1. Early Buddhist Stupa-art, while depicting folk motifs and narratives successfully expounds Buddhist ideals, Elucidate.

2. Krishnadeva Raya, the King of Vijayanagar, was not only an accomplished scholar himself but was also a great patron of learning and literature. Discuss.

3. Explain how the Uprising of 1857 constitutes an important watershed in the evolution of British policies towards colonial India.

4. Discuss the role of women in the freedom struggle especially during the Gandhian phase.

5. Highlight the difference in the approach of Subhash Chandra Bose and Mahatma Gandhi in the struggle for freedom.

6. Has the formation of linguistic States strengthened the cause of Indian Unity?

7. The anti-colonial struggles in West Africa were led by the new elite of Western-educated Africans. Examine.

8. To what extent globalization has influenced the core of cultural diversity in India? Explain.

9. "An essential condition to eradicate poverty is to liberate the poor from the process of deprivation." Substantiate this statement with suitable examples.

10. Why are the tribals in India referred to as 'the Scheduled Tribes'? Indicate the major provisions enshrined in the Constitution of India for their upliftment.

11. With a brief background of quality of urban life in India, introduce the objectives and strategy of the 'Smart City Programmes'.

12. What is the basis of regionalism? Is it that unequal distribution of benefits of development on regional basis eventually promotes regionally? Substantiate your answer.

13. Discuss the concept of air mass and explain its role in macro-climatic changes.

14. "The Himalayas are highly prone to landslides." Discuss the causes and suggest suitable measures of mitigation.

15. The effective management of land and water resources will drastically reduce the human miseries. Explain.

16. South China Sea has assumed great geopolitical significance in the present context. Comment.

17. Major cities of India are becoming more vulnerable to flood conditions. Discuss.

18. Present an account of the Indus Water Treaty and examine its ecological, economic and political implications in the context of changing bilateral relations.
19. Enumerate the problems and prospects of inland water transport in India.

20. In what way micro-watershed development projects help in water conservation in drought-prone and semi-arid regions of India?
1. *Early Buddhist Stupa-art, while depicting folk motifs and narratives successfully expounds Buddhist ideals, Elucidate.*

**Hints:**
- In Buddhism, the earliest stupas contained portions of the Buddha’s ashes, and as a result, the stupa began to be associated with the body of the Buddha.
- Buddha had asked pupils to place the relics “where four roads meet”. This is probably to indicate the openness and universality of the Buddhist teaching, which invites all to come and try its path, and also to radiate loving-kindness to beings in all four directions.
- Stupas contain intricate lotus designs which symbolise the potential for spiritual growth latent in all beings, and the complete non-attachment of the enlightened mind, which stands beyond all defilements.
- Stupa is an image of the creation of the universe (the archetype of regeneration), with the stupa axis founded on the waters and rising through the earth, atmosphere and heavens so as to unite them and form a communicating link between them.
- The shape of the stupa represents the Buddha, crowned and sitting in meditation posture on a lion throne.
- While stupas have changed in form over the years, their function remains essentially unchanged. Stupas remind the Buddhist practitioner of the Buddha and his teachings almost 2,500 years after his death.
- The most elaborate stupa in Java contained Buddha images symbolizing Arūpajhāna, the sphere of formlessness. The main stupa itself is empty, symbolizing complete perfection of enlightenment.
- Thus the art and architecture associated with Buddhism symbolized the Buddhist ideals.

2. *Krishnadeva Raya, the King of Vijayanagar, was not only an accomplished scholar himself but was also a great patron of learning and literature. Discuss.*

**Hints:**
- Historians consider Krishnadevaraya as the greatest ruler of the Vijayanagara kingdom. His greatest achievement is of the broad tolerance that existed during his rule in his empire.
- His reign marked a new era in Telugu literature when imitation of Sanskrit works gave way to independent works.
- His rule was an age of prolific literature in many languages, although it is also known as a golden age of Telugu literature.
- He was a gifted scholar of Telugu and Sanskrit and wrote many works in these languages.
• Sanskrit plays "JambavatiKalyanam", "Ushaparinayam", Madalasacharitha, Rasamanjari, Satyavaduparinaya and a Telugu poem "Amuktamalyada" were written by him. This work beautifully subscribed the agony of separation suffered by Sri Andal for her lover Lord Vishnu.

• He was fluent in many languages including his mother tongue "Tulu".

• He extended his patronage to Telugu,Kannada and Tamil poets alike.

• He patronised many famous posts like Haridasu, Nanditimmana, Kannada poet mallanaraya etc.

• His court BhuvanaVijayamu was adorned by eight literary giants called as "Astadiggajas". The most celebrated of them were Allasanipeddana (father of Telugu poetry), Dhurjati, Tenali Ramakrishna.

• His munificence for scholars earned for him the title "Andhra Bhoja".

3. **Explain how the Uprising of 1857 constitutes an important watershed in the evolution of British policies towards colonial India.**

**Hints:**

• One of the important events of Indian history is the 'Revolt of 1857' or 'India's first war of Independence' or 'The Sepoy Mutiny'. It was the first rebellion against the East India Company which took the massive form. It showed resentment towards British policies thus it acted as the watershed in the evolution of British policies towards colonial India.

• Britishers felt that the efforts to westernize the Indian society were one of the reasons which caused the mutiny, after the revolt they tried to integrate Indian higher castes and rulers into the government and abolished any attempts of westernisation. Similarly the government distanced itself further from the Christian missionaries.

• The revolt depicted the Hindu-Muslin unity thus Britishers started to appease one community over the other giving rise to the divide and rule policy.

• It led to the dissolution of the east India company in 1858 with the passage of government of India act and was there after directly governed by the crown.

• A new post named Secretary of State was created to govern India and formulate Indian policy. The Governor General from now on called as viceroy implemented the policies.

• Doctrine of lapse policy was one of the main causes of the revolt was ended.

• Administrative changes were made in the executive, legislative and judicial arenas with greater participation of Indians .This change was visible in the Indian Council Act 1861, the Indian High court act 1861 and the Indian Civil Services Act 1861.

• After the rebellion British reorganized the army and brought changes in the financial system and administration as well. These troops were replaced by new units recruited from castes hitherto under-utilized by the British and from the so-called "Martial Races", such as the Sikhs and the Gorkhas, which were not part of mainstream Indian culture.

• The British increased the ratio of British to Indian soldiers within India. From 1861 Indian artillery was replaced by British units.

4. **Discuss the role of women in the freedom struggle especially during the Gandhian phase.**

**Hints:**

• Woman's participation in India's freedom struggle began as early as in 1817. Bhima Bai Holkar fought bravely against the British colonel Malcolm and defeated him in guerilla warfare.

• The role of Rani of Ramgarh, Rani Lakshmi Bai, Tapasvini Maharani in the War of Independence (the Great Revolt) of 1857 was commendable.

• While women were involved in the political arena since the foundation of Indian national congress days (Annie Besant started Home Rule League) and especially during the Swadeshi movement but it was Gandhiji who initiated for mass participation of women in freedom struggle.
• In 1920, Sarojini Naidu joined the non-cooperation movement. Many women participated in this movement by performing their domestic and social roles. Sarla Devi, Muthulaxmi Reddy, Susheela Nair, Rajkumari Amrit Kaur, Sucheta Kripalani and Aruna Asaf Ali, Vijay Laxmi Pandit are some of the women who participated in the Non-violent Noncooperation movement. They participated in political protests, picketed shops selling foreign goods and organized Prabhat Pheri (singing patriotic songs).

• Women's participation in the national movement helped in breaking several of the old barriers of tradition and custom. Women's organization side by side raised their voices for removal of social and legal disabilities.

• Role of few women have been discussed below:

  a) Arun Asaf Ali was a radical nationalist played an outstanding role in the historic Quit India Movement launched by Mahatma Gandhi on August 9, 1942, and was a prominent leader of the underground movement.

  b) Vijay Lakshmi Pandit represented India in many of the Conferences abroad. She attended numerous public lectures and challenged the British dominated delegate's rights to represent India therein. She was a great fighter and took parts in many of the freedom movement.

  c) Women like Kalpana Dutt, Preeti Lathawaddedar have been actively involved in revolutionary activities as well like the Hindustan republic socialist association, Chittagong uprising, etc.

5. **Highlight the difference in the approach of Subhash Chandra Bose and Mahatma Gandhi in the struggle for freedom.**

**Hints:**

• Although Subhash Chandra was a follower of Gandhi during the initial days, the later part of the 1930s witnessed a growing radicalization of his thoughts and Bose became increasingly frustrated with the lack of momentum in the independence movement. This caused increasing differences in their approaches.

• Differences are as follows:

  a) **Basic Ideology:**

     o Bose was a nationalist who believed in the tradition of Tilak and Aurobindo (Extremists). Gandhi, on the contrary, was a nationalist who belonged to the tradition of his mentor Gokhale (Moderates) and Tagore.

     o Bose’s strong revolutionary urge for the emancipation of his motherland made him critical of many of Gandhiji’s techniques.

  b) **Strategy to achieve independence:**

     o Netaji’s demand for complete freedom of India from the British in contrast to Gandhi’s want for independence in phases through dominion status.

     o Bose has also been unambiguous that he would seek political emancipation through the most efficacious means which could involve armed conflict or even a total war.

  c) **Future of India post independence:**

     o Gandhi was hostile to industrialization, while Bose saw it as the only route to making India strong and self-sufficient.

     o Gandhi advocated a back to the roots vision comprising of spinning, khadi and local self-sufficiency at village level while Bose held steadfast to a futuristic vision of large scale industrialization and a politics devoid of irrationality and religiosity.

     o Bose was influenced by the success of the five-year plans in the Soviet Union and he advocated for a socialist nation with an industrialized economy.
Bose wanted to develop free India as a modern, industrialized nation with focus on advances in science, livelihood, and education for the masses.

d) **Idea about freedom:**

- Bose believed that freedom is never given; it is taken, while Gandhi on the other hand sought to attain his Swaraj through loyalty to the empire and a change of heart on their part.

e) **Non cooperation movement:**

- Gandhi wanted a mass non-violent movement. Putting pressure on British raj by non-violent means such as fasting. However when Chauri Chaura incident occurred Gandhi ended the non cooperation movement abruptly but Bose thought that was the right time for mass movement against British.

f) **Second World War:**

- Bose wanted to strike down the enemy when it was vulnerable. During the second world war Bose wanted to take action against British which was opposed by Gandhi as he thought it was not ethically right.

g) **Military:**

- Bose wanted a organized military campaign and he dint mind being included in a lot of international politics. Bose's Azad Hind force joined axis powers in WW2 against British.

6. **Has the formation of linguistic States strengthened the cause of Indian Unity?**

**Hints:**

- Language is closely related to culture and therefore to the customs of people. Besides, the massive spread of education and growth of mass literacy can only occur through the medium of the mother tongue. Democracy can become real to the common people only when politics and administration are conducted through the language they can understand.

- Thus States Reorganization Commission recommended a division of India based on dominance and geographical concentration of ethno-linguistic communities.

- Accepting linguistic diversity helped each state to officially patronize its language. It gave the assurance of respecting different culture and language.

- By accepting diversity India had indirectly strengthened the federal fabric of the nation. Regional representation ensured that all genuine grievances are channelized through democratic means and addressed.

- Government’s focus on Jnanapith awards, Classical language status to languages further encouraged scholar to do research in respective language and make Indians aware of the governments support.

- But on the flip side, it has also promoted local identity. It has created distinctiveness among people. The regional differences have come in the way of national integration. Extreme sense of regionalism has resulted in parochialism and ethno centricism; instances like Inter-state water disputes, boundary disputes have also increased.

- Hence steps should be taken to place language as a source of unity of the country by recognizing linguistic diversity and initiating tolerance for each culture.

7. **The anti-colonial struggles in West Africa were led by the new elite of Western-educated Africans. Examine.**

**Hints:**

- Independence movements in Africa often were led by individuals who had attended Western schools (either in Africa or abroad).

- These Western educated Africans spoke the language of the colonizers and knew the types of political activities and organizations which the colonizers understood; therefore, they were in a better position to communicate with the colonizers in their efforts to gain the independence which
their fellow Africans without European education appreciated, desired and often sacrificed their lives for.

- Some of them were: Kwame Nkrumah (Gold Coast, now Ghana), Léopold Sédar Senghor (Senegal), Nnamdi Azikiwe (Nigeria), and Félix Houphouët-Boigny (Côte d’Ivoire).

- They with the help of their counterparts in other continents, protested against the colonial order by publicizing the corruption and injustice perpetrated by the colonial master.

- However the independence achieved by these colonies has not been very fruitful because:

a) Since independence, West Africa has suffered from the same problems as much of the African continent, particularly dictatorships, political corruption and military coups.

b) The region of West Africa has seen a number of civil wars in its recent past including the Nigerian Civil War (1967–1970), two civil wars in Liberia in 1989 and 1999, a decade of fighting in Sierra Leone from 1991–2002, the Guinea-Bissau Civil War.

c) The socio economic development in the African countries did not improve much even after independence and they still remain as the poorest countries in the world.

8. **To what extent globalization has influenced the core of cultural diversity in India? Explain.**

**Hints:**

- Globalization in its basic economic sense refers to the adoption of open and unfettered trading markets (through lowering of trade barriers, removal of capital controls, and liberalization of foreign exchange restrictions). There is also a significant movement of people from one country to another for trade and work.

- The **impact of globalization on local culture** and the changing role of the nation-state can be examined by observing the particularities of the social and cultural patterns and their local, national and transnational manifestations in India. These social and cultural realities have a plural character in terms of language, geography, ethnicity, religion and culture. Thus globalisation impacts the culture of the region. Some of them are:

  a) Family disruption and social and domestic violence are increasing.

  b) Concepts of national identity, and of family, job and tradition are changing rapidly and significantly.

  c) There is concern that competitiveness introduced by globalization is leading to more individualistic societies.

  d) Loss of tolerance for differences in religion and culture.

  e) The nation state is losing influence relative to global economic pressures, and in some countries there is a failure or hesitation to develop social policies. All of these changes increase the likelihood that vulnerable people will be exploited, and threatens to the human rights of less able people will increase.

- However globalization has made the local culture more assertive in demanding their identity. They have, in fact, consolidated their strength. Apart from such empowering impact, the local communities and cultures are also inspired by the new telecommunication media to re-assert their cultural identity and reinforce their residence. It helps them maintain their identity by accessing themselves to cultural meanings and values rather selectively through an adaptive mechanism.

- Thus globalization with its intending consequences has revolutionised the societal dynamics and introduced functional/dysfunctional dimensions.

9. **"An essential condition to eradicate poverty is to liberate the poor from the process of deprivation."** **Substantiate this statement with suitable examples.**

**Hints:**

- Poverty is pronounced deprivation in wellbeing. High poverty levels are synonymous with poor quality of life, deprivation, malnutrition, illiteracy and low human resource development.
• Economic growth is not the solution for eradicating poverty. Economic growth provides greater command over goods and services however, this does not necessarily imply higher wellbeing for everyone; the benefits of economic growth are never shared equally. Income allows an individual to purchase commodities with which he or she generates various functioning. But all individuals cannot convert commodities into functioning to the same degree.

• Thus, poverty should be viewed as the deprivation of basic capabilities rather than merely as low level of income. Poverty encompasses not only material deprivation (measured by income or consumption) but also many other forms of deprivations in different aspects of life such as unemployment, ill health, lack of education, vulnerability, powerlessness, social exclusion and so on. Poverty is present when basic capability failure arises.

• Therefore, Anti-poverty strategy should comprise of a wide range of programmes aimed to strengthen and to generate more employment, create productive assets, impart technical and entrepreneurial skills and raise the income level of the poor.

• Government should focus on improvement of Human infrastructure by means of the provision of basic education and basic health care. Further, public investment in physical infrastructure should be supplemented with it to improve the access to the resources to form the vicious cycle of development.

10. Why are the tribals in India referred to as ‘the Scheduled Tribes’? Indicate the major provisions enshrined in the Constitution of India for their upliftment.

Hints:
• Schedule Tribes are community of people who lived in tribal areas (mainly forest). They make up to 7-8% of Indian population. They have traditionally been marginalized and not in the mainstream of the society. They are also known as Adivasis.

• The criterion followed for specification of a community, as scheduled tribes are indications of primitive traits, distinctive culture, geographical isolation, shyness of contact with the community at large, and backwardness. This criterion is not spelt out in the Constitution but has become well established.

• Constitutional Provisions / Safeguards for Scheduled Tribes; can be divided into two Protective Provisions and Developmental and upliftment provisions.

• The constitutional provisions are:
  a) Article 15(4): Promotion of Social, Economic and Educational interests:

This article empowers “the state to make any special provision for the advancement of socially and educationally backward classes of citizens or for the Scheduled Castes and Scheduled Tribes”.

  b) Article 19(5): Safeguard of Tribal Interests:

While the rights of free movement and residence throughout the territory of India and of acquisition and disposition of property are guaranteed to every citizen, special restrictions may be imposed by “the state for the protection of the interests of any Scheduled Tribe”.

  c) Cultural and Educational Rights:

A cultural or linguistic minority has right to conserve its language or culture. ‘The state shall not impose upon it any culture other than the community’s own culture.

  d) Articles 330, 332 and 334:

Seats shall be reserved for Scheduled Castes and Scheduled Tribes in legislative bodies. There are provisions for reservations of seats in the parliament as well as legislative Assembly of every state (Article 330,332).Such reservations were cease to be effective after a period of 10 years from the commencement of the constitution (Article 334) but after every ten years it’s being extended through constitutional amendments.
e) **Article 338:**

It says that there shall be a special officer for the Scheduled Castes and Scheduled Tribes to be appointed by the President. National Commission for Scheduled Tribes has been established under 338A.

- The Government of India has also enacted progressive legislation, programmes and schemes for the development and empowerment of the SCs and STs. The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA); The Provision of the Panchayats (Extension to the Scheduled Areas) Act, 1996; Minor Forest Produce Act 2005; and the Tribal Sub-Plan Strategy.

- The Government of India has also enacted special schemes to enable access to opportunities including scholarships for education, financial support and skill building for setting up enterprises, reservations in jobs, and special courts to address instances of atrocities and violence.

11. **With a brief background of quality of urban life in India, introduce the objectives and strategy of the 'Smart City Programmes'.**

**Hints:**

- Urbanization has been an instrument of economic, social and political progress, but due to haphazard urbanization in the recent time, the situation relating to civic amenities such as water supply, electricity, public toilets, garbage disposal, etc. has worsened in particular.

- According to the 2011 Census, amenities available with the households has been listed as follows: 87% of households are using tap, tube well, hand pump and covered well as the main source of drinking water while 43.5 percent use tap water. Only 47% of households have source of water within the premises while 36% of households have to fetch water from a source located within 500 m in rural areas/100 m in urban areas and 17% still fetch drinking water from a source located more than 500 m away in rural areas or 100 m in urban area.

- This has increased due to rural-urban migration; financial crunch which affects the provision of civic amenities both in qualitative and quantitative manner; lack of autonomy of ULBs in generating revenues; inadequate user charges for civic amenities to cover the expenses for its provision and politics of populism.

- Against this backdrop it can be said that the concept of smart cities would be able to handle this crisis of civic amenities.

- Smart city mission is an urban renewal and retrofitting programme by Government of India with a mission to develop 100 cities to all over the country. **INR 48,000 Crore** to be spent over the next five year to build 100 smart cities. Each selected city is to be receiving assistance of **100 Crore per year for five year**. Important cities located in hilly area, major and minor tourist spots are to be transformed into smart cities. Each city will receive special purpose vehicle to implement the scheme.

- Smart City Mission envisages the bottom up approach i.e. planning and implementation both at local level. The conceptualization of Smart City, therefore, varies from city to city and country to country, depending on the level of development, willingness to change and reform, resources and aspirations of the city residents.

- However for the development of smart cities formation of smart villages is also important to reduce rural-urban migration and burden on urban resources.

12. **What is the basis of regionalism? Is it that unequal distribution of benefits of development on regional basis eventually promotes regionally? Substantiate your answer.**

**Hints:**

- Roots of regionalism in India are manifold, ranging from diversity of languages, cultures, ethnic groups, communities, religions and so on, and encouraged by the regional concentration of those identity markers, and fuelled by a sense of regional deprivation. But for many centuries, India remained the land of many lands, regions, cultures and traditions even with this sense of diversity.

- However the unequal development of states, discrimination by state administration and concentration of development activities, administrative power and political power to a particular region have been
the main reason for demand of new states and emergence for secessionist movement in North-East India.

- There are certain regions in the country where industries and factories have been concentrated, educational and health facilities are sufficiently provided, communication net work has been developed, rapid agricultural development has been made possible. But there are also certain areas where the worth of independence is yet to be realized in terms of socio-economic development.

- Further the economy's failure to create enough employment opportunities for the educated youths created an acute scarcity of jobs, and led to intense competition for the available jobs.

- This disparity has caused the feeling of relative deprivation among the inhabitants of economically neglected regions.

- Thus, the need of the hour is to develop a realistic perception of regionalism at the conceptual level focusing on righteousness and judicious outlook maintaining unity in diversity.

- With the promotion of cooperative federalism, establishment of NITI AAYOG, interstate council the negative connotation of regionalism can be further diluted and more inclusive and faster growth can be achieved.

13. Discuss the concept of air mass and explain its role in macro-climatic changes.

Hints:

- An air mass is a large body of air whose physical properties, especially temperature, moisture content and lapse rate are more or less uniform horizontally for hundreds of kilometres.

- The nature and degree of homogeneity of an airmass are determined by properties of the source area and the direction of its movement and changes introduced in the airmass during its journey away from the sources area and age of the air mass.

- The interaction of air-mass of different regions plays an important role in determining the temperature and precipitation of temperate regions in following ways:
  a) Laurential type of climate: Continental polar air-mass moves in southerly and south-easterly direction picks up moisture from great-lakes region of north American produces lake-effect snow and heavy snowfall in Appalachians.
  b) China type of climate: Maritime tropical pacific air-mass when enters the mainland china produces cyclones in the region of Yellow sea and Japan sea.
  c) Maritime tropical Atlantic air mass control the weather conditions of vast areas of USA near the Gulf of Mexico region producing thunderstorms, cyclones etc. Ex Hurricanes in USA.
  d) The interaction of polar continental cold air-mass and temperature air mass produces extreme cold conditions in winter causing heavy snowfall in temperate latitudes.
  e) According to Halley, the monsoon in Indian subcontinent is nothing but movement of maritime airmass (high moisture content) into Indian landmass.
  f) Convergence of African hot airmass and European cold airmass over Mediterranean produces temperate cyclones, which is a major determinant of weather condition of temperate latitude.(also causes western disturbance over Pakistan and India, good for winter wheat)

- Hence Air masses play an important role in microclimatic changes, especially in temperate latitudes.

14. "The Himalayas are highly prone to landslides." Discuss the causes and suggest suitable measures of mitigation.

Hints:

- A landslide is a downward and outward movement of slope materials like rocks, soil and so on under the influence of gravity. It is a natural process that removes materials from the hill slopes and coastline.
• Gravity and accumulation of soft soil, debris and rocks on a steep slope are the primary reason for a landslide. There are various other factors that could increase the risk. For instance, erosion by rivers, weakening of rocks and soils by heavy rains, earthquakes, volcanic eruption, stockpiling of rocks and ores and deforestation could increase a region’s susceptibility to landslides.

• Himalayas are more prone to landslides because the earth’s structure consists of an outer silicate solid crust (about 30km from the surface), a viscous mantle (2,900 km thick) and the core (3,500 km diameter). The uppermost part of the mantle and crust is broken into seven major tectonic plates- African, Australian, Eurasian, North American, South American, and Pacific. These plates can move over the low viscous region below them. The Himalayas are created by the collision of the Indian landmass with the Eurasian plate. The landscape in the Himalaya and the north east is highly susceptible to landslides. The slopes of the mountains have immature and rugged topography, high seismicity and high rainfall, all contributing to the region’s high vulnerability to landslides.

• Measures to control landslides are:
  a) Hazard mapping: locate areas prone to slope failure. Identifying areas prone to landslides and avoidance of areas for building settlements
  b) Land use: preservation of vegetal cover. Denuded path slopes provoke landslides and must be reforested with suitable tree species. Terrace farming, construction of bunds, etc
  c) Slope stabilisation: Afforestation, retaining walls, use of jute geotextiles, plastic geogrids to increase slope stability.
  d) Control human activities: prevent people from deforestation, urbanization, mining or infrastructural projects.*
  e) The presence of water within a rocky hillside is one of the major factors leading to instability. Knowledge of the water pressure and of the runoff mode is important to stability analysis, and to planning measures to improve hillside stability. Care must be taken to avoid blockage of natural drainage while constructing roads, buildings and canals.
  f) On community lands, fuel or fodder trees should be grown to increase forest cover to reduce landslide hazard in India.
  g) Grazing should be restricted and better grass must be grown on the surface previously grazed to increase the hold on soil by plant roots
  h) Reinforcement measures generally consist of the introduction of metal elements which increase the shear strength of the rock and to reduce the stress release created when the rock is cut.

15. The effective management of land and water resources will drastically reduce the human miseries. Explain.

Hints:
• Human settlements, unsustainable agriculture, commerce, industry and tourism development have historically been competing for the limited land and water resources.
• As human needs and population grow, the pressure on land and water continue to increase and this competing demand has led to skewed resource distribution resulting in poverty, hunger, lack of equitable distribution of water, land and other social resources.
• Lack of institutional capacity to properly negotiate rights to exploit socio-economic activities continues to exert pressure on these critical resources.
• Various ways through which effective land and water resources management can reduce human misery are:

A. Land management:
- Land capability classification to determine the different uses of land.
- Land not capable for cultivation can be used for construction activities, infrastructure projects, settlements, industry, etc.
- The area set aside for forest cover needs to be utilised for afforestration, sacred groves etc.
- Land suitable for agriculture should be used to grow crops based on agro-climatic conditions to ensure effective land use and ensure optimum productivity of the produce to help reduce hunger and famine conditions and ensure food security.
- Some of the effective land use practices are agro-forestry, social forestry, plantation of trees along national highways etc.
- Land record management with proper legislation for land lease and land tenancy, mutation orders and limited accessibility etc so that land is effectively utilised in the land market.
- Geospatial technologies facilitate the mapping of land parcels, valuation of land, and the integration of data sets from multiple departments to realize a strategic land suitability assessment.
- Data integration from multiple sources, displaying the results on a map integrated with satellite images will help in effective decision making.

B. **Water management practices that help in effective water usage to reduce human misery:**

- Water conservation harvesting using some of the traditional water harvesting techniques like Zing in Ladakh, Kere in Karnataka, Tankas, etc. help in water storage that would help in water use in lean seasons, utilize water for multiple purposes like drinking water, agriculture, use for cattle, small hydropower generation etc. this water helps in fighting droughts
- Water use efficiency using micro-irrigation practices like sprinkler and drip irrigation can reduce indiscriminate water use and increase the efficiency of irrigation for agricultural crops
- As per national water policy the water use must be prioritized – drinking water, water use for agriculture, household activities, women needs and industries etc can help in reducing human misery and ensure equitable distribution of water resources.
territorial claims in the South China Sea waters for trade, transport, hydrocarbons, freedom of navigation etc.

b) Given the ambiguities of international law over the Spratly and Paracel islands, countries in the region have occupied various islets, reefs, rocks and outcrops over the decades

c) China’s increased presence in the region by deployment of deep-sea rigs and drilling in the disputed area also raises many political issues.

- Growth of naval power in the region as joint military exercises has also increased.
- Hence the geopolitical significance of the South China Sea has increased in the present era.

17. **Major cities of India are becoming more vulnerable to flood conditions. Discuss.**

**Hints:**

- Urban flooding has become a common phenomenon in recent times with every city sees flooding during the monsoon or during heavy rainfall times. There is a complete disconnect between geological and hydrogeological cycle and urban planning.
- The problem of floods in urban areas became so acute that in 2010, the National Disaster Management Authority (NDMA) recognised urban floods as different from riverine floods. It said urban floods “happen in a relatively short period of time and can inundate an area with several feet of water”.
- Some of the reasons for urban flooding include:
  
  a) Destruction of wetlands: Lakes and wetlands are an important part of urban ecosystem. They perform significant environmental, social and economic functions, ranging from being a source of drinking water, recharging groundwater to acting as sponges, supporting biodiversity and providing livelihoods. Destruction of wetlands leads to decreased absorbing capacity leading to floods. Ex Hyderabad has lost 3,245 ha of its wetlands. The vast network of lakes in the city had allowed the excess water from one lake to follow into another and eventually into the Musi River. With the destruction of this network any amount of heavy rains leads to flooding of the city as seen in 2016.
  
  b) Concretization: Management of Urban Flooding report, published by the National Disaster Management Authority (NDMA) in 2010, says that concretisation is a major problem in many cities and towns. Concrete jungles obstruct and encroach upon the natural flow of water bodies and create pockets that trap water, which increases the flood intensity.
  
  c) Destruction of river basin area of rivers flowing in the cities: Natural streams and watercourses, formed over thousands of years due to the forces of flowing water in the respective watersheds, have been altered/reduced because of urbanization. There have been large scale encroachments on the natural drains and the river flood plains. Consequently, the capacity of natural drains has decreased, resulting in flooding during heavy rains. Ex three rivers in the Chennai city are highly encroached upon and that has reduced the amount of water runoff into the Bay of Bengal. Kashmir floods of 2014 is the result of unplanned urbanization and encroachment of Jhelum flood plains decreasing its carrying capacity
  
  d) Migration: Explosive increase in the urban population without corresponding expansion of civic facilities such as adequate infrastructure for the disposal of waste. The sewerage generated by the people gets mixed with the water and clogs the natural channels and storm water drains leading to flooding when it receives excessive water. Guwahati’s Deeporbeel lake is used by the municipal corporation to dump solid waste since 2006.
  
  e) Construction of dams on the river beds: Increased water that is released from these dams floods the low lying areas as in Kashmir the deluge was the result of the dam at Srinagar, its floodgates were opened without warning and the water carried all the debris from the dam site to the city.
  
  f) Unmindful sand mining from the catchment areas and river beds also reduce the river absorbing capacity of excess water leading to floods during heavy rains. Vembanad Lake on the outskirts of Kochi has water level halved its intial level after the mining activity.
• Steps needed are:
  a) Urban planners should undertake a detailed mapping of waterbodies, natural drainage and flood-prone areas in cities using remote sensing. And then integrate the drainage system of the city including rivers, rivulets, ponds, lakes and other natural drainage systems.
  b) Policymakers to relook the development plans approved by city authorities and find out whether they violate the hydrological cycle of the city.
• This calls for stronger laws to protect urban lakes and the setting up of a single authority for the management and restoration of water bodies.

18. Present an account of the Indus Water Treaty and examine its ecological, economic and political implications in the context of changing bilateral relations.

Hints:
• The Indus Waters Treaty is a water-distribution treaty of Indus river system between India and Pakistan. The treaty was signed in Karachi on September 19, 1960 by Prime Minister of India Jawaharlal Nehru and President of Pakistan Ayub Khan. According to this agreement, control over the three “eastern” rivers — the Beas, the Ravi and the Sutlej — was given to India, while control over the three “western” rivers — the Indus, the Chenab and the Jhelum — to Pakistan.
• The treaty allowed India to use Pakistan’s rivers for irrigation, transport and power generation, while laying down precise regulations for Indian building projects along the way. The treaty is considered to be one of the most successful water-sharing endeavors in the world today.
• The changing bilateral equation between India and Pakistan over issues like border dispute, Siachen, Kashmir and terrorist attack such as Uri, has significant implication on Indus water treaty (recently Indian government’s consideration of optimizing Indus water use).
• The implications will be:
  A. Ecological:
     i. Competitive and ecologically unsustainable constructions of big hydel power dam, can disturb the fragile ever ecosystem. (According to world bank both country have to maintain a threshold level of water flow for natural cleansing).
     ii. Bilateral rivalry can be a significant hurdle in putting joint effort for conservation of the river ecosystem and associated flora and fauna.
  B. Economic:
     i. India and Pakistan have used the waters for irrigation purposes like agriculture in Jammu and Kashmir, paddy in Pakistan, tourism, electricity generation based on run of the river hydro-power generation, flood storage capacity ex.Baglihar project, Kishenganga project. Hence any misuse, overuse and unscientific use against the spirit of IWT can seriously affect local economies and runs the risk of aggravating conflict.
  C. Political:
     i. As India enjoys respect and support for its adherence to global institutional arrangements (recent New Moore island with Bangladesh, Barkar river sharing, etc), any unilateral action may turn global community against India.
     ii. Again countries like China will use this (any breach of IWT) as a pretext to divert water from the international rivers like the Brahmaputra and Mekong, leading to regional political instability.
• IWT acts as a confidence building measure (CBM) between India and Pakistan. It plays a big role in India Pakistan cooperation and peace
• Therefore Ecological sustainability and economic demands of the local people should be the core priority, while using water of Indus. Rather than turning it into a point of conflict; it must be transformed into a conduit of cooperation by strengthening the IWT.
19. Enumerate the problems and prospects of inland water transport in India.

Hints:

- India has about 14,500 km of navigable waterways which comprise rivers, canals, backwaters, creeks, etc. The systematic development of waterways will create progressive economic opportunities in the country.

- However, the potential of water transport is underutilized in India. The share of inland water transport is only 3.5% compared to 40% in western countries.

- Inland waterways are the most fuel efficient, cost saving and environmental friendly mode of transport. It will reduce the burden on road and rail transport which are comparatively less efficient. The cargo conveyance too is cheaper with little energy requirements.

- But the inland water transport in India faces following issues:
  
a) Competing demands on the stressed water levels with existing users, between centre and state, human use and ecological need of the river particularly farmers who need water for irrigation, drinking water and use for industries, fisheries-based livelihoods, pilgrimage, or rights for local navigation remain unresolved.

b) Accidental spillage of hazardous fuels could directly affect the health of millions of people in India that still depend on rivers for drinking, domestic uses, commerce, and livelihoods, and present life-threatening risks to aquatic species.

c) Environmental and ecological concerns: Dynamic flow, flooding, changing river courses seen in most of the rivers are essential to maintain the river productivity and ecology of the rivers. The high sedimentation deposition and erosion patterns make navigation risky.

d) The need for huge private investments in maintaining the dredging work. Ex Farrakha barrage is a case in point.

e) Diversion of river water for irrigation canals has reduced the flow of water and declined the navigation capacity of the rivers.

f) The presence of waterfalls, cataracts and sharp bends hinders the development of waterways.

g) Silting of river bed reduces the depth of water and creates problem for navigation.

h) Insufficient depth throughout the stretch of navigable waters.

i) Non availability of low draft high technology vessels.

j) Non availability of navigational aids resulted in restricted sailing over a long period.

k) Most of the large rivers of the country enter the sea through shallow sand chocked delta channels. Thus navigation is hampered unless dredging is done.

- In other to increase the significance of inland waterways and to improve their efficiency, the government has identified important waterways and designated them as national waterways of India.

- The Government is also developing National Waterway-1 (NW-1) under the Jal Marg Vikas Project, with assistance from the World Bank. NW-1 refers to 1620 km Haldia-Allahabad stretch of River Ganga.

20. In what way micro-watershed development projects help in water conservation in drought-prone and semi-arid regions of India?

Hints:

- The watershed is a natural hydrological entity that covers a specific aerial expanse of land surface from which the rainfall runoff flows to a defined drain, channel, stream or river at any particular point.
• Water collected from all the sources is stored in lakes, ponds, subsurface soil, soil moisture and geological formation and building of check-dams, tankas, etc help in storage of water for lean seasons.

• Micro-watershed is a strategy towards achieving inclusive growth with the objective of giving impetus to treatment of degraded watersheds, augmentation of drinking water, agricultural growth and spreading the benefits of growth to all sections of population.

• Micro-watershed strategy includes:
  a) Development of waste lands in non-forest areas, checking of land degradation, agro-forestry and social forestry helps in conservation of soil moisture, recharge of ground water.
  b) Watershed development for improving water use efficiency for agriculture and also provides water in regular intervals that will help improve productivity ex Bamboo drip irrigation of Meghalaya.

• The outcomes are prevention of soil erosion, regeneration of natural vegetation, rain water harvesting and recharging of the ground water table. This enables multi-cropping and the introduction of diverse agro-based activities, which help to provide sustainable livelihoods to the people residing in the watershed area.

• Thus concept of watershed development improve community resilience for semi-arid and drought prone area which may lead to development of alternate livelihood activities, allied agricultural activities, cottage industry.
Q. The long process of Indian national movement secured the active role of women in the society as well. Comment.

Hints:
• The Indian national movement actively saw the participation of women. They participated in large numbers in various movements and organizations. Their participation helped them to strengthen their position in the society and secure an active role.
• The sacrifice made by the women of India occupies a significant place. The women during freedom struggle fought with true spirit and undaunted courage and faced various tortures, exploitations and hardships to earn freedom for the country.

How Nationalist Movement Secured active role of women in Society?
• Due to the empowerment granted by nationalist Movement Women's participation in movements related to social, economic and political rights like tribals, peasants and industrial workers, improvement in conditions of work and autonomy to women, equal remuneration for work etc increased significantly.
• Indian national movement worked for liberation or uplift of women through propagation of need for reform in the current social practices so as to enable women to play a more important and constructive role in society; It also propagated equal rights for men and women, i.e., extension of civil rights enjoyed by men in the political, economic and familial spheres to women also. All of this Nobel ideas of our nationalist movement helped women to secure a active place in society.
• A large number of women participated in India's struggle for independence. Women could take part in the movements such as CDM, and were in fact encouraged to do so, since the methods for struggle were mainly non-cooperation and non-violence.
• They were active in participating in the Swadeshi movement, or the boycott of foreign goods, non-payment of taxes, picketing of liquor shops, and so on. There was mass participation of women in the non-cooperation movement of 1921 and the Civil Disobedience Movement of 1930. All of this helped women to break the shackles of seclusion and helped them to be an active contributor in the betterment of the society.
• Most of the nationalist Leaders focused on Women Education which led to creation of educational opportunities for the Women, Which ultimately increased the number of educated women and thus enhanced their social status in the society.
• The aim of our Nationalist Movement was to give universal Adult Franchise to all including women which ultimately led to adoption of Universal Adult Franchise in 1947 this single step made women equal Political partner and citizen in the Democracy and significantly increased their social status.
• Thus As a result of being associated with, and participating in the freedom struggle, Indian women realized the importance of living life as conscious human beings. They started breaking barriers and earned a respectable position in the world.
GS SCORE - GS MAINS TEST SERIES (Test No. 5; Question No. 5; Dated - 12 November 2016)

Q. To what extent you agree, that the contribution of Subhas Chandra Bose to India's freedom struggle is not less than any other leader of Indian freedom movement. Elaborate.

**Hints:**

Popularly called Netaji, Subhas Chandra Bose, stands aloft among the many freedom fighters that India has produced. His contribution towards India's Freedom struggle was of a revolutionary.

- He had cleared the Indian Civil Services, but he left civil Services apprenticeship and joined India's freedom struggle.
- During non-cooperation movement he organized national schools and colleges and worked for Hindu Muslim Unity. He was appointed the principal of National College in Calcutta.
- During the Simon commission protests, he along with Pt. Jawaharlal Nehru emerged as the leaders of new generation of youth and students, set up Left wing of congress and were instrumental in spreading the ideas of socialism that reflected in the emergence of groups such as Punjab Naujawan Bharat Sabha, workers and peasants parties etc
- He stressed upon the need to combine nationalism with anti-imperialism and complete independence.
- He was a member of Nehru (Motilal Nehru) constitution drafting committee, but he along with Nehru and Satyamurthy was dissatisfied with the dominion status proposal in report and called for complete independence. He along with Nehru rejected the congress's modified goal and jointly set up Independence for India League. They were instrumental in mobilising the idea of complete independence and not only the dominion status.
- Under his congress presidency, efforts were taken on planning under National Planning committee. Bose initiated the concept of the "National Planning Committee" in 1938.
- While the whole nation was engaged in the Quit India movement, the struggle for independence was carried on by Subhash Chandra Bose from outside India.
- The Indian National Army and Subhash Chandra Bose played their significant role in the freedom struggle of India.
- The Indian National Congress, the main instrument of Indian nationalism, praised Bose's patriotism but distanced itself from his means and ideology, especially his collaboration with Germany and Japan.
- Bose was an Indian nationalist and prominent figure of the Indian independence movement, whose attempt during World War II to rid India of British rule with the help of Nazi Germany and Japan left a troubled legacy.
- However his contribution to the Indian freedom struggle is no less than any other great leader of his times.

GS SCORE - GS MAINS TEST SERIES (Test No. 10; Question No. 6; Dated - 30 October 2016)

Q. How does globalization influence culture; elaborate with suitable illustrations about its bad and good influence on local culture in Indian context?
Hints:
Globalization provides both positive and negative influences on cultural diversity which can have far reaching impacts. Globalization has led to hybridization, homogenisation and sometimes conflict intensification as a reaction to cultural dominance.

Effects of globalisation can be:

(a) **Culture of consumption:** globalisation has led to growth of shopping malls, multiplex cinema halls, amusement parks etc. Money is no longer a virtue. Advertisements and media in general promote a culture where spending is more important. Shopping is a pass time actively encouraged.

(b) **Food habits:** visible aspect of cultural globalization is the diffusion of certain cuisines such as fast food chains. ex, the coming of American fast food chains like McDonald, coca cola or the Indian chain like café coffee day etc. It has made the world cuisines available to the local people. While at the same time Indian cuisines have got the attention of world population. Many restaurants in Europe and USA offer Indian food like Dosa, parathas etc.

(c) **Indigenous arts and crafts:** and literary traditions and knowledge systems are vanishing due to the influence of televisions, computers, etc. Ex, the profession of Dombari community who livelihood depended on performing acrobatics is dying because of lack of audience. Example, Migration of the traditional weavers of sircilla village of karimnagar due to lack of money in investing in new technology and unable to adapt to changing consumer tastes and competition from power looms or synthetic fabrics.

- On the other hand the increased informational technology and social networking like Facebook, twitter and e-commerce coupled with geographical indication tags have also led to their promotion. Example, the Indian handloom textiles and handicrafts promoted in other countries. Example, Banarasi and kancheevaram sarees, Madhubani and Pattachitra paintings, Meerut scissors, etc.

(d) **Languages:** globalisation has made English a predator language. English is getting replacing others as the language of communication at household and the younger generations do not speak their mother tongues. It has reduced the amount of literary works published in local languages and also their audience who read it.

(e) **Diseases:** diseases that originate in one part of the world spread to other because of increased mobility and interaction of people. Ex, In the HIV/AIDS and recent time Ebola and Zika Virus.

(f) **Conflict intensification:** cultural shyness has led to marginalisation of some cultures however with increased jingoism and anxiety to protect their cultures has led to cultural nationalism and in extreme cases chauvinism attacking the ideas of other cultures. Ex the religious fringe elements being increasingly vocal about celebration of New Year’s, valentine day etc.

(g) **Music:** while it has bought a large number of International pop music to India, it has also seen the growth of popularity of fusion music like Bhangra pop, Indi pop or even remixes etc. one the other hand it has led to marginalisation of traditional music of different areas.

(h) **Commodification of services:** globalisation has drawn the elements of culture that were earlier outside the market system into it. Example, the presence of Indian spirituality and knowledge systems like, Yoga and Ayurveda in the west which have led to increased soft power of India in the world. Growing market of international tourists in the local festivals.

- Example, while Pushkar fair still continues to be a major social and economic event for local people, it is marketed internationally as a major tourist attraction. However globalisation with increased transportation facilities within the country has led to more people to people contacts, increased international tourism especially spiritual, wellness and cultural tourism.

- The globalisation has both positive and negative effects on culture. The cultural intermingling and exchanges have been so pervasive that today it is difficult to distinguish between indigenous or imported cultures leading to a hybrid culture - accept of foreign culture, universal values, liberal ideas, gender equality, etc.
Q. The poor are not simply lacking resources, but they also acquire a poverty-perpetuating value system. Do you agree? Explain your stance with examples from Indian society.

Hints:

- Many argue that poor are not simply lack resources, but also acquire a poverty-perpetuating value system because of what happens to the worldview, aspirations, and character of the children who grow up in it.
- The people in the culture of poverty have a strong feeling of marginality, of helplessness & hopelessness and dependency. They think that the existing institutions do not serve their interests and needs. Along with this feeling of powerlessness there is a widespread feeling of inferiority and personal unworthiness. Thus they don't make any effort to come out of poverty.
- People with a culture of poverty have very little sense of history. They are a marginal people who know only their own troubles, their own local conditions, their own neighborhood, and their own way of life. Usually, they have neither the knowledge, vision nor the ideology.
- They have a tendency to have short term approach, which leads to focus on consumption with little interest in education and other investment in human capital.
- But this is not completely true. It has been argued that living in conditions of prevalent poverty leads to the development of a culture or sub-culture adapted to those conditions, and characterized by prevalent feelings of vulnerability, dependency, marginality, and feebleness.
- This approach also characterizes the psyche of "blaming-the-victim" of those involved in policy making. They fail to see that many have been able to come out of poverty when provided with appropriate support system in the form of education, employment etc.
- It serves as a political tool of not providing assistance to vulnerable sections of society and diverting those resources for the benefit of rich. For example historically land acquisition has taken place at very low rates and those who have been disposed of their lands have been forced to migrate and live in slums in urban areas. Whereas, those who acquired land with government support have become rich. So such instances of poverty are not because of sub-culture but exploitation by the system.
- Therefore it is false to say that it is because of their value system that poor remain poor, but it is because of absence of efforts on the part of institutions to support such people that they are poor. For example the step of online price discovery of minor forest produce is of no relevance to ST people who don't have access to internet. Therefore there is a need to change the culture of policy making this will change the culture of poverty stricken people.

Q. Discuss the problems related to civic amenities in Indian urban areas. Will the concept of Smart Cities be able to handle the crisis?

Hints:

- Urban areas are the ‘engines of economic growth’ in a developing country like ours. According to Census 2011, approximately 31 % of the population lives in urban areas.
Due to haphazard urbanisation in the recent time, the situation relating to civic amenities has worsened in particular. The civic amenities are the facilities provided by the governments and municipal corporations for common people like water supply, electricity, public toilets, garbage disposal, etc.

According to the 2011 Census, amenities available with the households has been listed as follows: 87% of households are using tap, tube well, hand pump and covered well as the main source of drinking water while 43.5 percent use tap water. Only 47% of households have source of water within the premises while 36% of households have to fetch water from a source located within 500 m in rural areas/100 m in urban areas and 17% still fetch drinking water from a source located more than 500 m away in rural areas or 100 m in urban area.

This has increased due to rural-urban migration; financial crunch which affects the provision of civic amenities both in qualitative and quantitative manner; lack of autonomy of ULBs in generating revenues; inadequate user charges for civic amenities to cover the expenses for its provision and politics of populism.

Against this backdrop it can be said that the concept of smart cities would be able to handle this crisis of civic amenities. The notion of smart cities or habitations is a process rather than a goal. It will work for development of institutional infrastructure, physical infrastructure and social infrastructure in the cities.

The core infrastructure elements in a smart city includes adequate water supply, assured electricity supply, sanitation, including solid waste management, efficient urban mobility and public transport, affordable housing, especially for the poor, robust IT connectivity and digitalization, good governance, especially citizen participation, sustainable environment, safety and security of citizens, particularly women, children and the elderly, and health and education, etc.

The smart city would address the crisis of civic amenities in following way:

a) E-governance & citizen services: These would include public information & grievance redressal, electronic service delivery that would bring in transparency & hold the government accountable.

b) Waste management: This includes recycling, reuse and reduction of waste & waste to energy initiatives bringing sustainability of the cities into the mainstream of planning process.

c) Water management: This would be consisting of water meter installation, water quality monitoring & leakage information.

d) Urban mobility: This would include intelligent traffic management, integrated multi-modal transport with a mission statement of moving people & not vehicles.

Thus, smart city mission would improve the availability of basic amenities in the cities if implemented properly.

GS SCORE - IAS MAINS TEST SERIES (Test No. 9; Question No. 9; Dated - 29 May 2016)

Q. Lack of employment in India is leading to growth of regionalism in India than the affiliation to particular region. Do you agree with the statement?

Hints:

Regionalism describes situations in which different religious or ethnic groups with distinctive identities coexist within the same state boundaries, often concentrated within a particular region and sharing strong feelings of collective identity. Regionalism stands for the love of a particular region or an area in preference to the nation or any other region. It often involves ethnic groups whose aims include independence from a nation-state and the development of their own political power.
In Indian context, regionalism refers to assertion of distinct ethnic, linguistic or economic interests by various groups within the nation. Since the roots of regionalism lie in linguistic, ethnic, economic and cultural identities of the people living in specific geographical area, political scholars have treated various forms of regionalism which include economic regionalism, linguistic regionalism, political regionalism and even sub-regional movements in the general frame of regionalism.

In other words, it is the manifestation of those neglected socio-political elements which fail to find expression in the mainstream polity and culture. These feelings of frustration and anger resulting from exclusion and neglect find expression in regionalism.

This is leading to rise of conflicts within the society more because of unequal regional development rather than affiliation for particular region.

The friction has been more intense in states and cities where 'outsiders' have greater access to higher education and occupied more middle-class positions in government service, professions and industry and engaged in small businesses, such as small-scale industry and shop keeping.

The economy's failure to create enough employment opportunities for the recently educated created an acute scarcity of jobs, and led to intense competition for the available jobs during the sixties and seventies. The major job opportunities that opened up after 1952 were in government service and the public sector enterprises. Popular mobilization and the democratic political process could therefore be used by the majority linguistic group to put pressure on the government to appropriate employment and educational avenues and opportunities. Some groups could then take advantage of 'the sons of the soil' sentiment for gaining political power.

The problem was aggravated in a number of cities or regions because the speakers of the state language were in a minority or had a bare majority. For example, in Mumbai, in 1961, the Marathi-speakers constituted 42.8 per cent of the population. In Bangalore, the Kannada speakers were less than 25 per cent. In Calcutta, the Bengalis formed a bare majority. In the urban areas of Assam, barely 33 per cent were Assamese. After 1951 the rate of migration into the cities accelerated.

Thus, the need of the hour is to develop a realistic perception of regionalism at the conceptual level focusing on righteousness and judicious outlook maintaining unity in diversity.

"The Himalayas are highly prone to landslides." Discuss the causes and suggest suitable measures of mitigation.

The Himalayas and the Western Ghats have been formed by the plate movements and are prone to a variety of disasters including earthquakes and landslides. However, the Himalayas have more chances of earthquakes when compared to Western Ghats. The reasons are:

a) The Himalayas are Young – tertiary mountains whereas Western Ghats are Older-block mountain.

b) Himalayas has not yet reached its isostatic equilibrium which makes it more prone to frequent earthquakes but on the other hand Western Ghats are located on stable part of Indian plate and the chances of colliding of plates in this region are less when compared to Himalayas.
c) Indian plate is moving northwards and subsiding under Eurasian plate, 5-10 cm a year. This leads to rising of Himalayas every year whereas Moving of Indian plate does not affect Western Ghats. This also affects the earthquakes that come in the region.

d) Unplanned growth of houses in the hill areas increases the damage and the loss that occurs due to the disasters in the region whereas limiting the damage in Western Ghats.

- Thus, the main reason for more earthquakes in the Himalayas is due to proneness to more plate movements and due to instability of the Himalayan mountains.

Supplementary Notes

Mechanism of propagation of earthquake inside the earth surface

- Earthquake waves are basically of two types — body waves and surface waves.

- Body waves are generated due to the release of energy at the focus and move in all directions travelling through the body of the earth. The body waves interact with the surface rocks and generate new set of waves called surface waves. These waves move along the surface. The velocity of waves changes as they travel through materials with different densities. The denser the material, the higher is the velocity. Their direction also changes as they reflect or refract when coming across materials with different densities.

- As the waves move or propagate, they cause vibration in the body of the rocks through which they pass. P-waves vibrate parallel to the direction of the wave. This exerts pressure on the material in the direction of the propagation. As a result, it creates density differences in the material leading to stretching and squeezing of the material. Other three waves vibrate perpendicular to the direction of propagation. The direction of vibrations of S-waves is perpendicular to the wave direction in the vertical plane. Hence, they create troughs and crests in the material through which they pass. Surface waves are considered to be the most damaging waves.

- The propagation of different waves is shown below:
Q. In the past few years, urban floods are becoming regular and increasingly devastating and are largely due to human factors. Discuss with suitable examples.

Hints:
The reasons are:

(a) **Destruction of wetlands**: Lakes and wetlands are an important part of urban ecosystem. They perform significant environmental, social and economic functions, ranging from being a source of drinking water, recharging groundwater to acting as sponges, supporting biodiversity and providing livelihoods. Destruction of wetlands leads to decreased absorbing capacity leading to floods. Ex, Hyderabad has lost 3,245 ha of its wetlands. The vast network of lakes in the city had allowed the excess water from one lake to follow into another and eventually into the Musi River. With the destruction of this network any amount of heavy rains leads to flooding of the city as seen in 2016.

   o Bengaluru, which had 262 lakes in the 1960s, has only 10 lakes that can be called healthy.

(b) **Concretization**: Management of Urban Flooding report, published by the National Disaster Management Authority (NDMA) in 2010, says that concretisation is a major problem in many cities and towns. Concrete jungles obstruct and encroach upon the natural flow of water bodies and create pockets that trap water, which increases the flood intensity.

(c) **Destruction of river basin area of rivers flowing in the cities**: Natural streams and watercourses, formed over thousands of years due to the forces of flowing water in the respective watersheds, have been altered/reduced because of urbanization. There have been large scale encroachments on the natural drains and the river flood plains. Consequently, the capacity of natural drains has decreased, resulting in flooding during heavy rains. Ex three rivers in the Chennai city—Cooum, Adyar and Kosathalaiyar—are highly encroached upon and that has reduced the amount of water runoff into the Bay of Bengal.

   o Kashmir floods of 2014 is the result of unplanned urbanization and encroachment of Jhelum flood plains decreasing its carrying capacity

(d) **Migration**: - Explosive increase in the urban population without corresponding expansion of civic facilities such as adequate infrastructure for the disposal of waste. The sewerage generated by the people gets mixed with the water and clogs the natural channels and storm water drains leading to flooding when it receives excessive water. Guwahati’s Deepor beel lake is used by the municipal corporation to dump solid waste since 2006.

(e) **Construction of dams on the river beds**: increased water that is released from these dams floods the low lying areas in Kashmir, The deluge was the result of the dam at Srinagar, its floodgates were opened without warning and the water carried all the debris from the dam site to the city.

(f) **Unmindful sand mining from the catchment** areas and river beds also reduce the river absorbing capacity of excess water leading to floods during heavy rains. Vembanad Lake on the outskirts of Kochi has water level halved its initial level after the mining activity.

- According to the Union Ministry of Urban Development (MoUD), 31 per cent of the country was urbanised in 2011. The ministry says almost 50 per cent of the country will be urbanised by 2050. MoUD data also suggests a 54 per cent increase in the number of cities and towns between 2001 and 2011.There is a complete disconnect between geological and hydrogeological cycle and urban planning.
- The problem of floods in urban areas became so acute that in 2010, the National Disaster Management Authority (NDMA) recognised urban floods as different from riverine floods. It said urban floods “happen in a relatively short period of time and can inundate an area with several feet of water”.

Major cities of India are becoming more vulnerable to flood conditions. Discuss.
What needs to be done:-

(a) Urban planners should undertake a detailed mapping of water bodies, natural drainage and flood-prone areas in cities using remote sensing. And then integrate the drainage system of the city including rivers, rivulets, ponds, lakes and other natural drainage systems.

(b) Policymakers to relook the development plans approved by city authorities and find out whether they violate the hydrological cycle of the city.

(c) This calls for stronger laws to protect urban lakes and the setting up of a single authority for the management and restoration of water bodies.

UPSC Ques. - 16

South China Sea has assumed great geopolitical significance in the present context. Content.

GSSCORE QIP: Geopolitics importance of South China Sea.

South China Sea Dispute

The three million square kilometers South China Sea is the maritime heart of Southeast Asia but also a disputable property. Maritime boundaries in the South China Sea are particularly problematic because they involve six separate claimants in a mostly enclosed body of water with a large number of disputed land features. The South China Sea is ringed by Brunei, China, Indonesia, Malaysia, the Philippines, Taiwan, and Vietnam, and dotted with hundreds of small islands, shoals and reefs, many of them occupied by the disputants.

The fundamental issue in the South China Sea is one of territorial sovereignty, that is, which state has sovereignty over the islands and their adjacent waters. UNCLOS has no provisions on how to determine sovereignty over offshore islands. As there is no treaty that governs the issue of sovereignty, states have to look for guidance to the rules of customary international law on the acquisition and loss of territory.

The main disputes are:

a) The Spratly Islands are claimed in their entirety by China, Taiwan, and Viet Nam, while some islands and other features are claimed by Malaysia and the Philippines.

b) The Paracel Islands are claimed by China, Taiwan and Viet Nam. China forcibly ejected South Vietnamese troops from the Paracels in 1974, and they are now occupied exclusively by China. Woody Island, the largest island in the Paracels, is 2.1 km$^2$, which is about the same land area as all of the Spratly Islands combined. Woody Island is the location of Sansha City, a prefecture-level city established by China in June 2012 as its administrative centre for its claims in the South China Sea.

c) Scarborough Reef is a major source of tension between China and the Philippines since the Philippines attempted arrest of Chinese fishermen in June 2012.

d) The Pratas Islands are located just over 200 miles southwest of Hong Kong. They are occupied by Taiwan, and are also claimed by China.

e) Macclesfield Bank, a large sunken reef that is completely submerged at low tide, is located between Scarborough Reef and the Paracels. It is claimed by China and Taiwan.

Why South China Sea (SCS) is considered so important?

The SCS is a busy international waterway, being one of the main arteries of the global economy and trade. More than $5 trillion of world trade ships pass through the SCS every year. The SCS is also resource rich, with numerous offshore oil and gas blocks.

Fishing presents another potential source of conflict. The South China Sea is the largest source of fish, an important foodstock, in each of the claimant countries. The fishing industries of each of the disputants include large numbers of vessels which travel increasingly farther from their home coasts due to overfishing in coastal waters, bringing them into disputed waters. This has led to frequent incidents of harassment of vessels, confiscation of catches and equipment, and sometimes imprisonment of fishermen.
What is the Hague-ruling?

The arbitration was between the Republic of the Philippines and the People’s Republic of China.

The Hague-based Permanent Court of Arbitration (PCA) ruled that China’s claims over the waters enclosed by the ‘Nine-Dash Line’ had no legal basis under the United Nations Convention on the Law of the Sea (UNCLOS).

It ruled that China had no claim to historic rights to resources there, and that it had aggravated the dispute by building an artificial island on Mischief Reef, besides violating the Philippines’s sovereign rights within its Exclusive Economic Zone (EEZ), including its fisheries and petroleum exploitation.

The (PCA) further held that Entitlement to islands and the EEZ must be based on natural conditions, and not as the result of artificial augmentation by building and reclaiming land.

The tribunal further ruled that the disputed Spratly islands “cannot generate maritime zones collectively as unit” as claimed by China.

Has the formation of linguistic states strengthened the cause of Indian Unity?

GSSCORE QIP: Linguistic regionalism in India.

State Reorganization Commission

India faced its first serious federal crisis in the year 1952. The natural tensions surfaced with renewed vigor. The floodgates of linguism had opened, challenging the unitary intent of the founding leaders.

In December 1952, Potti Sriramulu fasted unto death over the issue of a separate state for Telugu speaking people. Bowing to popular pressures, the government created a separate state for Telugu people - Andhra Pradesh. Andhras’s victory boosted demands in other provinces.

Government appointed a three man States Reorganization Commission (SRC) charged with ‘preservation of unity and security of India’. In its findings the SRC recommended a division of India based on dominance and geographical concentration of ethno-linguistic communities.

Parliament called for a reorganization of India into 14 states, based on the criteria laid down by the SRC. At that time, the SRC refrained from dividing the provinces of Bombay and Punjab, as no neat divisions could be made along linguistic lines in these two provinces.

Government Policy

The first reorganization acknowledged India as a federation of ethnic subunits. The design for governance was based on two connected objectives:

- Relational control (guided regional policies) &
- Interlocking balances. (guided domestic politics)

The principle of interlocking balances was to secure balance among its diverse sub-nationalities. India included several nations within its borders. Therefore, the objective was to create a series of interlocking balances between proximate cultural communities (i.e., between Punjabi and Hindi speaking communities in Punjab), the homelands of such communities, and the central state (i.e., Punjab and the central government), and between the central state and its adversaries with whom it shared ethnic and religious minorities (i.e. India and Pakistan; India and Sri Lanka; India and Bangladesh).

To maintain the balances the central government was forced to yield linguistic states that would thereafter organize politics on the basis of their distinctive cultural and political identity. The linguistic reorganization of 1955-56 was an antidote to the unitary tendencies embedded in the Constitution. Once the principle of linguistic states had been accepted in 1956, the separation of Gujarati and Marathi speaking communities in Bombay, and Punjabi and Hindi speaking people in Punjab, was only a matter of time.