1. Highlight the central Asian and Greco-Bactrian elements in the Gandhara art.
   (Answer in 150 words) (10)

2. The 1857 Uprising was the culmination of the recurrent big and small local rebellions that had occurred in the preceding hundred years of British Rule. Elucidate.
   (Answer in 150 words) (10)

3. Examine the linkages between the nineteenth century’s Indian renaissance and the emergence of national identity.
   (Answer in 150 words) (10)

4. Assess the impact of global warming on the coral life system with examples.
   (Answer in 150 words) (10)

5. Discuss the causes of depletion of mangroves and explain their importance in maintaining coastal ecology.
   (Answer in 150 words) (10)

6. Can the strategy of regional resource-based manufacturing help in promoting employment in India?
   (Answer in 150 words) (10)

7. Discuss the factors for localisation of agro-based food processing industries of North-West India.
   (Answer in 150 words) (10)

8. What makes the Indian society unique in sustaining its culture? Discuss.
   (Answer in 150 words) (10)

9. "Empowering women is the key to control population growth". Discuss.
   (Answer in 150 words) (10)

10. What are the challenges to our cultural practices in the name of secularism?
    (Answer in 150 words) (10)

11. Many voices had strengthened and enriched the nationalist movement during the Gandhian phase. Elaborate.
    (Answer in 250 words) (15)

12. Assess the role of British imperial power in complicating the process of transfer of power during the 1940s.
    (Answer in 250 words) (15)

13. Explain how the foundations of the modern world were laid by the American and French Revolutions.
    (Answer in 250 words) (15)

14. What is water stress? How and why does it differ regionally in India?
    (Answer in 250 words) (15)

15. How can the mountain ecosystem be restored from the negative impact of development initiatives and tourism?
    (Answer in 250 words) (15)

16. How is efficient and affordable urban mass transport key to the rapid economic development of India?
    (Answer in 250 words) (15)
17. How ocean currents and water masses differ in their impacts on marine life and the coastal environment? Give suitable examples. (Answer in 250 words) (15)

18. Do we have cultural pockets of small India all over the nation? Elaborate with examples. (Answer in 250 words) (15)

19. What are the continued challenges for the women in India against time and space? (Answer in 250 words) (15)

20. Are we losing our local identity for the global identity? Discuss. (Answer in 250 words) (15)

●●●●●
1. Highlight the central Asian and Greco-Bactrian elements in the Gandhara art.

Approach

1. Give a brief introduction about the Gandhara art. (30 words)
2. Briefly discuss how its geographical location facilitated interaction of various artistic components. (50 words)
3. Discuss about the influence of Greece-Bactrian, Roman and Iranian on the Gandhara art. (50 words)
4. Conclusion. (20 words)

Hints:

Introduction:
Gandhara School of art was the epitome of Cultural Revolution in present day’s west Pakistan and east Afghanistan during Kushan rule, of which Gandhara sculpture was an important part, depicting sculpture of Buddha.

How geographical location of Gandhara art facilitated interaction of various artistic components:
- Geographical position of the region was at the crossroads of cultural exchange which resulted into interaction of artistic components.
- This area witnessed the advent of number of foreign powers and political configuration ranging from the Greek, Bactrian to Kushanas. Thus Gandhara style was amalgam of Hellenistic-Roman, Iranian and indigenous art.

The central Asian and Greco-Bactrian elements in the Gandhara art:

Greek Influence:
- It can be observed in the form of Buddha’s wavy hair, draperies covering both shoulders, Footwear, Buddha has been shown under the protection of Greek God Herakles standing with his club and so on. In fact, the very concept of man-God is attributed to the Greeks. The Buddha’s mythological statue can also be related to Greeks.
- Some examples of Gandhara art depict both Buddha and the Greek God Herakles from Greek Mythology. Stucco plaster, which was commonly observed in Greek art, was widely used in Gandhara artwork for the decoration of monastic and cult buildings.

Roman influence:
- It is evident from the sculpture of Gautama Buddha, with a youthful Apollo-like face, dressed in garments resembling the scenes on Roman imperial statues.
- Gandhara sculpture incorporated many motifs and techniques from classical Roman art too, as seen from vine scrolls, cherubs bearing garlands, tritons and centaurs.
Additionally, the Gandhara art drew from the anthropomorphic traditions of Roman religions. The realistic sculpture of Buddha is also associated with Romans.

Central Asian influence:

- Additionally, the Gandhara art drew from the anthropomorphic traditions of Roman religions. The realistic sculpture of Buddha is also associated with Romans.
- In Gandhâran art, specific types of Buddhist cult structures were elaborately constructed.
- Paintings, bas-reliefs and sculpture richly decorated secular and especially cult buildings.
- Columns, pilasters (mainly derived from the Corinthian order) and other architectural elements usually had magnificent plastic arrangement.
- Temples built in the area influenced by Gandhâran art normally included central square structures with circumambulatory corridors (Haa, Swât, and Miran). The idea of circumambulatory corridors was undoubtedly of Iranian origin, since fire temples with such corridors appear in Iran from the Achaemenid time.
- The Buddhist architects of Central Asia, where Buddhist shrines with circumambulatory corridors continued to be built down to the 7th–8th century accepted this pattern.
- Schemes for the ground plans of monasteries display many varieties.
- When the space was limited, ‘glued’ plans could be applied, combining two or three isolated parts with different functions: the sacred one (temple) with a large stupa in the middle; living quarters with monks’ cells and a prayer-hall, etc.
- This architectural pattern was widespread in Central Asia both in the Kushan period (as in Fayây-tepe) and later (as in Ajina-tepa).

Conclusion:
The above influences can be well justified because of strategic location of Gandhara school. Thus in this regard it can be claimed that the art that flourished in the Gandhara valleys was a blend of different cultures.

2. The 1857 Uprising was the culmination of the recurrent big and small local rebellions that had occurred in the preceding hundred years of British Rule. Elucidate.

Approach

1. Give a brief introduction about 1857 revolt and rebellions that had occurred in the preceding hundred years of British Rule. (40 words)
2. Discuss separately about each type of revolts occurred in the last 100 years from 1857. (50 words)
3. Conclude by writing about the limitations and importance of these rebellions. (60 words)

Hints:

Introduction:

Though many people consider 1857 revolt as the first major resentment against the British rule, however there were many incidents before 1857 revolt that indicated that there was a building resentment against the rule of Britishers.

Types of revolts occurred in the last 100 years from 1857:

In the last hundred (1757-1857) there were many revolts occurred that eventually led to uprising of 1857 revolt, which can be divided into 4 major parts:

A. Civil revolts: These were the first group of people who revolted against Britishers to secure their traditional and customary rights. For instance, sanyasi revolts (1763-1800), revolts in Midnapore and Dhalbhum during 1766-74, revolts of Moamarias in Ahom state 1769, revolt of Raja of Vijayanagaram 1794, and civil rebellion in Awadh 1799, Kuka 1840, Surat salt agitation of 1840s.
were some major civilian revolts with common causes of resentment, that were illegal tax demands and oppression by police, judiciary and revenue department.

B. Tribal revolts: Tribal movements under British rule were the most frequent militants and violent of all movements. some of them were Chuar uprising of midnapur, Bengal of 1770s, Kol of Chhota Nagpur during 1830s led by Buddhho Bhagat, Khond uprising of Odisha 1835 to 1856 led by Chakra Bisnoi, Santhal uprising led by Siddhu and Kanu just before 1857 revolt, Bhil and Ramoshi uprising in western India. The resentment of tribal against Britishers were mainly due to imposition of forest rights Act, forcefully conversion of tribals by Christian missionaries, oppression by money lenders and zamindars after extension of permanent settlement in tribal areas.

C. Peasant revolts: Peasants uprising were protests against evictions, increase in rents of land, and moneylenders greedy ways and their demands was occupancy rights for peasants. some major and minor peasants revolts were for instance: pagal panthis of Bengal led by Karamshah during 1825 to 35, Farazi revolt in eastern Bengal led by Hazi Shariatullah and his son Dadu Milan, Mopillah uprising in Malabar during 1834to 1854 and Paika revolt of Khurda, Odisha led by B Jagbandhu. The common provoking cause of resentment of these peasants were exorbitant demand of land revenue, oppression of officials and frequent occurrence of drought and famine etc.

D. Princely states revolts: With the expansion of Britishers in India some princely states were annexed on excuse of maladministration and use of diplomacy of subsidiary alliance and Doctrine of Lapse. For instance Mysore in 1831 by William Bantick, Jhansi in 1852, Awadh in 1856. They also revolted against Britishers.

Conclusion:
Thus, it can be said that these rebellions—which were localised in nature, lacking of efficient leadership and influenced by backward looking ideology were suppressed by Britishers with use of force but still they established a culture of resistance among natives and eventually prepared the way for 1857 revolt.

3. Examine the linkages between the nineteenth century’s Indian renaissance and the emergence of national identity.

**Approach**

1. Give a brief introduction about the 'Indian renaissance' (mainly socio-religious reform movements) of the 19th century. (40 words)
2. Discuss about the impact of socio religious reforms on each strata of society to establish linkages with the emergence of national identity in India. (70 words)
3. Conclude by writing other factors in brief as well which facilitated the emergence of national identity. (40 words)

**Hints:**

Introduction:
The social and religious reforms movement’s popularly termed as Indian renaissance which preceded the political struggles are considered a necessary precursor to origin of Indian nationality.

How renaissance facilitated the emergence of national identity:

- **Rediscovery of India’s glorious past:** The nineteenth century Indian Renaissance also created several avenues in the field of oriental studies. Western scholars like Max Muller, Sir William Jones, Alexander Cunningham, etc. translated several ancient Sanskrit texts of this land and established before the people the glorious cultural heritage of India. Inspired by them, the Indian scholars like R.D - Banerjee, R.G. Bhandarkar, MahanMukhopadhyaya, Hara Prasad Astir, Bal Gangadhar Tilak etc. rediscovered India’s past glory from the history of this land. This encouraged the people of India who felt that they were the ancestors of grand monarchs of this country and ruled by foreigners. This flared up the fire of nationalism.
• **Revivalist Movements**: Under these movements Indian culture and civilisation were proclaimed superior. Swami Dayanand Saraswati, Swami Vivekanand etc were the leaders of these movements.

• Reformists movements of that time such as **Brahmo Samaj** (led by Raja Ram Mohan Roy) etc condemned existing untouchability and tried to abolish the caste system. **Their ideas of equality and brotherhood attracted the lower castes towards nationalism.**

• These reforms also focussed upon **emancipation of women.** They opposed the practice of sati, supported remarriage of widows and also promoted spread of education among women. All these helped women to join national movements.

**Conclusion:**
Apart from the progressive character of social religious reforms, role of press, English Education, result and reaction of colonial policies etc have also played a significant role in developing national identity in India.

4. **Assess the impact of global warming on the coral life system with examples.**

**Approach**

1. Give a brief introduction on the destruction of the coral reefs system. (30 words)
2. Discuss the impact of global warming on the coral life system (90 words)
3. Conclusion (30 words)

**Hints:**

**Introduction:**
Destruction of coral reef can be induced by a variety of factors, alone or in combination. However, unprecedented global warming and climate changes combined with growing local pressures have resulted in destruction of coral reefs to a large extent.

**Impact of global warming on the coral life system:**

**Coral Bleaching:**

• The impacts from coral bleaching are becoming global in scale, and are increasing in frequency and intensity.

• Mass coral bleaching generally happens when temperatures around coral reefs exceed 1 degree Celsius above an area’s historical norm for four or more weeks. Sea surface temperature increases have been strongly associated with El Niño weather patterns.

• However, light intensity, (during doldrums, i.e. flat calm conditions), also plays a critical role in triggering the bleaching response. If temperatures climb to more than 2°C for similar or longer periods, coral mortalities following bleaching increase.

**Rising sea levels:**

• Observations since 1961 show that the average temperature of the global ocean has increased even at depths of 3000m (IPCC report), and that the ocean has been absorbing more than 80% of the heat added to the climate system. Such warming causes sea level rise and creates problems for low lying nations and islands.

**Ocean acidification:**

• It refers to a change in ocean chemistry in response to the uptake of carbon dioxide from the atmosphere. The amount of carbon dioxide in the atmosphere is in equilibrium with that in seawater, so when atmospheric concentrations increase so do oceanic concentrations.

• Carbon dioxide entering seawater reacts to form carbonic acid, causing an increase in acidity.
• Each year, the ocean absorbs about one-quarter of the carbon dioxide emitted from the burning of fossil fuels (oil, coal, and natural gas).

• Since the Industrial Revolution, ocean acidity has increased by about 30%, a rate that is more than 10 times what has previously occurred for millions of years. Further, ocean acidity levels are expected to increase by an additional 40% above present levels by the end of this century.

Conclusion:
Coral reefs harbour the highest biodiversity of any ecosystem globally and directly support over 500 million people worldwide, mostly in poor countries. However, according to UNESCO, the coral reefs in all 29 reef-containing World Heritage sites would cease to exist by the end of this century if we continue to emit greenhouse gases. Limiting global average temperature to well below 2°C above pre-industrial levels in line with the Paris Agreement provides the only chance for the survival of coral reefs globally.

5. Discuss the causes of depletion of mangroves and explain their importance in maintaining coastal ecology.

<table>
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| 1. Give a brief introduction about the mangrove ecosystem. (30 words)  
2. Briefly discuss the causes of depletion of mangroves. (50 words)  
3. Discuss about the importance of mangroves in maintaining coastal ecology (50 words)  
4. Conclusion (20 words) |

Hints:

Introduction:
Mangrove forests form a unique wetland ecosystem, inhabiting the edge of land and sea, thriving in seawater. Over the past four decades 35% of global mangrove forests have been destroyed. This degradation of mangrove forests has a knock-on effect on some of the world’s most endangered species which rely on them for habitat such as the proboscis monkey and the Bengal tiger.

Causes of depletion of mangroves:

The natural causes:
• Cyclones, typhoons and strong wave action especially in the geographically vulnerable Andaman and Nicobar Islands;
• Browsing and trampling by wildlife (e.g. deer) and livestock (goats, buffaloes and cows), which are often left to graze freely, especially in areas close to human habitation;
• Damage by oysters to the young leaves and plumules of Rhizophora and Ceriops plants; crabs, which attack young seedlings, girdle the root collars and eat the fleshy tissues of the propagules;
• Insect pests such as wood borers, caterpillars (which eat the mangrove foliage and damage the wood as well) and beetles;

Anthropogenic causes:
• Anthropogenic activities such as construction of houses and markets causing soil erosion and soil sedimentation has lead to their destruction. For example in Sunderbans collection of tiger prawn seeds for trade has greatly affected the other animals found in these forests.
• Indiscriminate tree felling and lopping, mainly for fuel wood, fodder and timber, especially in areas close to human habitation.
• Indiscriminate conversion of mangroves on public lands for aquaculture (e.g. for prawn culture at Chorao, Goa), agriculture, mining (e.g. along the Mapusa estuary in Goa), human habitation and industrial purposes.

Hints: UPSC Mains 2019
• Encroachment on publicly owned mangrove forest lands, e.g., cultivation of paddy observed on government land, which involved uprooting of natural and planted seedlings;
• Lack of interest of private landowners (village communities and individuals) in conserving and developing the mangroves on their lands.
• Illegal large-scale collection of mangrove fruits for production of medicines, which hinders their natural regeneration.
• Discharge of industrial pollutants into creeks, rivers and estuaries, which is a major problem in some regions of the world.

Importance of mangroves in maintaining coastal ecology:
• Mangrove plants have (additional) special roots such as prop roots, pneumatophores which help to impede water flow and thereby enhance the deposition of sediment in areas (where it is already occurring), stabilise the coastal shores, provide a breeding ground for fishes.
• Provide a safe and favourable environment for breeding, spawning, rearing of several fishes.
• They supply woods, firewood, medicinal plants and edible plants to local people.
• Mangroves moderate monsoonal tidal floods and reduce inundation of coastal lowlands.
• They prevent coastal soil erosion.
• They protect coastal lands from tsunami, hurricanes and floods.
• Mangroves enhance the natural recycling of nutrients.
• Mangrove supports numerous florae, avifauna and wildlife.

Conclusion:
Mangrove forests play a major role with more valuable ecological services. Therefore conservation of the same is the need of the hour not only for the for coastal biodiversity but also for wellbeing of the mankind.

6. Can the strategy of regional resource-based manufacturing help in promoting employment in India?

<table>
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<th>Approach</th>
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<tbody>
<tr>
<td>1. Give a brief introduction about the regional-resource based approach. (30 words)</td>
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<tr>
<td>2. Briefly discuss about the reasons for opting local resource based technologies. (30 words)</td>
</tr>
<tr>
<td>3. Provide an overview about how this approach can help in promoting employment in India. (30 words)</td>
</tr>
<tr>
<td>4. Highlight the benefits of local resource based approach. (40 words)</td>
</tr>
<tr>
<td>5. Conclusion (20 words)</td>
</tr>
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Hints:
Introduction:
A local resource-based approach applies a cost-effective use of local skills, enterprises, labour and materials in the infrastructure delivery process. The process optimizes the social and economic impact of investments in Manufacturing by ensuring that these investments are channeled through the local economy, so creating job opportunities and stimulating local markets, entrepreneurship and industry while safeguarding cost effectiveness, quality and sustainable asset delivery.

Reason for Opting for local resource-based technologies:
• Government development objectives aim to generate employment and income opportunities for the local population and domestic construction industry.
• The infrastructure concerned requires relatively modest investments, e.g., rural roads, secondary and tertiary irrigation channels and small and medium-scale structures.

• Local resources including labour, skills, enterprises and materials are available.

• Scarcity of foreign exchange makes the use of imported inputs an economically unattractive option.

• A significant proportion of the population is UN- or under-employed.

• Wage levels are low.

How it can help in promoting employment in India?

Local resource-based approach is to deliver public (and private) investments in infrastructure as a means of expanding employment opportunities for the unemployed, raising productivity, providing social and economic infrastructure assets and facilities, permitting trade and generally improving well-being.

• Given the relative scarcity of capital and skilled labour, and the relative abundance of unskilled labour, countries with low incomes can rapidly achieve pro-poor growth by applying employment-friendly technologies in as many sectors as possible. This would rapidly increase the demand for unskilled and low-skilled labour.

• Several investment programmes have a huge employment creation potential if delivered via employment-friendly technology and local enterprises. Investment in public infrastructure accounts for as much as 40 to 60% of national public investment in most developing countries. Public investment programmes therefore represent one of the few remaining government policy instruments through which productive employment opportunities can be stimulated and more balanced economic and social development promoted.

• Promotion of local resource-based approach in manufacturing is done in order to optimize their impact on poverty reduction in labour-surplus countries and provides technical assistance for this purpose.

Benefits of a local resource-based approach:

• It enables higher delivery and maintenance rates of basic assets and services essential for socio-economic development such as vital access roads, water supplies, markets and health facilities with the same level of investment and at comparable or better quality standards.

• Creates jobs, particularly for the unskilled, poorer men and women within the community. This results in the injection of incomes into the local communities, with the immediate effect of increasing their purchasing power. This, in turn, results in improving living standards such as improved diets, ability to access socio-economic amenities such as schools, clinics, etc.

• Stimulates local entrepreneurship, community participation and local economic development with important income distribution effects.

• Enables the involvement of the local private sector and industry, that is, contractors, suppliers and manufacturers of local materials, tools and equipment. Hence nurtures and develops the local construction and manufacturing industry, retains investment locally and saves on foreign exchange required for foreign imports.

• Develops skills in the delivery process that can be used in other income generating activities, as well as in subsequent maintenance works.

• Offers opportunities for employment creation, social reintegration, and the stimulation of local socio-economic development in countries emerging from either man-made crises or natural disasters. In such countries governments have few macro-economic tools at their disposal to revive their economies and to enable economic and social recovery. Public investment in infrastructure provides one such tool.
Conclusion:
Thus, Regional Development leads to the distribution of employment opportunities on an equitable basis and they are not let to confine only to a handful of states which are creating gaps in the per capital income among different regions.

7. Discuss the factors for localisation of agro-based food processing industries of North-West India.

Approach
1. Give a brief introduction about the agro-based food processing industry. (30 words)
2. Briefly discuss about the various factor affecting location of Agro-based food processing Industry in North-west India. (60 words)
3. Highlight the challenges faced by the agro-based industry. (40 words)
4. Conclusion. (20 words)

Hints:
Introduction:
The agro-based industry depends on the raw material produced by the agricultural sector. It includes industries related to textiles, sugar, paper and vegetable oil. The products comprise mostly consumer goods. Agro-based industry is important from the point of view of contribution to industrial production and employment generation.

Factors affecting location of Agro-based food processing Industry in North-west India:
- Location of port facilitated import of capital goods, chemicals, etc., and the export of finished goods.
- In North-west India Mumbai got progressively well connected through rail and road links with cotton growing areas of Gujarat and Maharashtra in the interior.
- Availability of raw cotton, market, transport including accessible port facilities, labour, moist climate, etc. contributed towards its localisation. This industry has close links with agriculture and provides a living to farmers, cotton boll pluckers and workers engaged in ginning, spinning, weaving, dyeing, designing, packaging, tailoring and sewing.
- Development of chemical industry around North-West India made available the necessary inputs.
- Availability of capital and financial resources helped the industry grow.
- Availability of cheap labour for the industry.
- Inexpensive water transport, supported by a good network of railways, roadways and waterways to facilitate movement of raw material to the mills.
- India stands second as a world producer of sugar. In recent years, there is a tendency for the mills to shift and concentrate in the western states, especially in Maharashtra; this is because the cane produced here has higher sucrose content. The cooler climate also ensures a longer crushing season. Moreover, the cooperatives are more successful in these states.

Challenges:
- Agribusiness is characterized by raw materials that are mostly perishable, variable in quality and not regularly available.
- The sector is subject to stringent regulatory controls on consumer safety, product quality and environmental protection.
• Traditional production and distribution methods are being replaced by more closely coordinated and better planned linkages between agribusiness firms, farmers, retailers and others in the supply chains.

Conclusion:
Agro-based industries have to set up at rural areas where raw material may be available in plenty – helps in the up-liftment of the rural economy. It provides rural population an opportunity for employment. Generates income and thereby improve economic condition of people – which in turn creates potential for demand based industries. Thus, several factors govern the location of an industry. But we have to remember that these factors are dynamic in nature. We can’t say that an industry will always remain in a particular place. Availability of new raw-materials, improvement in technology, development of new areas etc. influence the localization or location of industries.

8. What makes the Indian society unique in sustaining its culture? Discuss.

Hints:
Culture is a way of life of people. It includes architecture, literature, art, science etc. Although Indian Society is multi-cultural, plural, diverse having different religions, traditions, philosophies and lifestyles yet it is able to sustain its diverse culture. The various aspects which results in the sustenance of culture are as follows:

Features of Indian Society which led to sustainability:

• **Principles of Tolerance and Respect:** Indian society has been founded upon these which result in mutual respect and understanding for each other. The religions like Buddhism and Jainism have been founded upon these.

• **Assimilation process:** The migrants from the times of Aryans to the Mughals have come and lived in India peacefully assimilating into the Indian way of life. Thereby sustaining the culture of the nation.

• **Spiritualism:** The Indians have always curious to find a unique way of life giving rise to spiritualistic elements in the way of life. The various philosophies have given way to a spiritual dimension in the living way of people.

• **Geographical:** The monsoon makes the Indian subcontinent very suitable for the development of Agriculture. Thereby Agricultural way of life is lived by the people in various states still today. Agriculture gives way to tradition, festivals, interaction which over a long period turns into lifestyles of people.

• **Governance** was basically based upon the Agricultural aspects, resulting in the Unified administration giving way to sustaining Indian way of life. This administration remains more or less similar from the times of Asoka to times of Akbar.

• **Political:** The democratic threads have always been in the Indian polity though ruled by the King. Sabhas and Samitis in the Ancient to the Janapadas in the medieval have always been focused on the promotion of interests of the people.

• **Social:** The tribals today also are living their unique life depicting that they have been able to sustain their culture irrespective of foreign dominations on the country. Various castes also have unique way of living.
Conclusion:
Though the foreigners have come to India looking at her as Golden Bird, but they assimilated into the
culture of the Indian people and interacted with the commoners in their unique way and settled here
as the Indians. Thereby giving rise to the Great Indian way of life depicting Unity in Diversity where
everyone would live with dignity and fraternity. The villages in India are still based on the Harappan
architecture which shows that the ancient wisdom is still used by the people of our country in the
present times.

9. "Empowering women is the key to control population growth”. Discuss.

Approach

1. Give a brief introduction about the idea of empowerment. (30 words)
2. Briefly discuss about the problem of population growth. (40 words)
3. Discuss about how women empowerment will help in tackling the problem of population
growth. (60 words)
4. Conclusion. (20 words)

Hints:

Introduction:
Empowerment refers to measures designed to increase the degree of autonomy and self-determination
in people and in communities in order to enable them to represent their interests in a responsible and
self-determined way, acting on their own authority. It is the process of becoming stronger and more
confident, especially in controlling one’s life and claiming one’s rights.

Problem of population growth:

• The population growth is the big challenge which is being faced by India. It is affecting the polity,
economy, society of the country. It is also affecting rate of Urbanization and Modernization. The
Economic Survey (2018-19) has mentioned the steps to tackle Population Growth.

How women empowerment will help in tackling population growth:

• Political Empowerment would result in increase in women’s participation in the political processes,
structures, institutions. This would enhance the voice of women at different platforms. Hence,
women will be able to raise awareness about need of small families and birth control. At the same
time increased awareness will lead to spread of benefits of smaller families.

• Economic Empowerment: This will lead to the participation of women in the economic activities.
This will lead to the increase in the family income and also improve the situation of women in
making financial decisions. Thus there will be less requirement of income generating options one
of which is, giving birth to more children. Thus this would lead to population check.

• Social Empowerment: This would result in the improved status and boost confidence of the
women. This confidence would ultimately affect the decision making ability of the women. They
would be able to take decisions regarding number of children they want. Thus it can check the
population growth.

• Constitutional Empowerment: This would result in raise in awareness of the women about their
constitutional rights including right to life and liberty, freedom, and equality. Hence women will
be able to make choices in the family planning and number of children they want to have. Thus
it would lead to tackling population growth.

• Technological Empowerment: If women are able to use technology like mobile phones etc, they
would be able to receive the information about the advantages of small families and right age of
having children. Also this would lead to the improved reproductive and general health of women.
As the women would be aware of the options of various birth control measures like pills, tablets, etc.
Also the test tube baby option would lead to checking population growth by restricting no of children.
• Educational steps would lead to better knowledge about the benefits of small families. Thus women would be inclined to have less children and thus checking population growth.

Conclusion:
Hence there is a saying that if “You educate a man, you educate only a man, but if you educate a woman, you educate a whole generation”. This is the kind of effect women have and hence population control can be achieved by the empowerment of women in various spheres. This would have multiplier effect on other institutions of the society and economy and lead to sustainable development.

10. What are the challenges to our cultural practices in the name of secularism?

Approach

1. Give a brief introduction about the idea of secularism (30 words)
2. Briefly discuss about the challenges faced by the Indian Society in the present context. (40 words)
3. Discuss about the challenges faced by the cultural practices in name of secularism (60 words)
4. Conclusion (20 words)

Hints:
Secularism in India is different from western concept. It stands for mutual respect, understanding and tolerance for all the religions, major or minor and accepting difference of opinions.

Context to the Challenges faced by Indian Society:
However, there are many incidents like Mob lynching in name of religion which questions this concept in India. The death and violence of people in name of cow protection. The dilemma and abnormal behavior over conversion issues. Political violence especially at the time of elections. Communal violence, extremism and spread of hatred among the people. These affect the way of life of people in various parts of the country.

Cultural practices are the living ways of life of people, individual or collective, in the political, economic, social spheres.

Various challenges faced by the cultural practices in name of secularism are:
• Intolerance and Violence: This leads to lack of tolerance and respect for each other. Deaths and violence in name of cow protection are examples of this.
• Majoritarianism: This reflect upon use of religion for political mobilization of the people and spreading hatred against the minorities may be it Muslims, like case of Muzaffarnagar, Sikhs as in 1984, Christians as in Kandhamal.
• Radicalization: The people are taken into believing ideologies which are extreme and may harm unity and integrity of the country. Security situations can be faced by the expansion of terrorism and exploitation of the vulnerable masses.
• Fundamentalism: The belief in the fundamentals can pave way to deviant behavior leading to disruption of normal life in the name of religion.
• Alienation: The people get distanced away from their traditional roots and feel socially, psychologically distance from other people in name of religion. The people going to Middle east for ISIS etc is an example of this.

Moreover the various challenges may hamper the inclusiveness of Indian democratic culture by promoting the ideological alienation. The above can result in Distance from Education, Employability, Excellence, fraternity and dignity of individual.
Conclusion:

Thus, the challenges to the cultural practices in the name of secularism are several, affecting the people’s rights to life and liberty, dignity and fraternity. However, in essence, our cultural practices are founded upon the principles and philosophies of tolerance, non-violence, truth, VasudhaivKutumbakam (world is one family), etc, which in turn are reflected in our modern constitutional principles. Thus, following them in practice would act as an effective check and balance against the challenges of modern times.

11. Many voices had strengthened and enriched the nationalist movement during the Gandhian phase. Elaborate.

Hints:

Introduction:
The period from 1920 to 1947 has been described as the Gandhian Era in Indian politics. During this period, Gandhiji spoke the final word on behalf of the Indian National Congress in negotiating with the British Government for constitutional reforms, and for chalking out a programme for the national movement. Mahatma Gandhi led the national freedom struggle against the British rule and it also gave space and voice to many other voices which further strengthened the movement.

Voices that strengthened and enriched nationalist movement are as follow:

Socialist voice:
- The emergence of socialism in congress during 1920s and 1930s imparted a new orientation to anti British struggle because the socialist vision of national movement was quite different from Gandhiji and other nationalists.
- Anti British struggle got radicalised greatly because socialists wanted that the idea of non-violence should be followed by congress in a pragmatic manner for the mistakes of one or few individuals, entire movement must not be made to suffer.
- The emergence of socialism gradually transferred national movement into an all out war against British rule. The socialists believed in the idea of the sustained struggle. Quit India movement was based on this philosophy.

Revolutionary Extremist voice:
- Indian revolutionaries provided an alternative to all those nationalists participate in anti-British struggle were not satisfied with the method approach of congress
- The supreme self-sacrifice performed by Indian revolutionaries inspired lacs of Indians to join anti British struggle as a result of this the mass base of national movement continued to increase with the passage of time.
- Indian revolutionaries popularised the cause of Indian struggle against British rule all over the world. This helped in strengthening public opinion against British rule

Swarajists voice:
- Swarajists provided an alternative to Indian nationalists at a time when a sense of disillusionment had developed among Indians due to sudden withdrawal of non-cooperation movement.
• Through their efforts swarajists exposed the hollowness of reforms introduced by act of 1919. They proved that the real power was still in British hands.
• The swarajists lost their steam by 1926-27 because of the death of C. R. Das and wrong impression was created by their activities.
• Appointment of Simon commission in November 1927 changed the atmosphere prevailing in India. The swarajists also abandoned their separate line of action and joined hands with mainstream congress to participate in anti Simon commission agitation.

**Indian Working Class as well as Leftist voice:**
• During 1920-22, there occurred a resurgence of working class in Indian national movement and got involved in mainstream of nationalist politics to significant extent. Most important development was formation of All India Trade Union Congress (AITUC).
• The workers participated during 1930 in the Civil Disobedience Movement but after 1931 there was a dip in the working class movement because of a split in 1931 in which the corporatist trend led by N.M. Joshi broke away from the AITUC to set up the All India Trade Union Federation.

**Women’s voice strengthening and enriching nationalist movement:**
• Sarojini Naidu also fondly known as the Nightingale of India was a prolific writer and poet. She was president of the Indian National Congress and was an outstanding leader campaigning and leading from the front in the Civil Disobedience Movement and Salt Satyagraha.
• Annie Besant was elected the president of the Indian National Congress and launched the Home Rule Movement.
• Usha Mehta who as a child participated in the ‘Simon Go Back’ movement, did little know that her true calling was her nationalist spirit and broadcasting for the Congress Radio during the Quit India Movement.
• Madam Cama or BhikajiCama exiled in Europe was a social worker and a strong nationalist. She unfurled the flag of Indian Independence in Stuttgart Germany along with a powerful speech advocating the right to freedom.
• Other prominent voices during Gandhian phase were Kamala Nehru, Vijay Lakshmi Pandit, Kalpana Dutta, Kamaladevi, etc.

**Conclusion:**
There was a greater truth — that of a glorious struggle, hard-fought and hard-won, in which many voices had strengthened and enriched the nationalist movement and made countless of sacrifices, dreaming of the day India would be free. That day had come. The people of India saw that too, and on 15 August — despite the sorrow in their hearts for the division of their land, they danced on the streets with abandon and joy.

**12. Assess the role of British imperial power in complicating the process of transfer of power during the 1940s.**

**Approach**

1. Give a brief introduction about the British imperial power in India during 1940s. (50 words)
2. Discuss about the role played by the British in complicating the process of transfer of power during 1940s. (160 words)
3. Conclusion. (40 words)
Hints:

Introduction:

Initially, the British did not pay any attention to the demand of transfer of power by India, but when World War II started, Britain came under immense pressure, as it needed full Indian support to counter this challenge. British came up with different plans and mission in 1940s. But these plans were not made with noble intention in favor of India, hence making the process of transfer of the power difficult.

Why it complicated the process of transfer of power:

Cripps Mission- 1942:

The main proposals of the mission were as follows:

• An Indian Union with a dominion status would be set up; it would be free to decide its relations with the Commonwealth and free to participate in the United Nations and other international bodies.

• After the end of the war, a constituent assembly would be convened to frame a new constitution. Members of this assembly would be partly elected by the provincial assemblies through proportional representation and partly nominated by the princes.

• The British government would accept the new constitution subject to two conditions:
  i. Any province not willing to join the Union could have a separate constitution and form a separate Union, and
  ii. The new constitution- making body and the British government would negotiate a treaty to affect the transfer of power and to safeguard racial and religious minorities.
  iii. In the meantime, defence of India would remain in British hands and the governor-general’s powers would remain intact.

Various parties and groups had objections to the proposals on different points:

i. The Congress objected to the offer of dominion status instead of a provision for complete independence;

ii. Representation of the princely states by nominees and not by elected representatives;

iii. right to provinces to secede as this went against the Principle of national unity; and absence of any plan for immediate transfer of power and absence of any real share in defence; the governor-general’s supremacy had been retained, and the demand that the governor-general be only the constitutional head had not been accepted.

The main proposals of the Wavell Plan were as follows:

• With the exception of the governor-general and the commander-in-chief, all members of the executive council were to be Indians.

• Caste Hindus and Muslims were to have equal representation.

• The reconstructed council was to function as an interim government within the framework of the 1935 Act (i.e. not responsible to the Central Assembly).

• The governor-general was to exercise his veto on the advice of ministers. Representatives of different parties were to submit a joint list to the viceroy for nominations to the executive council. If a joint list was not possible, then separate lists were to be submitted.

• Possibilities were to be kept open for negotiations on a new constitution once the war was finally won.
Why Wavell Plan complicated the process of transfer of power:

Congress Stand:
- The Congress objected to the plan as “an attempt to reduce the Congress to the status of a purely caste Hindu party.
- It insisted on its right to include members of all communities among its nominees”.

Muslim League’s Stand:
- The League wanted all Muslim members to be League nominees, because it feared that since the aims of other minorities—depressed classes; Sikhs, Christians, etc.—were the same as those of the Congress, and this arrangement would reduce the League to a one-third minority. (Wavell wanted Khizr Hyat Khan as the Muslim representative from Western Punjab.)
- The League claimed some kind of veto in the council with decisions opposed to Muslims needing a two-thirds majority for approval.

Conclusion:
The end of colonial rule in 1947 was undoubtedly a defining moment in the modern South Asian history. Though it was difficult due to the British policies in 1940s for transfer of power, the event can be treated as the twin process of independence and partition - both affecting the future trajectories of the two nations.

13. Explain how the foundations of the modern world were laid by the American and French Revolutions.

**Approach**

1. Give a brief introduction about the French revolution, and the American Revolution. (50 words)
2. Discuss about how American, and French revolution laid the foundation of the modern world. (150 words)
3. Conclusion. (50 words)

Hints:

Introduction:
The credit for making the democracy popular in the world goes not only to the great American war of interdependence, but also to the French revolution, which was equally a struggle of weapons as well as of idea. The ideas of freedom, equality and fraternity are the eternal contribution of the French revolution in the modern constitutional principles adopted around the world.

How the American Revolution laid the foundation of the modern world:
- American Revolution gives the idea such as constitunalism, rule of law individualism, soverginity, and separation of power which gains popularity in the modern world history.
- The revolution led to the establishment of a republic based on the first written constitution in the world.
- It inspired the people in Europe as well as others part of the world to fight against their despotic regimes to compel the government to adopt the constitution.
- Success of American nationalism inspired the emergence of the nationalist movement in European countries such as Spanish and Portuguese colonies in Central and South America to rebel and gain their independence.
- It also inspired the nationalist movement in colonies like India during 19th and 20th century.
• It also triggered a series of trans-Atlantic revolutions. Ex-French, Irish etc
• The idea of capitalism was also popularised by the success of American Revolution.
• It triggered the process of decolonisation which continued for more than 200 years.
• The lessons learnt by British government from its defeat in the war of American independence were implied in the newly emerging colonial empire in India in future.
• It intensified hostility between Britain and France this renewed hostility was responsible for continental wars and battles
• This was a marked contrast to the other states were Monarchies were still in power. This inspired people across the world to struggle for democratic and republican forms of government.
• It established a federal state with powers divided between the federal government and states. This provided a nice template for power-sharing in diverse countries that needed complex polities.
• Besides, there was a separation of powers between various organs of the state.
• Certain inalienable rights were given to the people – this limited the government against the authority of people and reduced government interference in their lives.
• Democracy was established, but it was far from perfect. Sections like Negroes and women were denied voting rights. But the journey to democracy had begun.
• It led to many uprisings in Europe, with the French revolution being the biggest. Many generals who participated in the war were instrumental in the French revolution.
• Thinkers like Thomas Paine also participated in the revolution. This led to a spread of modern ideas in Europe.

How the French revolution laid the foundation of the modern world:
• The French Revolution had been a world-shaking event. For years to come its direct influence was felt in many parts of the world. It inspired revolutionary movements in almost every country of Europe (Germany and Italian unification) and in South and Central America.
• For a long time the French Revolution became the classic example of a revolution which people of many nations tried to emulate.
• It gave the idea of liberty, equality and fraternity to the modern world. It brought about a political awakening in Europe. People began to rise in revolt to demand their rights.
• It also popularised the concept of democracy. Absolute monarchy was replaced by constitutional monarchy in many countries.
• It separated religion from politics and stood for secularism which condemned religious fanaticism.
• It generated a new power which gave birth to a new civilization. The declaration of human rights emphasise that sovereignty lies with the people and law is an expression of their will.
• It kicked a number of movements where people demanded not only political freedom but also right to property and freedom of expression.
• The revolution aroused the spirit of political, social and economic equality like women claimed equal rights with men.
• The impact of the French Revolution can be summed up, in the words of T. Kolokotrones, one of the revolutionary fighters in the Greek war of independence: “According to my judgment, the French Revolution and the doings of Napoleon opened the eyes of the world. The nations knew nothing before, and the people thought that kings were gods upon the earth and that they were bound to say that whatever they did was well done. Through this present change it is more difficult to rule the people.”
• Even though the old ruling dynasty of France had been restored to power in 1815, and the autocratic governments of Europe found themselves safe for the time being, the rulers found it increasingly difficult to rule the people.

• Some of the changes that took place in many parts of Europe and the Americas in the early 19th century were the immediate, direct consequences of the Revolution and the Napoleonic wars.

• The wars in which France was engaged with other European powers had resulted in the French occupation of vast areas of Europe for some time.

• The French soldiers, wherever they went, carried with them ideas of liberty and equality shaking the old feudal order. They destroyed serfdom in areas which came under their occupation and modernized the systems of administration.

• Under Napoleon, the French had become conquerors instead of liberators. The countries which organized popular resistance against the French occupation carried out reforms in their social and political system. The leading powers of Europe did not succeed in restoring the old order either in France or in the countries that the Revolution had reached.

• The political and social systems of the 18th century had received a heavy blow. They were soon to die in most of Europe under the impact of the revolutionary movements that sprang up everywhere in Europe.

Conclusion:

• On the whole, it may be said that the American and French revolution were exemplary events in the world history. American Revolution laid the foundation, while French Revolution constructed building of modern world (with Liberty, Equality, Fraternity).

• French Revolution gave inspiration to many movements like India’s Struggle for Freedom 1857-1947 to rise against tyranny and misrule.

• A new era began in the new world and paved the way for the new epoch for the old world.

14. What is water stress? How and why does it differ regionally in India?

<table>
<thead>
<tr>
<th>Approach</th>
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<tbody>
<tr>
<td>1. Give a brief introduction about the concept of water stress. (50 words)</td>
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<tr>
<td>2. Briefly discuss about the regional differences related to water use. (80 words)</td>
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<td>3. Discuss about the reasons for regional differences causing water stress. (80 words)</td>
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<tr>
<td>4. Conclusion. (40 words)</td>
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54% of India’s Ground-water Wells Are Decreasing

54% of India Faces High to Extremely High Water Stress
**Hints:**

**Introduction:**

Water stress occurs when the demand for water exceeds the available amount during a certain period or when poor quality restricts its use. Water stress causes deterioration of fresh water resources in terms of quantity (aquifer over-exploitation, dry rivers, etc.) and quality (eutrophication, organic matter pollution, saline intrusion, etc.)

- India placed thirteenth among the world’s 17 ‘extremely water-stressed’ countries, according to the Aqueduct Water Risk Atlas released by the World Resources Institute (WRI).
- Chandigarh was the most water-stressed, followed by Haryana, Rajasthan and Uttar Pradesh.

**Regional differences in water stress in India:**

- Some regions have been hit harder by the change in rainfall patterns. Parts of Uttar Pradesh, Bihar, Chhattisgarh and Maharashtra, for instance, have seen a significant shortfall in rainfall over the last decade compared to historical averages. Even in regions, such as Uttarakhand, where average rainfall has increased—this could be driven by more extreme rainfall over short spans of time, the type of rains that cause floods.
- There are harrowing conditions of water scarcity in peninsular India. Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh and Telangana and Gujarat are in a particularly bad way, with northern Karnataka and Maharashtra not receiving adequate rainfall for three or four consecutive years.
- The entire country is vulnerable to ‘vegetation drought’; regions with low soil moisture such as the river basins of Mahi, Sabarmati, Krishna, Tapi and Cauvery are particularly susceptible due to low levels of soil moisture.
- It is extraordinary that Kerala should be in the grip of a water crisis in precisely the regions that were devastated by last year’s floods. A combination of high temperatures and water scarcity has put crops such as cardamom, rubber and tea under stress, with pest attack risks on the rise.
- According to the NITI Aayog report, 21 cities, including New Delhi, Bangalore, Chennai, and Hyderabad, are set to run out of groundwater by 2020, affecting an estimated 100 million people.
- It warned that groundwater resources, which constitute 40 percent of India’s water supply, were being depleted at unsustainable rates.
- Excessive groundwater extraction affects not just the quantity but also the quality of water.

**Reasons of water stress at regional level in India:**

- The gap between supply and demand will likely widen due to climate change and drought-like situations, drying of Himalayan springs that caused recent Shimla water crisis and uncontrolled groundwater extraction.
- Exacerbating these set of policies which encourage water wastage, deepening the water crisis that threatens the livelihoods and lives of millions in rural India.
- This growing demand for water is almost entirely driven by farmers. In India more than 80% of water demand is used for farming, and agricultural water consumption is expected to stay at these levels even in 2050.
- India’s reliance on water for farming is partly self-inflicted. For instance, the government’s minimum support price scheme incentivizes the production of water-intensive crops, such as rice and sugar cane, even in areas not suitable for these crops’ production.
- For instance, the Punjab government is offering cash transfers to farmers for every unit of electricity they save to wean them away from pumping more water.
• Micro-irrigation practices, such as the use of drips and sprinklers, are not picking up at the desired pace. Economic Survey 2015-16 observes: “The key bottlenecks in the adoption of this technology are the high initial cost of purchase and the skill required for maintenance.”

• Issues relating to coordination have further complicated water issues. Traditionally, different aspects of water have been managed in isolation by different ministries. This has now changed with the newly-formed Jal Shakti ministry, which has subsumed several different water-related departments.

**Conclusion:**

Therefore, power subsidies can be gradually withdrawn and instead drip and sprinkler irrigation subsidised. This should be accompanied by a shift away from paddy and sugarcane in rain fed regions, with subsidies and incentives being linked to such choices. Telangana have shown the way in furthering micro-irrigation through Mission Kakatiya, which entails the revival of over 40,000 tanks in the State. An immediate as well as medium-term policy response is called for. The first priority is to stave off a drinking water crisis by rationing the use of water for irrigation purposes. We will have to apply a good mix of centralized storage (in the form of conventional large reservoirs and large interbasin water transfer programs) and decentralized and distributed storage systems in farmers’ fields and villages.

15. **How can the mountain ecosystem be restored from the negative impact of development initiatives and tourism?**

**Approach**

1. Give a brief introduction about the importance of mountain ecosystem. (50 words)

2. Briefly discuss about the development initiatives and the impact of tourism on the mountains. (80 words)

3. Discuss about the steps taken to regarding the restoration of mountainous ecosystem. (70 words)

4. Conclusion. (50 words)

**Hints:**

**Introduction:**

Mountains are an important source of water, energy and biological diversity. Furthermore, they are a source of such key resources as minerals, forest products and agricultural products and of recreation. As a major ecosystem representing the complex and interrelated ecology of our planet, mountain environments are essential to the survival of the global ecosystem. Mountain ecosystems are, however, rapidly changing.

**Developmental initiatives and Tourism in Mountains: Impact:**

Over the generations, mountain people have learned how to live with the threat of natural hazards and have developed well-adapted and risk-resilient land-use systems. However, there is growing evidence that many mountain regions have become increasingly disaster-prone over the past few decades.

• **Dams and Roads:** Dams and roads can be hazardous if they are not properly constructed and managed. Disasters in mountains, and the forces that trigger them, affect larger areas, sometimes entire watersheds or river systems.

• **Mining:** The forces that shaped the world’s mountains also made them rich in minerals and metals, including gold, copper, iron, silver and zinc. Owing to increasing demand, mines are now being opened even in remote mountain areas, particularly in developing countries.

• Mining can bring large benefits, but it can also be devastating to fragile mountain ecosystems and local cultures, destroying the livelihood base of mountain communities. Massive quantities of waste, surface dumps and slag heaps are only the most visible consequences.
• **Mountain Tourism:** Mountain areas are second only to coasts and islands as popular tourism destinations, generating 15-20 percent of annual global tourism, or US$70-90 billion per year. With more than 50 million visitors per year, mountains are some of the world’s most important destinations for tourism.

Beautiful landscapes, sporting and recreational possibilities and the unique traditions, cultures and lifestyles of mountain people attract increasing numbers of visitors, mainly from lowland cities.

The increasing exploitation of mountain areas by outside forces such as commercial agriculture, logging, mining and tourism enterprises puts additional dangerous pressure on these fragile ecosystems. As a result, such events harm not only mountain communities but also livelihoods further downstream, affecting millions of people.

**Restoration of Mountainous Ecosystem:**

About 10 per cent of the world’s population depends on mountain resources. A much larger percentage draws on other mountain resources, including and especially water. Mountains are a storehouse of biological diversity and endangered species. Most global mountain areas are experiencing environmental degradation. Hence, the proper management of mountain resources and socio-economic development of the people deserves immediate action.

• **Infrastructure Development:** Only small dams and greater investments in road construction and restoration, improved road design, and better maintenance practices are needed to limit the negative impacts of mountain roads.

• **Eco-Tourism:** Tourism can have a range of impacts on mountain ecosystems, communities and economies. While many of the impacts described above are negative, tourism can also generate positive impacts as it can serve as a supportive force for peace, foster pride in cultural traditions, help avoid urban relocation by creating local jobs, increase visitor awareness and appreciation of natural, cultural and historical values and assets.

• **Good Practice in Action-Whitepod,** a unique tourist camp located in the Swiss Alps, is made up of semi-permanent dome-shaped tents, or pods, that serve as guest rooms, with a central chalet housing the dining room, common room and bathroom facilities. The pods are heated with wood-burning stoves and all furniture is made from recycled materials or sustainably harvested wood.

• **Minimize the use of motorized transport in and around mountain areas**
  - Wherever possible, use local non-motorized means of transport, such as mules and horses, and avoid developing tours that are overly dependent on motorized transportation and activities.
  - Share vehicles and transportation infrastructure with other tour operators or service providers where possible.
  - Choose routes and time schedules that minimize congestion and distance travelled.
  - Avoid the use of vehicles with a larger seating or engine capacity than is required for the tour.

• **Minimize trash generation**
  - Avoid over-packaged goods and disposable items.
  - Purchase in bulk and use recyclable and refillable containers where possible.
  - Keep waste and chemicals away from natural water bodies.
  - Avoid the use of cleaning products, soaps, detergents and toothpaste near or in fresh water.

• **Educate visitors about the effects of climate change on mountains and snow-based recreational activities.** Offer suggestions for how they can reduce greenhouse gas emissions by, for example, using low-polluting vehicles, removing ski racks and replacing snow tires with normal tires at the end of the season, and carpooling or taking shuttles to recreational sites.
Conclusion:
To achieve sustainable mountain development, it is essential that all concerned stakeholders are involved and that awareness is raised about mountain ecosystems, their fragility and prevalent problems, and about ways of addressing them.

16. How is efficient and affordable urban mass transport key to the rapid economic development of India?

**Approach**

1. Give a brief introduction about efficient and affordable urban mass transport. (50 words)
2. Discuss about the need of efficient and affordable urban mass transport. (70 words)
3. Discuss about how efficient and affordable urban mass transport is a key to the rapid economic development of India. (80 words)
4. Conclusion. (50 words)

**Hints:**

**Introduction:**
Creating an efficient transport infrastructure in the country is one of the chief factors responsible for the takeoff of accelerated growth in the country on account of poor quality of transport infrastructure. Progress made in efficient and affordable urban mass transport would have a key role on taking India to double digit growth.

**Need of efficient and affordable urban mass transport:**
Nearly 31% of India’s current population lives in urban areas contributing to 63% of India’s GDP (Census 2011) and with increasing urbanization, urban areas are expected to house 40% of India’s population and contribute to 75% of India’s GDP by 2030.

India’s urban growth is largely concentrated in large cities which were 35 in 2001 to 53 in 2011, accounting for 43% of India’s urban population, and is expected to be 87 by 2030.

Efficient and affordable urban mass transport key to the rapid economic development of India because:

- Efficient urban mass transport system lead to saving of time and energy. This time and energy can be used for economic activities. Best example is Delhi Metro services. Not only has this affordability of transport and safety of citizens improved a lot.

- India has vast coastline and waterways which are still unexplored. With issues like environment and climate change, our waterways will provide efficient as well affordable transport system. Further this will provide connectivity to remote areas also; best example is waterways through Brahmaputra River which provides accessibility to northeast region.

- Mass transport system can be further more affordable with reinvent of new technologies. e. g. - Use of Antarctic Bottom Water (AABW) CNG and use nuclear energy will make this more affordable. Also this will reduce our import of fossil fuels. This will be more economically more viable as well as environment friendly.

- Mass transport provides complimentary system- It is absolutely clear that there isn’t enough space for everyone to drive a car, and the government must pivot the policy to delivering reliable public transport. The metro project is a step in the right direction, but it needs complementary changes that improve the citizens’ experience.

- Public mass system must provide last mile connectivity-the metro system needs a bus system to provide last-mile connectivity. If people have to take buses, they need pedestrian paths to walk on the roads. The bus system also needs to be reliable.
Mysore has managed to achieve that because of a centralized monitoring system that tracks buses using GPS monitors driving speed and ensures that they stop at every bus stop.

Conclusion:

India is a growing economy, and census data suggests that only 31% of the population lives in urban centers. Another 300 million people will be added by 2050 and the planning for carrying those people in our cities must begin now.

Public transport can easily be the cheaper, faster and economical alternative if policymakers plan for tomorrow’s problems today. So initiatives like development of waterways, Bullet trains, hyper loops is the demand of time.

17. How ocean currents and water masses differ in their impacts on marine life and the coastal environment? Give suitable examples.

**Approach**

1. Give a brief introduction about Ocean currents and water masses. (50 words)
2. Discuss and explain with examples about how ocean currents and water masses differ in their impact on marine life and the coastal environment. (150 words)
3. Conclusion. (50 words)

**Hints:**

**Introduction:**

The ocean water is dynamic. Its physical characteristics like temperature, salinity, density and the external forces like the sun, moon and the winds influence the movement of ocean water. Ocean currents are the continuous flow of huge amount of water in a definite direction.

Water moves ahead from one place to another through ocean currents. Ocean currents has direct impact on the climate and economy of the region.

Common water masses in the world ocean are: Antarctic Bottom Water (AABW), North Atlantic Deep Water (NADW), Circumpolar Deep Water (CDW), Antarctic Intermediate Water (AAIW), Subantarctic Mode Water (SAMW), Arctic Intermediate Water (AIW), North Pacific Intermediate Water (NPIW), the central waters of various oceanic basins, and various ocean surface waters.

**Ocean currents and water masses differ in their impacts on marine life and the coastal environment in different ways:**

- **Impact on biodiversity** - The physical parameters of water masses are essential because they structure the water masses and determine the various habitats that provide the environmental conditions required for marine life.

- These conditions influence the production and the growth of plankton and fish species. The dispersion and dwelling of larvae for many benthic and pelagic species depend on hydrographical factors. They also play an important role for the exchanges between the sea and the atmosphere and between the various layers of water.

- While ocean currents has also direct impact on the marine biodiversity. For example mixing of ocean currents becomes a ground for fishing. best example is eastern USA coast

- **Osmo regulation and fertility** - water masses formation and location of its formation has direct bearing on the marine biodiversity as salinity and temperature of water masses changes with its location.

- While ocean currents also changes the salinity of coastal region which changes the marine biodiversity. It has also direct bearing on temperature of region also. Best example is northatlantic drift of Atlantic region. Due to north Atlantic drift, Murmansk port of Russian region will remain ice free.
- **Impact on corals.** Formation water masses near the region of corals can destroy the coral region of world. Deep coral will be more impacted by the formation of deep ocean water masses.

- **Impact on climate of regions.** Impact of ocean currents has more bearing on the climate of the region. For example north Atlantic Drift has direct bearing climate of whole Europe region. Even ocean currents has direct bearing on the whole climate of the world. For example- El-Niño while ocean water masses has less impact on the climate. However in the recent time melting of glaciers and global warming may have impact on marine life.

- **Latitude heat balance.** Ocean currents has key role in transferring heat from tropical regions to higher latitudes. This helps in rainfall and climate of higher latitudes. Also ocean currents brings colder water from polar regions to tropical regions.

- **While water masses also changes the salinity and temperatures of oceans. for example Antarctic Bottom Water (AABW) has direct bearing on the region.**

**Conclusion:**

Water masses have more bearing on the deep sea marine biodiversity as deep water masses have direct bearing on these species. While ocean currents has very less bearing on deep sea water species. Further, ocean currents and their impact has been studied in much details while the impact water masses need to be studied more elaborately. Further scientific studies must be carried out study the impact these two phenomenon’s.

**18. Do we have cultural pockets of small India all over the nation? Elaborate with examples.**

**Approach**

1. Give a brief introduction about the concept of nation. (40 words)
2. Briefly discuss about the idea of cultural pockets of small India all over the nation. (80 words)
3. Give examples of different cultures in the nation. (50 words)
4. Give examples of nations in different cultures. (40 words)
5. Conclusion. (40 words)

**Hints:**

**Introduction:**

A nation is a stable community of people, formed on the basis of a common language, territory, history, ethnicity, or psychological make-up manifested in a common culture. While the idea of small India all over the nation highlights the presence of different and diverse cultures of country. Hence we have cultural pockets of small India all over nation.

**Different cultures in the nation:**

The state of Jammu and Kashmir have cultural pockets of Kashmir and Ladakh. The state of Uttar Pradesh has the people speaking Khari boli, Braj, Awadhi, Urdu, thus depicting cultural pockets of small India. The north eastern states have different cultural pockets based upon tribes, language, practices, tradition. Similarly there are various states based upon languages like Tamil Nadu, Karnataka, and Kerala depicting cultural pockets of small India. Himachal Pradesh has Buddhist and Hindus. We have several tribes, castes living together who tend to practice their own traditions. We have many religions in the parts of our country with people believing in different faiths. The Marwaris, Sindhis, Parsis, Christians, Muslims, Sikhs, state people living in different parts of the country. Hence cultural pockets of small India i.e. different cultures present all over the nation.

**Different nations in the cultures:**

At the same time we have nations in the cultural pockets of small India. The various communities which lived in the various states form stable and sustainable lifestyle, hence depicting nations. The Khasis, Garo, Jaintia tribes are a community formed on basis of common culture. The states like
Andhra, Punjab, Gujarat have a stable community based upon common language. The people of North eastern states have common ethnicity. The people of Telangana have common psychological make-up based upon backwardness of state. The Gorkhas have same similar psychological makeup. Hence there are multiple nations in the culture of India.

Conclusion:
Therefore India is a diverse, plural, multicultural, multiethnic, multilingual society with different cultures forming nations and while different nations forming cultures. This has given rise to the sovereign, secular, democratic, republic with unity and integrity, fraternity and dignity of individuals.

19. What are the continued challenges for the women in India against time and space?

Approach

1. Give a brief introduction about the significance of women in making of society (40 words)
2. Briefly discuss about the various challenges faced by women against time and space. (90 words)
3. Discuss about the positive examples from the Indian society related to women empowerment. (80 words)
4. Conclusion. (40 words)

Hints:
Introduction:
Women are the building blocks of the society. They are traditionally referred as Goddesses. However in the Indian society, they continue to be exploited for the sake of the conventions of the society and face challenges which are as follow:

Challenges faced by the women:

• **Patriarchy:** The women face the male dominance in the various institutions, structures of the country. This has hampered the overall development and rise of women in the societal roles.

• **Political participation:** The women are not able to express themselves politically. The reservation for women is still pending in the parliament.

• **Economic participation:** Women are not able to reach the top most positions in the corporations, private or public except a few. Also women are imparted roles which are regarded as specifically for women like Pink Jobs, Health sector etc.

• **Education:** They are still considered as burden in the villages of many states, though the situation has improved in many.

• **Discrimination:** The women are discriminated in the various spheres affecting their overall participation and development of their personalities. They are still discriminated in the villages, families.

• **Alienation:** The women are socially and psychologically alienated which results in the non participation of the women in the various spheres of life.

• **Exclusion:** The women are excluded from the decision making roles in the society which eventually affect the health of the society and the nation.

• **Crimes and atrocities:** NCRB data shows that the women are faced with crimes such as rapes, abuse, sexual harassment at workplaces and thus face deviant behavior.

• Domestic violence and Non participation in the decisions of families in the villages. The Khap panchayats and patriarchal attitude exacerbate the position of women.
• **Rural scenario:** Women have little choices, have to face crimes while going out for work, leads to mental health problems, affect reproductive health and affect critical decision making power. Trafficking, bride buying etc are also faced by women.

Conclusion:

At the same time, the tribes of North eastern India exercise matriarchy which leads to women empowerment through the traditional structures, thus raising the status and decision making power of women. The Government legal steps, like Sexual harassment prevention, women help lines, schemes aimed at welfare of women, targeting of schemes like LPG DBT transfer into women account etc would go a long way to provide a way for the empowerment and encouragement among the women.

**20. Are we losing our local identity for the global identity? Discuss.**

<table>
<thead>
<tr>
<th>Approach</th>
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<tbody>
<tr>
<td>1. <strong>Give a brief introduction about the concept of Global identity.</strong> (40 words)</td>
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<tr>
<td>2. <strong>Give a brief introduction about the idea of Local Identity</strong> (90 words)</td>
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<td>3. <strong>Discuss through examples to show that both of these identities are coexistent.</strong> (80 words)</td>
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<td>4. <strong>Conclusion</strong> (40 words)</td>
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</tbody>
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**Hints:**

**Introduction:**

The Globalization and modernization era has resulted in the development of a global identity. This identity is based upon modern, secular ethos of the members of the society where individualism and materialism are primary to the social interactions.

The local identity is based upon the traditional structures, institutions, processes and where communitarian, collectivistic ethos and social obligations are primary to the social interactions.

**Coexistence of Global and Local identities:**

The **Geographical and social mobility** has resulted in the movement of the people from one area to another and from one society to another respectively. For example People working in the United Nations work for the humanity and the whole world irrespective of the nations they belong. Although they aim at promotion of national interests (localized) but at the same time form one unified humane identity (Globalized).

The **economic progress** has led to the diverse workforce entering into the labour markets. This workforce belongs to the diverse local backgrounds but work for the organization for the public interest. For example in MNCs the workers though show local identity in interpersonal relations but work for the larger public and societal interest (globalized identity). Hence local identity is kept at a distance from the global identity.

The **scientific progress** has led to the development of the inventions, innovations. This has brought about a change to rational outlook and thinking. Thus the aim is the progress of humanity (global identity). At the same time the local identity is kept to personal sphere. For example Chandrayaan 2 mission was for the finding of elements at moon for whole of humanity, however the mission started with the offerings to God. Hence although it aimed at global endeavours but localized elements provided it the legitimacy or credibility.

The **Dependent** of the underdeveloped countries on the developed world shows that the global identity (in form of developed) is used for the localized development (underdeveloped).

Similarly the Indian Diaspora, Indian companies invest in other countries and aim at betterment of the people (global identity). But they make sure that local identity (Indian) is not forgotten while pursuing various tasks.
The working for the purpose of humanity and while practicing spiritualism in personal life also shows that global and local identity are kept together.

The terrorism, fundamentalism, Radicalization processes often lead to security concerns by developing a global identity (destruction of society) based on religion, state, ideology and forgetting local ones.

**Conclusion:**

Hence, the economic and scientific progress at a large scale in the world has resulted in the attainment of the global identity at the macro level while keeping, and restricting the local identity to the micro structures such as the individual, family, and the community.