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Editor – N.N. Ojha

Solved by – Chronicle Editorial Team



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UPSC CIVIL SERVICES EXAMINATION

SYLLABUS

General Studies Paper-I

Indian Heritage and Culture, History and Geography of the World and Society

- ❖ Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.
- ❖ Modern Indian History from about the middle of the eighteenth century until the present- significant events, personalities, issues.
- ❖ The Freedom Struggle - its various stages and important contributors/contributions from different parts of the country.
- ❖ Post-independence consolidation and reorganization within the country.
- ❖ History of the world will include events from 18th century such as industrial revolution, world wars, redrawal of national boundaries, colonization, decolonization, political philosophies like communism, capitalism, socialism etc.- their forms and effect on the society.
- ❖ Salient features of Indian Society, Diversity of India.
- ❖ Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.
- ❖ Effects of globalization on Indian society
- ❖ Social empowerment, communalism, regionalism & secularism.
- ❖ Salient features of world's physical geography.
- ❖ Distribution of key natural resources across the world (including South Asia and the Indian sub-continent); factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India)
- ❖ 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.

General Studies Paper-II

Governance, Constitution, Polity, Social Justice and International Relations

- ❖ Indian Constitution - historical underpinnings, evolution, features, amendments, significant provisions and basic structure.
- ❖ Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.
- ❖ Separation of powers between various organs dispute redressal mechanisms and institutions.
- ❖ Comparison of the Indian constitutional scheme with that of other countries.
- ❖ Parliament and State Legislatures - structure, functioning, conduct of business, powers & privileges and issues arising out of these.

- ❖ Structure, organization and functioning of the Executive and the Judiciary, Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.
- ❖ Salient features of the Representation of People's Act.
- ❖ Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.
- ❖ Statutory, regulatory and various quasi-judicial bodies.
- ❖ Government policies and interventions for development in various sectors and issues arising out of their design and implementation.
- ❖ Development processes and the development industry - the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.
- ❖ Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.
- ❖ Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.
- ❖ Issues relating to poverty and hunger.
- ❖ Important aspects of governance, transparency and accountability, e-governance- applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.
- ❖ Role of civil services in a democracy.
- ❖ India and its neighborhood- relations.
- ❖ Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.
- ❖ Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.
- ❖ Important International institutions, agencies and fora- their structure, mandate.

General Studies Paper-III

Technology, Economic Development, Biodiversity, Environment, Security and Disaster Management

- ❖ Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.
- ❖ Inclusive growth and issues arising from it.
- ❖ Government Budgeting.
- ❖ Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers.
- ❖ Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System- objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.
- ❖ Food processing and related industries in India- scope and significance, location, upstream and downstream requirements, supply chain management.
- ❖ Land reforms in India.
- ❖ Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.
- ❖ Infrastructure: Energy, Ports, Roads, Airports, Railways, etc.
- ❖ Investment models.
- ❖ Science and Technology - developments and their applications and effects in everyday life Achievements of Indians in science & technology; indigenization of technology and developing new technology.
- ❖ Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.
- ❖ Conservation, environmental pollution and degradation, environmental impact assessment.

- ❖ Disaster and disaster management.
- ❖ Linkages between development and spread of extremism.
- ❖ Role of external state and non-state actors in creating challenges to internal security.
- ❖ Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.
- ❖ Security challenges and their management in border areas; linkages of organized crime with terrorism.
- ❖ Various Security forces and agencies and their mandate.

General Studies Paper-IV

Ethics, Integrity and Aptitude

- ❖ Ethics and Human Interface: Essence, determinants and consequences of Ethics in human actions; dimensions of ethics; ethics in private and public relationships. Human Values – lessons from the lives and teachings of great leaders, reformers and administrators; role of family, society and educational institutions in inculcating values.
- ❖ Attitude: content, structure, function; its influence and relation with thought and behaviour; moral and political attitudes; social influence and persuasion.
- ❖ Aptitude and foundational values for Civil Service, integrity, impartiality and non-partisanship, objectivity, dedication to public service, empathy, tolerance and compassion towards the weaker-sections.
- ❖ Emotional intelligence-concepts, and their utilities and application in administration and governance.
- ❖ Contributions of moral thinkers and philosophers from India and world.
- ❖ Public/Civil service values and Ethics in Public administration: Status and problems; ethical concerns and dilemmas in government and private institutions; laws, rules, regulations and conscience as sources of ethical guidance; accountability and ethical governance; strengthening of ethical and moral values in governance; ethical issues in international relations and funding; corporate governance.
- ❖ Probity in Governance: Concept of public service; Philosophical basis of governance and probity; Information sharing and transparency in government, Right to Information, Codes of Ethics, Codes of Conduct, Citizen's Charters, Work culture, Quality of service delivery, Utilization of public funds, challenges of corruption.
- ❖ Case Studies on above issues.



INDIAN HERITAGE & CULTURE

Q. What were the major technological changes introduced during the Sultanate period? How did those technological changes influence the Indian society? (CSE 2023)

Ans: The period from 1206 A.D. to 1526 A.D. is known as the Delhi Sultanate period. This period witnessed many dynasties and various rulers. The rulers of Delhi Sultanate were of Turko-Afghan origin, who introduced many new technologies in India.

Major Technological Developments during Sultanate Period

- ❖ **Architecture:** The Sultanate period witnessed the introduction of arch and domes for the first time in India. The use of lime as cementing agent begun and gypsum and lime paste were now used as plastering agent. These technologies increased the strength of buildings and construction at mass scale was started during this period.
- ❖ **Agriculture:** The introduction of the Persian wheel substantially increased agricultural productivity. To measure the land, Sikandar Lodhi introduced the new measuring unit 'gaz-i-sikandari'. Firoz Shah Tughlaq introduced many new techniques in horticulture; he founded nearly 1200 fruit gardens.
- ❖ **Military Technique:** Turks brought better horse riding techniques to India, the use of saddle and stir-up enhanced the efficiency of riders. The Turkish archers used a bow, called Navik with entirely new technique.
- ❖ **Textile:** Cotton could be cleaned faster with the use of the cotton carder's bow (dhunia). The production of textiles was also improved by the introduction of the spinning wheel (Charkha).
- ❖ **Craftwork:** Use of paper and technique of bookbinding started during this period. Glass making technique improved due to influence from Middle East. Sultans promoted new techniques in leather production, carpet and shawls production, stone polishing.

Impact on Indian Society

- ❖ The introduction of technology increased the agricultural production, and this surplus production was essential to sustain the primary and tertiary activities and urban life in medieval age.

- ❖ Economic activities became more dynamic and diverse; the scale of production increased significantly which ultimately enhanced the trade and commerce activities.
- ❖ The fusion of two different architectural styles led to the development of Indo-Islamic architectural styles and construction works witnessed a new height.
- ❖ The use of paper made writing activities decentralized. There are a number of literary sources available apart from royal documents. These sources help us in reconstruction of history and provide significant information about the period concerned.

The technological changes introduced during the Sultanate period had a profound impact on Indian society, promoting economic growth, cultural exchange, and urban development while contributing to the synthesis of diverse cultural elements.

Q. Discuss the main contributions of Gupta period and Chola period to Indian heritage and culture. (CSE 2022)

Ans: The rich tapestry of Indian heritage, woven over millennia, encompasses a diverse array of art forms, architectural marvels, and cultural traditions. Among the illustrious chapters in India's history, the Gupta and Chola periods stand out as epochs of profound cultural and artistic flourishing, leaving an enduring legacy that continues to shape India's identity today. Their contribution to Indian heritage and culture can be briefly summarized as follows:

Contributions of Gupta Period

The Gupta Empire, often dubbed the "Golden Age of India," witnessed a renaissance in art and architecture, marked by several notable contributions.

- ❖ **Temple Architecture:** Under Gupta patronage, temple architecture evolved significantly, transitioning from Buddhist to Hindu architectural styles. This period saw the zenith of temple construction, with intricate designs and sculptures adorning temple complexes.
- ❖ **Religious Tolerance:** Despite being predominantly Brahmanical, Gupta rulers exhibited remarkable religious tolerance, fostering an environment conducive to the flourishing of Buddhism and Jainism alongside Hinduism.

GEOGRAPHY OF INDIA & WORLD

Q. How are the fjords formed? Why do they constitute some of the most picturesque areas of the world? (CSE 2023)

Ans: A fjord is a deep, narrow and elongated sea or lake drain, with steep land on three sides. The opening toward the sea is called the mouth of the fjord, and is often shallow. The fjord's inner part is called the sea bottom. If the geological formation is wider than it is long, it is not a fjord.

Fjords Formation Processes

- ❖ The fjords were formed by the giant glacier tongues that through several ice ages have shaped the landscape.
- ❖ A fjord is thus a U-shaped undersea valley, and on the west coast, this valley is often surrounded by dramatic mountain scenery.
- ❖ In front of the glacier arm, the deposited moraine of gravel and sand form an underwater barrier, often called "sea thresholds" or "ra" at places where the fjord is shallow.
- ❖ This shallow threshold in the mouth of the fjord is the reason that fjords often are quieter than the open sea. Thus fjords are often natural harbours.

Fjords: Most Picturesque Areas of the World

- ❖ **Spectacular Scenery:** Fjords are often surrounded by towering cliffs or steep mountains on both sides, which create a dramatic backdrop. The contrast between the deep blue waters and the rugged terrain is visually stunning.
- ❖ **Crystal-Clear Water:** Fjords are typically fed by melt water from glaciers, which results in incredibly clear and pristine waters. The clarity of the water allows you to see deep below the surface, revealing submerged rock formations and marine life.
- ❖ **Waterfalls:** The steep sides of fjords often give rise to numerous waterfalls, which cascade down from the cliffs into the fjords. These waterfalls add to the picturesque nature of the landscape and create mesmerizing sights and sounds.
- ❖ **Tranquility and Seclusion:** Fjords are typically remote and isolated areas, offering a sense of tranquility and seclusion. This remoteness adds to their charm as peaceful, unspoiled natural landscapes.

Fjords are celebrated for their unique combination of natural elements, and their breathtaking beauty has made them a popular destination for tourists, nature lovers, and

photographers. Their picturesque qualities make them truly remarkable and among the most beautiful natural landscapes in the world.

Q. Discuss the consequences of climate change on the food security in tropical countries. (CSE 2023)

Ans: As per World Bank, about 80 per cent of the global population most at risk from crop failures and hunger from climate change are in Sub-Saharan Africa, South Asia, and Southeast Asia, where farming families are disproportionately poor and vulnerable.

Climate change has far-reaching and detrimental consequences on food security in tropical countries. These nations are particularly vulnerable due to their heavy reliance on agriculture, often with limited resources and infrastructure.

Consequences of Climate Change on Food Security in Tropical Countries

- ❖ **Crop Yield Reduction:** Rising temperatures, changing precipitation patterns, and extreme weather events like droughts and floods can significantly reduce crop yields. This affects staple crops such as rice, maize, and wheat, leading to decreased food availability.
- ❖ **Decreased Nutritional Value:** Climate change can alter the composition of crops, reducing their nutritional content. For instance, elevated CO₂ levels can lead to decreased protein and micronutrient content in grains, potentially exacerbating malnutrition and food insecurity.
- ❖ **Shifts in Pest and Disease Patterns:** Warmer temperatures can expand the range and increase the prevalence of pests and diseases that affect crops. Tropical regions are especially susceptible, as these regions already have a high burden of crop pests and diseases. Increased infestations can lead to substantial crop losses.
- ❖ **Water Scarcity:** Climate change can intensify water scarcity in tropical countries, making it more difficult to irrigate crops. This is a critical issue in regions where rain-fed agriculture is the norm. Water stress can lead to decreased crop yields and food insecurity.
- ❖ **Loss of Biodiversity:** Changes in climate can disrupt ecosystems and lead to the loss of biodiversity. This can affect the availability of wild foods, pollinators, and genetic diversity in agricultural crops, reducing food security.

HISTORY OF INDIA & THE WORLD

Q. Explain the role of geographical factors towards the development of Ancient India. (CSE 2023)

Ans: India is one of oldest continuous civilizations existing in the world. In ancient India, geographical factors had played an important role in the development of its culture, economy and political system.



Role of Geographical Factors

- ❖ **Role of Hills and Mountains:** The Himalaya prohibits cold Siberian wind from entering India and this helped in maintaining warm climate which was essential for the growth of flora and fauna. The Himalayas also acts as barrier to foreign invaders.
 - ◆ Hills and mountains divided India into a number of small geographical units. As a result, diverse regional cultures emerged in India. The Vindhyas have ensured that politico-military development going on in North India didn't have much impact on the life of peninsular India.
- ❖ **Role of Fertile Plains:** The existence of extensive fertile plains in North India led to the emergence of large empires, as resources provided by north India was much more than any part of India. So, these empires could maintain much larger armies.
- ❖ **Role of Minerals, Forest and other Natural Resources:** The resource availability has determined the direction of Indian History. The Magadhan Empire was successful

due to the availability of iron mine and other natural resources in the Magadha region.

- ❖ **Role of Rivers:** Rivers formed the fertile plains in India. The water was limiting factor, so the evidence of early human settlements can be found near the rivers. Rivers also acted as political boundary throughout Indian history.
- ❖ **Role of Climate:** Areas of moderate rainfall were mostly densely populated because of their suitability for agriculture.

India has continental character because of extensive geographical spread and Indian rulers found it very difficult to carry out political uniformity. Except for Mauryan and Gupta periods, India remained politically fragmented throughout the course of history.

Q. Bring out the socio-economic effects of the introduction of railways in different countries of the world. (CSE 2023)

Ans: Railways are one of most important inventions in the history of mankind as they revolutionized transportation, communication and trade and commerce. The introduction of railways in different countries of the world had various socio-economic effects, both positive and negative.

Positive Aspects

- ❖ **Economic Growth:** Railways are crucial for the efficient movement of goods, including raw materials, finished products and agricultural produce. This contributed to economic growth by reducing transportation costs and improving market access.
- ❖ **Industrialization:** Railways played a pivotal role in the industrialization of many countries, e.g. Britain, enabling the expansion of industries by providing reliable and cost-effective transportation for raw materials and manufactured goods.
- ❖ **Urban Development:** Introduction of railways led to the growth of cities and towns along their routes. The construction and operation of railways required a significant labour force, attracting workers to these areas. E.g. Chicago in USA was developed as the major railway junction. It is now one of the largest cities of the world.
- ❖ **Cultural Exchange and National Integration:** Through railways, people of different regions came in contact of each other. The ideas and literature have been exchanged and integrated the country. In India railways helped in mobilizing the people against the colonial government.

SOCIETY

Q. Does urbanization lead to more segregation and/or marginalization of the poor in Indian metropolises? (CSE 2023)

Ans: According to the 2011 Census, the urban population in India was about 31.2% of the total population. This is projected to grow to around 40% of the total population by 2030. Urbanization in Indian metropolises can have complex and varied impacts on different segments of the population, including the poor. While urbanization can bring about economic opportunities, improved infrastructure, and access to services, it can also contribute to certain challenges, including segregation and marginalization of the poor. Here are some important factors in this regard:

- ❖ **Rapid Growth and Infrastructure Disparities:** In many Indian cities, rapid urbanization has led to uneven growth, resulting in disparities in infrastructure development. The poor often end up residing in informal settlements or slums with limited access to basic services like clean water, sanitation, and healthcare. This spatial segregation can contribute to their marginalization.
- ❖ **Economic Disparities:** Urbanization can create economic opportunities, but it may not benefit all segments of the population equally. The poor may face challenges in accessing formal employment, leading to the proliferation of informal and low-paying jobs. This economic disparity can further contribute to social segregation.
- ❖ **Gentrification:** In some cases, urban development and gentrification can lead to the displacement of low-income communities. As neighbourhoods undergo redevelopment, property values may increase, making it difficult for the poor to afford housing in those areas. This can result in their forced migration to peripheral areas with fewer resources.
- ❖ **Limited Social Integration:** Social segregation may also occur due to factors such as caste, religion, or ethnicity. In some instances, certain groups may face discrimination or exclusion in urban areas, limiting their social integration and access to community resources.
- ❖ **Inadequate Social Services:** As urbanization increases, the demand for social services also rises. However, the provision of services may not keep pace with population growth, disproportionately affecting the poor. Limited access to education, healthcare, and other essential services can further marginalize certain communities.

- ❖ **Policy Challenges:** Inadequate urban planning and policy implementation can exacerbate the challenges faced by the poor. Lack of affordable housing, insufficient public transportation, and inadequate social welfare programs can contribute to the marginalization of vulnerable populations.



Therefore, it is essential to note that the impact of urbanization on segregation and marginalization can vary across different cities and regions in India. Efforts by the government, NGOs and other stakeholders to address these challenges through inclusive urban planning, social policies, and community development programs can help mitigate the negative consequences of urbanization on the poor.

Q. Why is caste identity in India both fluid and static? (CSE 2023)

Ans: Caste today exhibits both static and fluid aspects due to its strong historical roots and ongoing societal changes due to the onslaught of modernity.

Factors Responsible for Fluidity in Caste Identity

1. Urbanization and Education

- ❖ The process of urbanization and education has led to increased interaction among people from different castes in urban areas. As, urban lifestyle and the influence of modern education are diluting traditional caste barriers.

INTERNATIONAL RELATIONS

Q. 'Virus of Conflict is affecting the functioning of the SCO'. In the light of the above statement point out the role of India in mitigating the problems. (CSE 2023)

Ans: Recently, India chaired the Shanghai Cooperation Organization (SCO) virtual summit with theme "Towards a Secure SCO" which was first introduced by Prime Minister of India during the 2018 SCO Summit. The term "SECURE" stands for: Security, Economy and Trade, Connectivity, Unity, Respect for Sovereignty and Territorial Integrity, and Environment. However, the organization is facing numerous challenges.

Factors Affecting the Functioning of SCO

- ❖ **Decline of Russia:** India's full membership into SCO was premised on the prime position of Russia in SCO. But Russia's war in Ukraine is raising questions about its capacity to sustain primacy in its backyard as the Central Asian states are looking to reduce their reliance on Russia.
- ❖ **Gap between Purpose and Practice:** The SCO advocates peaceful resolution of conflicts, respect for territorial integrity, counteracting terrorism, extremism and separatism in all its forms etc. But these norms are violated by China and Pakistan in their relations with India, despite the Regional Anti-Terrorist Structure of the SCO.
- ❖ **Becoming China-centric:** Shared borders, growing political importance, and rising regional security profile is increasing the prospects for China's emergence as the dominant force in central Asia.
- ❖ **Limited Institutional Capacity:** The institutional capacity and decision-making processes of the SCO are comparatively weak. This poses challenges in effectively implementing agreements and responding to crises.
- ❖ **"Anti-West" Forum:** SCO is increasingly seen as an "anti-West" forum and entry of Iran in SCO has made the situation difficult for India.

Role of India in Mitigating the Problems

- ❖ **Promoting Dialogue and Cooperation:** India can leverage diplomacy to foster dialogue and cooperation, especially concerning security and counter-terrorism. Hosting SCO events can further facilitate member state interaction and trust-building.
- ❖ **Promoting Cultural Exchanges:** Sharing its cultural heritage through festivals and events can foster mutual

understanding. These interactions will promote tolerance and reduce tensions by highlighting shared cultural values and traditions.

- ❖ **Knowledge Exchange:** The SCO Startup Forum, initiated by India in 2020, facilitates knowledge sharing and collaboration in the entrepreneurial space.

India should focus on protecting its own interests amidst a rapidly changing regional power distribution in China's favour. This can be achieved by actively participating in SCO to shape the organization's agenda and contribute to its decision-making processes.

Q. Indian diaspora has scaled new heights in the West. Describe its economic and political benefits for India. (CSE 2023)

Ans: According to the World Migration Report, 2022, India had the largest emigrant population in the world in 2020. Additionally, the Indian diaspora is becoming an influential community in west, notably the US, the UK, and Canada.

- ❖ The **Silicon Valley and tech giants** worldwide have witnessed the leadership prowess of Indian-origin individuals. Eg: Sundar Pichai steering Google and Satya Nadella at the helm of Microsoft
- ❖ **Indian-origin politicians** have been making headlines with their appointments to high offices. Eg: Kamala Harris's election as the Vice President of the US and Rishi Sunak as the UK's Prime Minister.
- ❖ **Writers** like Jhumpa Lahiri, with her Pulitzer Prize-winning collection "Interpreter of Maladies", have showcased the richness of Indian storytelling on the global stage.

With all these, they made a significant political and economic contribution in India.

Economic Benefits for India

- ❖ **Remittances:** Recently, India received more than \$100 billion in remittances, with a considerable chunk coming from the diaspora in Western nations.
- ❖ **Investments:** NRI and PIO entrepreneurs like *Vinod Khosla and Rakesh Gangwal* have made substantial investments in Indian startups and businesses, providing a substantial boost to the Indian economy.
- ❖ **Technology Transfer:** Notable figures such as *Sundar Pichai and Satya Nadella* have facilitated technology transfers and collaborative innovations with Indian

POLITY & GOVERNANCE

Q. “Constitutionally guaranteed judicial independence is a prerequisite of democracy”. (CSE 2023)

Ans: The Supreme Court is a federal court, the highest court of appeal, the guarantor of the fundamental rights of the citizens and the guardian of the Constitution.

The Constitution of India has also made several provisions to ensure judicial independence viz., security tenure of the judges, fixed service conditions, all the expenses of the Supreme Court charged on the Consolidated Fund of India, prohibition on discussion on the conduct of judges in the legislatures, ban on practice after retirement, power to punish for its contempt vested in the Supreme Court, separation of the judiciary from the executive, and so on.

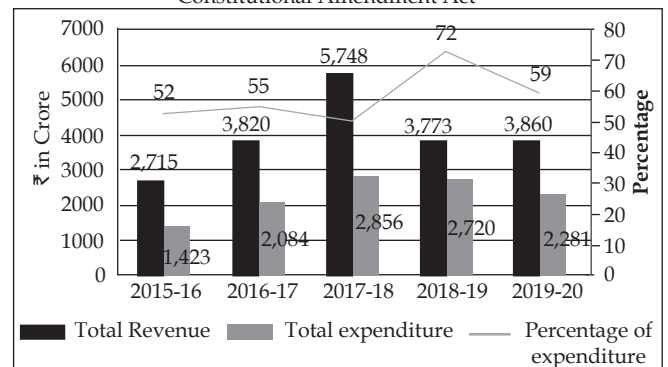
Constitutionally Guaranteed Judicial Independence: A Prerequisite of Democracy

- ❖ **Rule of Law:** Judicial independence ensures that laws are interpreted and applied consistently and fairly, regardless of political or other extraneous considerations.
 - ❖ **Checks and Balances:** In a democracy, the three branches of government (executive, legislative, and judicial) should function independently and serve as checks on each other. This prevents any single branch from becoming too powerful and protects individual rights.
 - ❖ **Protection of Rights:** An independent judiciary can protect the rights and freedoms of individuals, as it can hold the government accountable for actions that may infringe on those rights.
 - ❖ **Preventing Authoritarianism:** There is a higher risk of authoritarianism or the abuse of power in countries of without independent judiciaries by the government. As the judiciary acts as a bulwark against such abuses.
 - ❖ **Legal Certainty:** Judicial independence promotes legal certainty, which is essential for economic and social stability. People and businesses need confidence that the legal system will resolve disputes fairly and predictably.
- Moreover, independence of judiciary should not mean that judges are free to do anything they wish. Being non-elected but trusted with the duty of defending the constitutional values, judiciary should display highest level of self-accountability to serve democracy and its ethos.

Q. “The states in India seem reluctant to empower urban local bodies both functionally as well as financially.” Comment. (CSE 2023)

Ans: Urban local bodies form the basis for strengthening grassroots democracy in India. These bodies play the greater role of involving masses at the grass-root levels, thereby making them more aware electorally and politically. It empowers every citizen down to the grass root levels and gives them the power to influence the decision-making powers of the government thereby enhancing Indian democracy and making it more responsive.

Performance Audit of Efficacy of Implementation of 74th Constitutional Amendment Act



Reluctance of States in Empowering Urban Local Bodies

- ❖ **Power Centralization:** States have been reluctant to devolve power to urban local bodies due to a legacy of centralization and a preference for maintaining control at the state level. As it has been evident since past.
- ❖ **Political Control:** State governments often view urban local bodies as potential rivals in terms of political power. Thus, empowering local bodies may dilute the control of state governments over urban areas.
- ❖ **Shortcomings of State Finance Commissions:** Inefficient functioning of SFCs has affected the ability of ULBs to augment financial resources. Further, the recommendations made are largely ad-hoc in nature and not based on sound public finance principles.
- ❖ **Lack of Requisite Infrastructure and Specialized Human Resources:** Some states may argue that urban local bodies lack the necessary infrastructure and technical capacity to handle the functions they are entrusted with. This perception can discourage states from delegating more responsibilities.

Q. Who are entitled to receive free legal aid? Assess the role of the National Legal Services Authority (NALSA) in rendering free legal aid in India. (CSE 2023)

Ans: The National Legal Services Authority (NALSA) has been constituted under the Legal Services Authorities Act, 1987 to provide free legal services to the weaker sections of the society and to organize Lok Adalats for amicable settlement of disputes.

Eligibility for Free Legal Services

Section 12 of the Legal Services Authorities Act, 1987 prescribes the criteria for giving legal services to the eligible persons. These are:

- A member of a Scheduled Caste or Scheduled Tribe;
- A victim of trafficking in human beings or begar;
- A woman or a child;
- A mentally ill or otherwise disabled person;
- A person under circumstances of undeserved want such as being a victim of a mass disaster, ethnic violence, caste atrocity, flood, drought, earthquake or industrial disaster;
- An industrial workman;
- In custody, including custody in a protective home within the meaning of clause (g) of section 2 of the Immoral Traffic (Prevention) Act, 1956 (104 of 1956); or in a juvenile home within the meaning of clause of the Juvenile Justice Act, 1986 or in a psychiatric hospital or psychiatric nursing home of the Mental Health Act, 1987.
- Individuals with an annual income less than the specified amount (as mentioned in the schedule or higher amount prescribed by the State Government) are eligible for free legal services if the case is before any court other than the Supreme Court. For cases before the Supreme Court, the income threshold is less than Rs 5 Lakh.

Role of the NALSA in Rendering Free Legal Aid in India

- Legal Aid Clinics:** NALSA facilitates the establishment of legal aid clinics at various levels, including district and taluka levels, to make legal services easily accessible to the people in need.

- Training and Capacity Building:** NALSA is involved in training and capacity-building programs for legal professionals, para-legal volunteers, and other stakeholders to enhance the quality of legal aid services provided.

- Public Interest Litigation (PIL):** NALSA has been instrumental for the protection and enforcement of the rights of the marginalized sections of society. For example, it played a major role in recognizing transgender rights (NALSA vs. Union of India).

- Legal Awareness Campaigns:** It organizes legal awareness campaigns to educate people about their rights and entitlements. For example, the "Legal Literacy Clubs" in schools and colleges is to instill legal awareness among students.

Thus, by providing free legal aid and promoting legal awareness, NALSA contributes significantly to the goal of ensuring justice and empowerment for the marginalized sections of society in India.

Q. The crucial aspect of development process has been the inadequate attention paid to Human Resource Development in India. Suggest measures that can address this adequacy. (CSE 2023)

Ans: Given India's demographic diversity, with 65 per cent of its population under 35 years of age, Human Resource Development (HRD) is pivotal for the nation's progress. But unfortunately, India has faced persistent challenges in ensuring optimal HRD.

Inadequate attention paid to Human Resource Development in India:

- ❖ **Inadequate Educational Infrastructure:** Many rural areas still lack proper schooling facilities. As per UNICEF, over 6 million children aged 6-14 years remain out of the formal education system in India.
- ❖ **Quality Education:** As per ASER report 2023, about 25 per cent cannot read Grade 2 text and over 50 per cent face difficulties with arithmetic skills expected by Grade 5.

ECONOMIC DEVELOPMENT

Q. Faster economic growth requires increased share of the manufacturing sector in GDP, particularly of MSMEs. Comment on the present policies of the Government in this regard. (CSE 2023)

Ans: Micro, Small and Medium Enterprises (MSMEs) are the backbone of the Indian economy, contributing approximately 30 per cent of the country's Gross Domestic Product (GDP), 45 per cent of manufacturing output and providing employment to 11 crore persons.

Relationship between manufacturing, MSMEs and faster economic growth:

A symbiotic relationship exists between faster economic growth, a thriving manufacturing sector, and the development of MSMEs in India. This relationship is complex and interconnected. The key aspects of this relationship are outlined below.

- 1. Contribution to Economic Growth:** A robust manufacturing sector can stimulate economic activity and attract investments. MSMEs, being an integral part of the manufacturing ecosystem, contribute substantially to economic growth.
- 2. Employment Generation:** Manufacturing activities, when expanded, lead to increased job opportunities. MSMEs are known for their labour-intensive nature. They provide employment to a significant portion of the workforce, including skilled and unskilled labour, contributing to overall employment levels.
- 3. Export Promotion:** A strong manufacturing base can lead to increased exports, contributing positively to the balance of trade. MSMEs, particularly those engaged in manufacturing, can contribute to export growth by producing goods that cater to both domestic and international markets.

Present policies of the Government to support MSMEs:

- ❖ **Make in India Initiative:** 'Make in India' is an initiative which was launched in 2014 to facilitate investment, foster innovation, build best in class infrastructure and make India a hub for manufacturing, design and innovation.
- ❖ **National Logistics Policy:** National Logistics Policy

(NLP), launched in 2022, aims to lower the cost of logistics and lead it to par with other developed countries.

- ❖ **Production Linked Incentive scheme:** Keeping in view India's vision of becoming 'Atmanirbhar', Production Linked Incentive (PLI) Schemes have been announced to enhance India's Manufacturing capabilities and Exports.
- ❖ **PM Gati Shakti National Master Plan (NMP):** PM Gati Shakti National Master Plan (NMP), a GIS based platform, is a transformative approach to facilitate data-based decisions related to integrated planning of multimodal infrastructure, thereby reducing logistics cost.

The Government of India is focussing on creating an environment conducive to the growth of both large-scale manufacturing and MSMEs to achieve sustainable and inclusive economic development.

Q. What is the status of digitalization in the Indian economy? Examine the problems faced in this regard and suggest improvements (CSE 2023)

Ans: The Government of India launched the 'Digital India' initiative in 2015 to improve online infrastructure and increase internet accessibility among citizens (for example, linking rural areas to high-speed internet networks), thereby, empowering the country to become more digitally advanced.

Status of Digitalization in the Indian Economy

- ❖ The UPI-based BHIM (Bharat Interface for Money) app is enabling secure and convenient peer-to-peer transactions. The transactions grew in value (121 per cent) and volume (115 per cent) terms from 2019-22.
- ❖ Initiatives like the e-visa and the Digital Locker system have streamlined government services, reducing paperwork and enhancing accessibility.
- ❖ Since India's first unicorn in 2011, India is now home to 111 startup unicorns, which are collectively valued at \$347 billion.

ENVIRONMENT & DISASTER MANAGEMENT

Q. Dam failures are always catastrophic, especially on the downstream side, resulting in a colossal loss of life and property. Analyze the various causes of dam failures. Give two examples of large dam failures. (CSE 2023)

Ans: Dam failure is the collapse or movement of part of a dam or its foundation, such that the dam cannot retain water. In general, a failure results in a release of large quantities of water imposing risks on the people or property downstream.

Causes of Dam Failures

- ❖ **Overtopping:** These failures occur as a result of poor spillway design, leading to a reservoir filling too high with water, especially in times of heavy rainfall. Other causes of this type of failure include settling of the crest of the dam or spillway blockage.
- ❖ **Foundation Defects:** These failures occur as a result of settling in the foundation of the dam, instability of slopes surrounding the dam, uplift pressures and seepage around the foundation. All of these failures result in structural instability and potential dam failure.
- ❖ **Piping and Seepage Failures:** These failures occur as a result of internal erosion caused by seepage and erosion along hydraulic structures such as the spillways. As well, erosion as a result of animal burrows and cracks in the dam structure contribute to these failures.
- ❖ **Conduit and Valve Failure:** These failures occur as a result of problems with valves and conduits.
- ❖ Many dam failures are also secondary results of other natural disasters such as earthquakes, landslides, extreme storms, or heavy snow-melt.

Examples of Large Dam Failures

- i) **Machchhu Dam Failure (1979):** Excessive rain and flooding led to the disintegration of the earthen walls of the Machchhu-II dam in Gujarat, causing immense damage and loss of life and property.
- ii) **Kakhovka Dam Failure (2023):** The dam in Ukraine was breached causing extensive flooding along the lower Dnieper River. Many experts have concluded

that Russian forces likely blew up a segment of the dam to hinder the Ukrainian counter-offensive.

Given the critical role dams play in water management, energy production, and flood control, it is imperative to prioritize safety measures and continuously monitor and address potential risks to prevent future dam failures and safeguard communities and ecosystems. India's Dam Safety Act, 2021 and Dam Safety Rehabilitation and Improvement Project (DRIP) are steps in the right direction.

Q. What is oil pollution? What are its impacts on the marine ecosystem? In what way is oil pollution particularly harmful for a country like India? (CSE 2023)

Ans: Oil pollution refers to contamination of any ecosystem, usually of freshwater or marine ecosystems, by oil or other petroleum products.

Impacts on the Marine Ecosystem

- ❖ **Direct Toxicity:** Crude oil and its components contain toxic substances such as polycyclic aromatic hydrocarbons (PAHs) and heavy metals, which can directly harm marine organisms upon contact. These toxins can damage tissues, impair vital functions, and even cause death in various marine species.
- ❖ **Contamination of Habitats:** Oil spills coat coastal habitats, such as beaches, salt marshes, mangroves, and rocky shores, with a sticky, viscous layer that can smother organisms and disrupt their natural behaviors, such as feeding and reproduction.
- ❖ **Disruption of Food Chains:** Oil pollution can disrupt marine food chains by directly killing organisms at the base of the food web (e.g., phytoplankton, zooplankton) and by indirectly affecting higher trophic levels through bioaccumulation and biomagnification of toxins.
- ❖ **Damage to Coral Reefs:** It also poses a severe threat to coral reefs, as oil exposure can stress corals, making them more susceptible to diseases and bleaching.

SECURITY

Q. Winning of 'Hearts and Minds' in terrorism affected areas is an essential step in restoring the trust of the population. Discuss the measures adopted by the Government in this respect as part of the conflict resolution in Jammu and Kashmir. (CSE 2023)

Ans: The issue of winning "hearts and minds" in terrorism-affected areas, particularly in regions like Jammu and Kashmir, is indeed crucial for restoring trust and stability among the local population. Over the years, the Government of India has implemented various measures aimed at addressing this challenge as part of conflict resolution efforts in the region.

Measures adopted by the Government

- i) **Stakeholder Engagement:** Engaging with local leaders, stakeholders, and even separatist elements in unofficial discussions to ensure that there is dialogue and a channel of communication.
- ii) **Developmental Initiatives:** The government has prioritized the development of J&K with projects that ensure better infrastructure, education, healthcare, and employment opportunities.
 - ◆ For example, the Prime Minister's Development Package (PMDP) was unveiled with a significant outlay for the comprehensive development of the region.
- iii) **Youth Engagement:** Recognizing the youth's potential, initiatives like "Himayat" and "Udaan" were launched to provide skill training and job opportunities.
 - ◆ Sports tournaments and cultural exchanges are organized to provide constructive outlets and bridge cultural gaps.
- iv) **Rehabilitation of Militants:** Programs for the surrender and rehabilitation of militants have been designed to integrate former militants back into society and ensure they can lead normal, productive lives.
- v) **Local Governance:** The Panchayati Raj system was strengthened to decentralize power and give locals more say in their governance and development matters.
- vi) **Cultural Integration:** Hosting national and international

events, film shoots, and festivals in J&K promotes cultural exchange and showcases the rich heritage of the region with the rest of India.

- vii) **Strengthening Education:** Establishing new educational institutions, providing scholarships for students from J&K in other parts of India, and promoting exchange programs have been priorities.

Overall, winning "hearts and minds" strategy has brought a positive impact in terrorism affected area by creating a conducive environment for peace, development, and reconciliation.

Q. The use of unmanned aerial vehicles (UAVs) by our adversaries across the borders to ferry arms/ammunitions, drugs, etc., is a serious threat to the internal security. Comment on the measures being taken to tackle this threat. (CSE 2023)

Ans: The use of Unmanned Aerial Vehicles (UAVs) by adversaries to transport arms, ammunition, drugs, and other illicit goods across borders poses a significant threat to internal security. These UAVs, also known as drones, provide adversaries with a stealthy and difficult-to-detect means of smuggling contraband into a country.

Measures being taken to tackle this threat

- ❖ **Anti-Drone Technologies:** Defence Research & Development Organisation (DRDO) has developed anti-drone system to neutralize enemy drone attack. The Indigenous Drone Technology is capable of counter attacks including detection, Soft Kill (for jamming the communication links of Drone) and Hard Kill (Laser based hard kill to destroy the Drone) of enemy Drones.
- ❖ **Drone Rules 2021:** The rules specify that no person shall operate an unmanned aircraft system without first registering it on the digital sky platform and obtaining a unique identification number, unless exempted from the requirement of a unique identification number.
- ❖ **Intelligence Sharing:** India collaborates with agencies like Interpol and intelligence units from friendly nations to monitor potential UAV threats. For example, India and the United States have held discussions on intelligence sharing concerning UAV activities.

SCIENCE & TECHNOLOGY

Q. Introduce the concept of Artificial Intelligence (AI). How does AI help clinical diagnosis? Do you perceive any threat to privacy of the individual in the use of AI in healthcare? (CSE 2023)

Ans: Artificial Intelligence (AI) is a machine's ability to perform the cognitive functions we associate with human minds, such as perceiving, reasoning, learning, interacting with an environment, problem solving and even exercising creativity. For example, the voice assistants like Siri and Alexa are founded on AI technology.

Role of AI in Healthcare and Diagnostics

AI plays a significant role in clinical diagnosis by assisting healthcare professionals in various ways:

- ❖ **Medical Imaging Analysis:** AI can analyze medical images, such as X-rays, MRIs, and CT scans, to detect abnormalities and assist in diagnosing conditions like tumors, fractures, or other anomalies.
- ❖ **Pathology and Histology:** AI aids pathologists in analyzing digital pathology slides. It can help identify patterns, anomalies, and potential disease markers in tissue samples.
- ❖ **Genomic Analysis:** AI can analyze genomic data to identify potential genetic factors associated with certain diseases, enabling personalized medicine and risk prediction.
- ❖ **Clinical Decision Support:** AI systems can integrate and analyze large volumes of patient data from electronic health records (EHRs), helping healthcare providers make more informed decisions.
- ❖ **Remote Monitoring and Wearables:** AI-enabled devices and wearables can monitor patients remotely, collecting real-time data about vital signs and symptoms.

Threat to Privacy of the Individual in the use of AI in Healthcare

- ❖ **Data Security and Breaches:** AI in healthcare relies heavily on vast amounts of data. The storage and transmission of sensitive patient data present a significant risk of security breaches. In India, concerns have been raised regarding the Aarogya Setu app.
- ❖ **Inadequate Data Protection:** Inadequate data protection measures may expose patients to the risk of re-identification, where supposedly anonymized data

can be traced back to specific individuals, potentially revealing sensitive health information.

- ❖ **Biased Algorithms:** If AI algorithms are trained on biased datasets, they may perpetuate and even exacerbate existing disparities in healthcare.
- ❖ **Regulatory Challenges:** Inconsistent or inadequate regulations may fail to provide sufficient safeguards and leaving individuals vulnerable to potential abuses.

AI holds transformative potential for healthcare, but it comes with challenges, especially concerning data privacy. Therefore, it is essential to strike a balance between leveraging the benefits of AI and safeguarding the privacy and rights of individuals.

Q. Discuss several ways in which microorganisms can help in meeting the current fuel shortage. (CSE 2023)

Ans: The Kyoto Protocol and the Paris Climate Agreement call for the use of clean, green and renewable transportation fuels to replace gasoline, diesel and jet fuel. Biofuels are a promising alternative to fossil fuels and are produced from biological materials by microorganism. Microorganisms include bacteria, viruses, fungi, and algae.

Ways in which microorganisms can contribute in meeting the current fuel shortage

- ❖ **Biodiesel:** Certain microorganisms, such as algae and bacteria, can be used to produce biodiesel. These microorganisms convert organic materials into lipids (oils) that can be further processed into biodiesel.
- ❖ **Bioethanol:** Yeasts and bacteria can ferment sugars derived from biomass (like sugarcane, corn) to produce bioethanol, which can be used as a renewable fuel. *For example*, PM-JiVAN, the Bioethanol blending program (EBP).
- ❖ **Biogas (Methane):** Microorganisms in anaerobic conditions can break down organic matter, producing methane (biogas) as a byproduct. *For example*, the SATAT scheme on compressed biogas and the New National Biogas and Organic Manure Programme (NNBOMP) have provided intended benefits.
- ❖ **Hydrogen Production:** Some microorganisms, particularly certain bacteria, can produce hydrogen

CASE STUDIES

Q. You are working as an executive in a nationalised bank for several years. One day one of your close colleagues tells you that her father is suffering from heart disease and needs surgery immediately to survive. She also tells you that she has no insurance and the operation will cost about Rs. 10 lakh. You are also aware of the fact that her husband is no more and that she is from a lower middle class family. You are empathetic about her situation. However, apart from expressing your sympathy, you do not have the resources to find her. A few weeks later, you ask her about the well-being of her father and she informs you about his successful surgery and that he is recovering. She then confides in you that the bank manager was kind enough to facilitate the release of Rs. 10 lakh from a dormant account of someone to pay for the operation with a promise that it should be confidential and be repaid at the earliest. She has already started paying it back and will continue to do so until it is all returned.

- What are the ethical issues involved?
- Evaluate the behaviour of the bank manager from an ethical point of view.
- How would you react to the situation? (CSE 2023)

Ans: The case involves ethical issues involved in the behaviour of bank manager who facilitated the release of fund from a dormant account for the surgery of a person who is father of a colleague of a executive in nationalised bank.

(a) Ethical Issues Involved

- Privacy and Confidentiality:** The release of funds from a dormant account without the account holder's consent raises privacy and confidentiality concerns. Banking transactions are expected to be confidential, and unauthorized access to an individual's account is a breach of trust.
- Fairness and Equality:** The decision to release funds for a specific individual's personal emergency may

be seen as unfair or unequal treatment. There could be other customers with similar needs who may not receive such preferential treatment.

- Abuse of Authority:** The bank manager's decision to facilitate the release of funds might be perceived as an abuse of authority. Using discretionary powers for personal reasons can undermine the trust stakeholders place in the institution.
- Unlawful:** Unauthorized access to and use of customer accounts can have legal implications, as it may violate banking regulations and laws

(b) Evaluation of the Bank Manager's Behaviour

The bank manager's behaviour can be evaluated negatively from an ethical standpoint for the following reasons:

Positive Aspect: The bank manager's intention to help someone in a difficult situation, such as funding a life-saving surgery, may be viewed positively as an act of compassion, sympathy, empathy and human values.

Negative Aspect: Breach of Ethics: However, the bank manager's decision to breach confidentiality, provide preferential treatment, and unfair use discretionary powers for personal reasons is ethically questionable. Such actions could have potential legal Implications which would erode trust in the institution and create an environment where rules are selectively applied.

(c) How to React to the Situation

- Maintain Professionalism:** As an executive in the bank, it is crucial to maintain professionalism and adhere to ethical standards. Avoid participating in or endorsing any actions that violate privacy, confidentiality, or fairness.
- Discuss Concerns with the Manager:** Express concerns about the situation with the bank manager privately. Discuss the ethical implications and potential consequences of the actions taken.
- Encourage Transparency:** Advocate for transparent and fair processes within the bank for addressing

ETHICS, INTEGRITY & APTITUDE

Q. What do you understand by 'moral integrity' and 'professional efficiency' in the context of corporate governance in India? Illustrate with suitable examples. (CSE 2023)

Ans: Moral integrity is defined as upholding moral principles, leading by example, and promoting a climate of trust and respect. It is an essential trait that distinguishes exceptional leaders and paves the way for organisational success and ethical development. Professional efficiency, on the other hand, refers to the efficient use of resources by workers and organisations to achieve company goals and achieve quality while minimising resource usage.

- ❖ Moral integrity in Corporate Governance demands for a leader/manager having moral values, that is the leader needs to be transparent and build a culture of trust within the organisations, MNCs like TATA group had leaders like Ratan Tata who ensured to stand with all moral uprightness and integrity ensuring interest of shareholders, employees and clients are well preserved thus building a trust.
- ❖ The leader/manager needs to promote a culture of accountability, fairness and loyalty by being accountable for their actions, readily admit mistakes, put others' needs ahead of their own.
- ❖ COVID led pandemic led to slump in business activities, the efficient manager/leader ensured not only the viability of the organisation but also ensured that in such uncertainties grievances of employees like safety, salary and guaranteed employability is duly taken care of.
- ❖ Professional efficiency is closely related to three dynamically interlacing components of professional performance: competency, standards, and practice.
- ❖ Professional efficiency in corporate governance demands for efficient leadership skills along with emotional intelligence, during Covid pandemic Adar Poonawala, the CEO SII displayed such skills by guiding the members towards the direction of achieving targets of manufacturing COVID vaccines along with proper risk management and time management.

Professional efficiency demands for adherence to rules and regulations as well as prevent harmful competition and ensure team collaboration for maximum output. For ex. HR of an organisation ensures annual compliance training and Project leader ensures cooperation among employees.

Hence in corporate governance, professional efficiency and moral integrity both are important as well as interlinked. Both lead to ethical development of an organisation, which consequently lead to economic development.

Q. 'International aid' is an accepted form of helping 'resource-challenged' nations. Comment on 'ethics in contemporary international aid'. Support your answer with suitable examples (CSE 2023)

Ans: International aid is defined as assistance given in the form of economic, development, technical or military aid by one nation to another for the purpose of relief and rehabilitation, economic stabilisation mutual defence and to address issues like hunger, malnutrition and diseases.

International aid is ideally premised on the idea to uplift masses out of poverty, promote equality and equity across globe, build a sustainable world deeply engrossed in humanitarian values, and hence to pursue such goal and objectives aid is given to build social and economic infrastructure for self-sustenance.

However genuineness of such supposedly ethical altruism is widely debated.

- ❖ **Transparency:** International aid given must be transparent with motive and intent. For ex. Post WW II, USA increased its foreign aid to developing countries as a means to furnish humanitarian assistance to needy people and develop liberal capitalist model for development of countries and enhance national security of country.
- ❖ However the aid was truly used as a diplomatic tool as end to undermine communism, expansion of democracy, opening of market for American products.