

# UPSC CSE (Main) 2013

## General Studies Paper-I

- Q1. Though not very useful from the point of view of a connected political history of South India, the Sangam literature portrays the social and economic conditions of its time with remarkable vividness. Comment.**  
(200 Words) [10]

### Approach to question:

1. Sangam literature refers to a collection of ancient Tamil literature that dates back to the 3<sup>rd</sup> century BCE to the 4<sup>th</sup> century CE.
2. The literature provides a valuable insight into the social, economic and cultural conditions of the Tamil society during that time period.
3. The Sangam literature includes poems, prose and epics that describe the life of people, their occupations, customs and religious beliefs.
4. It also provides information about trade, commerce and the functioning of guilds and merchant associations.

### Answer:

The Sangam literature, dating back to the Sangam period (3<sup>rd</sup> century BCE to 4<sup>th</sup> century CE), offers valuable insights into ancient South India's social and economic conditions:

1. **Social Life:** The literature presents a detailed portrayal of ancient society, including caste occupations, the status of women, customs, traditions and religious beliefs.
2. **Economic Conditions:** It sheds light on various industries and crafts such as weaving, pottery, carpentry and metalworking. Additionally, it discusses livelihoods like agriculture, fishing, hunting and trading.
3. **Trade and Commerce:** The literature provides information on traded goods like spices, textiles, pearls and precious stones and it highlights the trade routes used, both land and sea routes.
4. **Political Conditions:** Though limited, the literature offers glimpses of the time's political conditions, mentioning rulers who patronised arts and literature and wars and battles.
5. **Language and Literature:** As one of the earliest examples of Tamil literature, Sangam literature reveals the development of the Tamil language and literary culture of that era.

In conclusion, despite its limited use for connected political history, the Sangam literature is an invaluable resource for understanding the social and economic aspects of ancient South India, offering a window into the lives and culture of its people.

### Q2.

- 1. Discuss the 'Tandava' dance as recorded in early Indian inscriptions.** (100 Words)[5]

### Approach to question:

1. Tandava is a vigorous and powerful dance form that originated in India and is associated with Lord Shiva.
2. It is believed to represent the cosmic cycles of creation, preservation and destruction.
3. Early Indian inscriptions, particularly those from the Chola period, describe the Tandava dance as being performed by trained dancers in temples and royal courts.
4. The dance was accompanied by music and was considered an important part of religious and cultural festivities.

### Answer:

The "Tandava" dance is a vigorous and dynamic dance form that finds its origins in Hindu mythology and tradition. It is associated with Lord Shiva, one of the principal deities in Hinduism.

The Tandava dance holds immense cultural significance in Indian culture, as highlighted by early Indian inscriptions:

1. **Historical Significance:** Among India's oldest dance forms, Tandava is linked to Lord Shiva, who performed it on various occasions, making it a dance with divine origins.
2. **Different Forms:** Tandava comes in two forms – Ananda Tandava, a joyous dance and Rudra Tandava, a fierce and powerful expression.
3. **Description:** Known for its vigorous and energetic movements, Tandava involves circular patterns and sharp body motions, utilising hands, legs and free-flowing hair.
4. **Religious Significance:** The dance symbolises Lord Shiva's cosmic dance, believed to destroy and recreate the universe.

5. **Social Significance:** Tandava is performed at social and cultural events, signifying strength, power and masculinity.
6. **Inscriptions:** Early Indian inscriptions, like the Natya Shastra, recognise Tandava as one of India's five main dances.
7. **Influence on Other Dance Forms:** Tandava's impact extends to various Indian dance forms, influencing Kathak and Bharatanatyam with its movements and postures.
8. **Modern-day Tandava:** It is still performed in India for religious and cultural purposes and its elements have been integrated into contemporary fusion dance.

To conclude, the Tandava dance's rich history and cultural importance, recorded in early Indian inscriptions, provide valuable insights into its religious, social and artistic significance.

2. **Chola architecture represents a high watermark in the evolution of temple architecture. Discuss. (100 Words) [5]**

#### Approach to question:

1. The Cholas were great patrons of temple architecture and built some of the finest temples in India during their reign (9<sup>th</sup> – 13<sup>th</sup> century).
2. The temples were characterised by their intricate carvings, grand scale and unique designs.
3. The most notable example of Chola architecture is the Brihadeeswara temple in Thanjavur, which is a UNESCO World Heritage Site.
4. The temple features a towering Vimana (tower), a massive Nandi statue and intricate carvings depicting scenes from Hindu mythology.

#### Answer:

Chola architecture, emerged during the Chola dynasty in South India, is renowned for its grandeur, intricate carvings and distinctive features:

1. **Dravidian Style:** Based on the Dravidian style, Chola architecture features vimanas (pyramidal towers), mandapas (pillared halls) and gopurams (gateways).
2. **Grand Temples:** Cholas constructed magnificent temples with ornate designs and sculptures, showcasing their grandeur.
3. **Intricate Carvings:** Noted for three-dimensional carvings depicting Hindu mythology and everyday life scenes.
4. **Use of Granite:** Extensive use of durable granite in building materials, giving their structures a unique appearance.
5. **Temple Tanks:** Cholas built temple tanks (pushkarinis) serving as water sources and ritual bathing sites.

6. **Influence on Other Styles:** Chola architecture significantly influenced other South Indian styles, like the Vijayanagara style.

#### Notable examples include:

1. **Brihadeeswarar Temple in Thanjavur:** Built by Raja Raja Chola I with a 200-foot-tall granite vimana and a massive Nandi statue.
2. **Airavatesvara Temple in Darasuram:** Constructed by Raja Raja II with intricate carvings and a large temple tank.
3. **Gangaikonda Cholapuram Temple:** Built by Rajendra Chola I, known for its grandeur and large gopuram.

Chola architecture represents a pinnacle in temple evolution, admired for its beauty and visited by tourists and pilgrims worldwide.

- Q3. **Defying the barriers of age, gender and religion, the Indian women became the torchbearer during the struggle for freedom in India. Discuss. (200 Words) [10]**

#### Approach to question:

1. Women played a significant role in India's struggle for independence, defying the barriers of age, gender and religion.
2. Women participated in various movements and protests, including the Salt Satyagraha, Non-Cooperation Movement, Quit India Movement and Civil Disobedience Movement.
3. They also formed women's organizations, such as the Women's Indian Association, All India Women's Conference and National Federation of Indian Women, to address their issues and fight for their rights.

#### Answer:

Indian women made invaluable contributions to India's independence struggle, displaying remarkable courage and resilience:

1. **Non-Cooperation Movement:** Active participation in boycotting foreign goods, picketing shops and joining rallies during the Non-Cooperation Movement (1920–22).
2. **Salt Satyagraha:** Women from diverse backgrounds participated in the Salt March, produced salt and picketed shops selling foreign salt during the Salt Satyagraha (1930).
3. **Quit India Movement:** Played pivotal roles in organising meetings, rallies and processions during the Quit India Movement (1942), enduring harsh treatment in jails.
4. **Contribution to INA:** Women actively contributed to the Indian National Army (INA) as nurses, radio operators, clerks and even soldiers.
5. **Participation in Constituent Assembly:** Post-independence, women leaders like Sarojini Naidu, Vijaya Lakshmi Pandit and Hansa Mehta contributed significantly to India's Constitution.

Beyond the freedom struggle, women also advocated for social reforms, women's education and empowerment, including the abolition of Sati.

In conclusion, Indian women's role in the independence movement was pivotal, breaking barriers and laying the groundwork for women's political participation in independent India. Yet, gender equality remains an important goal to address contemporary challenges faced by women.

**Q4. Several foreigners made India their homeland and participated in various movements. Analyse their role in the Indian struggle for freedom. (200 Words) [10]**

**Approach to question:**

1. Some of the well-known foreign participants in the Indian freedom movement were Annie Besant, a British socialist and theosophist who became involved in Indian politics and helped popularise the Home Rule movement; Margaret Cousins, an Irish suffragette who fought for women's rights in India and was a close associate of Mahatma Gandhi; and Netaji Subhas Chandra Bose, an Indian nationalist who sought support from Germany and Japan during World War II to free India from British rule.

**Answer:**

Foreigners played a significant role in India's struggle for freedom, contributing their talents and ideologies to the nationalist movements. Their participation enriched the struggle in various ways:

1. **Ideological Influence:** Foreigners like Annie Besant, a British activist and Madame Cama, an influential Parsi, brought international perspectives and promoted nationalist ideals through their writings and speeches.
2. **Nonviolent Resistance:** Figures like the American journalist Katherine Mayo supported Indian leaders in their fight against British imperialism and highlighted the injustices of colonial rule, further galvanising the Indian masses.
3. **Press and Propaganda:** Foreign journalists and writers, such as Emily Hobhouse and Muriel Lester, used their platforms to raise awareness about India's plight and garnered global support for the freedom struggle.
4. **Education and Advocacy:** Institutions like the Ramakrishna Mission attracted foreign scholars and philanthropists who helped educate Indians about nationalism and encouraged self-reliance.
5. **Women's Empowerment:** Foreign suffragettes like Margaret Cousins actively supported women's participation in the freedom movement, pushing for gender equality.

Their contributions demonstrated that the fight for freedom transcends borders and unites people worldwide in the pursuit of justice and liberty.

**Q5. "In many ways, Lord Dalhousie was the founder of modern India". Elaborate.**

**(200 Words) [10]**

**Approach to question:**

1. **Modernization of India's Infrastructure:** Dalhousie introduced several measures that revolutionized India's transportation network, including the construction of roads, railways, canals and telegraph lines.
2. **Reforms in Land Administration:** He introduced the doctrine of lapse, which prevented Indian rulers from adopting heirs to the throne without the approval of the British. This policy resulted in the annexation of several Indian states and the expansion of British India's territory.

**Answer:**

Lord Dalhousie, the Governor-General of India from 1848 to 1856, is a key figure in modern Indian history due to his significant contributions:

1. **Infrastructure Development:** Introduced railway, road and bridge construction, enhancing national connectivity. The telegraph system improved communication across India, laying the groundwork for modernization.
2. **Postal Reforms:** Pioneered postage stamps and postal reforms, revolutionising communication and trade within the country.
3. **Land Reforms:** Introduced the doctrine of lapse, enabling British government acquisition of lands from Indian rulers without heirs, leading to a centralised state.
4. **Modernization of the Army:** Implemented reforms to enhance the efficiency and effectiveness of the Indian army, including recruiting Indian soldiers, fostering inclusivity.
5. **Educational Reforms:** Introduced English education, creating a class of educated Indians able to engage with British rulers and promoting a more progressive and modern India.

In conclusion, Lord Dalhousie's policies and reforms significantly shaped modern India, improving infrastructure, communication, agriculture and education sectors, making him a vital figure in Indian history.

**Q6. Critically discuss the objectives of Bhoodan and Gramdan Movements initiated by Acharya Vinoba Bhave and their success.**

**(200 Words) [10]**

**Approach to question:**

1. Bhoodan Movement was initiated in 1951 and later, the Gramdan Movement was launched in 1952 by Acharya Vinoba Bhave.
2. The movements aimed at the redistribution of land and the elimination of the exploitation of the landless poor.

3. The movements were based on the principle of non-violence and emphasized the importance of voluntary land donations.

### Answer:

Bhoodan and Gramdan movements, led by Acharya Vinoba Bhave in 1950s–1960s India, aimed to address landlessness and inequality in rural areas. Objectives and success were as follows:

#### Objectives:

1. **Land Distribution to Landless:** Acquiring land from wealthy landowners and redistributing it to poor peasants and farmers.
2. **Promote Voluntary Land Donations:** Encouraging landowners to voluntarily donate their land for the benefit of the poor.
3. **Foster Community Development:** Promoting self-sufficient and self-reliant villages capable of meeting their own needs.
4. **Promote Social Equality:** Redistributing land and facilitating community development to promote social equality.

#### Success:

1. **Land Distribution:** Bhoodan movement distributed over 4 million acres of land to the landless, reducing economic inequalities.
2. **Social Equality:** Successful in promoting social equality and improving the lives of the poor.
3. **Volunteerism:** Mobilised large numbers of volunteers for social and economic development in rural India.

In conclusion, the Bhoodan and Gramdan movements achieved significant success in land redistribution and community development, but faced criticisms, emphasising the need for more comprehensive and sustainable solutions to address rural poverty and inequality.

- Q7. Write a critical note on the evolution and significance of the slogan, 'Jai Jawan Jai Kisan'.** (200 words) [10]

#### Approach to question:

1. The slogan "Jai Jawan Jai Kisan" was coined by India's second Prime Minister, Lal Bahadur Shastri in 1965 during the Indo-Pakistan War and it translates to "Hail the Soldier, Hail the Farmer".
2. The slogan resonated with the people and became a rallying cry for national unity and self-reliance. It also highlighted the importance of the agriculture sector in the country's development.

### Answer:

The slogan "Jai Jawan Jai Kisan" was coined by Lal Bahadur Shastri in 1965 and its significance has evolved over time.

### Evolution of the Slogan:

1. **War and Agriculture:** Coined during the 1965 India–Pakistan War, it expressed gratitude to soldiers and farmers for their contributions during the war.
2. **National Unity:** Promoted national unity and solidarity, emphasising the role of soldiers and farmers in building a strong nation.
3. **Rural–Urban Linkage:** Bridged the gap between rural and urban India, recognising the importance of both agriculture and defense.

### Significance of the Slogan:

1. **National Identity:** Symbolises India's national identity, representing hard work, patriotism and unity.
2. **Importance of Agriculture:** Highlights the vital role of agriculture in ensuring food security.
3. **Importance of Defense:** Recognises the defense sector's contribution to safeguarding the nation's borders.
4. **Unity and Solidarity:** Promotes unity among citizens, stressing collective progress.

In conclusion, "Jai Jawan Jai Kisan" continues to symbolise hard work, patriotism and national unity, underscoring the crucial roles of agriculture and defense in India's development.

- Q8. Discuss the contributions of Maulana Abul Kalam Azad to pre- and post-independent India.** (200 Words) [10]

#### Approach to question:

1. Maulana Abul Kalam Azad was a prominent leader of the Indian National Congress and played a significant role in the freedom struggle of India.
2. He was a staunch advocate of Hindu–Muslim unity and opposed the idea of a separate Muslim state, which later led to the partition of India.
3. He was a strong advocate of secularism and played a key role in framing the Constitution of India.

### Answer:

Maulana Abul Kalam Azad, a prominent leader of the Indian freedom struggle and a scholar of Islam, made significant contributions to both pre- and post-independent India:

#### Contributions to Pre-Independent India:

1. **Advocacy of Non-Violence:** Strongly advocated non-violence as a means to achieve freedom.
2. **Promotion of Education:** Advocated education as a key to social and economic progress, instrumental in establishing Jamia Millia Islamia University and promoting modern education.
3. **Leadership in the Freedom Struggle:** Served as President of the Indian National Congress, mobilised public opinion against British rule.



**Contributions to Post-Independent India:**

1. **Role in Drafting the Constitution:** Played a significant role in drafting the Indian Constitution as a member of the Constituent Assembly and served as Minister of Education in Independent India's first Cabinet.
2. **Promotion of Secularism:** Strong advocate of secularism, believing in India's strength through its secular character.
3. **Contribution to Indo-Pak Relations:** Played a crucial role in promoting friendly relations between India and Pakistan, stressing peace and mutual understanding.

In conclusion, Maulana Abul Kalam Azad's contributions to India, from advocating non-violence and education to his role in shaping the Constitution and promoting secularism, continue to inspire the nation toward progress and development.

**Q9. Analyze the circumstances that led to the Tashkent Agreement in 1966. Discuss the highlights of the Agreements.**

(200 Words) [10]

**Approach to question:**

1. **The 1965 Indo-Pak War:** The war broke out between India and Pakistan in August 1965, which resulted in heavy casualties and loss of resources on both sides.
2. **International Pressure:** The international community, including the United Nations and major world powers, put pressure on India and Pakistan to resolve the conflict through peaceful means.
3. **Economic Strain:** The war had imposed a severe economic strain on both countries, which led to the realization that a negotiated settlement was necessary.

**Answer:**

The Tashkent Agreement (January 10, 1966) was a peace agreement brokered by the Soviet Union after the 1965 India-Pakistan war:

**Circumstances Leading to the Agreement:**

1. **1965 War:** India and Pakistan engaged in war over the disputed territory of Kashmir, resulting in significant casualties.
2. **International Pressure:** The international community pressed for a peaceful resolution to the conflict.
3. **Soviet Intervention:** The Soviet Union, having good relations with both nations, intervened to mediate a peace agreement.

**Highlights of the Tashkent Agreement:**

1. **Ceasefire:** Immediate cessation of hostilities between India and Pakistan.

2. **Troop Withdrawal:** Both sides agreed to withdraw troops to pre-war positions.
3. **Return of Captured Territories:** Agreement to return territories captured during the war.
4. **Establishment of a Commission:** Creation of a commission to study war causes and prevent future conflicts.
5. **No Mention of Kashmir:** The agreement did not address the contentious issue of Kashmir.

In conclusion, the Tashkent Agreement was a significant step towards peace, restoring a ceasefire and withdrawal of troops. However, it didn't resolve the long-standing Kashmir dispute between India and Pakistan.

**Q10. Critically examine the compulsions which prompted India to play a decisive role in the emergence of Bangladesh. (200 Words) [10]**

**Approach to question:**

1. The Liberation War of Bangladesh in 1971 was triggered by the oppression and exploitation faced by East Pakistan by West Pakistan.
2. India supported the struggle for liberation and provided shelter to millions of refugees who fled from East Pakistan to India.
3. Pakistan's military crackdown on East Pakistan resulted in atrocities and human rights violations, causing an international outcry and condemnation.

**Answer:**

The emergence of Bangladesh in 1971 was a significant event and India played a decisive role due to the following compulsions:

**Compulsions for India's Involvement:**

1. **Humanitarian Crisis:** Massive refugee influx into India due to the crackdown in East Pakistan strained resources.
2. **National Security Concerns:** Influx of armed insurgents and refugees posed a security threat.
3. **Economic Considerations:** The refugee crisis had severe economic implications.
4. **Domestic Politics:** The liberation of Bangladesh was a key electoral promise of the ruling party, Indian National Congress.
5. **International Pressure:** India faced international pressure to intervene, with the US and China supporting Pakistan and the Soviet Union supporting India.

**Steps Taken by India:**

1. **Diplomatic Efforts:** India sought international support and tried to find a peaceful solution with Pakistan.
2. **Military Intervention:** Launched a full-scale military invasion in December 1971, resulting in Bangladesh's creation.

3. **Humanitarian Assistance:** Provided significant assistance to refugees and contributed to their rehabilitation.

In conclusion, India's involvement in the creation of Bangladesh was driven by humanitarian, security, economic, domestic political and international considerations. Diplomacy, military action and humanitarian assistance played vital roles in the emergence of Bangladesh.

**Q11. 'Latecomer' Industrial Revolution in Japan involved certain factors that were markedly different from what West had experienced". Analyze. (200 Words) [10]**

**Approach to question:**

1. **Meiji Restoration:** The Meiji Restoration of 1868 marked the end of feudalism in Japan and the beginning of a period of rapid modernization and industrialization.
2. **Learning from the West:** Japan studied the industrialization experiences of the West and adopted their technologies and practices. However, they modified and adapted them to suit their specific circumstances.
3. The Japanese government invested heavily in education, particularly in science and technology, to create a skilled workforce to support industrialization.

**Answer:**

The 'Latecomer' Industrial Revolution in Japan, which occurred in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, differed from the West's industrialization in various ways:

1. **Political Factors:** Japan's industrialization took place under a centralized and authoritarian government with a strong emperor, unlike the democratic systems in the West during their industrialization.
2. **Cultural Factors:** Japan's culture emphasized group harmony and loyalty, leading to a motivated and dedicated workforce willing to work long hours for the collective good, a characteristic different from Western individualism.
3. **Limited Natural Resources:** Japan faced a scarcity of natural resources compared to the West's abundant coal, iron and minerals. This compelled Japan to rely on imports for fueling industrial growth.
4. **Education System:** Japan had a well-developed education system, emphasizing science and technology. This resulted in a large pool of skilled workers and engineers who played a crucial role in the industrialization process.
5. **Role of the State:** The Japanese government actively supported and funded industries it

deemed essential for national interest, regulating and shaping industrial development.

6. **Emphasis on Quality:** Japan prioritised quality over quantity, enabling the production of competitive goods in international markets.
7. **Emphasis on Innovation:** Japanese companies emphasised innovation and continuous improvement, leading to the development of new technologies and competitive products.

In conclusion, Japan's 'Latecomer' Industrial Revolution showcased unique characteristics compared to the West's earlier industrialization. The centralised government, cultural values, education system, state intervention, focus on quality and emphasis on innovation were crucial factors that contributed to Japan's successful industrialization and its transformation into an economic powerhouse. Japan's industrialization model continues to be studied and serves as an inspiration for other nations seeking to develop their industries.

**Q12. "Africa was chopped into states artificially created by accidents of European competition". Analyze. (200 Words) [10]**

**Approach to question:**

1. **Berlin Conference:** The Berlin Conference of 1884–1885 formalised the division of Africa among European powers. The conference set rules for the partition of Africa, including the recognition of effective occupation of territories by European powers.
2. **Ignoring Cultural and Ethnic Boundaries:** European powers drew boundaries based on their own interests, often dividing ethnic groups and creating artificial nations with no regard for pre-existing cultural and ethnic boundaries.

**Answer:**

The process of dividing Africa into distinct states during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries by European powers, without regard for traditional boundaries or ethnic and cultural differences, is known as the "Scramble for Africa". This process had several factors and consequences:

**Factors:**

1. **Scramble for Africa:** European powers, seeking colonies and resources, competed to claim territories in Africa, leading to a chaotic and rapid colonization process.
2. **Colonial Rule:** European colonial administrations established artificial boundaries, disregarding existing cultural and ethnic divisions and imposed their authority, suppressing traditional forms of governance.
3. **Ethnic and Cultural Diversity:** Africa is home to a diverse range of ethnic and cultural groups and the arbitrary division of territories often split these groups across multiple states, leading to tensions and conflicts.

**Consequences:**

1. **Legacy of Colonialism:** The artificial states created during colonialism have made it challenging for African nations to develop cohesive national identities and stable governments.
2. **Political Instability:** Many African countries have experienced political instability, with civil wars, coups and violence, partly due to the artificial boundaries and ethnic tensions.
3. **Economic Challenges:** The division of resources and lack of consideration for economic viability during colonialism has led to economic challenges and disparities among African states.
4. **Conflict and Instability:** The arbitrary borders have resulted in conflicts between neighbouring countries over resources and territorial claims.

In conclusion, the artificial division of Africa by European powers during the Scramble for Africa has had lasting consequences for the continent. Addressing these challenges requires recognising and addressing the historical legacy of colonialism and promoting efforts towards regional cooperation and inclusive governance to build stable and prosperous African nations.

**Q13. "American Revolution was an economic revolt against mercantilism". Substantiate. (200 Words) [10]**

**Approach to question:**

1. **Mercantilist Policies:** British mercantilist policies, such as the Navigation Acts, restricted the economic development of the American colonies and limited their trade with other countries.
2. **Taxation Without Representation:** British taxes on American colonies, such as the Stamp Act and Tea Act, were seen as unfair by colonists who were not represented in the British Parliament.
3. **Smuggling:** American colonists resorted to smuggling to avoid British restrictions on trade, indicating a desire for greater economic independence.

**Answer:**

The American Revolution was a significant event that established the United States of America as an independent nation. One of the primary drivers behind the revolution was economic, as it was an economic revolt against British mercantilism. The following points outline the economic factors that contributed to the revolution:

1. **British Mercantilism:** The British government pursued a mercantilist policy, viewing colonies as sources of raw materials and markets for British manufactured goods. This policy imposed restrictions on colonial trade and manufacturing, hindering economic growth in the colonies.
2. **Navigation Acts:** The British government passed Navigation Acts that required colonial trade to be conducted only on British ships and limited

the colonies' access to foreign markets. These acts restricted the colonies' ability to engage in international trade.

3. **Taxation Without Representation:** The imposition of various taxes on the colonies, such as the Stamp Act and Tea Act, without providing colonial representation in the British government, created economic grievances among the colonists.
4. **Economic Exploitation:** Many colonists believed they were economically exploited by the British government, leading to a desire for independence as a means to achieve economic freedom and prosperity.
5. **Economic Impact of the Revolution:** The American Revolution had significant economic consequences. It opened up new opportunities for trade and commerce, fueling economic growth in the newly independent United States. The revolution also challenged mercantilism as a dominant economic philosophy, influencing the spread of free trade and capitalism.

In conclusion, the American Revolution was driven by economic factors, as the colonists sought to break away from British mercantilism and achieve economic freedom and prosperity. The revolution's economic impact was profound, providing the foundation for the United States' economic growth and challenging mercantilism's dominance in the world.

**Q14. What policy instruments were deployed to contain the Great Economic Depression? (200 Words) [10]**

**Approach to question:**

1. **Monetary Policy:** Central banks, such as the US Federal Reserve, reduced interest rates and increased the money supply to stimulate lending and economic activity.
2. **Fiscal Policy:** Governments increased public spending and cut taxes to boost demand and create jobs.
3. **Exchange Rate Policy:** Countries devalued their currencies to stimulate exports and reduce imports.
4. **Protectionist Policies:** Countries imposed tariffs and other trade barriers to protect their domestic industries from foreign competition.

**Answer:**

The Great Economic Depression of the 1930s was a global crisis that impacted economies worldwide. Governments implemented various policy instruments to mitigate its effects:

1. **Fiscal Policy:** Increased government spending and tax cuts aimed to stimulate demand and boost economic activity. For example, the New Deal programme in the United States aimed to create jobs and increase consumer spending.



2. **Monetary Policy:** Central banks lowered interest rates and increased the money supply to encourage investment and lending. The US Federal Reserve implemented measures to stabilise the banking system.
3. **Protectionist Measures:** Some countries adopted import tariffs to protect domestic industries and reduce competition from foreign goods.
4. **Currency Devaluation:** Devaluing currencies made exports more competitive in international markets, boosting trade.
5. **Public Works Programmes:** Governments initiated public works projects to create jobs and stimulate economic activity.
6. **International Cooperation:** Nations coordinated policies to stabilize the global economy. The Gold Standard was abandoned and the Bretton Woods Conference established the IMF and World Bank.
7. **Social Welfare Programmes:** Governments implemented social welfare programmes, like unemployment insurance and food assistance, to support those most affected.

In conclusion, governments employed fiscal and monetary policies, protectionism, currency devaluation, public works, international cooperation and social welfare programmes to combat the Great Depression. While the effectiveness of these measures varied, they prevented a total economic collapse and laid the foundation for post-war economic growth.

**Q15. Discuss the various social problems which originated out of the speedy process of urbanization in India. (200 Words) [10]**

**Approach to question:**

1. **Housing:** Rapid urbanization has led to a shortage of affordable housing, resulting in slum settlements and homelessness.
2. **Infrastructure:** Urbanization has put pressure on infrastructure such as transportation, water supply and sanitation, resulting in inadequate and inefficient services.
3. **Environmental Degradation:** Urbanization has led to pollution, deforestation and loss of biodiversity, posing a threat to public health and the environment.
4. **Social Inequality:** Urbanization has exacerbated social inequality, with marginalised communities often bearing the brunt of the negative impacts of urbanization.

**Answer:**

The rapid process of urbanization in India has led to a host of social problems due to the challenges posed by population migration from rural to urban areas, infrastructural deficiencies and changing lifestyles. These social problems are complex and multifaceted, affecting various aspects of urban life.

India's rapid urbanization has brought forth several social problems which include:

1. **Housing:** Growing urban population has led to a shortage of affordable housing, resulting in slums and informal settlements lacking basic amenities.
2. **Transportation:** Increased vehicles and traffic congestion cause air pollution, longer commutes and traffic accidents, impacting people's well-being.
3. **Employment:** Urban areas offer more jobs, but intense competition leads to high unemployment and underemployment, particularly among the urban poor.
4. **Education:** Overburdened education system in cities results in a shortage of teachers and inadequate facilities, affecting the quality of education, especially for disadvantaged students.
5. **Healthcare:** Though better than rural areas, healthcare access remains a challenge for many due to expensive private facilities and overcrowded public facilities.
6. **Crime:** Urbanization contributes to increased crime rates, including theft, burglary and violence, often related to unemployment, poverty and social disintegration.

**Addressing these challenges requires holistic policy measures:**

1. **Affordable Housing:** Governments must focus on providing affordable housing solutions and upgrading slums with basic amenities.
2. **Sustainable Transportation:** Promote public transport and implement measures to reduce traffic congestion and air pollution.
3. **Skill Development:** Invest in skill development programmes to address the issue of unemployment and underemployment.
4. **Education Reforms:** Improve education infrastructure, recruit qualified teachers and enhance the quality of education.
5. **Accessible Healthcare:** Enhance public healthcare facilities and make healthcare services accessible and affordable.
6. **Strengthen Law Enforcement:** Bolster law enforcement to ensure safety and security in urban areas.

In conclusion, rapid urbanization in India has given rise to housing, transportation, employment, education, healthcare, social and crime-related challenges. Addressing these issues requires a comprehensive approach and coordinated efforts from policy makers, aiming to build inclusive and sustainable cities for all citizens.

**Q16. "Male membership needs to be encouraged in order to make women's organization free from gender bias". Comment.**

**(200 Words) [10]**



**Approach to question:**

1. **Diversity:** Encouraging male membership can help to diversify the membership of women's organizations, bringing in different perspectives and experiences.
2. **Inclusivity:** Encouraging male membership can help to ensure that men are involved in promoting gender equality and supporting women's rights.
3. **Leadership:** Encouraging male membership can help to develop male allies and leaders who can promote gender equality and challenge gender stereotypes and discrimination.
4. **Social Norms:** Encouraging male membership can help to challenge traditional gender roles and norms that restrict men's participation in gender equality efforts.
5. **Accountability:** Encouraging male membership can help to ensure that women's organizations are accountable to a broader range of stakeholders, including men.

**Answer:**

Encouraging male membership in women's organizations can make them more inclusive and free from gender bias, as follows:

1. **Intersectionality:** Male members bring different perspectives and experiences, fostering more inclusive and intersectional discussions within the organization.
2. **Inclusivity:** Including men in women's organizations breaks down gender stereotypes and promotes greater understanding and respect between genders.
3. **Advocacy:** Male members can support women's causes and amplify the impact of women's organizations in advocating for policy changes.
4. **Male Allies:** Male members can become allies in the fight for gender equality, using their privilege to challenge gender norms and promote a more equitable society.
5. **Representation:** Encouraging male membership ensures that issues affecting women are not seen as women's issues alone but as societal concerns.

However, the inclusion of male members should not diminish the importance of women's leadership and perspectives in these organizations. To be effective in addressing gender bias, the following points are essential:

1. **Active Promotion of Inclusion:** Organizations must actively promote and foster an inclusive environment that values diverse perspectives.
2. **Centering Women's Voices:** Women's leadership and perspectives should remain at the core of women's organizations to maintain focus on women's issues.

3. **Male Members' Willingness to Learn:** Male members must be open to listening and learning from women's experiences and work collaboratively for gender equity.
4. **Sustained Efforts:** Inclusion and diversity should be ongoing efforts, with continuous support for underrepresented voices.

In conclusion, male membership in women's organizations can enhance their inclusivity and impact, promoting gender equity. However, it is crucial to maintain women's leadership and perspectives, actively promote inclusion and foster male allies who support women's causes genuinely. The collective efforts of all members can contribute to a more equitable and gender-bias-free society.

**Q17. Critically examine the effect of globalization on the aged population in India.**

(200 Words) [10]

**Approach to question:**

1. **Positive Impacts:** Globalization has led to increased economic growth, which has improved the standard of living for some older adults, particularly those with financial resources.
2. **Negative Impacts:** Globalization has also led to increased economic inequality and social fragmentation, which can leave many older adults, particularly those in rural areas or with limited education, marginalized and vulnerable.
3. **Healthcare:** Globalization has led to improved healthcare and increased access to medical technologies, which can benefit older adults.

**Answer:**

Globalization has brought significant changes to various aspects of life in India, including the aging population. The following points highlight the impact of globalization on the elderly:

1. **Economic Changes:** Globalization has resulted in a shift from traditional employment to modern industries, leaving the elderly in the traditional sector vulnerable to job loss and financial difficulties.
2. **Health Challenges:** Changing lifestyles due to globalization, such as increased consumption of processed food and sedentary habits, have led to a rise in chronic health conditions, disproportionately affecting the elderly.
3. **Family Structure:** Globalization has led to changes in family structures, with an increase in nuclear families and fewer children per family. This may result in social isolation and neglect for the elderly who lack family support.
4. **Caregiving Gap:** As young people seek employment opportunities in urban areas or abroad, there is a shortage of caregivers for the elderly in rural areas, leading to neglect and inadequate care.

5. **Ageism and Discrimination:** Globalization has contributed to the emergence of ageism, leading to discrimination against the elderly in areas like employment and healthcare, limiting their opportunities and treatment.

In conclusion, globalization has had significant effects on India's aging population, impacting their economic well-being, health, family support, caregiving and exposing them to age-related discrimination. Policy makers should address these issues by promoting economic opportunities for the elderly, improving healthcare services, providing social support and combating ageism. Ensuring the well-being and dignity of the elderly in the face of globalization is crucial for creating a more equitable and inclusive society.

**Q18. Growing feeling of regionalism is an important factor in generation of demand for a separate State. Discuss. (200 Words) [10]**

**Approach to question:**

1. **Identity:** Regionalism is often driven by a sense of identity, with people feeling a strong attachment to their language, culture and history.
2. **Marginalization:** Regionalism can arise when people feel that their region has been marginalized or unfairly treated by the central government or dominant cultural groups.
3. **Development:** Regionalism can also arise when people feel that their region has been left behind in terms of economic development and infrastructure.
4. **Political Representation:** Regionalism can be fueled by a desire for greater political representation, with people feeling that their voices are not being heard in the central government.
5. **Historical Factors:** Historical events, such as the partition of India and the creation of new states, can also contribute to feelings of regionalism and the demand for separate states.

**Answer:**

Regionalism, the strong attachment of people to their respective regions, cultures, languages and traditions, can generate demands for separate states due to the following reasons:

1. **Cultural Differences:** Unique regional cultures and traditions can foster a sense of identity and pride, leading to demands for recognition and autonomy.
2. **Political Marginalization:** Perceived neglect and lack of representation by the central government can fuel discontent and aspirations for self-governance.
3. **Economic Disparities:** Unequal distribution of resources and opportunities among regions can create grievances and calls for separate states.

4. **Historical Factors:** Past discrimination and oppression experienced by certain regions can fuel the desire for independence or autonomy.
5. **Ethnic Conflicts:** Conflicts between different ethnic groups may escalate into demands for separate states to escape perceived domination.
6. **Language:** Language plays a significant role in shaping regional identity and linguistic differences can lead to calls for linguistic recognition and separate statehood.

To address the demand for separate states due to regionalism, policy makers must focus on:

1. **Inclusivity:** Ensuring equal representation and resources for all regions to reduce feelings of marginalization.
2. **Development:** Implementing policies to bridge economic disparities and promote balanced regional development.
3. **Conflict Resolution:** Addressing historical grievances and working towards peaceful resolutions of ethnic conflicts.
4. **Cultural Recognition:** Recognizing and promoting the diverse cultural heritage of different regions to foster a sense of unity within diversity.
5. **Decentralization:** Devolving power to regional authorities to allow for more localized decision-making and governance.

By acknowledging and addressing the concerns of regionalism, policy makers can create a more cohesive and inclusive nation that embraces its diversity while safeguarding national unity.

**Q19.**

1. **What do you understand by the theory of 'continental drift'? Discuss the prominent evidences in its support. (100 Words) [5]**

**Approach to question:**

1. **Fit of Continents:** The coastlines of some continents, such as South America and Africa, seem to fit together like puzzle pieces, suggesting that they were once part of a larger landmass.
2. **Similar Rock Formations:** Similar rock formations and geological features, such as mountain ranges, are found on opposite sides of the Atlantic, indicating that they were once connected.
3. **Fossil Evidence:** Fossils of the same species of plants and animals are found on opposite sides of the Atlantic, indicating that they were once connected and the species migrated before the continents drifted apart.

**Answer:**

The theory of continental drift, proposed by Alfred Wegener in 1912, revolutionised our understanding of Earth's geology and history. The theory suggests that the continents were once part of a supercontinent called

Pangaea, which began to break apart around 200 million years ago and drifted to their current positions. The theory is supported by various lines of evidence:

1. **Fit of the Continents:** Wegener observed that the coastlines of continents on opposite sides of the Atlantic Ocean appeared to fit together like pieces of a jigsaw puzzle. This observation suggested that the continents were once connected and later drifted apart.
2. **Fossil Evidence:** Fossil evidence also supported the theory of continental drift. Similar species of plants and animals were found on continents that are now separated by oceans. This suggested that these continents were once connected and shared a common biota.
3. **Paleoclimatic Evidence:** Evidence from past climates, known as paleoclimatology, provided further support for continental drift. For instance, glacial deposits found in Africa and South America indicated that these regions were once located near the South Pole.
4. **Seafloor Spreading:** The discovery of seafloor spreading in the 1960s provided a critical piece of evidence for continental drift. Seafloor spreading occurs at mid-ocean ridges, where new oceanic crust is formed and moves away from the ridge. This process pushes the continents apart and supports the idea of plate movement.
5. **Plate Tectonics:** The theory of continental drift was eventually incorporated into the theory of plate tectonics. According to plate tectonics, the Earth's lithosphere is divided into several large plates that float on the semi-fluid asthenosphere.

In conclusion, the theory of continental drift proposed by Alfred Wegener revolutionized our understanding of the Earth's geology and the movement of continents.

2. **The recent cyclone on east coast of India was called 'Phailin'. How are the tropical cyclones named across the world? Elaborate. (100 words) [5]**

#### Approach to question:

1. **Regional Naming:** Tropical cyclones are named differently in different regions of the world. For example, the North Atlantic and Eastern Pacific storms are named from pre-determined lists created by the World Meteorological Organization (WMO).
2. **Gender-Neutral Names:** In recent years, many regions have adopted gender-neutral naming conventions, alternating between male and female names for tropical cyclones.
3. **Naming Conventions:** The WMO maintains lists of names for tropical cyclones, with each list containing names in alphabetical order. The lists are rotated every few years, with new names added and old names retired.

#### Answer:

Tropical cyclones, also known as hurricanes or typhoons in different regions, are named to facilitate communication and create awareness among the public and authorities. The naming process varies across different parts of the world. The reason behind it is as follows:

1. **List of Names:** Each RSMC/TCWC prepares a list of names in advance for the cyclones in their region. These lists contain names sorted alphabetically and are usually recycled every few years. The names are often chosen to reflect the culture and diversity of the region.
2. **Male and Female Names:** Historically, only female names were used for tropical cyclones. However, this practice changed in the late 20th century and now the lists include both male and female names.
3. **Alternating Gender:** The names alternate between male and female to avoid any gender bias. For example, if the first cyclone of the season is named 'Phailin' (female name), the next one will be given a male name and the pattern continues.
4. **Retirement of Names:** If a cyclone causes significant loss of life or property damage, its name may be retired from the list. This is done as a mark of respect and to avoid confusion with future cyclones.
5. **Global Collaboration:** The naming of cyclones is a collaborative process involving various meteorological organizations worldwide. It ensures that there is consistency and avoids the use of offensive or controversial names.
6. **Regional Variations:** Different regions have different naming procedures. For instance, in the Atlantic and Eastern North Pacific basins, the lists are organised by the National Hurricane Centre (NHC) and have names like "Katrina" or "Harvey".

In conclusion, the naming of tropical cyclones is an organized and collaborative effort by meteorological agencies worldwide. It aims to provide a systematic approach for identifying and communicating cyclones effectively, reducing confusion and enhancing disaster preparedness and response measures.

#### Q20.

1. **Bring out the causes for the formation of heat islands in the urban habitat of the world. (100 words) [5]**

#### Approach to question:

1. **Urbanization:** The growth of urban areas leads to an increase in paved surfaces, buildings and other infrastructure, which absorb and retain heat from the sun.
2. **Reduced Green Spaces:** Trees and other vegetation help to cool the air and provide shade. Urban areas often have fewer green spaces, which contribute to higher temperatures.



3. **Human Activities:** Human activities, such as transportation and industrial processes, release heat into the atmosphere, contributing to the urban heat island effect.
5. **Waste Heat:** Waste heat generated by cooling systems, such as air conditioners, contributes to the urban heat island effect.

### Answer:

Heat islands, also known as urban heat islands, are areas within urban environments that experience higher temperatures compared to surrounding rural areas. The formation of heat islands in urban habitats is influenced by various factors, which are as follows:

1. **Urbanization:** Rapid urbanization leads to extensive construction of buildings, roads and pavements, replacing natural vegetation with heat-absorbing materials like concrete and asphalt. This reduces the cooling effect of vegetation and results in higher temperatures.
2. **Anthropogenic Heat:** Human activities in urban areas, such as transportation, industries and air conditioning systems, generate excess heat. This anthropogenic heat accumulates in urban environments, further contributing to the formation of heat islands.
3. **Land-use Patterns:** The use of dark and non-reflective materials in urban areas, coupled with reduced vegetation, results in more absorption of solar radiation and higher temperatures.
4. **Topography:** Urban areas located in low-lying areas, such as valleys, tend to trap heat, especially during stable atmospheric conditions, exacerbating the heat island effect.
5. **Climate Change:** The impact of climate change, including changes in weather patterns, increased atmospheric carbon dioxide levels and more frequent extreme weather events, can amplify the intensity and frequency of heat islands.
6. **Lack of Green Spaces:** The scarcity of green spaces in urban areas reduces opportunities for vegetation to transpire, releasing water vapor that would otherwise help cool the surroundings.

To address the formation of heat islands, sustainable urban planning and development practices are essential. Strategies include promoting urban greening through parks and green spaces, using reflective and lighter-colored surfaces for pavements and rooftops, adopting energy-efficient practices in buildings and industries to reduce anthropogenic heat emissions and building climate-resilient infrastructure.

2. **What do you understand by the phenomenon of 'temperature inversion' in meteorology? How does it affect weather and the habitants of the place?** (100 words) [5]

### Approach to question:

1. **Causes:** Temperature inversion can occur when cool air near the ground is trapped by a layer of warm air above it, such as during clear, calm nights when the ground cools rapidly.
2. **Effects on Weather:** Temperature inversion can have significant effects on weather patterns, as the layer of warm air aloft can trap pollutants and other particles near the surface, leading to poor air quality. It can also prevent the vertical mixing of air, which can lead to stagnant conditions and contribute to the formation of fog.

### Answer:

Temperature inversion is a meteorological phenomenon where the temperature of the atmosphere increases with height instead of decreasing, which is the usual pattern.

#### Causes of temperature inversion:

1. **Radiation Inversion:** Radiative cooling of the ground surface on clear and calm nights can cause the air above the ground to cool rapidly, leading to temperature inversion.
2. **Advection Inversion:** When warm air is lifted and replaced by colder air, advection inversion can occur. This happens when a cold front moves in and replaces the warm air ahead of it.
3. **Frontal Inversion:** A frontal inversion occurs when a cold front undercuts a warm front, causing the warm air to rise and the cold air to stay near the surface.
4. **Subsidence Inversion:** Subsidence occurs when air sinks and is compressed, which causes it to warm up. This can create an inversion layer if the sinking air is trapped beneath a stable layer of air.

#### Effects of temperature inversion:

1. **Air Pollution:** Temperature inversion can trap pollutants near the surface, causing a buildup of smog and harmful air quality for people and animals in the area.
2. **Temperature Extremes:** Temperature inversion can cause extreme temperatures near the surface. During the day, the inversion layer can trap heat and make the surface hotter, while at night, it can cause temperatures to drop rapidly.
3. **Weather Patterns:** Temperature inversion can affect weather patterns by preventing clouds and weather systems from forming or moving in the normal way. This can lead to prolonged periods of dry or wet weather.

Understanding temperature inversions is crucial for air quality management and weather forecasting to ensure the well-being of communities and the environment.



**Q21. Major hot deserts in northern hemisphere are located between 20-30 deg N latitudes and on the western side of the continents. Why? (200 words) [10]**

**Approach to question:**

1. **Hadley Cell Circulation:** The Hadley cell circulation pattern produces a belt of dry, descending air between 20 and 30 degrees north and south latitudes, which creates arid conditions in these regions.
2. **Trade Winds:** The trade winds blow from east to west across the tropics and their dry, descending air contributes to the arid conditions in the western regions of the continents.
3. **Ocean Currents:** Cold ocean currents off the western coasts of continents can contribute to dry conditions by cooling the air and reducing its moisture-holding capacity.

**Answer:**

The major hot deserts in the Northern Hemisphere are located between 20 and 30 degrees North latitudes and on the western side of the continents due to a combination of factors:

1. **Global Atmospheric Circulation:** Subtropical high-pressure zones at around 30 degrees North and South latitudes cause dry conditions in these regions due to sinking air.
2. **Rain Shadow Effect:** Mountain ranges on the western side of the continents force moist air to rise, cool and condense, resulting in precipitation on the windward side. The leeward side experiences a rain shadow and remains dry.
3. **Ocean Currents:** Warm ocean currents move towards the poles on the western side of the continents, creating a humid climate on the windward side and dry conditions on the leeward side.
4. **Distance from the Equator:** Moving away from the equator towards the poles leads to decreasing solar radiation and less moisture, resulting in drier conditions.
5. **Continental Drift:** The deserts were originally located on the western side of the continents when they were formed. Over time, continental drift and tectonic plate movements have shifted the continents, but the deserts have remained in the same location due to the aforementioned factors.

In conclusion, the specific location of the major hot deserts in the Northern Hemisphere is influenced by global atmospheric circulation, the rain shadow effect, ocean currents, distance from the equator and continental drift. These factors create arid conditions in the regions between 20 and 30 degrees North latitudes and on the western side of the continents, leading to the formation of hot deserts.

**Q22.**

1. **Bring out the causes for more frequent occurrence of landslides in the Himalayas than in the Western Ghats. (100 words) [5]**

**Approach to question:**

1. **Tectonic Activity:** The Himalayas are an active mountain range, formed by the collision of the Indian and Eurasian tectonic plates, which creates unstable geologic conditions that are more prone to landslides.
2. **Steep Slopes:** The Himalayas have steeper slopes than the Western Ghats, which increases the potential for landslides.
3. **Soil and Rock Type:** The type of soil and rock in the Himalayas is generally more prone to landslides than in the Western Ghats.

**Answer:**

The more frequent occurrence of landslides in the Himalayas compared to the Western Ghats can be attributed to a combination of geological, topographical and climatic factors.

Following are the causes for more frequent occurrence of landslides in the Himalayas than in the Western Ghats:

1. **Tectonic Activity:** The Himalayan region is located in an active seismic zone, where tectonic activity is frequent, leading to instability in the mountains. The Western Ghats, on the other hand, are relatively stable with fewer tectonic activities.
2. **Geology:** The Himalayas are composed of loose and unconsolidated rocks, making them more susceptible to landslides. The Western Ghats, however, are composed of hard and compact rocks, which provide more stability and prevent landslides.
3. **Relief Features:** The steep slopes and high altitude of the Himalayas make it more prone to landslides as compared to the relatively gentle slopes of the Western Ghats.
4. **Climate:** Heavy rainfall in the Himalayan region during the monsoon season increases the chances of landslides, as compared to the Western Ghats, which receive moderate rainfall throughout the year.
5. **Human Activities:** The Himalayan region is more prone to landslides due to extensive deforestation, construction activities and agriculture practices carried out on the fragile mountains, leading to soil erosion and destabilization of slopes. The Western Ghats have fewer human interventions, leading to lesser human-induced landslides.
6. **Glacial Activity:** The Himalayas have many glaciers that are rapidly melting due to climate change, causing an increase in landslides. The Western Ghats do not have any significant glacial activity, making them more stable.

In conclusion, the combination of tectonic activity, geology, relief features, climate, human activities and glacial activity make the Himalayas more susceptible to landslides as compared to the Western Ghats.

2. There is no formation of deltas by rivers of the Western Ghats. Why? (100 words) [5]

**Approach to question:**

1. **Shorter Rivers:** Rivers in the Western Ghats are generally shorter than those in other parts of India, which means they have less time to deposit sediment and form a delta.
2. **Steep Slopes:** The Western Ghats are a mountain range, with steep slopes that create fast-moving rivers with a high gradient. These rivers have less sediment to deposit and are less likely to form a delta.
3. **Geology:** The type of geology in the Western Ghats, including the presence of hard rock formations, can also make it difficult for sediment to accumulate and form a delta.

**Answer:**

Formation of deltas by rivers in the Western Ghats is a rare phenomenon due to various geological and topographical factors. The following are the causes for no formation of deltas by rivers of the Western Ghats:

1. **Steep Slopes:** The Western Ghats have steep slopes which do not allow the rivers to slow down and deposit sediments at their mouths. The gradient of the rivers is too high to allow deposition, which leads to the formation of steep gorges and canyons.
2. **High Discharge:** Rivers originating from the Western Ghats have high discharge due to the heavy rainfall in the region. This high volume of water carries a lot of sediment and erodes the river banks and beds rapidly. The sediment is carried away from the river mouth, making it difficult for a delta to form.
3. **Short Length:** Most of the rivers originating from the Western Ghats are short and flow for a shorter distance compared to the rivers in the north. Due to this, they do not have enough time to deposit sediments and form a delta.
4. **Lack of Tectonic Activity:** The Western Ghats are not a tectonically active region, unlike the Himalayas. The Himalayan rivers have a higher chance of forming deltas due to the tectonic activity that creates subsidence and leads to the formation of floodplains.
5. **Geology:** The Western Ghats are predominantly made up of hard rocks, such as granite and gneiss, which do not weather easily.

In conclusion, the steep slopes, high discharge, short length, lack of tectonic activity and geology of the Western Ghats are the primary reasons why there is no formation of deltas by rivers in this region.

**Q23.**

1. Do you agree that there is a growing trend of opening new sugar mills in southern States of India? Discuss with justification. (100 words) [5]

**Approach to question:**

1. **Favorable Climate:** Southern states have favorable climatic conditions for sugarcane cultivation and offer higher yields than other parts of the country.
2. **Government Support:** Governments in southern states provide subsidies and incentives for the establishment of new sugar mills to boost rural economies and generate employment.
3. **Environmental Concerns:** However, some experts argue that the opening of new sugar mills in ecologically fragile areas could lead to environmental degradation and impact the livelihoods of local communities.

**Answer:**

The trend of opening new sugar mills in southern states can be analyzed with the following reasons and justifications:

**Reasons for the trend of opening new sugar mills in southern states:**

1. **Favourable Agro-Climatic Conditions:** The southern states of India have suitable conditions for sugarcane cultivation, including sufficient rainfall and fertile soil.
2. **Government Policies:** Government subsidies and incentives have encouraged the establishment of new sugar mills in the region, with schemes promoting sugarcane cultivation.
3. **Availability of Labor:** The southern states have an abundant labor force required for sugarcane cultivation and sugar production.

**Justifications for the trend of opening new sugar mills in southern states:**

1. **Contribution to the Economy:** New sugar mills will boost the national economy by generating employment and increasing revenue.
2. **Modernization of the Industry:** The establishment of new mills will lead to the adoption of new technologies, increasing efficiency and productivity.

The opening of new sugar mills in the southern states is justified due to favorable conditions, increasing demand, government support and lower production costs

2. Analyze the factors for the highly decentralized cotton textile industry in India. (100 words) [5]

**Approach to question:**

1. **Availability of Raw Material:** Cotton is grown in different parts of India, making it easily accessible to various textile centers.
2. **Skilled Labor:** India has a large pool of skilled and semi-skilled workers, who are involved in various stages of the textile value chain.

3. **Low Capital Investment:** The decentralized nature of the industry allows for small-scale enterprises to operate with low capital investments.
4. **Government Policies:** The government has encouraged the growth of small-scale enterprises through various policies, leading to the decentralization of the industry.

**Answer:**

The cotton textile industry in India has been decentralised for a long time. Some of the key factors contributing to this are:

1. **Availability of Raw Materials:** Cotton, the primary raw material for the cotton textile industry, is produced in different parts of India.
2. **Cheap Labour:** India has a large pool of cheap labor, which is essential for the cotton textile industry to function effectively.
3. **Entrepreneurship:** India has a culture of entrepreneurship, where people are willing to take risks and set up their own businesses.
4. **Lack of Technology:** The cotton textile industry in India has been slow to adopt modern technology.
5. **Government Policies:** The government of India has implemented policies that favor the growth of small-scale industries.
6. **Regional Variations:** India has several regions that specialise in cotton textile production. The southern region of India is also emerging as a hub for cotton textile production.

In conclusion, the decentralized nature of the cotton textile industry in India is a result of several factors such as the availability of raw materials, cheap labor, entrepreneurship, lack of technology, government policies and regional variations.

**Q24. With growing scarcity of fossil fuels, the atomic energy is gaining more and more significance in India. Discuss the availability of raw material required for the generation of atomic energy in India and in the world.**

(200 words) [10]

**Approach to question:**

1. **Uranium:** Uranium is the most important fuel for nuclear power generation. India has limited domestic uranium reserves and imports most of its uranium from countries such as Kazakhstan, Canada and Russia.
2. **Nuclear Waste:** The disposal of nuclear waste is a major issue for the nuclear power industry. India has plans to set up a nuclear waste management facility in the state of Tamil Nadu.
4. **Global Availability:** The availability of uranium varies globally, with countries such as Kazakhstan, Australia and Canada having large reserves.

**Answer:**

The generation of atomic energy, primarily through nuclear power plants, is indeed gaining significance in India and around the world as a source of clean and sustainable energy. However, the availability of raw materials, particularly uranium, for nuclear energy generation varies between India and the rest of the world.

**Availability of raw materials for generating atomic energy in India and the world:**

1. **Uranium Availability in India:** India has limited reserves of uranium, mainly sourced from the Jaduguda mines in Jharkhand.

Estimated uranium reserves in India are around 1.4 lakh tonnes, with potential future reserves of 1.9 lakh tonnes.

To supplement domestic production, India has signed agreements with countries like Canada, Kazakhstan and Australia for uranium imports.

2. **Thorium Availability in India:** India possesses the world's largest reserves of thorium, accounting for about 25% of the global reserves.

India is working on a three-stage nuclear program to harness thorium as a fuel for nuclear reactors.

3. **Plutonium Availability in India:** Plutonium is a byproduct of nuclear reactors and can serve as a fuel for nuclear reactors.

India has limited plutonium reserves and its production is closely regulated.

India has developed Fast Breeder Reactor technology, which generates more plutonium than it consumes, increasing availability.

4. **Global Uranium Reserves:** The world's uranium reserves are limited and estimated to last for approximately 80 years at current consumption rates.

Major exporters of nuclear fuel, such as the United States, Russia and Canada, possess significant uranium reserves.

5. **Geopolitical Factors:** The availability of nuclear fuel is influenced by geopolitical factors, which can impact supply and pricing.

Countries heavily reliant on nuclear energy may face challenges in sourcing nuclear fuel due to geopolitical tensions.

In conclusion, India has vast thorium reserves, but limited uranium and plutonium reserves for generating atomic energy. To meet its energy demands, India has adopted a three-stage nuclear program to harness thorium as a fuel source. Additionally, it relies on uranium imports through agreements with other countries.

**Q25. It is said that India has substantial reserves of shale oil and gas, which can feed the needs of the country for quarter century. However, tapping of the resource does not appear to be high on the agenda. Discuss critically the availability and issues involved.**

(200 words) [10]



**Approach to question:**

1. **Availability:** India is estimated to have large reserves of shale oil and gas, with potential reserves of up to 96 trillion cubic feet of natural gas. However, the actual extent of these reserves is still uncertain and needs further exploration.
2. **Environmental Concerns:** The extraction of shale oil and gas involves the use of hydraulic fracturing or "fracking," which can have environmental impacts such as water contamination and air pollution.
3. **Market Dynamics:** The price of oil and gas is subject to market fluctuations, which can impact the economic viability of shale gas projects.

**Answer:**

Introduction: India's rapid economic growth has resulted in a surging demand for energy resources to meet its expanding needs. One potential solution being explored is the tapping of shale oil and gas resources. However, despite significant reserves of shale oil and gas in the country, there are several reasons why their development is not a high priority at present.

1. **High Exploration and Production Costs:** The extraction of shale oil and gas involves complex processes and requires specialised technology, making it expensive.  
The high cost of exploration and production makes the sector less attractive for private investors, hindering its development.

2. **Water Scarcity:** Shale oil and gas extraction requires substantial amounts of water, which is scarce in many parts of India.  
Using water for this purpose can lead to conflicts with other users and have adverse environmental impacts.
  3. **Environmental Concerns:** Shale oil and gas extraction involves hydraulic fracturing or fracking, which poses environmental risks.  
Contamination of groundwater, air pollution and greenhouse gas emissions are major concerns associated with this process.
  4. **Regulatory Challenges:** The regulatory framework for shale oil and gas development in India is not well-defined.  
Ambiguity regarding rights allocation, licensing and royalty issues discourages private investments in the sector.
  5. **Lack of Infrastructure:** Developing shale oil and gas resources requires substantial infrastructure, such as pipelines and storage facilities.  
The absence of adequate infrastructure is a significant obstacle to their development.
- While India possesses considerable shale oil and gas reserves, the challenges of high costs, water scarcity, environmental concerns, regulatory uncertainties and inadequate infrastructure make their development a less attractive option currently.