fraudulent practices shows fortitude by prioritizing the public interest over personal concerns, despite potential professional and personal consequences.
4. **Fortitude in Crisis Management:** During times of crisis or emergencies, public servants must display fortitude by remaining calm, resilient, and decisive in their actions. For instance, emergency response personnel, such as firefighters or paramedics, who bravely confront dangerous situations and provide aid to those in need exemplify fortitude in the face of adversity.

Trustworthiness and fortitude are indispensable virtues in public service. By embodying these virtues, public servants establish trust with the public, maintain integrity in decision-making, exhibit courage in upholding ethical principles, and demonstrate resilience in challenging circumstances. These virtues are crucial for ensuring effective governance, fostering public confidence, and promoting the well-being of society as a whole.

5) Optional Self-Practice Questions:

ANTHROPOLOGY :

- **Discuss the chromosomal aberrations and manifestations of Klinefelter and Turnner syndromes**

HISTORY :

- **"Globalization has constructed the administrative state to save and serve corporate power structure." Discuss how transnational corporations impact government and public administration in the contemporary era.**

PUBLIC ADMINISTRATION :

- **"Globalization has constructed the administrative state to save and serve corporate power structure." Discuss how transnational corporations impact government and public administration in the contemporary era.**

SOCIOLOGY :

- **What are sects? Discuss the role in multi- religious societies with empirical examples.**

GEOGRAPHY :

- **What type of planning is required for sustainable development in various sectors?**