ForumIAS

Mains Marathon Compilation

March, 2020

General Studies 1

Q.1) What are the favourable conditions for formation of corals? Analyse the impact of global warming on corals.

Q.2) Recent rise in communal disharmony and intolerance is a threat to Indian plural democracy. Comment.

Q.3) Discuss how focusing public policy on bio-fortification, sanitation and women's education can resolve India's malnutrition problem.

Q.4) Give an account of progress made by India in improving gender equality in the education system. Mention various government efforts towards women education in India.

Q.5) Do you think India should legalise abortion in India? Critically comment.

Q.6) Discuss the need and significance of skill development among women in India. What measures have been taken by the government for the same?

Q.7) What is red snow? What causes red snow? Discuss various concerns over red snow in Antarctica.

Q.8) Increasing the number of women recruits alone will not be enough; institutional changes are also important. Comment.

Q.9) Discuss whether Death penalty is a solution towards ending violence against women or not.

Q.10) Discuss various features of Indian secularism. Also, mention various threats to secular democracy in India.

Q.11) What factors are responsible for the origin and modification of ocean currents? Explain how ocean current currents affect the climate of surrounding regions.

General Studies 2

Q.1) What do you understand by the term 'right to due process'? Discuss its significance in a democracy.

Q.2) India's policy towards Afghanistan. Why is peace in Afghanistan important for India?

Q.3) India needs to engage with its neighbours for the realisation of its global ambitions. Comment.

Q.4) Discuss the role of tribunals in delivering justice. Also, critically examine the 'Tribunal, Appellate Tribunal and other Authorities, Rules, 2020'.

Q.5) Discuss the structure, powers and limitations of the National Human Rights Commission.

Q.6) Discuss the need and significance of police reforms in the recent context of rise in crime.

Q.7) What are Lok Adalats? Why were they established? Discuss the role of Lok Adalats and their limitations.

Q.8) Discuss the structure, functioning and objective of the 'Office of the High Commissioner for Human Rights' (OHCHR).

Q.9) Discuss various issues in India's higher education. Suggest some measures to improve it.

Q.10) Data from the National Crime Records Bureau (NCRB) show that the number of sedition cases filed has gone up every year in the last four years, only four cases actually resulted in conviction. In light of this, discuss the usefulness of the sedition law.

Q.11) Discuss the strategic significance of Afghanistan for India. Also, discuss various implications of the recent Afghanistan deal for India.

Q.12) Tracing the evolution of basic structure doctrine in India, highlights its salient features.

Q.13) Indian public schools suffer from poor infrastructure facilities especially in rural areas. Comment.

Q.14) Enumerate the causes for the loss of Biodiversity. Explain the in-situ and ex-situ measures of biodiversity conservation.

Q.15) With the rise in risk of epidemics, India needs a new Epidemic disease act. Examine.

Q.16) Discuss the salient features of Protection of Children from Sexual Offences (POCSO) Rules, 2020.

Q.17) The elements of conflict and discord are common to Union Territories with elected legislatures in India. In light of this, discuss various reasons for creating Union Territories in India and what should be done to prevent such conflicts.

Q.18) Discuss various stages of public health response to epidemic outbreaks. Discuss how India can prepare for any future epidemic risks?

Q.19) What is 'One Health? Discuss its need and significance in context of rising zoonotic infections.

Q.20) Discuss the importance and limitations of Part IV of the Indian Constitution.

Q.21) Discuss the potential and issues of SAARC as an organisation to emerge as a successful model of cooperation among nations in a region.

Q.22) Health budgetary allocation must go up if India is to prepare for an unpredictable epidemic. Comment.

Q.23) Elaborate the process of legislation in the Indian Parliament for an ordinary bill. How is a money bill different from an ordinary bill?

Q.24) Article 51 A of our constitution which deals with fundamental duties makes it a duty of every citizen to develop a 'scientific temper'. In light of this, discuss the progress made by Indians towards inculcating a scientific temper.

Q.25) An independent judiciary is of critical importance, as it provides checks and balances in a political democracy. Critically examine.

Q.26) Give an account of recent steps taken by the government to improve Indian healthcare system.

Q.27) What are 'fourth branch institutions'? Critically comment on the effectiveness of 'The National and State Human Rights Commissions' as a 'fourth branch institutions' in Indian democracy.

Q.28) It is argued that the internet should be regarded as an essential service, and access to it as a fundamental right. Discuss.

Q.29) What does a pandemic mean? How is it different from the terms 'epidemic' and 'endemic'? Illustrate with example.

Q.30) Briefly enlist the constitutional provisions related to tribunals in India. Critically analyse the role of tribunals in the Indian judicial system.

General Studies 3

Q.1) Nuclear energy although has potential to solve India's energy problems but carry great inherent risks. Elaborate.

Q.2) The growing role of the private sector in space, demands India to move quickly towards a new model for India's space activity. Explain with illustrations.

Q.3) What is black carbon? Discuss the consequence of rise in black carbon in the atmosphere. Suggest measures to tackle the rising level of black carbon.

Q.4) What do you understand by the term 'informal sector'? Enumerate the steps taken by the government to improve the condition of workers in the informal sector.

Q.5) What is e-waste? Discuss various issues related to e-waste. How is e-waste being regulated in India?

Created with by ForumIAS.com – The Knowledge Network for Civil Services.

Visit http//forumias.com New! http://forumiasacademy – Prelims & Mains Test Series

ForumIAS

Q.6) What are cryptocurrencies? Discuss various concerns related to cryptocurrencies.

Q.7) What is noise pollution? Discuss various causes of noise pollution and examine its impact on human health.

Q.8) A new study reveals that, climate change leads to more violence against women. In light of this, discuss the impact of climate change on women rights.

Q.9) What is genome sequencing? Discuss the significance of genome sequencing in recent context of Coronavirus epidemic.

Q.10) Discuss how use of Unmanned Aerial Vehicles (UAVs) can help in improving pest management and crop productivity. What steps are needed in this direction?

Q.11) What is inverted duty structure? Discuss the impact of Inverted Duty Structure on manufacturing sector in India?

Q.12) What are differentiated banks? Discuss their significance in furthering financial inclusion in India.

Q.13) India has an opportunity to emerge as a global leader in data protection, especially for developing countries facing similar challenges and opportunities. Discuss.

Q.14) What is Environment Impact Assessment? Discuss its main principles and significance in various development projects.

Q.15) Enumerate various reasons and impact of the rise in cases of bank frauds in the last decade in India. Discuss the need of bringing reforms in banking governance to prevent such frauds.

Q.16) What are the important characteristics of footloose industries? What are the factors responsible for the location of footloose industries?

Q.17) Critically discuss the recent NITI Aayog's proposal to build tourism villas in Andaman-Nicobar and Lakshadweep archipelagos.

Q.18) What are various reasons for the gender gap in science-related fields? Suggest some measures to improve women participation in these fields.

Q.19) What is biometrics? Discuss potential applications and dangers associated with biometric technology.

Q.20) Explain the benefits of micro-irrigation over the conventional irrigation systems. Also various challenges in the adoption of this technology.

Q.21) What is contact tracing? Discuss various steps in contact tracing and its significance in fighting epidemics.

Q.22) Explain the key issues in infrastructure financing in India. What steps have been taken by the government to address these issues?

Q.23) Discuss the role of technology and private sector in fighting an epidemic like Coronavirus.

Q.24) What is Quantum Technology? Discuss its potential applications and significance of 'National Mission on Quantum Technologies and Applications' in this direction.

Q.25) In the recent event of coronavirus epidemics, there is an urgent need for effective social security measures in place. Discuss.

Q.26) Explain the working mechanism of vaccines. Discuss the significance of vaccination and mention various challenges regarding vaccination in India.

General Studies 4

Q.1) Discuss the role of parents and school in inculcating values among children.

Q.2) Anger and intolerance are the enemies of correct understanding. Elucidate.

Q.3) What is John Stuart Mill's idea on freedom of thought and expression. Also discuss Mill's views on representative democracy.

Q.4) What do you understand by the term 'diaspora diplomacy'? Discuss the usefulness and limitations of 'diaspora diplomacy'.

Q.5) What do you understand by the term 'social justice'? Explain why it is imperative for a society to promote social justice.

General Studies 1

Q.1) What are the favourable conditions for formation of corals? Analyse the impact of global warming on corals.
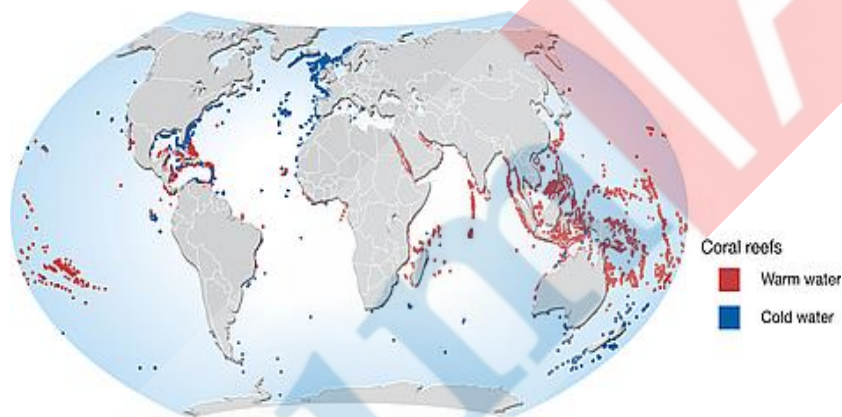
Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the favourable conditions for formation of corals. Mention how global warming impacts corals.
Conclusion. Way forward.

Corals are a kind of calcareous rock, chiefly made of the skeletons of minute sea organisms called polyps. Coral reefs and atolls are formed due to the accumulation and compaction of the skeletons of these lime secreting organisms. They form one of the most diverse and productive marine ecosystems on earth housing tens of thousands of marine species.

Favourable conditions:

1. **Sunlight:** Corals need to grow in shallow water where sunlight can reach them. Corals depend on the *zooxanthellae* (algae) that grow inside of them for oxygen and other things and since these algae need sunlight to survive, corals also need sunlight to survive. Corals rarely develop in water deeper than 50 meters.
2. **Clear water:** Corals need clear water that lets sunlight through. They don't thrive well when the water is opaque. Sediment and plankton can cloud water, which decreases the amount of sunlight that reaches the zooxanthellae.
3. **Warm water temperature**: Reef-building corals require warm water conditions to survive. Different corals living in different regions can withstand various temperature fluctuations. However, corals generally live in water temperatures of 20–32° C.
4. **Clean water:** Corals are sensitive to pollution and sediments. Sediment can create cloudy water and be deposited on corals, blocking out the sun and harming the polyps. Wastewater discharged into the ocean near the reef can contain too many nutrients that cause seaweeds to overgrow the reef.
5. **Saltwater:** Corals need saltwater to survive and require a certain balance in the ratio of salt to water. This is why corals don't live in areas where rivers drain fresh water into the ocean i.e. the estuaries.
6. **Abundant Plankton:** Adequate supply of oxygen and microscopic marine food, called phytoplankton, is essential for growth. As the plankton is more abundant on the seaward side, corals grow rapidly on the seaward side.

Impact of global warming:

1. **Coral bleaching:** A warming ocean causes thermal stress that contributes to coral bleaching and infectious disease. Photosynthesis pathways in zooxanthellae are also impaired leading to coral bleaching.
2. **Smothering of corals:** Sea level rise may lead to increases in sedimentation for reefs located near land-based sources of sediment. Sedimentation runoff can lead to the smothering of coral.
3. **Destruction:** Changes in storm patterns leads to stronger and more frequent storms that can cause the destruction of coral reefs.
4. **Impact coral growth:** Changes in precipitation, increased runoff of freshwater, sediment, and land-based pollutants contribute to algal blooms and cause murky water conditions that reduce light and thus inhibit coral growth.
5. **Hampers dispersal:** Altered ocean currents leads to changes in connectivity and temperature regimes that contribute to lack of food for corals and hampers dispersal of coral larvae.
6. **Death of corals:** Ocean acidification (a result of increased CO_2) causes a reduction in pH levels. It leads to dissolution of calcium carbonates which form the skeletons of coral.

Coral reefs harbour the highest biodiversity of any ecosystem globally and directly support over 500 million people worldwide. They are among the most threatened ecosystems on earth, largely due to unprecedented global warming and climate changes. Limiting global average temperature to well below 2°C above pre-industrial levels in line with the Paris Agreement provides the chance for the survival of coral reefs globally.

Q.2) Recent rise in communal disharmony and intolerance is a threat to Indian plural democracy. Comment.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss how recent rise in communal disharmony and intolerance is a threat to Indian plural democracy.
> **Conclusion.** Way forward.

India has been a country of tolerance. Since Buddha to Mahatma Gandhi, Indian society is full of examples of tolerance and harmony as a way of life. But in recent times, there has been a rise in violence across the nation. Current instances of intolerance threaten the very social fabric of Indian society. With rise in communal disharmony and intolerance, there is threat to overall peace in the society. Mob-violence, lynching are some of the symptoms caused by various reasons.

Causes of rise in communal disharmony and intolerance:

1. **Vote Bank Politics:** The politicians use the communal card to align themselves to a particular community or for the purpose of breaking up the vote bank of another party often indulges in instigating a communal riot.
2. **Struggle for Identity:** In order to ensure their relevance in a system that appears to be highly biased, various classes of people, like the Dalits, the tribals and other minorities tend to project a collective front. Any threat to their class is furiously opposed, so as to make their voices heard in this oblivion.

3. **Conflict of Interests:** Communal conflicts are a means for communities to assert their communal identities and to demand their share in economic, educational and job opportunities. Especially in the present times of economic down turn the struggle for ensuring that the interests of their community is appropriately safeguarded is very firmly contested.

4. **Reports of Threat to Religious Ideologies:** The examples of these are burning down of Churches in Delhi, Hindu-Muslim riots in Muzzafarnagar in 2013, ethnic clashes over the disputed Nagaland-Assam border, Dadri lynching, etc. Caste-based violence was also reported in several states including Uttar Pradesh, Bihar, Karnataka and Tamil Nadu.

5. **Irresponsible Reporting by Media:** Many a times media broadcasts unconfirmed, sensitive and often biased reports on national television, just to sensationalise the issue and improve their TRP. This often adds fuel to the fire and increases animosity between the two communities, as the minority community feels threatened and the majority community feels victimised.

6. **Resource Crunch:** As the availability of natural resources like land, water, minerals, etc. is reducing due to an exponentially growing population, the clamour for ownership of the available resources, which are there at the disposal of various communities is also increasing.

7. **Growing Intolerance Levels:** The social insecurities arising out of a life of deprivation and mistrust for everyone around has made the common individual irritable and intolerant. Further, fear psychosis among minorities is being percolated to the majority community as well. Instances of hate speech, data about the increase in population of minorities as a threat to majority interests generate a situation of intolerance in the community.

8. **State's support:** India has many hostile neighbours, who wish to make it weak through a communal divide. Pakistan is causing an unconventional war, which is more damaging to the national stability in the long term.

Rise in communal disharmony and intolerance- a threat to Indian plural democracy:

1. **Threat to minority:** Rise in intolerance and communal disharmony lead to majoritarianism and thus, suppress minorities and hinder their rights.

2. **Mob-violence:** Rise in disharmony has led to targeting of religious minorities and led to a rise in mob-violence, which has impacted the psyche of minorities and led to an atmosphere of threat to life.

3. **Threat to Rule of law:** With rise in incidence of mob justice, lynchings, there is a threat to rule of law. For instance, the recent killing of Rapists in Telangana by police, is being celebrated in India. The recent killing of policemen by mob is an example of eroding rule of law.

4. **Freedom of speech:** It has also impacted freedom of speech. Disharmony and intolerance has led to excessive scrutiny of speech and expression and prevent many to speak freely due to fear of life.

5. **Harmed human rights:** Deployment of large scale security forces dissipates the state exchequer and may result in occasional Human Rights abuses. The Human Development Index of the society is adversely affected by these hampering restrictions that are laid on the basic right to freedom of people.

6. **Regionalism:** The anti-national elements get adequate opportunity to fan regional feelings and work on creating an atmosphere to break the cohesiveness of our society.

7. **Lawlessness:** Lawlessness accruing out of communal disharmony is exploited by the divisive forces operating in the country because of which internal security risks gets heightens.

8. **Damage social fabric:** The social fabric of the society gets irreparably damaged and the conditions of mistrust serve as a catalyst for future conflicts on flimsy grounds.

Way forward:
1. **Efficient administration:** Quick and appropriate decisions by the administration is needed. After identifying the type, stage and gravity of the disturbance, must take immediate actions to mitigate the losses and be proactive to requisition and detained personnel with provocative behaviour.
2. **Training:** Police forces especially trained for the purpose must be promptly deployed in adequate numbers with requisite equipment and proper gear to handle situations at the physical, as well as emotional level.
3. **Delegation:** Proper delegation of responsibility and authority must be defined so that no one looks over the shoulder at the time of crises. It is also very important to hold a person in charge accountable for any misgivings or overreach of authority.
4. **Media guidelines:** During the outbreak of a riot, the local people must be regularly kept updated regarding the prevailing situation through various forms of media, which must be provided with guidelines to ensure it does not aggravate the situation further.
5. **Fair probe:** Prompt and fair probe into all incidents that may take place during the riot be conducted and locals appraised of the action taken by the administration.
6. **Cyber-security:** Cyber police should be watchful of posts made in the social media and websites carrying any provocative content with the aim of spreading communal tension and bring to book such people.

The basic reason for all communal disturbances is the communal atmosphere pervading the country and the communal tension built up between different communities. We as an evolving society, especially the youth, need to unite together to fight the communal forces and rise above the pettiness for the sake of humanity and for the security of our great nation.

Q.3) Discuss how focusing public policy on bio-fortification, sanitation and women's education can resolve India's malnutrition problem.

Ans.

Demand of the question
Introduction. Contextual introduction. **Body.** Discuss the need to focus public policy on bio-fortification, sanitation and women's education can resolve India's malnutrition problem. **Conclusion.** Way forward.

Malnutrition is one of the principle public health problems in India. The Global Hunger Index 2019 ranks India at 102 out of 119 countries. Despite rapid economic growth, declining levels of poverty, enough food to export, and a multiplicity of government programmes, malnutrition amongst the poorest remains high.

Need of public policy on bio-fortification, sanitation and women's education to resolve malnutrition problem:

Bio-fortification: Biofortification is the process by which the nutritional quality of food crops is improved through agronomic practices, conventional plant breeding, or	1. Deficiencies of iron, vitamin A, iodine and zinc are the most common causes of disease in developing countries. Nutritious diet is vital for proper growth

modern biotechnology.	and development in humans. 2. Biofortification could assist nutrient deficient populations to utilize nutrient enhanced staple crops to assist in achieving a person's daily nutrient intake. 3. By utilizing staple crops that have been fortified, public acceptance of the new varieties is easier and does not require additional education in relation to preparation. 4. Further, these biofortified varieties assume great significance to achieve nutritional security of the country. 5. It provides energy, protein, essential fats, vitamins, antioxidants and minerals to meet our daily metabolic requirement.
Sanitation: Water supply, sanitation, and hygiene, has a direct impact on infectious disease, especially diarrhea and are important for preventing malnutrition.	1. The World Health Organization estimates that 50% of malnutrition is associated with repeated diarrhea or intestinal worm infections from unsafe water or poor sanitation or hygiene. 2. Stunting can stem from a chronic illness caused by inflammation that keeps the body from absorbing calories and nutrients. 3. Children who are exposed to open defecation or who don't have a clean water supply may ingest bacteria, viruses, fungi, or parasites that cause intestinal infection, chronic inflammation in a child leading to stunting and anaemia, and puts children at risk for poor early childhood development.
Women's education: Research has found mother's education has a positive impact on the nutrition status of their children.	1. Domestic violence and lack of education result in weak bargaining power of women relative to their male partners and to other household members which adversely impacts the nutritional status of women and their children. 2. It also increases awareness about nutrient-rich diet, personal hygiene, etc. 3. This can also help contain the family size in poor, malnourished families. 4. The child nutritional outcomes further depend upon household income, number of children, access to healthcare, and quality of sanitation.

| | All this significantly improves through women's education. |
| | 5. Further, an educated woman understands the importance of hygiene and sanitation. Thus, they emphasise on access to a flush toilet and clean water that is related to better nutritional status of children in terms of stunting and underweight. |

Way forward:

1. **Using fortified food:** Fortified food can be incorporated into a mid-day meal, public distribution shops and Anganwadi centres.
2. **New agricultural technologies:** Achieving zero hunger requires agriculture and food systems to become more efficient, sustainable, climate-smart and nutrition-sensitive. India must adopt new agricultural technologies of bio-fortifying cereals, such as zinc-rich rice, wheat, iron-rich pearl millet, and so on.
3. **Change in food habits:** There is a need to shift dietary patterns from cereal dominance to the consumption of nutritious foods such as livestock products, fruits and vegetables, pulses, etc. Diverting a part of the food subsidy on wheat and rice to more nutritious foods can help.
4. **Food and nutrition commission:** A food and nutrition commission should be established, headed by the Prime Minister.
5. **Improving sanitation:** Access to improved sanitation and safe drinking water is important. Swachh Bharat Abhiyan and Jal Jeevan Mission would have positive outcomes in this direction.
6. **Mother's education:** It is one of the most important factors that has a positive multiplier effect on child care and access to healthcare facilities. Thus, a high priority to female literacy, in a mission mode through liberal scholarships for the girl child, would go a long way towards tackling this problem.

The vision to ensure attainment of malnutrition free India by 2022 continues through more innovations and pilot programs and has reached the grass root level households. Poshan Abhiyaan has received global recognition for its effort in eradicating malnutrition. Yet there is much far to go in ending malnutrition issues in India.

Q.4) Give an account of progress made by India in improving gender equality in the education system. Mention various government efforts towards women education in India.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the progress made by India in improving gender equality in the education system. Mention various government efforts towards women education in India.
Conclusion. Way forward.

Women education is an important tool to achieve gender equality. For a long time women have been deprived of their rights. By pacing woman education India can achieve the goal of social development and economic progress.

Changing patterns of gender parity and equality in Education:
1. **Trends in Literacy**: In recent years, India has reportedly shown an improvement at each level of education for boys as well as for girls. As per 2011 census, the female literacy levels are 65.46% from 53.67% of 2001. Literacy rate in India has reported the maximum hike for rural women at 26% in the last decade.
2. **Gross enrolment ratio:** Gross enrolment ratio at the elementary level is 94.32% as against 89.28% for boys, at the secondary level is 81.32% as compared to 78% and at the higher secondary level girls have achieved a level of 59.7% compared to only 57.54 %.
3. **Labour participation:** According to the 'World Employment and Social Outlook Trends for Women' 2018 report, more women than ever before are both educated and participating in the labour market today.
4. **Improved sanitation:** Due to the Swachh Bharat Mission, about 14 lakh schools now have a functioning girl's toilet, an increase of 4.17 % points in comparison to 2013-14. The impact of the mission has resulted in an increase in enrolment of girls by 25% points in 2018-19 from 2013-14.
5. **Higher education:** The number of girls in NITs has grown from 14.11 % in 2017-18 to 17.53 % in 2019-20 and in IITs from 8 % of the total student body in 2016 to 18 % in 2019-20 for B.Tech programmes.

Issues in women education:
1. **Gap in upper primary and secondary schooling:** While female enrolment has increased rapidly since the 1990s, there is still a substantial gap in upper primary and secondary schooling.
2. **High drop-out rates:** Increased female enrolment is, compromised by persistently high rates of drop-out and poor attendance of girls relative to boys. Girls also constitute a large proportion of out-of-school children.
3. **Inter-state variations:** There are also considerable inter-state variations in gender parity. While the greatest surges in female enrolment have been achieved in the most educationally disadvantaged states such as Bihar and Rajasthan, these states still have a long way to go to catch up with the better performing states of Kerala, Tamil Nadu and Himachal Pradesh.
4. **Son preference:** Some studies suggest that girls are over-represented in the government schools, demonstrating continuing son preference where boys (highlighted in economic survey 2018) are educated in private and better schools which are of (perceived) better quality.

Various government efforts towards women education in India:
1. **Beti Bachao, Beti Padhao scheme:** It aims to generate awareness and also improve the efficiency of welfare services for the girl child. The initial aim of the campaign was to address the declining child sex ratio but it also include propagating education, survival and protection of the girl child.
2. **Digital Gender Atlas:** Ministry of Human Resource Development has prepared a digital gender atlas for advancing girls' education in India.
3. **National Scheme of Incentive to Girls for Secondary Education (NSIGSE):** The objective of the scheme is to establish an enabling environment to reduce the drop outs and to promote the enrolment of girl children in secondary schools.
4. **Sarva Shiksha Abhiyan:** In order to ensure greater participation of girls in elementary education, Sarva Shiksha Abhiyan has targeted interventions for girls which include opening of schools, appointment of additional women teachers, separate toilets for girls,

teachers' sensitisation programmes etc. In addition, Kasturba Gandhi Balika Vidyalayas has been opened in Educationally Backward Blocks (EBBs).

5. **Rashtriya Madhyamik Shiksha Abhiyan (RMSA)**: It envisages enhancing the quality of education by providing a secondary school within a reasonable distance of every habitation, improving quality of education imparted at secondary level, removal of gender, socio-economic and disability barriers.

6. **Udaan:** CBSE has launched 'Udaan' to provide free online resources to girl students of Class XI and Class XII for preparation. The special focus of the scheme is to address the low enrolment ratio of girl students in prestigious institutions.

7. **STEM education:** To increase the participation of women in STEM education, supernumerary seats have been created in the IITs and NITs.

Trends suggest that though much has been done in policy terms to increase female access to schooling, notably through improving access to primary schooling, there are still major policy challenges to be met. Efforts are needed to improve the quality of schools and ensure better opportunities for girls at higher levels of education, notably upper primary and secondary school.

Q.5) Do you think India should legalise abortion in India? Critically comment.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss arguments in favour and against legalising abortion in India.
Conclusion. Way forward.

Abortion in India is legal in certain circumstances under Medical Termination of Pregnancy Act. It can be performed on various grounds until 24 weeks of pregnancy. It provides women the right to choose and help in saving women's lives. Whether it should be legalised unconditionally in India needs to be analysed deeply.

Argument in favour of legalisation of abortion in India:

1. **Bodily sovereignty:** The first argument is of bodily sovereignty. Each woman has the sole right to make decisions about what happens to her body. No one should force her either to carry or terminate a pregnancy against her will. Most abortions are carried out on the grounds of safeguarding the woman's mental health.

2. **Safeguarding life:** Abortions should be done to safeguard the life of a foetus, as it would involve risk if pregnancy is carried, it might damage the foetus resulting in danger to the life of the mother.

3. **Prevent abandoning of child:** A woman who does not want to carry her pregnancy, may abandon the new born child as was seen in the past. This endangers the life of the baby and may lead to his abuse. Thus, it is better to terminate the pregnancy at an earlier stage.

4. **Right to choose:** Abortion represents a woman's right to choose and reproductive rights whether to continue her pregnancy or terminate it.

5. **Mother's life:** Legal procedures have often hindered in permitting abortion, resulting in the death of a mother or the foetus. Despite the latest techno-medical advances, the laws have remained stagnant or rather restrictive, complicated further by selective female foetus abortions.

6. **Reproductive rights:** The Supreme Court has recognised women's right to make reproductive choices and their decision to abort as a dimension of their personal liberty

(in *Mrs. X v. Union of India, 2017*) and as falling within the realm of the fundamental right to privacy (in *K.S. Puttaswamy v. Union of India, 2017*).

Argument against legalisation of abortion in India:
1. **Unsafe:** It is estimated that 15.6 million abortions take place in India every year. A significant proportion of these are expected to be unsafe. Legalising abortion would further put mother's life in danger especially in rural areas.
2. **Female foeticide:** In India there is a major problem with female foeticide. For sociological and economic reasons parents prefer to have boy babies. When parents can discover the gender of the foetus in advance, they sometimes request the termination of a pregnancy solely because the foetus is female.
3. **Unethical:** Abortion is morally wrong because it deprives the foetus of a valuable future. In a way it snatch foetus' right to life.
4. **Damages women:** Abortion because it can damage the long-term physical and emotional health of women who have an abortion.
5. **Women atrocities:** Legalising abortion may lead to forceful abortion by the husband or family of husband in want of dowry or son.

It can be concluded that although legalising abortion strengthen women's right to choose, it has much more fallouts than advantaged. Women have been oppressed since ages. Legalising abortion may further put women lives on life and lead to further atrocities.

Q.6) Discuss the need and significance of skill development among women in India. What measures have been taken by the government for the same?

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss the need and significance of skill development among women in India. Mention measures taken by the government for skill development of women.
> **Conclusion.** Way forward.

Women empowerment is one of the biggest tools for development of any country. It means freedom of women from the vicious circle of social, political, economic and gender-based discrimination. Skill development not only creates employment opportunities but also empowers them.

Need and significance of skill development among women in India:
1. **Inclusive economic growth:** India is one amongst the fastest growing economies of the world and has the second largest labour force. Women constitute 49% of the total population. Skill development of women is decisive to the economic progress of the nation.
2. **Demographic dividend:** Women in neither in education nor in labour force category is large. According to a 2018 World Bank report, the labour force participation rate among females in India was 26.97 LFPR female in 2018 in India. This must change for India to reap demographic dividend for which skill development is important.
3. **Automation:** With the advent of technology, digitization and automation, even those women who are employed in low skills and low paying jobs, are likely to lose their place in the workforce. Thus, there is a need to inculcate appropriate skills among women to make them ready to adapt to industrial changes.

4. **Gender equality:** Skill development helps in providing women with employment opportunities and thus is important for achieving gender equality and women's empowerment.

5. **Economic goals:** Equal participation of women in the Indian economy is imperative to achieve our lofty goals of becoming an economic superpower and achieve the target of $5 trillion by 2025.

Government measures for skill development of women:

Training via Training Institutes	1. Through a wide network of ITIs, spanning the country, special focus is laid on enrolment of women. There is nearly 97% increase in admissions in 2018 as compared to 2014 to reach 173,105 women trainees from 87,799. 2. 18 National Skill Training Institutes (for Women) are imparting skill training exclusively for women. 3. Further, exclusive batches to provide basic training to women have been started under the National Apprenticeship Promotion Scheme in all Centrally Funded Institutes.
Pradhan Mantri Kaushal Vikas Yojana	The flagship program strives to promote increased participation of women in the workforce through appropriate skilling and gender mainstreaming of skills.
Skill India Mission	1. Programs under the Skill India Mission are designed to not only train women in relevant skills that are sought by employers, they are also sensitive to their needs by providing safe transport, flexible schedules and childcare support. 2. Skill India has partnered with Government Initiatives like Ayushman Bharat, Swachh Bharat Mission, and Smart City Mission etc. to align skill development efforts to these national missions by ensuring a steady flow of skilled workforce.
Recognition of Prior Learning (RPL)	Under the RPL more than 4 lakh women candidates have been oriented in different skill areas, recognizing their existing skills through a formal certificate and giving them a means to earn better livelihood.
National Skill Development and Policy	1. The National Skill Development and Policy focuses on inclusive skill development with the objective of increased women participation for better economic productivity. 2. NSDC, through its training partners such as Mann Deshi Foundation, Shri Mahila Sewa Sahakari Bank Limited and Sri Sarada Math RasikBhita are working exclusively on skill development of women, especially in rural areas.
Pradhan Mantri Mahila Kaushal Kendra (PMMKK)	Recently, more than 6000 training targets have been allocated to train women in 4 PMMKKs. The crèche facility is also available at these centers so as to facilitate the new mothers to take up skill training.
Entrepreneurial Initiatives	Linkage of Skill India and Mudra Yojana has been achieved. Since, women comprise about 78% of the

	beneficiaries of Mudra Yojana, this linkage will further give boost to aspiring women entrepreneurs.
Deen Dayal Upadhyay Kaushalya Vikas Yojana (DDU-KVY)	DDU-GKY, the erstwhile Aajeevika Skills, is the skill training and placement program carried out as part of the National Rural Livelihoods Mission (NRLM). The DDU-GKY focuses on providing high quality skill training opportunities through Project Implementing Agencies (PIAs) to rural poor youth, though there is a special focus on women.

Way forward:
1. **Training policy:** There is a need to further develop training policy from a gender perspective, with an understanding of local customs and traditions.
2. **Accessibility:** Further expand training institutes mainly in the remote regions of the country and to build basic gender specific infrastructure, making ITIs more accessible, particularly for women.
3. **Private sector role:** Make the private sector also responsible for skill development in the country. By encouraging their contribution in curriculum development, provision of training and internships, and in assessment and the certification of training programmes.
4. **Removing societal biases:** It is important to identify and making efforts to change basic and nuanced socio-cultural values with a view to eliminate existing biases that women in the country face when seeking employment.
5. **Employment opportunities:** Provide employment opportunities to trainees after the completion of training to assure sustainable livelihood options.

With limited participation in the workforce, the potential of women remains untapped. Effective implementation of the envisioned skill development interventions is needed to make them key stakeholders in development.

Q.7) What is red snow? What causes red snow? Discuss various concerns over red snow in Antarctica.

Ans.

Demand of the question
Introduction. What is red snow?
Body. Discuss what causes red snow and various concerns over red snow in Antarctica.
Conclusion. Way forward.

Red snow is a natural phenomenon, which is also known as 'watermelon snow' in which snow turns red in colour naturally. It can be observed in the Arctic, the Alps and other high mountain ecosystems. Recently, snow around Ukraine's Vernadsky Research Base, located off the coast of Antarctica's northernmost peninsula has started to take on a red tinge.

Mechanism of red snow formation:
1. **Microscopic algae:** It is a phenomenon caused by Chlamydomonas nivalis, a species of green algae containing a secondary red carotenoid pigment in addition to chlorophyll which give red tint to the snow.
2. **Natural phenomenon:** The microscopic Chlamydomonas nivalis algae produce the tinted sunscreen to keep themselves warm.

3. **Cryophilic:** Unlike most species of fresh-water algae, it is cryophilic (cold-loving) and thrives in freezing water.
4. **Protective mechanism:** This bright red carotenoid pigment, protects the chloroplast from intense visible and also ultraviolet radiation, as well as absorbing heat, which provides the algae with liquid water as the snow melts around it.

Various concerns over red snow in Antarctica:
1. **Faster melting:** The intensity of the redness increases with the dense presence of the algae. The darker tinge leads to more absorption of heat by the snow. Subsequently, the ice melts faster.
2. **Albedo:** Further, these algae change the snow's albedo (the amount of light or radiation the snow surface is able to reflect back). Changes in albedo lead to more melting. In the melting of snow in the Arctic, the key drivers have been snow and ice albedo.
3. **Floods:** Due to rise in melting there is associated risk of flooding of the plains and adjacent region of polar areas.
4. **Accelerate melting rate:** It has been calculated that a teaspoon of melted snow contains a million or more cells. The algae sometimes accumulate in "sun cups", which are shallow depressions in the snow. The carotenoid pigment absorbs heat and as a result it deepens the sun cups, and accelerates the melting rate of glaciers and snowbanks.
5. **Global warming:** As the snow melts more, it releases stored carbon in the glaciers and leads to further warming of the atmosphere.

A study of German Research Center for Geosciences, examines summer snow microbes (like *C. nivalis*) and found that the algae are so global, that the algae's effect on melting snow and ice needs to be included in climate models. Many suggest that future climate simulations should account for the effects of algae when making predictions about the rate of melting ice and contributions to climate change.

Q.8) Increasing the number of women recruits alone will not be enough; institutional changes are also important. Comment.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss the need of increasing the number of women recruits and institutional changes required in police.
> **Conclusion.** Way forward.

National Crime Record Bureau report shows stark increase in violence against women in India. According to it, crimes against women have more than doubled over the past 10 years. The gender sensitivity deficit in the police functioning in India is one of the causes. There is a culture of masculinity in police itself where the acceptance of both the woman as victim and as a woman per se is counter intuitive. This needs to be changed.

Need of increasing the number of women recruits in police:
1. **Less policewomen:** According to statistics, policewomen constitute only 7.13% (5,356) of 75,169 police personnel in Delhi. Of these women, 90% are constables, while less than 1% hold supervisory positions. The numbers are low despite 20 states having reservations for women in the police.

2. **State variations:** Despite the Centre targeting 33% of women in police forces, only four states and four UTs had over 10% of women in police forces. In New Delhi, just 7% of police officers are women, and they are frequently given inconsequential posts that don't involve patrol duty, according to the Times of India.
3. **Involvement in crime:** In a response to an RTI query, it was revealed that approximately 100 policeman were found to be involved in rape in the past 10 years. To make matters worse, it was recently reported that a sub-inspector of an area (Saket) was involved in rape on the pretext of marriage.
4. **Reporting:** Because of several social factors, women are afraid to report crime. In view of the above, there is need for police and judiciary to act in a gender sensitive manner in all cases relating to violence against women. Women generally feel more comfortable about approaching police manned by women, rather than regular police stations, especially for women-related problems.
5. **Indifferent attitude:** Indifferent police and judiciary response and fear of police deny women the access to justice. Women's presence in police and judiciary need to be increased to make justice less fearful and less differential.
6. **Compassionate:** Women are compassionate, emotional and nonviolent in general. These traits can enhance the quality and efficiency of a department as they are quick to respond to crimes against women and children. They can be helpful in creating an excellent work environment within the police organization.

Although increasing policewomen is must, there are issues faced by policewomen and need to instil some institutional changes in police to cater to the needs of women in the society.

Issues faced by women in police force:
1. **Reservation policy:** While States adopt the reservation policy, they are very selective about its implementation. Very few States apply reservation for women at all the entry points (constable, sub-inspector, and deputy superintendent of police levels) or to all posts at each level.
2. **Working challenges:** Frequent inter-district transfers and disallowing postings in home districts for specified periods of time coupled with poor childcare support systems and lack of adequate facilities and infrastructure present distinct difficulties for women.
3. **Disparity:** There is huge disparity in the representation of women across ranks. There are far fewer women at the gazetted ranks at the State level than those at the constabulary level. While this is not a negative in itself, in the absence of institutional support, women remain in large numbers at the bottom of the ladder without moving up.
4. **Sexual harassment:** Sexual harassment at the workplace that policewomen suffer is not adequately acknowledged.
5. **Masculinity:** There is also a lack of proper awareness of the prevailing gender inequalities among police officers. Even if there is awareness, the cult of masculinity prevailing in the police organizations does not easily permit a change in the attitude and behaviour of male police personnel toward women.

Institutional changes required in police:
1. **Gender sensitisation:** It is for police to act as an agent of change and engender gender sensitivity starting with their own ranks.
2. **Uniform reservation policy:** There is a need to adopt a uniform reservation policy among all states with reservation in promotion.

3. **Better response:** In spite of growing crime, the police response to violence against women and judiciary apathy continues to be grossly inappropriate. Police must work to change this attitude and work towards better response in general.
4. **Women specific institutions:** There is a need to create women police stations and more women should be taken as judges.
5. **Separate wing:** A separate wing of police may be opened for dealing with women's issues, in all police stations and personnel of this wing should be exempted from other duties.

Thus, increasing the number of recruits alone will not be enough. Institutional changes embedded in principles of diversity, inclusion and equality of opportunities are as important. Otherwise, discrimination and exclusion will continue to persist even as the numbers of women increase. It is about time we bring a change in the society and show the much deserved respect to an Indian policewoman. There is a need to involve more women as it would help in ushering an era of women participation and gender sensitisation across the two institutions of justice.

Q.9) Discuss whether death penalty is a solution towards ending violence against women or not.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss if Death penalty is a solution towards ending violence against women or not.
> **Conclusion.** Way forward.

A nationwide outrage over the series of incidents of sexual assaults of women has led to increased voice for death penalty against the criminals. Recently, Nirbhaya gang rape convicts were hanged. Since independence, 52 people have been executed in India till date according to Government of India Statistics. Whether death penalty provides justice or act as deterrence against crime needs proper examination.

Arguments in favour of death penalty towards ending violence against women:
1. **Retributive justice:** Retributive justice honours the victim, helps console grieving families and guarantees that the perpetrator never has an opportunity to cause future tragedy.
2. **Rarest of rare case:** The judgment of the Supreme Court of India in Bachan Singh vs. State of Punjab (1980) held that Death penalty in India can be given in rarest of rare cases like rapes.
3. **Deterrent:** The idea of deterrence relies on fact that severe punishments like death penalty will deter the larger public from committing the crime.
4. **Punishment to guilty:** A guilty must be punished with respect to the severity of the crime. Murder and rape are very severe crimes, death penalty must be imposed on such crimes.
5. **Prevents repetitive offenders:** It prevents recommitting of crimes by repetitive offenders. Convicts of brutal rape and grotesque crimes are capable of repeating the crime after their prison term. Terrorists like Masood Azhar, who had to be released in a flight hijack situation went on to become the mastermind behind the terror attack against Parliament of India in 2001.

Arguments against death penalty for violence against women:

1. **Band-Aid solution:** It is more of a Band-Aid solution and populist approach – instead of identifying the cause and working towards a more effective solution.
2. **Reformation:** There are 3 major objectives of punishment i.e., retribution, reformation, and deterrence. The theory of reformation is based on the obligation of society to reform a convicted person. But this objective will be entirely defeated in case of death penalty since the offender does not continue to live.
3. **Patriarchy:** At the heart of sexual violence against women and children lies the complex issue of a mindset of patriarchy and a culture of misplaced power dynamics that India and its law-makers have been unwilling to tackle at a systemic level.
4. **Retributive in nature:** While capital punishment might provide the illusion of justice, it is purely retributive in its approach and does not look at offering any preventive solutions to tackle issues of sexual violence.
5. **Hostility:** With the introduction of the death penalty, the possibility of the culprit turning hostile to the victim is very high. It reduces the chances of survival of the victim. For example, the death penalty would motivate rapists to do more harm to the victims.
6. **Wrong execution:** As the death sentence is irrevocable, an innocent person can also be wrongly executed. There is no uniform and fair principle on the execution of convicts on death row.
7. **Non-effective:** There is no sufficient evidence to prove that the death penalty is any more effective in reducing crime than imprisonment. Notably, Brutal rapes in India have not decreased despite the enforcement of the Criminal law (Amendment) Act, 2013 which prescribes the death penalty and life imprisonment for sexual assaults that result in the victim dead or being reduced to a persistent vegetative state.

Death penalty is not a permanent solution. India's growing rape culture is best reversed by improving conviction rates via reforms in the police and judicial systems, and by increasing measures to rehabilitate and empower rape survivors. The government should allocate more resources towards establishing fast-track courts, more one-stop crisis centres, proper witness protection, more expansive compensation for rape survivors and the overhaul of current child protection services.

Q.10) Discuss various features of Indian secularism. Also, mention various threats to secular democracy in India.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss various features of Indian secularism. Mention various threats to secular democracy in India.
Conclusion. Way forward.

Secularism is the principle that makes a state neutral in the matter of religion and hence does not uphold any particular religion as the state religion, for example, USA and India. Principled distance from religion is the essence of Indian secularism. The 42nd amendment of the Constitution of India, amended the Preamble of the Constitution declaring India as a secular nation. In India secularism means the state views all religions as equal.

Various features of Indian concept of secularism:

1. **Positive concept:** Indian Constitution embodies the positive concept of secularism, i.e. giving equal respect to all religions or protecting all religions equally. The Western concept of secularism connotes a complete separation between the religion and the state.

2. **Basic feature of Indian constitution:** Secularism is one of the basic features of the Constitution. In a landmark judgement in the Bommai case (1994), the Supreme Court upheld that secularism is a 'basic feature' of the Constitution. Hence, a state government pursuing anti-secular politics is liable to action under Article 356.

3. **Concurrent power:** The 7th schedule of Indian constitution places religious institutions, charities and trusts into concurrent List, which means that both the central government of India and various state governments in India can make their own laws about religious institutions, charities and trusts.

4. **Equality:** The Constitution of India does not uphold any particular religion as the official religion of the Indian State. It prevents the State from discriminating against any citizen on the grounds of religion (Article 15).

5. **Focus on Harmony:** Indian secularism focuses on harmony among all religions rather than tight separation between state and religion. It allows the state to prevent conflicts on the basis of religion through timely interventions which would have been disastrous for the state if not controlled.

6. **Room for religious reforms:** Indian secularism is broader in a sense that it allows state intervention to help reform various evils and superstitions. E.g. Many rules in Karnataka allowed the government to curb superstitions that were against human rights.

7. **Protect rights over religion:** By accepting community-based rights for religious minorities, the state can protect the rights of Indian citizens. All persons are equally entitled to freedom of conscience and the right to freely profess, practice and propagate any religion (Article 25).

8. **Tolerance:** By acceptance of all religions rather than tight separation it reflects tolerant attitude of state and its people.

9. **Liberal:** Many religiously sanctioned social practices are oppressive by virtue of their illiberal and non-egalitarian character and deny a life of dignity and self-respect. Therefore, Indian secularism helps liberal and egalitarian principles by reforming such practices through state intervention.
   E.g. recent Triple Talaq Act.

Various threats to secular democracy in India:

1. **Communalism:** The growing communalism has greatly hampered the growth of genuine secularism in India. Communalism of the community poses a threat to secular democracy.

2. **Politics and Religion:** The political parties in India have tended to use religion and caste factors for the promotion of their political interests and thus greatly undermined the secular values.

3. **Just Economic Order:** The failure of the state to evolve a just economic order and eliminate poverty also gave a serious set-back to secularism. The common masses suffering from deprivation and poverty could not develop any faith in the polity which failed to provide them basic necessities and consequently did not attach much importance to secular values.

4. **Limited interpretation of secularism:** Due to the limited interpretation of secularism, as being confined to State policy only, the religious identities and other sub-cultural differences of Indian citizens have continued to remain strong. In societies where such

distinctions are emphasized, groups and communities remain distanced from one another.

5. **Minority group perceptions:** Apart from education and jobs, prejudice and discrimination are perceived as operating in the matter of intergroup violence and conflict. There is now ample evidence to show that at times the administrative machinery of the State does not operate impartially at the time of communal riots.

6. **The Defective educational system:** The defective educational system which has encouraged the people to think in terms of groups and communities, has also failed to inculcate secular ideas in the minds of young students and promote a feeling of mutual give and take.

7. **Religious intolerance:** Religious intolerance is on rise. Recent Delhi riots are such an example of religious intolerance based on religion.

The essence of secularism lies in accommodation of varied social groups and overcoming tendencies that destructs the social fabric of any society. In India where differences exist in terms of different religions and cultures secularism plays a crucial role. It is evident that Indian secularism since ancient
India embraced many religions, sects, communities showing tolerance and true sense of accommodation, leading to a tolerant nation with social cohesion.

Q.11) What factors are responsible for the origin and modification of ocean currents? Explain how ocean current currents affect the climate of surrounding regions.

Ans.

Demand of the question
Introduction. Contextual introduction. **Body.** Discuss various factors are responsible for the origin and modification of ocean currents. Explain how ocean current currents affect the climate of surrounding regions. **Conclusion.** Way forward.

Ocean currents represent a regular volume of water in a definite path and direction. They are like river flow in oceans. They are the most important ocean movements because of their influence on climatology of various regions.

Factors responsible for the origin and modifications of ocean currents:

Primary forces	Secondary forces
Insolation: Heating by solar energy causes the water to expand. This causes a very slight gradient and water tends to flow down the slope causing ocean current. The flow is normally from east to west.	**Difference of density and salinity:** It is attributed to density differences in different layers of ocean waters. Heavier water sinks and causes the overlying surface water to move in its space. This gives rise to global oceanic circulation.
Planetary winds: Planetary winds are the principal cause of the origin of ocean currents. Such winds drive surface water along with them.	**Coastline shape:** The shape of coastline is also an important factor that affects the current in the oceans.
Earth rotation and gravity: The rotation of the Earth causes Coriolis force which affects the direction of movement of water and leads to formation of ocean currents. Gravity tends to pull the water down to	**Other factors:** Accumulation of water on east coasts leads to gravity induced movements down the slope. Wind, Coast line and inundation, large river discharge, presence of partially enclosed seas also

pile and create gradient variation.	modify ocean currents.
Coriolis force: This force intervenes and causes the water to move to the right in the Northern Hemisphere and to the left in the Southern Hemisphere. These produce large circular currents in all the Ocean basins. One such circular current is in the Sargasso Sea.	**Temperature difference:** Cold-water ocean currents occur when the cold water at the poles sinks and slowly moves towards the equator. Warm-water currents travel out from the equator along the surface, flowing towards the poles to replace the sinking cold water.

Effect of ocean currents on the climate of surrounding regions:

1. **Local Climate:** Winds blowing over a warm current become warm and at the same time, pick up moisture. Thus, the wind that reaches the land brings down the temperature and causes heavy rainfall. The western coast of Europe is an example of such a region.

2. **Navigation:** By using predicted, real-time and short-term forecasted currents, ships can be safely docked and undocked, maneuvered in confined waterways and safely navigate through coastal waters. Lack of this knowledge can lead to collisions and delayed arrivals.

3. **Fishing:** Places where cold and warm currents meet are ideal for the growth of plankton which is food for fish. These regions thus have developed into major fishing grounds of the world. Newfoundland on the eastern coast of North America is the meeting point of the Gulf Stream and the Labrador Current. It is one of the major fishing centers of the world.

4. **Precipitation:** Warm ocean currents bring rain to coastal areas and even interiors. For example, summer rainfall in British type of climate.

5. **Desert Formation:** Cold ocean currents have a direct effect on desert formation in west coast regions of the tropical and subtropical continents. E.g. Peru Current, also called Humboldt Current, is a cold-water current of the southeast Pacific Ocean and a primary reason for the aridity of Atacama Desert (driest desert of the world).

6. **Tropical cyclones:** They pile up warm waters in tropics and this warm water is the major force behind tropical cyclones.

7. **Moderating effect:** They are responsible for moderate temperatures at coasts. For example, the North Atlantic Drift brings warmth to England, Canary cold current brings a cooling effect to Spain, Portugal etc.

Although there are a number of factors which impact the formation of ocean currents, the ocean current themselves play a major role in determining regional as well as global climate. Without currents in the ocean, regional temperatures would be more extreme-super hot at the equator and frigid toward the poles and much less of Earth's land would be habitable.

General Studies 2

Q.1) What do you understand by the term 'right to due process'? Discuss its significance in a democracy.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss how significant is the right to due process in a democracy? Mention due process and procedural established by law in Indian context.
Conclusion. Way forward.

The term due process embodies society's basic notions of legal fairness and means that legal procedures are reasonable, fair and just. It is a requirement that legal matters be resolved according to established rules and principles, and that individuals be treated fairly. The rights to due process include fair trial, presumption of innocence and independence and impartiality of the judiciary.

Significance of right to due process in a democracy:
1. **Balance power:** Due process balances the power of law of the land. When a government harms a person without following the exact course of the law, this constitutes a due process violation, which offends the rule of law.
2. **Establish procedural justice:** Analogous to the concepts of natural justice, due process ensures procedural justice. The interpretation of due process is expressed as a command that the government must not be unfair to the people.
3. **Prevent abuse:** The rights to due process place limitations on laws and legal proceedings, in order to guarantee fundamental justice. Due process of law is a constitutional guarantee that prevents governments from impacting citizens in an abusive way.
4. **Establish fairness of law:** The due process clause, gives the judiciary the power to question the law made by the legislature on certain grounds. That ground is whether that law is in keeping with certain fundamental principles relating to the rights of the individual.
5. **Guarantee fairness:** Due process is to guarantee a fair trial both in procedure as well as in substance. The procedure should be in accordance with law and should be appealable to the conscience of the democracy.
6. **Strengthen rights:** Under due process, it is the requirement that the state must respect all of the rights that are owed to a person and laws that states enact must confirm to the laws of the land like fairness, fundamental rights, liberty etc.

Due process and Indian procedure established by law: The due process doctrine is followed in the United States of America, while the Indian constitutional framers had left that out.
1. **Article 21:** The term procedure established by law is used directly in the Indian constitution. Article 21 of the Constitution provides that 'no person shall be deprived of his life or personal liberty except according to procedure established by law'.
2. **Just and reasonable:** The concept of 'procedure established by law' under Article 21 is required to be just, fair and reasonable because of the interactions of Articles 14, 19 and 21.
3. **Maneka Gandhi judgement:** In Maneka Gandhi vs Union of India case, SC held that 'procedure established by law' within the meaning of Article 21 must be right, just and

fair and not arbitrary or oppressive otherwise. Thus, the procedure established by law has acquired the same significance in India as the 'due process of law' clause in America.

The Constitution guarantees certain rights to the citizens of this country. It is the duty of both legislative and judiciary to establish rule of law and ensure that a person enjoys fundamental rights as established under the constitution. For a state it is necessary to ensure the right to due process and prevent abuse to its citizens.

Q.2) Discuss India's policy towards Afghanistan. Why is peace in Afghanistan important for India?

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss India's policy towards Afghanistan. How is peace in Afghanistan important for India?
Conclusion. Way forward.

India and Afghanistan have a strong relationship based on historical and cultural links. The relationship is not limited to the governments, but has its foundations in the historical contacts and exchanges between the people. The strategic location of Afghanistan as a connection to Central Asia and West Asia is important for Indian efforts to establish stronger and more direct commercial and political relations with Central Asia.

India's policy towards Afghanistan:
1. **Re-building indigenous Afghan capacity:** India policy towards Afghanistan is to help rebuild Afghanistan's infrastructure and institutions, education and technical assistance in order to rebuild indigenous Afghan capacity in different areas.
2. **Peace and reconciliation:** India is encouraging an Afghan-led, Afghan-owned broad-based and inclusive process of peace and reconciliation and advocating the need for a sustained and long-term commitment to Afghanistan by the international community.
3. **Reconstruction and development:** India has inaugurated the Afghan-India friendship dam, earlier known as Salma Dam. It highlights India's continued commitment to Afghanistan's reconstruction and development. India agreed to implement some important new projects such as the Shahtoot Dam and drinking water project for Kabul.
4. **Strengthening democratic institutions in Afghanistan:** India has focused on strengthening democratic institutions in Afghanistan through various efforts like inaugurating the newly built Afghan Parliament. India also announced additional USD 1 billion assistance for capability building in spheres such as education, health, agriculture, skill development, women's empowerment, energy, infrastructure for the same.
5. **Soft power:** India is focusing on soft power methods that involve winning hearts and minds and strengthening its cultural and political relations with Afghanistan. India's contribution to the development of cricket in Afghanistan is such an example.
6. **No military intervention:** India is not in favour of using the military in Afghanistan. It was reflected in the recent rejection of the USA proposal to India to intervene militarily. India is in favour of no boots in the Afghanistan.
7. **Mutual sharing and solidarity:** The development partnership of India-Afghanistan is based on the principles of mutual sharing and solidarity which is branched into five

founding modalities of development cooperation that includes capacity building, trade and investment, technology cooperation and others.

Significance of peace in Afghanistan:

1. **Natural resources:** Afghanistan is known for its geo-strategic importance and abundance of natural resources. Afghanistan has an estimated 1 trillion USD of untapped resources according to a joint report of The Pentagon and US Geological Survey. Stable Afghanistan with better relations means more economic development in the region and of India.

2. **Security:** A stable Afghanistan is crucial for regional and domestic security and stability for India. With Afghanistan becoming a centre of radical ideology and violence again, such a development would affect Pakistan and would inevitably reach India.

3. **Connectivity:** The most important role of Afghanistan is always considered as India's gateway to Central Asia. It implies continental outreach. For instance, Connectivity with Afghanistan and further with Central Asia have been primarily the reasons for India's engagement with Iran to develop Chabahar port.

4. **Strengthening regional foothold:** Increasing strategic engagements with Afghanistan combination is beneficial for India in strengthening a foothold in the region. For example, India's relations with Iran at present are dominated by oil. Diversification of engagements would strengthen India's relations with Iran and other countries.

5. **Energy ambitions:** To address its energy needs to sustain its economic growth, pipelines from Iran and Central Asia would be extremely important. India sees Afghanistan as an essential component of the TAPI (Turkmenistan-Afghanistan-Pakistan-India) pipeline. An unstable Afghanistan would hurt the construction of this pipeline and the subsequent flow of gas.

6. **Trade:** In case of trade, Afghanistan can help India export its products to Europe, gaining foreign exchange. The railway line from Chabahar to Zahedan in Afghanistan envisages to connect New Delhi with Iran, Afghanistan, Central Asia and Europe.

The importance of Afghanistan is multi-dimensional. Also, India understands that a peaceful Afghanistan will help in a peaceful India and South Asia in a world which is threatening to break into a war anytime. A stable Afghanistan is in everyone's interests and the regional security is intrinsically enmeshed with it.

Q.3) India needs to engage with its neighbours for the realisation of its global ambitions. Comment.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss how peaceful relations with its neighbours is important for the realisation of India's global ambitions.
Conclusion. Way forward.

India shares its geographical boundary with Afghanistan, Bhutan, Bangladesh, Maldives, Pakistan, Nepal and Sri Lanka. Far more than east, south-east Asia or west Asia, it is India's immediate neighbourhood that directly impacts it geopolitically, geo-strategically and economically. Whatever be the ambition of India's reach elsewhere, India's principal focus will need to be on its neighbourhood. The neighbourhood first policy actively focuses on improving ties with India's immediate neighbours.

Significance of India's Neighbourhood for its global ambitions:

1. **Economy:** Trade and economic cooperation would become the linchpin of regional progress. With India as the economic hub, the smaller neighbours would constitute a great role in India's economic rise. For instance, a good relation with its neighbour is important for India to become an export centre.

2. **Security:** Priority is to improve the relations with immediate neighbours as peace and tranquillity in South Asia is essential for realising development agenda. It is important for India to work with its neighbour especially Pakistan to stop terrorism and risks to its citizens.

3. **Working with China:** The importance of India-China relations in India's overall foreign policy cannot be overstated. India's China policy is profoundly consequential for the Indian government. It entails opportunities as well as risks with implications across India's global status and effectiveness in international institutions, geopolitical security and economic transformation.

4. **Connectivity:** India's connectivity to other continents and countries goes through its neighbour. Thus it is important to build infrastructure in its neighbour. For instance, Afghanistan is key to connecting India to Central Asia. To ensure a free flow of resources, energy, goods, labour, and information across borders, India's neighbourhood is critical.

5. **International cooperation:** It is important for India to get support from its neighbour at international platforms. A peaceful relations with its neighbourhood would enhance India's image and will attract investment in the region. For instance, it is important for India's ambitions for a permanent seat at the UNSC

6. **Environmental cooperation:** India is actively working towards reducing its emissions and building green technology. For instance, India has established an International solar alliance and is emerging as a hub for renewable technologies and energy. India's neighbour can be a potential market for this green technology and energy which would enhance India's efforts to reduce emission but will also contribute economically.

7. **Countering China:** China's influence in the region is increasing more than ever with initiatives like CPEC, strings of pearls etc. To tackle its influence India needs to effectively engage and work with its neighbours.

Various challenges:

1. **Relation with Pakistan:** Relation with Pakistan, remains India's biggest diplomatic and security challenge. India's challenge is to manage relationships with a state which, openly, uses terror as an instrument of state policy and has fractured, multiple power centres.

2. **Unstable Afghanistan:** Afghanistan remains a challenge too. Fragile within and facing state- sponsored external threat from Pakistan, a possible state collapse would spawn jihadist terrorism in all directions from which India is unlikely to remain immune. Indian diplomacy is active in international efforts to stabilise the country.

3. **China:** China is another big challenge that is increasing its presence around India. The relationship is marked with suspicion over China's policy towards Pakistan, including the construction of the Gwadar port and the China-Pakistan economic corridor running through POK.

4. **Anti-Indian sentiments:** Anti-Indian sentiments are getting rooted in the minds of people of region due to perceived notion of India's big brother attitude and its economic dependence to India. Further, domestic politics and various political parties of neighbouring countries invariably have pro and anti india stance that cater to their constituency.

Way forward:
1. **Transportation:** As the largest country, India should be leading to establish cross-border transport and communication links.
2. **Cooperation:** Sustained and respectful leader-level diplomacy can open opportunities for cooperation.
3. **Economic assistance:** Carefully targeted economic and financial assistance, though costly, and sometimes a consequence of China-related indebtedness can pay diplomatic dividends.
4. **Strengthening Markets:** India should work with its neighbour in strengthening their markets and its own infrastructure to its neighbours.
5. **Dialogue:** India must ensure its neighbour of continuous support for their development. Efforts must be made to strengthen Indian exports in the region.
6. **Soft power:** India's soft power and common culture provide an opportunity for India to strengthen its cultural roots further in the region.

India's immediate neighbourhood directly impacts it geopolitically, geo-strategically and geo-economically because of its vicinity. Thus, working with them is important for India to rise as a superpower. Emphasis must be on sustainable and inclusive development. India's neighbourhood first policy, SAGAR initiative etc. are critical for this.

Q.4) Discuss the role of tribunals in delivering justice. Also, critically examine the 'Tribunal, Appellate Tribunal and other Authorities, Rules, 2020'.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the role of tribunals in delivering justice. Mention various provisions under the Tribunal, Appellate Tribunal and other Authorities, Rules, 2020 and related issues.
Conclusion. Way forward.

Tribunal is an administrative body established for the purpose of discharging quasi-judicial duties. The original Indian Constitution did not contain provisions with respect to tribunals. The 42nd Amendment Act of 1976 added Tribunals under Article 323-A (administrative tribunals) and Article 323-B (Other tribunals). It performs a number of functions like adjudicating disputes, determining rights between contesting parties, making an administrative decision, reviewing an existing administrative decision and so forth.

Role of tribunals in delivering justice:
1. **Speedy Justice:** The core objective of the tribunal is to deliver quick and quality justice. Since the tribunal procedure is not so complex, it is easy to decide the matters quickly and efficiently.
2. **Less Expensive:** The tribunals take less time to solve the cases as compared to the ordinary courts. As a result, the expenses are reduced. On the other hand, the ordinary courts have cumbrous and slow-going, thus, making the litigation costly. Therefore, the administrative tribunals are cheaper than ordinary courts.
3. **Quality Justice:** If we consider the present scenario, the tribunals are the best and the most effective method of providing adequate and quality justice in less time. Tribunals have expert members to deal with specific subject matters e.g. NCLT has experts in tax, NGT has environmental experts etc.

4. **Reduced burden of Courts:** The system of administrative adjudication has lowered down the burden of the cases on the ordinary courts. A law commission report says that the top five central tribunals in India have taken over 3.50 lakh cases pending from judiciary.
5. **Flexibility:** The introduction of tribunals engendered flexibility and versatility in the judicial system of India. Unlike the procedures of the ordinary court which are stringent and inflexible, the administrative tribunals have a quite informal and easy-going procedure.

Tribunal, Appellate Tribunal and other Authorities, Rules, 2020 and related issues:

In the 2020 rules, by default, all committees consist of a judge, the president or chairman or chairperson of the tribunal concerned and two secretaries to the Government of India.	● Under the 2020 rules, the inclusion of the president/chairman/chairperson of the tribunal as a member in the selection committee is directly against the previous SC Judgements. ● In the 2017, Supreme Court in Rojer Mathew, barred the National Company Law Appellate Tribunal (NCLAT), the selection committee for all other tribunals was made up either entirely from personnel within or nominated by the Central government or comprised a majority of personnel from the Central government.
Now, a non-judicial member can become the president or chairman or chairperson as the case may be.	● As a non-judicial member becomes a member in the selection committee, the Supreme Court judge will be in the minority, giving primacy to the executive, which is impermissible. ● Further, in Madras Bar Association (2010), the Court explicitly held that only judges and advocates can be considered for appointment as judicial member of the tribunal and that persons from the Indian Legal Service cannot be considered for appointment as judicial member.
In the 2020 rules, the tenure of members has been increased from 3 years to 4 years.	● In Madras Bar Association (2010), the Court had held that the term of office in tribunals shall be changed to a term of 5 or 7 years. Rules have just increased to 4 years. ● Further, reiterating its previous decision in *Madras Bar Association* (2010), the Court had held that the tenure of three years for members will "preclude cultivation of adjudicatory experience and is thus injurious to the efficiency of the Tribunals".
An advocate can no longer apply to the post of judicial member of CAT, DRAT, etc.	● It eliminates the chances of bright and experienced advocates applying for the post of judicial members. ● The exclusion of advocates was first judicially noticed in the *Revenue Bar Association* (2019) wherein the Madras High Court proceeded to recommend to Parliament to reconsider this proposal.

Tribunals are meant to deliver justice. The 2020 rules may hinder this role and may harm the balance between executive and judiciary. Efforts must be made to remove the contentious provisions under the rules and allow tribunals to work efficiently

Q.5) Discuss the structure, powers and limitations of the National Human Rights Commission.
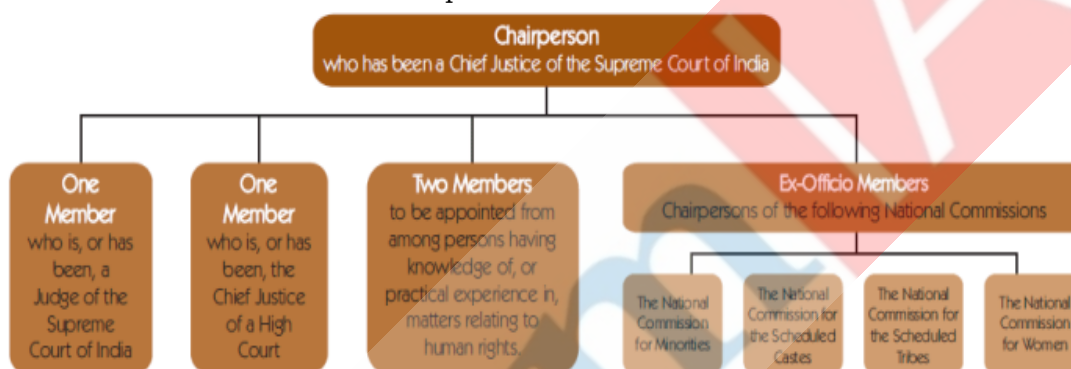
Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the structure, powers and limitations of the National Human Rights Commission.
Conclusion. Way forward.

NHRC is a statutory body, setup in 1993. The commission is the watchdog of human rights in the country. It works to protect the right to life, liberty, equality and dignity of the individual guaranteed by the Constitution or embodied in the international covenants and enforceable by courts in India.

Structure: NHRC consists of a chairperson and other members as follows:

1. **Chairperson:** A retired Chief Justice of India.
2. **One member:** Either a working or a retired judge of the Supreme Court.
3. **One member**: Either a working or a retired Chief Justice of a High Court.
4. **Two persons**: Having knowledge or practical experience in matters relating to Human Rights.
5. **Four ex-officio members:** Chairpersons of the National Commission for Scheduled Castes and Scheduled Tribes, National Commission for Minorities and National Commission for Women.

Powers and Functions:
1. **Investigation:** Investigating complaints or failure of any public official regarding the rights violation, either suo moto or after receiving a petition.
2. **Prevention and Safeguard:** Monitoring the living conditions of the inmates and to make recommendations thereon. Reviewing statutory safeguards or treaties for the protection of human rights.
3. **Research and promotion:** Promoting research and encouraging NGOs in the field of human rights. While making an inquiry into the complaints, the commission enjoys the powers of a civil court. It also studies treaties and other international instruments on human rights and make recommendations for their effective implementation.
4. **Intervention:** It intervene in any proceeding involving any allegation of violation of human rights pending before a court with the approval of such court.
5. **Human rights:** NHRC review the factors, including acts of terrorism that inhibit the enjoyment of human rights and recommend appropriate remedial measures.

6. **Awareness:** NHRC spread human rights literacy among various sections of society and promote awareness of the safeguards available for the protection of these rights through publications, the media, seminars and other available means.
7. **Working with NGOs:** It encourages the efforts of non-governmental organisations and institutions working in the field of human rights.

Limitations:
1. **Only a recommendatory body**: NHRC can only make recommendations, without the power to enforce decisions. This lack of authority to ensure compliance can lead to outright rejection of its decision too.
2. **Investigation**: It does not have independent investigative machinery. Under the Protection of Human Rights Act, 1993, human rights commissions cannot investigate an event if the complaint was made more than one year after the incident. Therefore, a large number of genuine grievances go unaddressed.
3. **Ceremonial body:** It is often viewed as a post-retirement destination for judges, police officers and bureaucrats with political clout. Bureaucratic functioning, inadequacy of funds also hamper the working of the commission.
4. **Incapacity to award relief**: It can only ask the authority to approach the higher Courts to provide relief to the victims. The concerned authority has to implement its recommendations within one month or communicate reasons for not complying.
5. **Armed forces**: Commission can't investigate the violation in case of armed forces and has to rely on the report of the Centre.

Way forward:
1. **More powers**: Its decisions should be made enforceable by the government. The efficacy of commissions will be greatly enhanced if their decisions are made enforceable by the government.
2. **Armed forces**: The definition should be restricted to only army, navy, and air force. Further, even in these cases the Commission should be allowed to independently investigate cases of violation of rights.
3. **Commission's membership**: Members of NHRCs should include civil society, human rights activists etc. rather than ex-bureaucrats.
4. **Amending law**: Misuse of laws by the law enforcing agencies is often the root cause of human right violations. So, the weakness of laws should be removed and those laws should be amended or repealed, if they run contrary to human rights.
5. **Independent Staff**: NHRC should have its independent investigating staff recruited by itself, rather than present practice of deputation.

The situation of persistent human rights violations across the country presents manifold challenges. There is a need to improve and strengthen the human rights situation. It is important to empower NHRC to make it work more efficiently and independently.

Q.6) Discuss the need and significance of police reforms in the recent context of rise in crime.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss various Issues related to police forces in India. Mention various committees related to police reforms.
Conclusion. Way forward.

The past decade has witnessed a rise in crime statistics in India. The 2018 statistics released by the National Crime Records Bureau (NCRB) reveals a 1.3% increase in crime. With the changing world, police and law and order challenges are increasing day by day. Change in nature of crime with threats of cyber-crime, suicide bombings, and outdated police force need modernisation. More trained staff and new technological investigating methods are needed for the hour.

Need and significance of police reforms:
1. **Low police-to-population ratio:** The global average ratio of police-population is 270 to 100,000, where it's 120 in India. With far less police –ill-equipped and most of them posted to protect the political representatives, people of India are the least secured people on the globe.
2. **Corruption:** In 2016, the vigilance department had conducted 55% more inquiries against its men. A Delhi Police survey found 34% of the cops to be corrupt in 2015, down from 66% in 2014.
3. **Changing nature of crime**: The recent social and technological changes fuelled by the internet and the new social media are fast changing the nature, intensity and the reach of crime leading to unprecedented lawlessness and frightening dimensions of global terrorism.
4. **Police misconduct:** The lack of effective accountability mechanisms and periodic review of performance has misplaced the public's confidence in the police. Recent attack on police by mob indicates citizens losing trust in police.
5. **Lack of technological capabilities:** One of the reasons for low conviction rates in India is poor quality of investigation by police. Police lack modern technological capabilities necessary to perform quality investigations.
6. **Insensitive:** Representation of women and depressed caste is low which makes them insensitive towards them. Escalating violence resulting from caste conflicts including the most recent Dalit uprising, farmers woes across the country.
7. **Overburdened:** Apart from the core function of maintaining law and order, police personnel carry out various other functions such as traffic management, disaster rescue and removal of encroachments. These extra obligations lead to overburdening of the police force which have negative consequences on their efficiency and performance.

Various committees on police reforms:

Gore committee, 1971-73	The main thrust of the Committee's recommendations was towards enlarging the content of police training from law and order and crime prevention to a greater sensitivity and understanding of human behaviour.
National police commission, 1977	Its major recommendations were centred on the problem of insulating the police from illegitimate political and bureaucratic interference.
Padmanabhaiah Committee	In 2000, the Padmanabhaiah Committee on Police Reforms was constituted to study, inter alia, recruitment procedures for the police force, training, duties and responsibilities, police officers' behaviour, police investigations and prosecution.
Soli Sorabjee Committee	The Police Act Drafting Committee (PADC or Soli Sorabjee Committee) drafted a new model police bill to replace the colonial 1861 Police Act.
2ⁿᵈ ARC	The ARC recommended separation of crime investigation from other police functions i.e. maintenance of law and

	order, establishment of state police boards, welfare and grievances redressal mechanisms for police personnel.
Supreme Court guidelines	The 2006 verdict of the Supreme Court in the *Prakash Singh vs Union of India case* was the landmark in the fight for police reforms in India. The Court provide following directives to kick-start reforms: ● Constitute a State Security Commission (SSC) to ensure that the state government does not exercise unwarranted influence or pressure on the police. ● Separate the investigation and law and order functions of the police. ● Set up a Police Establishment Board (PEB) to decide transfers, postings, promotions and other service related matters of police. ● Set up a Police Complaints Authority (PCA) at state level to inquire into public complaints against police officers of above the rank of Deputy Superintendent of Police. ● Set up a National Security Commission (NSC) at the union level to prepare a panel for selection and placement of Chiefs of the Central Police Organizations (CPO) with a minimum tenure of two years.
NITI Aayog	1. **State level legislative reforms:** States should be encouraged, with fiscal incentives, to introduce 'The Model Police Act of 2015' as it modernizes the mandate of the police. 2. **Administrative and operational reform:** ● A Task Force must be created under the MHA to identify non-core functions that can be outsourced. ● The states should be encouraged to ensure that the representation of women in the police force is increased. ● India should launch a common nation-wide contact for attending to urgent security needs of the citizens. ● It also suggested moving police as well as public order to the Concurrent List.

Way forward:
1. **Strengthening Criminal Justice System:** There is an urgent need to strengthen our Criminal Justice System and our grassroots level policing institutions to prepare our police to deal with the present and emerging challenges and strengthen its investigative capabilities and emergency response infrastructure.
2. **Focusing lower-level officers:** The overall functioning of lower-level officers can be boosted by better training, better pay and allowances and by creating a system that rewards initiative and positive action instead of negative behaviour.
3. **Independent Complaints Authority:** There is a need to have an independent complaints authority to inquire into cases of police misconduct. States should have specialised investigation units within the police force for better investigation of crimes.

4. **Gender sensitive:** Police should be made more gender sensitive. 33% women reservation in police should be implemented
5. **Political will:** There is a need for broader political will about the need for police reform. Some states like Kerala and Telangana have tried to take the process forward.

State police forces are primarily in charge of local issues such as crime prevention and investigation, and maintaining law and order. Police forces need to adopt modern methods like forensics, data analysis etc. to ensure timely justice.

Q.7) What are Lok Adalats? Why were they established? Discuss the role of Lok Adalats and their limitations.

Ans.

Demand of the question
Introduction. What are Lok Adalats?
Body. Discuss the reason for their establishment. What are their functions and limitations?
Conclusion. Way forward.

Lok Adalat (People's Court) is one of the alternative dispute resolution mechanisms, where the cases or disputes which are pending in a court or which are at pre-litigation stage are settled in an amicable manner. It is a statutory body under the Legal Services Authorities Act, 1987. This system is based on Gandhian principles. Lok Adalats serve very crucial functions in India due to many factors like pending cases, illiteracy, poverty, high vacancy in courts etc.

Reason for establishment of Lok Adalats:
1. **Equal justice and free legal aid:** Article 39A of the Constitution states that citizens of India are entitled to equal justice and free legal aid. Hence, the Parliament enacted the Legal Services Authorities Act, 1987 to create national, state and district level authorities to establish Lok Adalats.
2. **Speedy trial of the disputes:** The basic features of Lok Adalat are the procedural flexibility and speedy trial of the disputes. There is no strict application of procedural laws like the Civil Procedure Code and the Evidence Act while assessing the claim by Lok Adalat.
3. **Reducing backlog:** The other reason was to clear the massive backlog of pending cases in the Indian judicial system as well as to bring speedy justice to all. The matters in Lok Adalat do not linger on for years but are settled within a day.

Role of Lok Adalats:
1. **Dispute settlement:** To hear and settle long pending cases, which are disposed through compromise and settlement. It can hear both civil and criminal cases.
2. **Justice:** The aim of Lok Adalats is to bring justice to poor and underprivileged people of India. It ensures that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities.
3. **Alternate dispute resolution:** The system of Lok Adalat, which is an innovative mechanism for alternate dispute resolution, has proved effective for resolving disputes in a spirit of conciliation outside the courts.
4. **Reducing litigation:** It can take up pending cases as well as those that are in pre litigation stage. The verdict given by the Lok Adalat is final and binding, and there is no provision for appeal. But the party is free to initiate a new litigation in court.

Limitations of Lok Adalats:

1. **Complexity:** The biggest disadvantage with Lok Adalats is that repeated sittings at short intervals with the same judge are almost not possible which breaks the continuity of the deliberations.
2. **Lack of confidentiality:** Lok Adalat proceedings are held in the open court and any member of public may witness these proceedings. Thus, the element of confidentiality is also lacking. This also impedes the process of exploration of various resolution options and ultimately the success rate in matters where parties desire confidentiality.
3. **Forced injustice:** Lok Adalats are fora where voluntary efforts intended to bring about settlement of disputes between the parties are made through conciliatory and persuasive efforts. Many times victims are forced to settle at lower compensation.
4. **Diminished party autonomy:** It cannot be said that the parties remain in absolute control of the proceedings in contradistinction to what happens in mediation.
5. **Needs consent of both the parties:** The most important factor to be considered while deciding the cases at the Lok Adalat is the consent of both the parties. It cannot be forced on any party that the matter has to be decided by the Lok Adalat.

The Lok Adalat Movement can be successful only if the people participate on voluntary basis in the functioning of Lok Adalat. This can be achieved by restraining themselves from invoking the jurisdiction of traditional Courts in trifle disputes.

Q.8) Discuss the structure, functioning and objective of the 'Office of the High Commissioner for Human Rights' (OHCHR).

Ans.

Demand of the question
Introduction. Contextual introduction. **Body.** Discuss the structure, functioning and objective of the Office of the High Commissioner for Human Rights. **Conclusion.** Way forward.

The Office of the High Commissioner for Human Rights (UN Human Rights) is the leading UN entity on human rights. It works to promote and protect the human rights that are guaranteed under international law and stipulated in the Universal Declaration of Human Rights of 1948. It work towards prevention of human rights abuse by raising voice against it.

Structure of OHCHR: UN Human Rights is part of the United Nations Secretariat. It has following substantive divisions:

1. **Thematic Engagement, Special Procedures and Right to Development Division (TESPRDD):** It develops policy and provides guidance, tools, advice and capacity-strengthening support on thematic human rights issues, including for human rights mainstreaming purposes; and provides support to the Human Rights Council's special procedures.
2. **Human Rights Council and Treaty Mechanisms Division (CTMD):** It provides substantive and technical support to the HRC and supports the human rights treaty bodies.
3. **Field Operations and Technical Cooperation Division (FOTCD):** It is responsible for overseeing and implementing the Office's work in the field.

4. **Dedicated services and sections:** These report directly to the Deputy High Commissioner, handle core management, planning, coordination and outreach functions.

Objectives of OHCHR:
1. **Human rights:** The mandate of the Office of the High Commissioner for Human Rights (OHCHR) is to ensure universal enjoyment of all human rights.
2. **International cooperation:** To promote international cooperation at state level and throughout the United Nations system for human rights.
3. **Implementation of international standards:** Promote universal ratification and implementation of international standards and to remove obstacles to their effective implementation.
4. **Response:** To appropriately respond to serious violations of human rights and support human rights organs and treaty monitoring bodies.
5. **Services:** Provide education, information advisory services and technical assistance in the field of human rights.
6. **Human rights infrastructures:** Promote the establishment of national human rights infrastructures and undertake human rights field activities and operations.

Functioning of OHCHR:
1. **Human rights violations:** As the principal United Nations office mandated to promote and protect human rights for all, OHCHR leads global human rights efforts and speaks out objectively in the face of human rights violations worldwide.
2. **Human rights research:** OHCHR also provides a forum for identifying, highlighting and developing responses to today's human rights challenges, and act as the principal focal point of human rights research, education, public information, and advocacy activities in the United Nations system.
3. **Work with national governments:** It assists governments, which bear the primary responsibility for the protection of human rights, to fulfil their obligations and supports individuals to claim their rights. Moreover, it speaks out objectively on human rights violations.
4. **Partnerships:** OHCHR work with civil society, national human rights institutions and other United Nations entities and international organizations, such as the International Labour in their efforts to promote and protect human rights.
5. **Working especially against AIDS:** As human rights are intimately linked with the spread and impact of AIDS, OHCHR endeavours to contribute to an effective and sustainable response to the epidemic by raising awareness and understanding. OHCHR has worked in close collaboration with UNAIDS towards the promotion and protection of human rights in the context of AIDS.
6. **Provides technical expertise:** UN Human Rights provides assistance in the form of technical expertise and capacity-development in order to support the implementation of international human rights standards on the ground.

Over the years, OHCHR has increased its presence in the field, reaching out to the people who need it the most. But organisation is criticised for being soft on developed countries for repeated human rights violations. It has failed mainly in raising its voice against human rights violations in the Middle East.

Q.9) Discuss various issues in Indian higher education system. Suggest some measures to improve it.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss various issues in Indian higher education system. Suggest some measures to improve Indian higher education system.
Conclusion. Way forward.

India's higher education has various structural issues. With no university among the ranks of world class universities, India's higher education system is termed as poor, structurally flawed. The latest 'India Skills Report' suggests that only 47% of Indian graduates are employable.

Issues in Indian higher education system:
1. **Education quality:** National Assessment and Accreditation Council (NAAC) in its assessment report pointed out that 68% of institutions in India are of middle or poor quality. Recruitment of undergraduates as teachers, ad-hoc appointments and low pay scale, inadequate teacher training are all factors that have caused a deterioration in the quality of education.
2. **Vacancies:** Nearly 35% of professor posts and 46% of assistant professor posts out of total sanctioned strength remain vacant across the country.
3. **Financing:** India barely spends 2.5% of its budgetary allocations on education. This is far below the required amount needed to upgrade the infrastructure at public institutes. Nearly 65% of the University Grants Commission (UGC) budget is utilised by the central universities when the share of state universities in student enrolments is much higher.
4. **Inclusiveness and Equal Access:** Inter-caste and tribal disparities are prominent in Indian higher education. For Scheduled Castes, Gross Enrolment Ratio (GER) is 19.9% and for Scheduled Tribes, it is 14.2% as compared to the national GER of 24.5%. Muslims have the lowest rate of enrolment in higher education. Caste-based discrimination in universities leading to suicides e.g. Rohit Vemula case.
5. **Privatisation and Regulation:** Withdrawal of public sector has left the space open for private institutions that have turned education into a flourishing business. Most of the teachers in private colleges are underpaid and overworked.
6. **Curriculum:** There is a wide gap between industry requirements and curriculum taught at colleges. This also renders graduates unemployable lacking in specific skill-sets.
7. **Autonomy:** Over-regulation by regulators such as UGC, MCI, which decide on aspects of standards, appointments, fees structure and curriculum has further deterred new institutions from opening campuses.
8. **Academic research:** India has barely 119 researchers per million of the population as compared to Japan which has 5300 and US which has 4500. Besides, in the US 4% of science graduates finish the doctorate, in Europe, this number is 7%, but in India barely 0.4% of graduates finish the doctorate.
9. **Faculty shortage:** Faculty vacancies at government institutions are at 50% on average. The problem lies in increased demand, and stagnant supply.
10. **Poor research:** Indian universities persist in separating research and teaching activities. Monetary incentives for academia are practically non-existent, and Indian R&D expenditure at 0.62% of GDP is one of the lowest in emerging economies. Indian universities rank low in both research and teaching.

Measures to improve Indian higher education system:

1. **Filling up vacancies:** Government must ensure filling up of vacancies through more autonomy to the institutions.
2. **Creating enabling atmosphere:** Research cannot be improved merely by regulating universities, instead they need efforts to create enabling atmosphere for which it is imperative to grant more autonomy, better funding and new instruments to regulate work ethic.
3. **Implementing initiatives:** New initiatives like Hackathon, curriculum reform, anytime, anywhere learning through SWAYAM, teacher training are all aimed at improving quality. These need to be effectively implemented.
4. **Permanent appointments:** As India wants to transform its universities into world class institutions, it must safeguard the interests of young researchers and thousands of temporary faculty members by expediting the permanent appointments in a time-bound framework and transparent manner.
5. **Incentive:** One of the fundamental changes India must institutionalise is a radically new compensation and incentive structure for faculty members. A flexibility to pay differential salaries based on market forces and merit must be part of this transformation.
6. **Investment:** Adequate investment in the higher education sector is needed. Gap in investment to be filled by private sector
7. **Revamping curriculum:** It is important to make curriculum industry-oriented, updated and practical focusing on skill development. More focus is needed on critical thinking, analytical reasoning, problem-solving rather than memorizing and writing skills.
8. **Autonomy:** UGC should act as a facilitator rather than a regulator. More autonomy to universities to be provided.

The government released a Draft National Education Policy (DNEP) in 2019, which proposed ambitious reforms. The DNEP aims to double education spending to 6% of GDP, and close the research-teaching divide in higher education. Experts, however, are doubtful about whether the dramatic increases will be politically feasible, and whether the implementation of such reforms will be implemented successfully or not.

Q.10) Data from the National Crime Records Bureau (NCRB) show that the number of sedition cases filed has gone up every year in the last four years, only four cases actually resulted in conviction. In light of this, discuss the usefulness of the sedition law.

Ans.

Demand of the question
Introduction. Contextual introduction. **Body.** Discuss usefulness and misuse of sedition law. **Conclusion.** Way forward.

Sedition is an offence incorporated into the Indian Penal Code (IPC) in 1870. Section 124A of the IPC defines says whoever by words either spoken or written attempts to bring into hatred or contempt or excites disaffection towards the government established by law, has committed the offence of sedition. The offence is punishable with imprisonment for life and is turned out to be a tool by politicians many times to prevent criticism against them jeopardising free speech and dissent.

Usefulness of Sedition law:
1. **Misuse of freedom of speech:** Freedom of speech although is protected through Article 19 (1) but it is not unlimited. Sometimes speech is used as a tool to destabilise country polity and to promote enmity in the society. Thus sedition law is useful in preventing this misuse.
2. **Internal security:** Maoist insurgency and rebel groups virtually run a parallel administration, it would be dangerous to abolish it. These groups openly advocate the overthrow of the state government by revolution. Thus keeping section 124A is important for Indian security.
3. **Combating anti-national elements**: Section 124A of the IPC has its utility in combating anti-national, secessionist and terrorist elements.
4. **Political stability:** It protects the elected government from attempts to overthrow the government with violence and illegal means. The continued existence of the government established by law is an essential condition of the stability of the State.

Sedition Law as an oppressive mechanism: The Sedition cases have been increasing over the years as in 2014, there were 47 cases of sedition but that number has increased to 70 in 2018.
1. **Improper definition:** As pointed out by the Law Commission of India, is that the definition of sedition does not take into consideration disaffection towards the Constitution, the legislatures, and administration of justice, all of which would be as disastrous to the security of the State.
2. **Against freedom of speech:** Section 124A has been invoked against activists, detractors, writers and even cartoonists on several occasions to suppress their freedom of speech and expression. Article 19 (1) of Indian constitution provides freedom of speech as a fundamental right. Section 124A is against Article 19 (1).
3. **Prevent criticism:** A foremost objection is a strong criticism against government policies and personalities, slogans and stinging depictions of an unresponsive or insensitive regime are all likely to be treated as 'seditious'.
4. **Colonial tool:** It was introduced by the British to suppress the freedom struggle and its existence at present is not justified. Britain itself abolished it 10 years ago, then why India still has the section alive.
5. **Inconsistent with international conventions:** India ratified the International Covenant on Civil and Political Rights (ICCPR) and misuse of sedition law under Section 124A and the arbitrary slapping of charges are inconsistent with the ICCPR.

Supreme Court Judgements on Sedition:
1. **Kedar Nath Singh v State of Bihar, 1962:** The Supreme Court has upheld the constitutionality of Section 124-A (sedition). However, it said that every citizen has a right to say or write about the government by way of criticism or comment as long as it does not incite people to violence against the government established by law or with the intention of creating public disorder.
2. **P.Alavi vs State of Kerala, 1982:** The Supreme Court held that sloganeering, criticising of Parliament or judicial setup does not amount to sedition.
3. **Balwant Singh v State of Punjab, 1995:** The Supreme Court acquitted persons from charges of sedition for shouting slogans such as 'Khalistan Zindabad'. The court held that mere raising of slogans by two individuals alone cannot be said to be aimed at exciting or attempt to excite hatred or disaffection by the government.

The Supreme Court has persistently held that for the offence of sedition to be satisfied, there has to be a causal relationship between speech and acts of violence, and mere speech,

regardless of how subversive it is, does not amount to sedition. Every irresponsible exercise of the right to free speech and expression cannot be termed seditious. While it is essential to protect national integrity, it should not be misused as a tool to curb free speech.

Q.11) Discuss the strategic significance of Afghanistan for India. Also, discuss various implications of the recent Afghanistan deal for India.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the strategic significance of Afghanistan and various implications of recent Afghanistan deal for India.
Conclusion. Way forward.

India and Afghanistan have a strong relationship based on historical and cultural links. The relationship is not limited to the governments, but has its foundations in the historical contacts and exchanges between the people. The strategic location of Afghanistan as a connection to Central Asia and West Asia is important for Indian efforts to establish stronger and more direct commercial and political relations with Central Asia.

Strategic significance of Afghanistan for India:
1. **Natural resources:** Afghanistan is known for its geo-strategic importance and abundance of natural resources. Afghanistan has an estimated 1 trillion USD of untapped resources according to a joint report of The Pentagon and US Geological Survey. Stable Afghanistan with better relations means more economic development in the region and of India.
2. **Security:** A stable Afghanistan is crucial for regional and domestic security and stability for India. With Afghanistan becoming a centre of radical ideology and violence again, such a development would affect Pakistan and would inevitably reach India. Further, there is threat of drug trafficking through the Afghanistan route. Peaceful Afghanistan is thus a necessity to reduce the threat to internal security of india.
3. **Connectivity:** Afghanistan is always considered as India's gateway to Central Asia. It implies continental outreach. For instance, connectivity with Afghanistan and further with Central Asia have been primarily the reasons for India's engagement with Iran to develop Chabahar port. Similarly, Delaram-Zaranj highway is an important route to connect Indian economy via Afghanistan.
4. **Strengthening regional foothold:** Increasing strategic engagements with Afghanistan combination is beneficial for India in strengthening a foothold in the region. For example, India's relations with Iran at present are dominated by oil. Diversification of engagements would strengthen India's relations with Iran and other countries.
5. **Energy ambitions:** To address its energy needs to sustain its economic growth, pipelines from Iran and Central Asia would be extremely important. India sees Afghanistan as an essential component of the TAPI (Turkmenistan-Afghanistan-Pakistan-India) pipeline. An unstable Afghanistan would hurt the construction of this pipeline and the subsequent flow of gas.
6. **Trade:** In case of trade, Afghanistan can help India export its products to Europe, gaining foreign exchange. The railway line from Chabahar to Zahedan in Afghanistan envisages to connect New Delhi with Iran, Afghanistan, Central Asia and Europe.

Various implications of recent Afghanistan deal for India:
1. **Jeopardize India's present stake:** For India, the signing of the US-Taliban deal may jeopardize its present stake in Afghanistan if the Afghan government is side-lined moving forward. Since 2002, India has developed significant influence with the Afghan government through trade, cultural and diplomatic links, and foreign aid.
2. **Legitimise model of terrorism:** Afghan government may cede a degree of legitimacy and power to the Taliban which would legitimise model of terrorism and have serious danger for peace and spread of terrorism.
3. **Reduce strategic capabilities:** India has maintained that any peace process in Afghanistan must be Afghan-led and Afghan-owned, and that the democratically elected government in Kabul must be given priority. A Taliban led deal would reduce India's strategic capabilities especially in Afghanistan region.
4. **Fresh fuel for anti-India terrorist groups:** An Afghanistan ruled by Islamic extremists like the Taliban, might provide fresh fuel for anti-India terrorist groups operating in Jammu and Kashmir, which would take cues from the Taliban in increasing their activities.
5. **Risk to India's security:** Post-peace deal, India's security intelligence would be impacted. Afghan intelligence, for instance, reportedly provided India with intelligence for the targets of the India Air Force's Balakot airstrikes against a reported JeM terrorist camp linked to the Pulwama attack.

In the absence of an alternative, even after the signing of the U.S.-Taliban agreement, Pakistan is likely to continue using the Afghan Taliban as a counterweight against rising Indian and Iranian political influence in Afghanistan. India prefers to back the democratically-elected Afghan government rather than support the traditionally Pakistan-supported Taliban, which would not guarantee its interests in Afghanistan.

Q.12) Tracing the evolution of basic structure doctrine in India highlights its salient features.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss how basic structure doctrine is evolved. Highlight its salient features.
> **Conclusion.** Way forward.

The basic structure doctrine is an Indian judicial principle, which means that the Constitution of India has certain basic features that cannot be altered or destroyed through amendments by the parliament. The doctrine forms the basis of power of the Supreme Court to review and strike down constitutional amendments and acts enacted by the Parliament which conflict with or seek to alter the basic structure of the Constitution.

Evolution of basic structure doctrine in India:
1. **Initial stance:** The Supreme Court's initial position on constitutional amendments was that any part of the Constitution was amendable and that the Parliament might, by passing a Constitution Amendment Act in compliance with the requirements of article 368, amend any provision of the Constitution, including the Fundamental Rights and article 368.
2. **Shankari Prasad case:** In the Shankari Prasad case (1951), the constitutional validity of the First Amendment Act (1951), which curtailed the right to property, was challenged.

The Supreme Court ruled that the power of the Parliament to amend the Constitution under Article 368 also includes the power to amend Fundamental Rights.

3. **Sajjan Singh v. State of Rajasthan:** The Constitution has "basic features" was first theorized in 1964, by Justice J.R. Mudholkar in the case of *Sajjan Singh v. State of Rajasthan.* He questioned whether the ambit of Article 368 included the power to alter a basic feature or rewrite a part of the Constitution.

4. **Golaknath vs. State of Punjab:** In Golaknath vs. State of Punjab, Supreme Court held that Fundamental Rights of the Constitution are given a transcendental position and are beyond the reach of Parliament. It also declared any amendment that takes away or abridges a Fundamental Right conferred by Part III as unconstitutional.

5. **Kesavananda Bharati case:** The concept of basic structure was finally introduced by Supreme Court in the Kesavananda Bharati case 1973. In this landmark ruling, the Court adjudicated that while Parliament has wide powers, it did not have the power to destroy or emasculate the basic elements or fundamental features of the constitution.

6. **Indira Gandhi case:** In Indira Gandhi vs. Raj Narain, 1975, the Supreme Court reaffirmed its concept of basic structure.

7. **Minerva Mills Case:** Under Minerva Mills Case (1980), the Supreme Court ruled that Judicial Review is included in Basic features of the Constitution.

8. **Waman Rao Case:** In Waman Rao Case (1981), it was held that the doctrine will be applied to Constitutional Amendments after the Kesavananda Bharati Case Judgement.

9. **Kihoto hollohan case:** In Kihoto hollohan vs. Zachillhu, 1992, 'Free and fair elections' was added to the basic features.

10. **Indira Sawhney case:** Indira Sawhney vs. Union of India, 1992, 'Rule of law, was added to the basic features.

11. **S.R Bommai case:** In S.R Bommai vs Union of India, 1994, Federal structure, unity and integrity of India, secularism, socialism, social justice and judicial review were reiterated as basic features

Salient features of basic structure doctrine:
1. **Restricted amending powers:** The concept of Basic Structure has not been mentioned in the Constitution, neither there was a restriction on the amending powers of Parliament. Basic structure doctrine restricted the amending powers of Indian Parliament.

2. **Supremacy of the Constitution:** It reiterated that the constitution is supreme and has certain basic components that can't be touched.

3. **Unity and sovereignty of India:** According to basic structure India's sovereignty and unity is inherent and can't be removed. It restricted parliament's power to alter federal provisions solely.

4. **Democratic and republican form of government:** India is a democracy and a republic and hence is driven by its people.

5. **Secular character of the Constitution:** India is a secular country as mentioned in preamble and this secular provision is a basic doctrine.

The basic structure doctrine has been used by the Supreme Court in subsequent judgments to preserve the sanctity and basic character of the Constitution. The doctrine has evolved through SC judgments and is still expanding. It forces constitutional amendments to conform to certain standards or values that maintain the sanctity and spirit of the Constitution.

Q.13) Indian public schools suffer from poor infrastructure facilities especially in rural areas. Comment.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss status of poor infrastructure facilities in Indian public schools.
Conclusion. Way forward.

Schools are supposed to be the temples of learning, but the educational institutions in India are in bad conditions due to poor infrastructure. Lack of access to electricity, toilets and with too few teachers, Indian schools suffer. There is a lot of work needed in school-level infrastructure.

Poor infrastructure facilities in Indian public schools:
1. **Electricity:** The District Information System for Education (DISE) data shows that only 6 out of every 10 schools in the country have access to electricity. State-level data throws up an even grimmer picture. One-third of states do not provide electricity to the majority of their schools.
2. **Sanitation:** Access to sanitation facilities poses a major impediment to student attendance, especially girls, and leads to drop-outs. The Annual Status of Education Report (ASER) 2017 data found that only 68% toilets in government schools are usable. Despite the fillip provided by the Swachh Bharat Swachh Vidyalaya campaign, the usability of these structures remains questionable.
3. **Availability of teachers**: The number of teachers admitted to schools has risen, and the percentage of vacant posts has been decreasing. But the competencies of the teaching staff are below par, according to DISE data. 18% teachers in India, had no professional qualification in teaching.
4. **Absenteeism:** High rates of absenteeism have been recorded. A World Bank study found that one in four teachers are absent at a typical government-run primary school. Absenteeism rates were seen to be higher in low-income states of Jharkhand and Bihar.
5. **Digital infrastructure:** Only 18% government schools have a computer and 4% government schools have an internet connection. With the digital revolution beginning, it is likely that rural schools will miss riding the digital wave due to insufficient infrastructure.
6. **RTE provisions:** Many states are yet to fulfil the norms laid down in the Right of Children to Free and Compulsory Education (RTE) Act, 2009. Provision for playgrounds and construction of boundary walls, both of which feature in the Act, exhibit the largest shortfall, with 40% schools not having a playground and 43% not having a boundary wall. The figures for laboratories for science-related subjects is even dismal.

Way forward:
1. **Revamp old schools:** Revamping old schools to ensure that there are sufficient classrooms, toilets, ramps for the differently-abled students and laboratories should be the key focus.
2. **Smart classrooms:** Creating smart classrooms by digitizing the existing ones is another task that needs governmental efforts. Government must ensure computer availability and internet penetration.
3. **Establishing more classrooms:** There are several schools where there are only a few classrooms. There is a need to establish newer buildings at these schools to accommodate students better.

4. **Private partnership:** Government must partner with the private sector to improve Indian school infrastructure.
5. **Electricity:** It is important that every area of the country should have access to electricity. Efforts must be made through other means like solar energy to provide electricity in rural areas.
6. **Teacher availability:** More teachers must be recruited to improve teacher-pupil ratio. Teachers should be trained appropriately to improve learning outcomes in Indian schools.

Good school infrastructure is critical to impart knowledge and increase student's enrolment. Emphasis must be on providing good classrooms, teachers, sanitation, electricity etc. Government must also ensure road connectivity to schools especially in rural areas.

Q.14) Enumerate the causes for the loss of Biodiversity. Explain the in-situ and ex-situ measures of biodiversity conservation.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss various causes for the loss of Biodiversity. What are in-situ and ex-situ measures of biodiversity conservation?
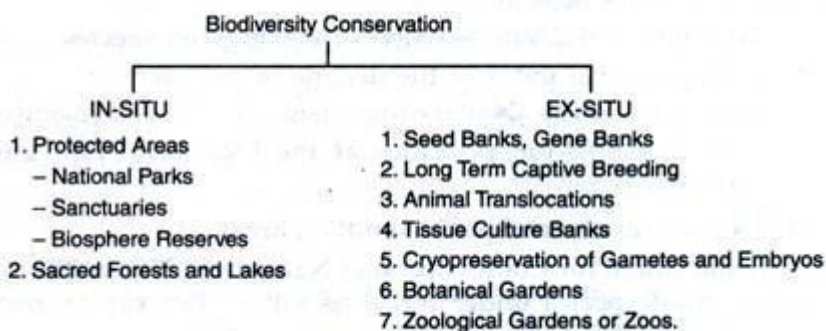> **Conclusion.** Way forward.

Biodiversity refers to the number or abundance of different species living within a particular region. Biological diversity encompasses microorganism, plants, animals and ecosystems such as coral reefs, forests, rainforests, desert etc. The biological wealth of our planet has been declining rapidly. The current species extinction rates are estimated to be 100 to 1,000 times faster than in the pre-human times largely due to human activities.

Causes of biodiversity loss:
1. **Habitat loss and fragmentation:** This is the most important cause driving species to extinction. Besides total loss, the degradation of many habitats by pollution also threatens the survival of many species. Fragmentation of habitats leads to population decline.
2. **Over-exploitation:** Many species extinctions in the last 500 years were due to overexploitation by humans. Presently many marine fish populations around the world are over harvested, endangering their continued existence.
3. **Alien species invasions:** When alien species are introduced, some of them turn invasive, and cause decline or extinction of indigenous species.
4. **Co-extinctions:** When a species becomes extinct, the plant and animal species associated with it in an obligatory way also become extinct.
5. **Global warming:** Global warming is also becoming a major cause for loss of biodiversity. If the present rate of global warming continues, coral reefs which are biodiversity hotspots will disappear in 20-40 years.
6. **Pollution:** Pollution alters the natural habitat. Insecticides, pesticides, sulphur and nitrogen oxides, acid rain, ozone depletion and global warming too, affect adversely the plant and animal species.
7. **Natural Calamities:** Natural calamities such as floods, drought, forest fires, earth-quakes, volcanic eruptions, epidemics etc. are increasing which take a heavy toll of plant and animal life.

Biodiversity conservation measures:

Biodiversity Conservation

IN-SITU
1. Protected Areas
   – National Parks
   – Sanctuaries
   – Biosphere Reserves
2. Sacred Forests and Lakes

EX-SITU
1. Seed Banks, Gene Banks
2. Long Term Captive Breeding
3. Animal Translocations
4. Tissue Culture Banks
5. Cryopreservation of Gametes and Embryos
6. Botanical Gardens
7. Zoological Gardens or Zoos.

1. **In-situ measures:** In in situ conservation, the endangered species are protected in their natural habitat so that the entire ecosystem is protected. India has over 600 protected areas, which includes over 90 national parks, over 500 animal sanctuaries and 15 biosphere reserves.

   a) **National Parks:** A national park is an area which is strictly reserved for the betterment of the wildlife and where activities like forestry, grazing on cultivation are not permitted. In these parks, even private ownership rights are not allowed. In national parks, the emphasis is on the preservation of a single plant or animal species.

   b) **Wildlife Sanctuaries:** A sanctuary is a protected area which is reserved for the conservation of only animals and human activities like harvesting of timber, collecting minor forest products and private ownership rights are allowed as long as they do not interfere with well-being of animals. Boundaries of sanctuaries are not well defined and controlled biotic interference is permitted, e.g., tourist activity.

   c) **Biosphere Reserves:** It is a special category of protected areas where human population also forms a part of the system. They are large protected area of usually more than 5000 sq.km.

2. **Ex-situ measures -** In this approach, threatened animals and plants are taken out from their natural habitat and placed in special settings where they can be protected and given special care. Such strategies include establishment of botanical gardens, zoos, conservation strands and gene, pollen seed, seedling, tissue culture and DNA banks.

   a) **Seed gene bank:** These are cold storages where seeds are kept under controlled temperature and humidity for storage and this is the easiest way to store the germplasm of plants at low temperature. Seeds preserved under controlled conditions remain viable for long durations of time.

   b) **Gene bank:** Genetic variability also is preserved by gene bank under normal growing conditions. These are cold storages where germplasm are kept under controlled temperature and humidity for storage. This is an important way of preserving the genetic resources.

   c) **Cryopreservation:** This is the newest application of technology for preservation of biotic parts. This type of conservation is done at a very low temperature (196°C) in liquid nitrogen. The metabolic activities of the organisms are suspended under low temperature, which are later used for research purposes.

   d) **Tissue culture bank:** Cryopreservation of disease free meristems is very helpful. Long term culture of excised roots and shoots are maintained. Meristem culture is very popular in plant propagation as it's a virus and disease free method of multiplication.

e) **Long term captive breeding:** The method involves capture, maintenance and captive breeding on long term basis of individuals of the endangered species which have lost their habitat permanently or certain highly unfavourable conditions are present in their habitat.

f) **Botanical gardens:** A botanical garden is a place where flowers, fruits and vegetables are grown. The botanical gardens provide beauty and calm environment. Most of them have started keeping exotic plants for educational and research purposes.

g) **Animal Translocation:** Release of animals in a new locality which come from anywhere else.

h) **Zoological Gardens:** In zoos wild animals are maintained in captivity and conservation of wild animals (rare, endangered species).

Conservation of biodiversity is a collective responsibility of the entire mankind. Therefore, appropriate measures must be taken for its conservation and sustainable utilization of its benefits. Biodiversity needs to be conserved in order to maintain balance of nature.

Q.15) With the rise in risk of epidemics, India needs a new Epidemic disease act. Examine.

Ans.

Demand of the question
Introduction. What is genome sequencing?
Body. Discuss why India needs a new Epidemic disease act.
Conclusion. Way forward.

Recently, the Epidemic Diseases Act of 1897 is in the news due to the rising threat of Coronavirus. It is felt that the Act has major limitations in the current scenario as it is outdated. It needs new amendments in the present context with focus on coordination and working together with rising threats of epidemics.

Need of new Epidemic disease act: Epidemic Diseases Act of 1897 has many irregularities as mentioned below:

1. **Outdated:** The Epidemic Diseases Act was formulated about 118 years ago and thus has major limitations in this era of changing priorities in public health emergency management. The factors leading to the emergence and spread of communicable diseases have also changed over the years, so continuing with the old act makes no sense.

2. **Not rights based:** The Epidemic Diseases Act is purely regulatory in nature and lacks a specific public health focus. It does not describe the duties of the government in preventing and controlling epidemics. The Act emphasises the power of the government, but is silent on the rights of citizens. It has no provisions that take the people's interest into consideration. A new act is required for a rights based and people-focused approach for epidemic fight.

3. **Failed to adapt:** The Act failed to cover greater migration within states, transition from agrarian to industrial societies, increased urbanisation, increasing intensity of contact with animals and birds and man-made ecological changes.

4. **Emphasis on isolation:** It placed too much emphasis on isolation or quarantine measures, but is silent on the other scientific methods of outbreak prevention and control, such as vaccination, surveillance and organised public health response.

5. **Modern threats:** A comprehensive legislation is needed to include modern issues relating to epidemics, including measures to handle bio-terrorism, bio-warfare, biological disasters, decontamination and chemical reactions.
6. **Coordination:** Many diseases need multi-disciplinary approach and inter-departmental coordination as in cases of animal-to-human and human-to-animal transmitted diseases.
7. **Changing scenario:** The Epidemic Diseases Act needs modifications in the changing scenario. For example, it is too oriented towards travel by ship and silent on air travel, which was uncommon at that time. The epidemiological concepts used in relation to the prevention and control of epidemic diseases have also changed over time.
8. **Ethical aspects:** The 1897 Act is also silent on the ethical aspects principles that come into play during the response to an epidemic. Individual autonomy, liberty and privacy should be respected to the greatest extent possible, even during the enforcement of laws.

Way forward:
1. **Legal framework:** What we require is a legal framework relevant to the current context. There is a need for an integrated, comprehensive, actionable and relevant legal provision for the control of disease outbreaks in India. This should be articulated in a rights-based, people-focused and public health-oriented manner.
2. **National health bill:** A National Health Bill should be drafted for providing essential public health services and powers for an adequate response to public health emergencies through effective collaboration between the Centre and the states.
3. **Involving private sector:** Given that the private sector accounts for nearly 70% of India's healthcare, this sector has a critical role to play in supporting the traditional public sector-led response to the prevention and tackling of outbreaks. Investing in mechanisms to bring private-sector players together is likely to contribute to better coordination, greater resources, more time and expertise during an emergency.
4. **Maintain standards:** During epidemics, there should be provisions in the Act, to maintain standards in quality of care, rationality of treatment, cost of care, treatment protocol and ethical behaviour applicable to both public and private sectors and these need to be regulated through bodies with the involvement of people from both sectors and mutually agreeable professional organisations.
5. **Public health regulatory authority:** A public health regulatory authority such as the Food Safety and Standards Authority of India should be established. A public health regulatory authority can propose, review and revise public health legislations on a periodic basis, recommend and provide scientific advice and technical support for the framing of state rules.

There is a need to strengthen legal frameworks to prevent and control the entry, spread and existence of communicable diseases in India. Over the years, many states have formulated their own public health laws and some have amended the provisions of their epidemic disease Acts. However, these Acts vary in quality and content. Most are just policing acts aimed at controlling epidemics and do not deal with coordinated and scientific responses to prevent and tackle outbreaks. There is a need for an integrated, comprehensive, actionable and relevant legal provision for the control of outbreaks in India.

Q.16) Discuss the salient features of Protection of Children from Sexual Offences (POCSO) Rules, 2020.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss the salient features of Protection of Children from Sexual Offences (POCSO) Rules, 2020.
> **Conclusion.** Way forward.

The POCSO Act was enacted in 2012 to provide a robust legal framework for the protection of children from offences of sexual assault, sexual harassment and pornography while safeguarding the interests of children at every stage of the judicial process. To make punishment for child abuse has been made more stringent, the government has notified the Protection of Children from Sexual Offences Rules, 2020 which enables implementation of recent amendments to the Act.

Salient features of Protection of Children from Sexual Offences (POCSO) Rules, 2020:
1. **Mandatory police verification:** The new rules include provision of mandatory police verification of staff in schools and care homes, procedures to report sexual abuse material (pornography), imparting age-appropriate child rights education among others.
2. **Reporting to Special Juvenile Police Unit:** For crackdown on child pornography, any person who has received any pornographic material involving a child or any information regarding such pornographic material shall report the contents to the Special Juvenile Police Unit (SJPU) or police, or the cybercrime portal.
3. **Child protection policy:** Under the rules, the State Governments have been asked to formulate a child protection policy based on the principle of zero-tolerance to violence against children, which shall be adopted by all institutions, organizations, or any other agency working with, or coming in contact with children.
4. **Periodic training:** The Central Government and every State Government shall provide periodic training including orientation programmes, sensitization workshops and refresher courses to all persons coming in contact with the children, to sensitize them about child safety and protection.
5. **Age-appropriate curriculum:** The Centre and State Governments have been asked to prepare age-appropriate educational material and curriculum for children, informing them about various aspects of personal safety, including measures to protect their physical and virtual identity and to safeguard their emotional and mental wellbeing, prevention and protection from sexual offences and reporting mechanisms.
6. **Orientation programme:** According to rules, orientation programme and intensive courses may also be organized for police personnel and forensic experts for building their capacities in their respective roles on a regular basis.
7. **Background check:** Any institution housing children or coming in regular contact with children, including schools, crèches, sports academies or any other facility for children must ensure a police verification and background check on periodic basis of every staff.

Need of the Rules:
1. **Increasing child pornography:** Child pornography is rising with sharing of nude contents of a child who is not considered mature until 18 years of age.
2. **Less conviction rate:** Only a fraction of the incidences of sexual abuse against children enters the criminal justice system, amongst which only a minuscule fraction end in a conviction. The 2016 data of National Crime Records Bureau (NCRB) said that only 11%

of the total of POCSO cases have been decided by the trial courts in that year, which meant that 89% of the cases were still pending across the country.

3. **Sexual abuse:** Statistics released by the National Crime Records Bureau also reveals that there has been a steady increase in sexual crimes against children. According to a study conducted by the Ministry of Women and Child Development in 2007, over half of the children surveyed reported having faced some form of sexual abuse.

4. **Deterrent:** The rules are expected to discourage the trend of child sexual abuse by acting as a deterrent due to strong penal provisions incorporated.

5. **Protection of child:** It would help to protect the interest of vulnerable children in times of distress and ensures their safety and dignity.

Way Forward:
1. **Implementation of POCSO Act:** Problems related to implementation of POCSO Act such as lack of adequate special courts, lack of sensitisation for investigators and prosecutors in dealing with child victims, poor rate of convictions etc. need to be resolved urgently.

2. **Special courts:** The Supreme Court direction to set up special courts within 60 days of the order in each district having more than 100 pending cases under the act must be complied with urgently.

3. **Sensitisation:** Awareness and sensitisation of people is equally important to prevent the crime itself.

4. **Encouraging children to speak:** Children should be given a platform and proper environment to speak against such abuse.

5. **Education:** Providing sex education to children, which is neglected in India. This makes them more aware of various protective laws, good touch-bad touch etc.

Children are being subjected to neglect, abuse, violence and exploitation. Government cannot ignore child abuse as it is biggest crime and malaise in the society. Rather it must proactively work to prevent it. Thus it is important in changing times to provide enabling rules and legislation.

Q.17) The elements of conflict and discord are common to Union Territories with elected legislatures in India. In light of this, discuss various reasons for creating Union Territories in India and what should be done to prevent such conflicts.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss various reasons for creating Union Territories in India and how to prevent conflicts in Union Territories with elected legislatures in India.
Conclusion. Way forward.

A union territory is a type of administrative division in the Republic of India. Unlike the states of India, which have their own governments, union territories are federal units governed directly by the union government. The elements of conflict and discord are common to Union Territories with elected legislatures which hinders the smooth administration of the region. For instance tussle between LG of Delhi with its chief minister.

Reasons for creation of Union Territories in India: The union territories have been created for a variety of reasons. These are mentioned below:

1. **Political and administrative Reasons:** Union Territory can be created for Political and administrative reasons to ensure better governance. E.g. Delhi and Chandigarh.
2. **Cultural distinctiveness:** UTs are created to conserve and secure the culture of a region distinctive from the surrounding state. Puducherry, Dadra and Nagar Haveli, and Daman and Diu were created due to these reasons.
3. **Strategic importance:** Due to location and international borders, some areas are important strategically and for security of India. Andaman and Nicobar Islands and Lakshadweep and now Ladakh and Jammu & Kashmir are created Due to strategic significance.
4. **Special treatment and care of the backward and tribal people:** Many UTs were created due to special needs and to secure benefits and rights to tribal people. Mizoram, Manipur, Tripura and Arunachal Pradesh which later became states were created due to these reasons.

Reasons for conflict and discord in Union Territories with elected legislatures in India:
1. **Relationship with centre:** Their relationship with Centre is unitary and not federal. A Union Territory with a legislature, like Delhi and Puducherry, has its own assembly and elected MLAs. But the final decision rests with Lieutenant Governor, appointed by the Centre. This is the primary source of conflict.
2. **Central control:** They are under the direct control and administration of the Centre. Thus, centre influence directly in working of these administrative units.
3. **Lack of autonomy:** Union territories do not have much autonomy. Most of the decisions need approval of the Lieutenant Governor.

What should be done to prevent such conflicts?
1. **Constitutional limitations:** The Centre must ensure that it doesn't go beyond its constitutional limitations. Efforts must be made to work and administer according to legal and constitutional framework.
2. **Work in unison:** The Supreme Court had emphasised on the need for constitutional morality and constitutional trust among high dignitaries, implying that Lt. Governors and Chief Ministers must work in unison as far as possible.
3. **Resolving difference of opinion:** In the event of an unresolved difference of opinion, the Lieutenant Governor should refer it to the President for a decision.
4. **Cooperative federalism:** Instead of seeing UT as a unitary features centre must follow the spirit of cooperative federalism in order to prevent conflicts and work with UT elected assemblies.

LGs/Governors cannot usurp rights of an elected government. The Centre must ensure that powers of LGs should not overcome and hinder the working of the elected government. Any unresolved issue must be referred to the President with emphasis on making administration smooth and functioning.

Q.18) Discuss various stages of public health response to epidemic outbreaks. Discuss how India can prepare for any future epidemic risks?

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss various stages of public health response to epidemic outbreaks. Mention how India can prepare for any future epidemic risks?
Conclusion. Way forward.

The public health response to any outbreak is critical to control and contain the epidemic and damage it can do. Not only saving the citizens is priority, but providing the poor and vulnerable with utmost care is an intrinsic part of any public health response to epidemics. Generally public health responses involve various stages to prevent epidemic and its spread.

Various stages of public health response to epidemic outbreaks: The public health response to such outbreaks comprises three phases:

1. **The containment phase:** During the containment phase, the aim is to detect and isolate cases and trace people who have been in contact with those infected. The goal is to prevent the disease taking hold in the country for as long as is reasonably possible.
2. **Delay phase:** If containment does not work and the number of cases rise dramatically (there is no clear definition), we enter the delay stage.
    a) Delay is largely engineered through 'social distancing' strategies and personal protection measures.
    b) These are the main tools to prevent accelerated transmission when no vaccine or prophylaxis is available. This includes school closures, encouraging more home working and reducing large-scale gatherings.
    c) Another purpose of the delay phase is to push the outbreak away from the winter season. If the peak of the virus can be delayed until the warmer months, it could possibly reduce the risk of transmission as the life of the virus in the environment is expected to be shorter.
    d) This phase allows time for strengthening the health system to prepare for the patient load.
3. **Mitigation phase:** In the event of the outbreak worsening, the response will escalate and the focus will be on providing optimal care for people who need hospitalisation and ensuring support for those who become infected but do not require hospital treatment. It also involves plans to minimise the impact of disease on society, public services and the economy.

How India can prepare for any future epidemic risks?
1. **Legal framework:** What we require is a legal framework relevant to the current context. There is a need for an integrated, comprehensive, actionable and relevant legal provision for the control of disease outbreaks in India. This should be articulated in a rights-based, people-focused and public health-oriented manner.
2. **National health bill:** A National Health Bill should be drafted for providing essential public health services and powers for an adequate response to public health emergencies through effective collaboration between the Centre and the states.
3. **Involving private sector:** Given that the private sector accounts for nearly 70% of India's healthcare, this sector has a critical role to play in supporting the traditional public sector-led response to the prevention and tackling of outbreaks. Investing in mechanisms to bring private sector players together is likely to contribute to better coordination, greater resources, more time and expertise during an emergency.
4. **Maintain standards:** During epidemics, there should be provisions in the Act, to maintain standards in quality of care, rationality of treatment, cost of care, treatment protocol and ethical behaviour applicable to both public and private sectors and these need to be regulated through bodies with the involvement of people from both sectors and mutually agreeable professional organisations.
5. **Public health regulatory authority:** A public health regulatory authority such as the Food Safety and Standards Authority of India should be established. A public health regulatory authority can propose, review and revise public health legislations on a

periodic basis, recommend and provide scientific advice and technical support for the framing of state rules.

As the epidemic is on the rise and can have more than ever impact in the era of globalisation, there is a need to strengthen legal frameworks to prevent and control the entry, spread and existence of communicable diseases in India. There is a need for an integrated, comprehensive, actionable and relevant legal provision for the control of outbreaks in India.

Q.19) What is 'One Health'? Discuss its need and significance in context of rising zoonotic infections.

Ans.

Demand of the question **Introduction.** What is One Health? **Body.** Discuss the need and significance of One Health in context of rising zoonotic infections. **Conclusion.** Way forward.

According to WHO, 'One Health' is an approach to designing and implementing programmes, policies, legislation and research in which multiple sectors communicate and work together to achieve better public health outcomes. One Health is an approach that recognizes that the health of people is closely connected to the health of animals and our shared environment. One Health is not new, but it has become more important in recent years.

Need and significance of One Health in context of rising zoonotic infections:
1. **Risk of disease:** Human populations are growing and expanding into new geographic areas. As a result, more people live in close contact with wild and domestic animals, both livestock and pets. Animals play an important role in our lives. Close contact with animals and their environments provides more opportunities for diseases to pass between animals and people.
2. **Climate change:** The earth has experienced changes in climate and land use, such as deforestation and intensive farming practices. Disruptions in environmental conditions and habitats can provide new opportunities for diseases to pass to animals.
3. **Global movement:** The movement of people, animals, and animal products has increased from international travel and trade. As a result, diseases can spread quickly across borders and around the globe.
4. **Collaborative effort:** Many of the same microbes infect animals and humans, as they share the ecosystems they live in. Efforts by just one sector cannot prevent or eliminate the problem. For instance, rabies in humans is effectively prevented only by targeting the animal source of the virus (for example, by vaccinating dogs).
5. **Combating disease threat:** The areas of work in which a One Health approach is particularly relevant include food safety, the control of zoonosis (diseases that can spread between animals and humans, such as flu, rabies and Rift Valley Fever) and combating antibiotic resistance.
6. **Information on viral agents:** Information on viruses circulating in animals is crucial to the selection of viruses for human vaccines for potential influenza pandemics.
7. **Well-coordinated approach:** Drug-resistant microbes can be transmitted between animals and humans through direct contact between animals and humans or through

contaminated food, so to effectively contain it, a well-coordinated approach in humans and in animals is required.

Successful public health interventions require the cooperation of human, animal, and environmental health partners. Professionals in human health (doctors, nurses, public health practitioners, epidemiologists), animal health (veterinarians, paraprofessionals, agricultural workers), environment (ecologists, wildlife experts), and other areas of expertise need to communicate, collaborate on, and coordinate activities. By promoting collaboration across all sectors, a One Health approach can achieve the best health outcomes for people, animals, and plants in a shared environment.

Q.20) Discuss the importance and limitations of Part IV of the Indian Constitution.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss the importance and limitations of Part IV of the Indian Constitution.
> **Conclusion.** Way forward.

Directive Principles of State Policy (DPSP) is enshrined in Part-IV (Article 36 to 51) of the constitution. It guarantees social and economic democracy and tries to establish a welfare state. These are the ideals that the State should keep in mind while formulating policies and enacting laws.

Importance of DPSP:
1. **Socio-economic rights:** Fundamental rights provide for political rights. DPSP supplement them by providing for social and economic rights.
2. **Sustainable development:** DPSP are the principles of a welfare state in India. DPSP are important as it seeks to create a balance between economic progress and competition on one hand and environmental sustainability and social and economic equity on the other.
3. **Inequalities:** With liberalisation and globalisation inequalities have increased as reflected in the Oxfam report, which says that India's richest 1% holds over 40% of national wealth. Transition from socialist pattern of society to liberalization and market economy where inequalities were bound to come, it is the duty of the state to reduce these inequalities through tax structure, subsidies, various welfare schemes etc.
4. **Accountability:** DPSPs are important as it allows the citizens to hold the government accountable in their policy formulations and implementation e.g. equality at work, minimum wages etc.
5. **Fair market:** Globalization is based upon competition and monopolistic tendencies in the market. DPSP is important to provide a laissez faire business environment to industries.
6. **Human rights:** Liberalisation and capitalism has scant regards to the human work environment, wages, gender sensitivity and labour concerns. DPSP are relevant to provide a humane work milieu, equal wages for equal work and increase quality of standard of living of workers. It also provides for participation of workers in management of industries for better harmonisation between workers interest and industrial interest.
7. **Human capital:** Modern industries seek the best talent and most productive labour from the market having required skills and education. DPSP puts an obligation on the

part of the government to provide free, compulsory and quality education up to primary level and improve public health.

8. **Environment:** Further it obliges the government to protect and improve the environment and safeguard forest and wildlife in the era of indiscriminate exploitation and deforestation based globalization.

9. **Women rights:** Liberalisation and globalisation has led to women empowerment. DPSP put an onus on the state to work towards women education, equal opportunity, equal wages, uniform civil code etc. that would further enhance women rights. Recent triple talaq act was in this direction.

Limitations of Part IV of the Indian Constitution:

1. **No Legal Force:** The DPSP are non-justiciable in nature i.e. they are not legally enforceable by the courts for their violation.

2. **Constitutional Conflict:** DPSP leads to constitutional conflict between Centre and states, Centre and President, Chief Minister and governor.

3. **Conflict with Fundamental rights:** They can be amended to implement the fundamental rights.

4. **Constitutional validity:** A law cannot be struck down by courts for violating DPSP.

In spite of above limitations, DPSP are fundamental to the governance of the country. DPSP still holds relevance in this globalised world for a better informed, productive, equity based and sustainable developmental model. There is an increasing realisation that these directives act as bedrocks for good governance and socio-economic justice in the society.

Q.21) Discuss the potential and issues of SAARC as an organisation to emerge as a successful model of cooperation among nations in a region.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss how SAARC as an organisation can emerge as a successful model of cooperation among nations in a region and various challenges.
Conclusion. Way forward.

The South Asian Association for Regional Cooperation (SAARC) is the regional intergovernmental organization and geopolitical union of states in South Asia. It has played an important role by bringing the member countries closer together by holding various meetings and summits at various levels. Though overall development of this organization is marred by internal disputes and various other factors but still its establishment and the sense to develop regional integration has created a hope for its future progress.

Potential of SAARC to emerge as a successful model of cooperation among nations in a region:

1. **Demography:** SAARC constitutes for 21% of the world's population and most of its population is young. Thus, cooperation with each other is important to reap demographic dividend and thus economic prosperity of the region.

2. **Economy:** SAARC comprises 3.8% (US$2.9 trillion) of the global economy. Trade and economic cooperation would become the linchpin of regional progress. With India as the economic hub, the smaller neighbours would constitute a great role in the economic rise of SAARC.

3. **Security:** Priority to improve the relations in South Asia is essential for realising development agenda. It is important for India to work with its neighbour especially Pakistan to stop terrorism and risks to its citizens.

4. **International cooperation:** It is important for SAARC to support each other at international platforms for shared interests. A peace in the region would enhance SAARC's image and will attract investment in the region. For instance, it is important for India's ambitions for a permanent seat at the UNSC.

5. **Environmental cooperation:** SAARC can emerge as a model of environmental cooperation for other organisations by supporting each other's efforts. For instance, India has established an International solar alliance and is emerging as a hub for renewable technologies and energy. India's neighbour can be a potential partner for this green initiative.

Issues related to SAARC as an organisation:

1. **Inter-state Disputes in South Asia:** One of the major hurdles in the way of cooperation among the SAARC members is the mistrust, mutual security perceptions and hostility. All the members of this organization feel in one way or another threat to their political, economic and territorial stability from the neighbouring countries.

2. **India-Pakistan relations:** Relation with Pakistan, remains India's biggest diplomatic and security challenge. India's challenge is to manage relationships with a state which, openly, uses terror as an instrument of state policy and has fractured, multiple power centres.

3. **Colonial mindset:** They are still entrapped in the historical conflicts of colonial rule and the disputed environment after the departure of Colonial Masters i.e. loss of property, lives, identities and communal violence. There are always high risks that any time the efforts for cooperation can suffer due to communal and terrorist threats.

4. **Fear of Indian Domination:** Another most important cause of SAARC failure is that there is a fear of India's hegemonic role in the region. The political, diplomatic and economic concerns felt by the member countries of SAARC in South Asia has obstructed any positive development among the member countries.

5. **Unstable Financial Positions:** The SAARC members are financially and economically not very much developed. The weak financial position of the member countries has also created an uncertain future for this organization. This is not conducive for the economic integration of South Asia.

6. **Trade issues:** The member countries of SAARC are not complementing each other but they are competing in fact. Mutual trade is very low. The lower level of intra-region trade in South Asia has made the objective of this organization a failure.

7. **Exclusion of Contentious Issues from SAARC Charter:** The charter of SAARC itself has some self-imposed anomalies as its charter has the provision of not discussing the contentious and bilateral disputes. On the one hand, it asks for increased cooperation and exchanges and on the other hand, avoids negotiations on bilateral disputes.

8. **Lack of Strong Infrastructure:** South Asian countries share some common features like cheap labour, low incomes, low value added commodities and comparative advantage in the same commodities like tea and garments etc. The intraregional trade cannot be successful in such conditions where the trade and economic structure and industrial infrastructure is similar.

Way forward:

1. **Role of India:** India should play her role as an equal partner for the stability and cooperation in South Asia. SAARC significance has increased in the face of changing global and regional patterns.

Created with by ForumIAS.com – The Knowledge Network for Civil Services.

Visit http//forumias.com New! http://forumiasacademy – Prelims & Mains Test Series

ForumIAS

2. **Formation of Conflict Conciliation Groups:** The CCGs can be formed for resolving the bilateral disputes when all parties to a particular dispute agree to seek SAARC help either to investigate the problem or conduct a fact finding study. Such groups can take up studies of problems relating to exploitation of women and children and other issues on which countries from within the region agree to take steps for.

3. **Discussions on International Issues:** The SAARC Charter must provide for discussions on the international issues among the leaders of the member countries especially those relating to common issues of international peace and security, trade, environment and technology transfers etc.

4. **Resolution of Bilateral Disputes:** SAARC, being an emerging organization and having the potential to link the resourceful economies of South Asia, must include in its provisions to resolve the bilateral disputes peacefully and the provision of taking all the decisions unanimously.

5. **Strengthening Markets:** India should work with its neighbours in strengthening their markets and its own infrastructure to its neighbours.

Though the formation of SAARC is a landmark step taken by the leaders of the region, the main rationale behind its establishment is to develop a conducive environment where all nations may interact peacefully with each other. This can be only successful if all nations cooperate. India's efforts of launching SAARC satellite, video-conferencing on Coronavirus is an important step in this direction to work together.

Q.22) Health budgetary allocation must go up if India is to prepare for an unpredictable epidemic. Comment.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss why health budgetary allocation must go up in India to prepare for an unpredictable epidemic.
> **Conclusion.** Way forward.

With the rise in epidemics like coronavirus, there is a need to increase spending on healthcare to prepare for any unpredictable epidemic. We need innovative technology solutions for India's healthcare requirements and the government's increased focus on the healthcare sector to tackle any future risk. The next few years are important to remove India's long-standing healthcare issues, and at the same time, adapt to meet the ever evolving healthcare needs of its citizens.

Need of increasing health budgetary allocation to prepare for an unpredictable epidemic:

1. **Rise in demand:** With the rise in epidemic cases, for instance the recent coronavirus positive cases, there is ever-rising demands for testing kits, for hospital beds, ventilators, masks and hand sanitisers. This demand for increase in spending on keeping stock of these facilities to match future supply to demand.

2. **Access:** Access to healthcare in India is poor. The Lancet in its latest study ranked India at 145th among 195 countries in terms of quality and accessibility of healthcare, behind its neighbours China, Bangladesh, Sri Lanka and Bhutan. Thus, there is a need to increase the health budget to make healthcare accessible in case of future epidemic.

3. **Insufficiency of Hospital Beds:** Penetration of healthcare infrastructure, much lower than that of developed countries and even lower than the global average, the bed density

in the country is 0.7 per 1,000 population, far below the global average of 2.6 and WHO benchmark of 3.5.

4. **Lack of doctors:** India suffers from lack of doctors and clinics, especially in rural areas and in case of epidemics and diseases. India faces a shortage of about 6 lakhs doctors, one million nurses and a large number of paramedical staff. Thus patients are either never diagnosed or diagnosed too late. This requires an increase of health budgetary allocation.

5. **Neglect of Rural Population:** According to health information 31.5% of hospitals and 16% hospital beds are situated in rural areas where 75% of total population resides. Moreover the doctors are also unwilling to serve in rural areas.

6. **Abysmal GDP spending:** For years, India's health expenditure as a percentage of GDP has been abysmal at about 1%, compared to 3 per cent in China and 8.3 percent in the United States. Thus, to prepare for any future epidemic there is a need to increase spending on healthcare and mitigating sources.

7. **Per-capita public health expenditure:** As per the National Health Profile, 2019, per capita public expenditure on health in nominal terms is ₹1,112 in 2015-16 which is quite low and needs to be increased. A WHO bulletin of 2018 records that out-of-pocket payments remain common in India, which in 2014, was estimated at 62% of total health expenditure.

Steps taken by Government:

Support to states	Support is provided to States under NRHM, to strengthen the health system including establishment and renovation of health infrastructure, engagement of Nurses, doctors and specialists on contractual basis.
National Health Mission	National Health Mission (NHM) encompasses its two sub-missions, the National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM). The main programmatic components include- Health System Strengthening in rural and urban areas, Reproductive-Maternal Neonatal-Child and Adolescent Health (RMNCH+A) and Communicable and Non-Communicable diseases.
Ayushman Bharat	It has two component- a) Health and Wellness Centre which will provide Comprehensive health care and will be responsible for providing free essential Drug and diagnostics Services, and b) National Health Protection Mission which will subsume the on-going centrally sponsored schemes– Rashtriya Swasthya Bima Yojana (RSBY) and the Senior Citizen Health Insurance Scheme.
Jan Ausadhi	Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana Kendra has been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs. This will help to reduce out of pocket expenditure.
National Medical Commission Bill	Replace the medical commission of India with the national medical Commission as the top regulator of Medical Education. AYUSH practitioners are allowed to practice allopathy after completing the bridge course.
Financial assistance	cial assistance is provided to the States/UTs for selection and training of Accredited Social Health Activists (ASHA), who act as a link between community and healthcare facilities.

Way forward:

1. **National Health Protection Scheme:** The government should focus on healthcare financing, particularly for the part of the population that cannot afford healthcare. Launching the National Health Protection Scheme (NHPS) is a step in the right direction.

2. **NITI Aayog Action plan:** It aimed at reducing the out-of-pocket spending on health to 50% by 2020 from 63.4% at present. It recommends to focus on public health through significantly increasing government expenditure on it and prioritize preventive care rather than provide curative care.

3. **National commission:** The government should appoint a national commission which makes recommendations for the spending on healthcare systems and monitors its performance.

4. **Universal health coverage:** State governments should draw up blueprints for universal health coverage and begin experimenting and innovating with pilot programmes.

5. **Involving the private sector:** Given that the private sector accounts for nearly 70% of India's healthcare, this sector has a critical role to play in supporting the traditional public sector-led response to the prevention and tackling of outbreaks. Investing in mechanisms to bring private sector players together is likely to contribute to better coordination, greater resources, more time and expertise during an emergency.

6. **Public health regulatory authority:** A public health regulatory authority such as the Food Safety and Standards Authority of India should be established. A public health regulatory authority can propose, review and revise public health legislations on a periodic basis, recommend and provide scientific advice and technical support for the framing of state rules.

There is evidence to show that increased public spending on health care has resulted in less financial hardship for communities and better health outcomes. This epidemic is an opportunity to drastically scale up budgetary allocations for health to facilitate expansion of capacity. Epidemics are known to change the course of history. India must steer this one to harness finite resources optimally for the benefit of all.

Q.23) Elaborate the process of legislation in the Indian Parliament for an ordinary bill. How is a money bill different from an ordinary bill?

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Explain the process of legislation in the Indian Parliament for an ordinary bill. Discuss how a money bill is different from an ordinary bill.
> **Conclusion.** Way forward.

The primary function of legislatures is to make laws for its people. Every bill has to pass through the same stages in each House. A bill is a proposal for legislation and it becomes an act or law when duly enacted.

Process of legislation in the Indian Parliament for an Ordinary Bills:

1. **First Reading:** The ordinary bill can be introduced in either house by a minister/other member. Upon grant of leave by house, the member reads the title and objectives, but no discussion happens on this bill at this stage. Following this, the bill is published in gazette.

2. **Second Reading:** At this stage, the detailed scrutiny of the bill happens and the bill takes full shape. It has 3 sub stages:
   a) **Stage of general discussion:** The principles of the bill and its provisions are discussed
      generally, but the details of the bill are not discussed.
   b) **Committee stage:** The usual practice is to refer the bill to a select committee of the House. This committee examines the bill thoroughly and in detail, clause by clause. It can also amend its provisions, but without altering the principles underlying it. After completing the scrutiny and discussion, the committee reports the bill back to the House.
   c) **Consideration stage:** The House, after receiving the bill from the select committee, considers the provisions of the bill clause by clause. Each clause is discussed and voted upon separately. The members can also move amendments and if accepted, they become part of the bill.
3. **Third Reading:** No amendments are allowed anymore and either bill is completely accepted or
   rejected. If the majority accepts, it is passed and transmitted to the second house.
4. **In Second house:** Bill goes through all 3 stages and House may:
   a) Pass the bill as sent by the first house (i.e. without amendments).
   b) Pass the bill with amendments and return it to the first House for reconsideration.
   c) Reject the bill altogether.
   d) Not take any action and thus keep the bill pending up to 6 months.
5. **Provision of joint sitting**: In case of deadlock between the house over passing of a bill emerges, the President can summon a joint sitting of Lok Sabha and Rajya Sabha. The members of both houses vote jointly and the bill passes by simple majority.
6. **Assent of President:** After the bill is passed from both the houses, it is presented to the office of President for assent. The President can exercise any of the following options:
   a) He may give his assent to the bill.
   b) He may withhold his assent to the bill.
   c) He may return the bill for reconsideration of the Houses.

If an assent is given, it becomes an act and is placed on statute book.

Differences between ordinary and money bill:

Ordinary Bill	Money Bill
Can be introduced in either Lok Sabha or Rajya Sabha.	Can only be introduced in Lok Sabha.
Can be introduced by either minister or member.	Can be introduced only by the minister.
Can be introduced without President's recommendation.	Can be introduced only with President's recommendation.
Can be amended/rejected by Rajya Sabha.	Rajya Sabha can only return the bill.
Rajya Sabha can only detain bill for 6 months	Rajya Sabha can detain bills for max 14 days.
Does not require certification of speaker when transmitted to Rajya Sabha.	Requires Speaker's certification.
Sent for President's assent if passed by both houses. In case of deadlock, joint sitting can be summoned.	Can be sent for president's assent even if approved only by Lok Sabha. No provision for joint sitting.

Its defeat in Lok Sabha may lead to resignation of the government.	Defeat in Lok Sabha leads to resignation of the government.
Can be rejected, approved or returned for reconsideration by the President.	Can be rejected or approved but cannot be returned by the President.

Legislative process is an important part of Indian democracy. Indian constitution has elaborated every provision of different legislative powers related to different bills of Parliament and state legislature, thus, enabling democracy to enable laws for societal benefit.

Q.24) Article 51 A of our constitution which deals with fundamental duties makes it a duty of every citizen to develop a Scientific Temper. In light of this, discuss the progress made by Indians towards inculcating a scientific temper.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss progress made by Indians towards inculcating a scientific temper.
Conclusion. Way forward.

Scientific temper represents the spirit of inquiry and as such involves the process of logical reasoning. Recent incidents of divorcing a frog couple to the floods in Madhya Pradesh after their grand wedding two months ago, for rains indicate that scientific temper as was mentioned in Article 51A as a fundamental duty has not been achieved even after 70 years of growth and development. One of the reasons for this is the poor education system and inability of our schools to inculcate scientific values in students.

Scientific temper in India- not much achieved:
1. **Response to coronavirus:** Recently it was seen astrologers claiming that SARS-CoV-2 was caused by the conjunction of Rahu and Ketu. Some swamis are convinced that the cure lies in propitiating the virus by performing rituals, accompanied by a cocktail of cow urine, dung and ghee.
2. **Killing of rationalist thinkers:** Rationalist thinkers like Kalburgi, Dabholkar and Pansare were killed for their crusade against superstition and orthodoxy in society.
3. **Women atrocities:** As per NCRB data, between 2005 and 2015, more than 2000 women were killed in India following allegations of witchcraft.
4. **Superstition:** Prevalence of 'God-men' catering to the educated middle class who even spread their superstitious ideas through media and social media is a glaring example of pseudo-scientific society.

Reasons for failure to develop the scientific temper:
1. **Illiteracy:** Still millions of people are illiterate. About 25% Indians are illiterate. This is a major hindrance to developing an attitude of scientific temper in Indians.
2. **Women backwardness:** Indian women are still not fully empowered. An empowered educated woman is must to instil a scientific temper among her children and in the house.
3. **Religion:** Often the structural rigidities have their roots in religion. This religious roots makes it a daunting task as there are high chances of communal tension flaring up when these rigidities are challenged.
4. **Orthodox Society:** The orthodox elements of the Indian society restrict inquisitiveness among the children. Thus the spirit of enquiry gets buried in childhood itself.

5. **Education System:** The Indian education system is evolving into a platform of gaining employment rather than gaining knowledge. This restricts the spirit of enquiry.
6. **Attitude:** Even the educated blindly follow the norms and superstitions due to lack of spirit of inquiry. This results in growing superstitions blindly and it is trickling down from generation to generation.

Measures to instil scientific temper among Indians:
1. **Catch them young:** Scientific temper can be best developed during childhood in schools if education is imparted through means like stories, painting, recitation, games, group projects etc. so that children open up and are not afraid of asking questions to their teachers which strengthens their inquisitiveness.
2. **Mid-level schools:** Students in colleges need to be placed in analytical situations through role play, quizzes, model making etc. where critical and rational thinking are needed. Making students aware of the impact of science on society by arranging visits to factories, hospitals, research laboratories, and encouraging them to participate in science exhibitions.
3. **Reform of religious instruction:** Instead of countering religious teachings, the superstitious and orthodox elements in religious instructions should be discouraged by reviving the scientific Vedic learning, like philosophy of 'Advait Vedanta' or absolute monism which is more like modern science.
4. **National Framework on Developing Scientific Culture:** Academicians, government experts, and scientists should collectively deliberate on a unified set of objective guidelines which define the contours of scientific temper and standards which should be followed by universities.
5. **Strengthening local level institutions:** Spreading awareness about science and reasoning should start from rural areas through capacity building and scientific demonstration programs at Panchayats which can keep a check on activities like witchcraft etc.
6. **Restraining public figures:** Public figures like politicians and professors are expected to uphold and disseminate scientific culture and in case of transgression strict penal provisions should be instituted against them.

India is the knowledge economy and IT capital of the world. The spirit of enquiry and reform are vital for success of make in India, Skill India or Digital India. India needs to shed its conservatism and embrace the spirit of enquiry and reform to encash human capital and transform them into demographic dividend.

Q.25) An independent judiciary is of critical importance, as it provides checks and balances in a political democracy. Critically examine.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss how an independent judiciary provides checks and balances.
Conclusion. Way forward.

Independence of the judiciary means a fair and neutral judicial system of a country, which can take its decision without any interference of the executive or legislative branch of government. Judicial Independence is guaranteed in the constitution and cemented as part of 'Basic Structure of Constitution' by the Kesavananda Bharati (1973) Judgement. The

Judiciary keeps in check the executive and Legislature in accordance with the 'principle of separation of powers' derived from Article 13.

Independent- provides checks and balances in a political democracy:
1. **Accountability to the people:** Judicial independence is very important to uphold the democratic principle of accountability. It helps to keep the executive and legislature accountable to the people through judicial review and judicial activism.
2. **Constitution interpretation:** A written constitution can hardly be effective in practice without an independent and impartial arbiter of constitutional issues and also that it is necessary to restrain governmental organs from exercising powers which may not be sanctioned by the Constitution. The written constitution is considered as the basic law of land and requires some authority to interpret it without prejudice and self-interest.
3. **Rule of law:** For the maintenance of the rule of law and fair judicial administration, an independent judiciary is of utmost importance. The job of the judiciary is to interpret the Constitution and laws and make sure the executive and legislature are making decisions based on the Constitution and laws.
4. **Protection of individual rights:** Only an impartial and independent judiciary can protect the rights of the individual and can provide equal justice without fear and favour.
5. **Prevent arbitrary acts:** Independent judiciary plays an important role in controlling the arbitrary acts of the administration. If the arbitrary act of the administration causes injury to any person, it provides relief to them.
6. **Prevent autocracy:** Judicial independence is important for that a democracy does not transform itself into an autocracy. Without an independent judiciary, we will have dictatorship, as the executive will be able to do whatever it likes.
7. **Free and fair elections:** Independent judiciary ensures universal adult franchise as enumerated in constitution. The judiciary's role in deciding the validity of presidential, vice-presidential, parliamentary and state legislative elections also necessitates independence of the judiciary.

Issues that impact judicial independence:
1. **Lack of transparency in judge's appointment:** India's judges have been appointed by a "Collegium" of judges. Collegium considers the opinion of the executive government when appointing judges, but the final decision about who to appoint rests with the judiciary. Their decisions are taken behind closed doors, and the opacity of the process has been a long-standing issue.
2. **Case-allocation procedures:** There is opacity in internal workings of the Court that impact independent decision-making. Usually, the Chief Justice of India, as the senior-most judge of the Court, decides the allocation of certain cases to judges and benches of judges. Some judges, on occasion, have spoken out publicly on the opaqueness and case allocation procedures of the Supreme Court. Criticisms point to many issues with the procedure, which included the allocation of politically sensitive cases to favourable judges.
3. **Political favouritism:** Often, judges who have favours or relationships with senior judges of the Supreme Court or the Executive get promoted to or appointed to more favourable positions.
4. **Judicial overreach:** Since there is no system of checks on the Supreme Court, it can interfere with the purview of the legislature and judiciary.

Independence of the judiciary is one of the basic structures of the Indian Constitution. In *S.P. Gupta v. Union of India*, the Supreme Court held that the concept of independence of

the judiciary is a notable concept which inspires the constitutional scheme and constitutes the foundation on which the edifice of our democratic polity rests. It is the judiciary which is entrusted with the task of keeping every organ of the state within the limits of the law thereby making the rule of law meaningful and effective.

Q.26) Give an account of recent steps taken by the government to improve Indian healthcare system.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss various measures taken by the government to improve Indian healthcare system.
Conclusion. Way forward.

Healthcare in India remains one of the largest sectors in terms of both employment and revenue generation. It has reported a compounded annual growth rate of 16.5%, and likely to be worth $280 billion by 2020. However, the health care system in India has some issues and is not affordable to all. The ground reality is that healthcare in India pushes families into deep debt even after one episode of illness, particularly crushing low-income groups.

Inadequacies in India's Healthcare System:
1. **Paucity of Resources:** Doctors work in extreme conditions ranging from overcrowded out-patient departments, inadequate staff, medicines and infrastructure.
2. **Doctor-Patient Ratio:** India has only 10 lakh registered doctors to cater to 1.3 billion citizens. While urban areas have 58% qualified doctors, in rural areas the number is as low as 18.8%. There is one government doctor for every 10,189 people according to WHO against the recommended ratio of 1:1,000.
3. **Unaffordable Treatments:** More than 17% of Indian population spends at least 10% of household budgets for health services. Competition Commission of India report on affordability stated that 50 to 65% of Indians did not have regular access to essential medicines.
4. **Doctor-Patient Relation:** The highlighting of errors by doctors, medical staff, and hospitals, as well as corruption among doctors, has further eroded the trust patients have in the medical facilities. Trust deficit between doctors and patients is also gradually becoming a concern, with rising violence against doctors.
5. **Risk of epidemic:** India suffers from lack of doctors and clinics, especially in rural areas and in case of epidemics and diseases like tuberculosis. Thus patients are either never diagnosed or diagnosed too late.
6. **Ineffective Implementation of Laws:** Despite laws in place that envisage imprisonment besides recovery of compensation from perpetrators for loss or damage to Medical professionals and property, states are lacking in its effective implementation. For example, West Bengal has also enacted a law for protection of doctors but due to its poor implementation it has failed to curb the ongoing doctor-patient crisis.
7. **Quacks:** The shortage of trained doctors has led to a proliferation of unqualified quacks. Just 19% of people in rural India who call themselves doctors actually have a medical degree. These quacks are usually trained in alternative remedies, such as homeopathy, but advertise themselves as qualified medical professionals to patients desperately seeking help.

Recent steps taken by the government to improve Indian healthcare system:

1. **National Health Mission:** National Health Mission (NHM) encompasses its two sub-missions, the National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM). The main programmatic components include- Health System Strengthening in rural and urban areas, Reproductive-Maternal Neonatal-Child and Adolescent Health (RMNCH+A) and Communicable and Non-Communicable diseases.

2. **Ayushman Bharat:** It has two component- a) Health and Wellness Centre which will provide Comprehensive health care and will be responsible for providing free essential Drug and diagnostics Services, and b) National Health Protection Mission which will subsume the on-going centrally sponsored schemes– Rashtriya Swasthya Bima Yojana (RSBY) and the Senior Citizen Health Insurance Scheme.

3. **Jan Aushadhi:** Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana Kendra has been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs. This will help to reduce out of pocket expenditure.

4. **National Medical Commission Bill:** Replace the medical commission of India with the national medical Commission as the top regulator of Medical Education. AYUSH practitioners are allowed to practice allopathy after completing the bridge course.

5. **Support to states:** Support is provided to States under NRHM, to strengthen the health system including establishment and renovation of health infrastructure, engagement of Nurses, doctors and specialists on contractual basis.

6. **Financial assistance:** Financial assistance is provided to the States/UTs for selection and training of Accredited Social Health Activists (ASHA), who act as a link between community and healthcare facilities.

There is a need to increase public spending on health care for communities and better health outcomes. Efforts must be made to make healthcare more affordable and accessible. India must invest more in Increasing state's capacities to make healthcare better.

Q.27) What are 'fourth branch institutions'? Critically comment on the effectiveness of 'The National and State Human Rights Commissions' as a 'fourth branch institutions' in Indian democracy.

Ans.

> **Demand of the question**
> **Introduction.** What are fourth branch institutions?
> **Body.** Discuss how effective National and State Human Rights Commissions as a 'fourth branch institutions' are in Indian democracy.
> **Conclusion.** Way forward.

The fourth branch institutions is an unofficial term referring to groups or institutions perceived variously as influencing or acting in addition to the three branches of the democratic government i.e. legislative, executive and judicial. Some of these bodies are established by the Constitution itself. For instance, the Election Commission and the Office of the Comptroller and Auditor General. Others have been established under law for example, the Information Commission under the Right to Information Act and Human Rights Commissions under the Protection of Human Rights Act.

Mandate of NHRC and SHRC as fourth branch institution:

1. **Investigation:** Investigating complaints or failure of any public official regarding the rights violation, either suo moto or after receiving a petition.

2. **Prevention and Safeguard:** Monitoring the living conditions of the inmates and to make recommendations thereon. Reviewing statutory safeguards or treaties for the protection of human rights.
3. **Research and promotion:** Promoting research and encouraging NGOs in the field of human rights. While making an inquiry into the complaints, the commission enjoys the powers of a civil court. It also studies treaties and other international instruments on human rights and make recommendations for their effective implementation.
4. **Intervention:** It intervenes in any proceeding involving any allegation of violation of human rights pending before a court with the approval of such court.
5. **Human rights:** NHRC review the factors, including acts of terrorism that inhibit the enjoyment of human rights and recommend appropriate remedial measures.
6. **Awareness:** NHRC spreads human rights literacy among various sections of society and promotes awareness of the safeguards available for the protection of these rights through publications, the media, seminars and other available means.
7. **Working with NGOs:** It encourages the efforts of non-governmental organisations and institutions working in the field of human rights.

Limitations of NHRC and SHRC that impact its working:
1. **Only a recommendatory body**: NHRC can only make recommendations, without the power to enforce decisions. This lack of authority to ensure compliance can lead to outright rejection of its decision too.
2. **Investigation**: It does not have independent investigative machinery. Under the Protection of Human Rights Act, 1993, human rights commissions cannot investigate an event if the complaint was made more than one year after the incident. Therefore, a large number of genuine grievances go unaddressed.
3. **Ceremonial body:** It is often viewed as a post-retirement destination for judges, police officers and bureaucrats with political clout. Bureaucratic functioning, inadequacy of funds also hamper the working of the commission.
4. **Incapacity to award relief**: It can only ask the authority to approach the higher Courts to provide relief to the victims. The concerned authority has to implement its recommendations within one month or communicate reasons for not complying.
5. **Armed forces**: Commission can't investigate the violation in case of armed forces and has to rely on the report of the Centre.

Way forward:
1. **More powers**: Its decisions should be made enforceable by the government. The efficacy of commissions will be greatly enhanced if their decisions are made enforceable by the government.
2. **Armed forces**: The definition should be restricted to only army, navy, and air force. Further, even in these cases the Commission should be allowed to independently investigate cases of violation of rights.
3. **Commission's membership**: Members of NHRCs should include civil society, human rights activists etc. rather than ex-bureaucrats.
4. **Amending law**: Misuse of laws by the law enforcing agencies is often the root cause of human right violations. So, the weakness of laws should be removed and those laws should be amended or repealed, if they run contrary to human rights.
5. **Independent Staff**: NHRC should have its independent investigating staff recruited by itself, rather than present practice of deputation.

The situation of persistent human rights violations across the country presents manifold challenges. There is a need to improve and strengthen the human rights situation. It is important to empower NHRC to make it work more efficiently and independently.

Q.28) It is argued that the internet should be regarded as an essential service, and access to it as a fundamental right. Discuss.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss why the internet should be regarded as an essential service and access to it as a fundamental right.
> **Conclusion.** Way forward.

Today we live in a global digital era, where boundaries carry no meaning when it comes to the internet. The Internet is a must in today's world if one has to enjoy various rights and services. In the present digital world where almost every service is being digitised, it is important to recognise the right to
Internet access as an independent right.

Need for recognising Right to Internet as a fundamental right in itself:
1. **Social injustice:** Digital inequalities lead to gross social injustice and hinder development of the individuals. With non-availability of Internet many Indian citizens especially poor are unable to access many services. It also prevents them many employment opportunities.
2. **Preventing exclusion:** In recent times, several government and private sector services have become digital. Some of them are only available online. Thus internet access is a must to avail these services. The Internet is a right in a way to enjoy other rights.
3. **Digital economy:** We are moving to a global digital economy where knowledge of digital processes will transform the way in which people work, collaborate, consume information, and entertain themselves. This has been acknowledged in the Sustainable Development Goals as well as by the Indian government and has led to the Digital India mission.
4. **Good governance:** Accountability and transparency are two pillars of good governance. Lack of internet hinders this. For example, the Internet helps people know what the government is doing and enables them to keep the government accountable through various platforms like Twitter or grievance portals.
5. **Employment opportunities:** Lack of internet access prevents many people from equal employment opportunities. For example, a rural seller could earn more by selling online through e-commerce like amazon, which he may not enjoy due to lack of internet. Further digital illiteracy leads to lack of required skills, as digital skills are must nowadays to get any job.
6. **Women empowerment:** Digital literacy and internet access helps in furthering women's rights and helps them to be aware of their rights. It helps in educating women. Also it provides employment opportunities for them, as many women work from home through the internet.

Way forward:
1. **Positive obligation:** There is a positive obligation to create infrastructure for a minimum standard and quality of Internet access as well as capacity-building measures which would allow all citizens to be digitally literate.

2. **Negative obligation:** A negative obligation is on the government prohibiting it from engaging in conduct that impedes, obstructs or violates such a right. Thus, it will prevent unwarranted internet shutdowns.
3. **Accountability:** Recognising the right to the internet will also make it easier to demand accountability from the state, as well as encourage the legislature and the executive to take a more proactive role in furthering this right.
4. **Reducing inequalities:** A right to Internet access would also further provisions given under Articles 38(2) and 39 of the Constitution reducing inequalities and furthering the rights of every individual.

Recently, in Faheema Shirin v. State of Kerala, the Kerala High Court declared the right to Internet access as a fundamental right forming a part of the right to privacy and the right to education under Article 21 of the Constitution. Some states including Kerala have included the internet in the list of essential services. It is an important step to recognise the right to the Internet as a fundamental right, and allow citizens increased access to information, services, and the creation of better livelihood opportunities. The Internet is a right in itself today which one should be available to all.

Q.29) What does a pandemic mean? How is it different from the terms 'epidemic' and 'endemic'? Illustrate with example.

Ans.

Demand of the question
Introduction. What is pandemic?
Body. Discuss how it is different from epidemic and endemic with examples.
Conclusion. Way forward.

Pandemic refers to an epidemic that has spread across countries and continents- the worldwide spread of a new disease. However, some epidemiologists classify a situation as a pandemic only once the disease is sustained in some of the newly affected regions through local transmission.

How is it different from epidemic and endemic?

Epidemic	Pandemic	Endemic
According to WHO, an epidemic is the regional outbreak of an illness that spreads unexpectedly.	Once an epidemic spreads to multiple countries or regions of the world, it is considered a pandemic.	The term endemic refers to the constant presence and/or usual prevalence of a disease or infectious agent in a population within a particular geographic area.
It is an outbreak of a new pathogen that spreads over a period of time.	It is an outbreak of a new pathogen that spreads easily from person to person across the globe that spread spontaneously.	Epidemics can be transmitted through person-to-person contact, animal-to-person contact, or from the environment.
These diseases are present in a region and are not population specific.	These diseases are present all over the world in all populations.	These diseases are present in a set population of people or geographic region of the world
For instance, widespread cases of COVID-19 across	For example, COVID-19 is spread worldwide and is	For example, 2017 Gorakhpur Japanese

China meant that the Wuhan outbreak had grown to an epidemic.	unstoppable and uncontainable making it a pandemic.	encephalitis outbreak in India.

Preventive Measures:

1. **Collaboration:** To make the world safer, global health security depends crucially on much greater awareness, cooperation and collaboration between individual countries, agencies, organizations and communities. The continuing scientific uncertainty around disease emergence requires even more collaboration and global awareness than has previously existed, not least to improve early detection.

2. **Strengthening health systems:** In order to mitigate the impact of epidemics, protect the health workforce and ensure continuity of health services during and after them, stronger health systems are needed.

3. **Investment:** Long-term substantial investments should be made to strengthen health systems so they are able to provide safe, effective and qualitative health services before, during and after epidemics.

4. **Community engagement:** Communities are the frontline in detecting and managing epidemics. They can detect outbreaks, and help in containment to prevent epidemic amplification.

5. **Sensitisation:** We need to sensitise healthcare providers to ensure they act in a non-discriminatory manner.

6. **Literacy:** We must provide both treatment and legal literacy to people, so that they understand their rights and can speak up if these are violated.

7. **R&D:** It is important to invest more in R&D to come up with new drug regimens for responding to the spread of new diseases.

The epidemics in the 21st century are spreading faster and further than ever. Outbreaks that were previously localized can now become global very rapidly. An individual flying from one side of the world can introduce a new disease into the other, within hours, and before even showing symptoms. Thus, preventive measures must be put in place.

Q.30) Briefly enlist the constitutional provisions related to tribunals in India. Critically analyse the role of tribunals in the Indian judicial system.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss various constitutional provisions related to tribunals in India. Discuss the role and issues related to tribunals in the Indian judicial system.
Conclusion. Way forward.

Tribunal is an administrative body established for the purpose of discharging quasi-judicial duties. The original Indian Constitution did not contain provisions with respect to tribunals. The 42nd Amendment Act of 1976 added Tribunals. It performs a number of functions like adjudicating disputes, determining rights between contesting parties, making an administrative decision, reviewing an existing administrative decision and so forth.

Various constitutional provisions related to tribunals in India: Provisions for tribunals is provided through 42nd amendment by creating Part 14-A in the Constitution. It has two articles:

1. **Article 323 A:** Article 323-A empowers Parliament to create Administrative Tribunals to adjudicate disputes regarding recruitment and conditions of service of persons appointed to public services at Union, State and local level or with any other authority within India.

2. **Article 323 B:** Article 323-B empowers parliament or state legislatures to set up tribunals for other matters i.e. taxation, foreign exchange, import and export, Industrial and labour, Land reforms, Ceiling on urban property, Elections to Parliament and state legislatures, Rent and tenancy right.

3. **General features:** While Article 323 A anticipates establishment of tribunals for public service matters only, Article 323 B contemplates establishment of tribunals for certain other matters.

   ● Under Article 323 A can be established only by Parliament, tribunals under Article 323 B can be established both by Parliament and state legislatures with respect to matters falling within their legislative competence.

   ● Under Article 323 A, only one tribunal for the Centre and one for each state or two or more states may be established.

Role of tribunals in the Indian judicial system:

1. **Quick resolution:** Tribunals were set up to reduce the workload of courts, to expedite decisions, increase the outreach of justice and to provide a forum which would consist of both lawyers and experts in the areas falling under the jurisdiction of the tribunal. Since the tribunal procedure is not so complex, it is easy to decide the matters quickly and efficiently.

2. **Accessibility:** The tribunals take less time to solve the cases as compared to the ordinary courts. As a result, the expenses are reduced. On the other hand, the ordinary courts are cumbersome and slow-going, thus making litigation costly. Therefore, the administrative tribunals are cheaper than ordinary courts.

3. **Quality Justice:** If we consider the present scenario, the tribunals are the best and the most effective method of providing adequate and quality justice in less time. Tribunals have expert members to deal with specific subject matters e.g. NCLT has experts in tax, NGT has environmental experts etc.

4. **Reduced burden of Courts:** The system of administrative adjudication has lowered down the burden of the cases on the ordinary courts. A law commission report says that the top five central tribunals in India have taken over 3.50 lakh cases pending from the judiciary.

5. **Flexibility:** The introduction of tribunals engendered flexibility and versatility in the judicial system of India. Unlike the procedures of the ordinary court which are stringent and inflexible, the administrative tribunals have a quite informal and easy-going procedure.

Issues related to tribunals in the Indian judicial system:

1. **Haphazard growth:** They have grown haphazardly with lack of any overarching plan. Different tribunals constituted under different enactments are administered by different administrative departments of Central and the State Governments.

2. **More delay:** Tribunals have been criticised for poor judgments resulting in the case reaching SC and HCs, leading to more delay.

3. **Impartiality:** There are doubts about impartiality as tribunals act as extended arm of departments with retired bureaucrats appointed to it with fewer judges.

4. **Against separation of powers:** With growth in the number of tribunals has led to transfer of judicial powers to the executive which is against separation of power and judicial independence.

5. **Lack of clear understanding:** As tribunals do not follow any uniform procedures but principles of natural justice, adjudicators are unable to have a clear understanding of the procedures to be followed.

SC has cautioned on incessant creation of tribunals. It has itself struck down the creation of a few like the National Tax Tribunal. Hence, the need is to improve the quality of tribunal justice along with balancing the powers of judiciary and executive.

General Studies 3

Q.1) Nuclear energy although has potential to solve India's energy problems but carry great inherent risks. Elaborate.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss nuclear energy potential and need of utilisation of nuclear power in India. Mention risks associated with nuclear energy.
Conclusion. Way forward.

India's Nationally Determined Contribution (NDC) outlines its intent to scale up the country's clean-energy capacity. At the same time, India's energy poverty remains a big challenge. The Integrated Energy Policy review, estimated that the country will need to increase its primary energy supply by 3 to 4 times, and electricity generation capacity by 5 to 6 times (2003-04 levels) if it is to meet the energy needs of all its citizens by 2032 and maintain an 8% GDP growth rate. While successive governments have long touted nuclear power as the solution to India's energy woes, there are inherent risks associated with the same.

Nuclear energy potential and need of exploiting nuclear power in India:
1. **Thorium and Uranium reserves:** India has vast reserves of Thorium that can fuel India's nuclear energy provided appropriate technology. India's thorium deposits, estimated at 360,000 tonnes, and natural uranium deposits at 70,000 tonnes. The country's thorium reserves make up 25% of the global reserves.
2. **Energy poverty:** Although India is the 3rd largest producer of electricity, about 20 % of the population of the country does not have access to electricity today. The per capita consumption of electricity is very low at about 1,181 kWh per annum, about half of the world average and way below that of advanced countries. There exist shortages in energy and peak power in the range 10-15%.
3. **Energy demand:** Nuclear energy is a critical part for India's future energy security. As we know India's annual energy demand is expected to rise to 800 GW by 2032, it is very important to consider every source of energy in the optimum energy mix.
4. **Energy efficiency:** Quantities of nuclear fuel needed are considerably less than thermal power plants. For instance, 10000 MW generation by coal will need 30-35 million tons of coal, but nuclear fuel needed will be only 300-350 tons.
5. **Economic growth:** Rapid economic growth is also critical to achieve developmental objectives and poverty alleviation. A sustained economic growth of about 8 to 10% is needed over the next few decades. As electricity is a key driver for economic growth, it is necessary that there is a massive augmentation in electricity capacity, apart from transmissions and distribution systems.
6. **Decrease in Energy Supply:** Energy supply has been negatively affected by changing weather patterns. As water reservoirs decreases due to lower precipitation and increased evaporation, capacity for electricity production from hydropower and other water-intensive generation technologies may decline.
7. **Climate change:** Due to its emission-free nature, nuclear energy can contribute to global efforts under the Paris Agreement. India's Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) has outlined goals to reduce the carbon emissions intensity of its economy by 33-35% by

2030 as well as increase the clean energy electricity capacity to 40% of the total installed capacity in the same period.

Issues and risks related with nuclear energy:
1. **Meltdowns:** A meltdown is an accident in which severe overheating of the nuclear reactor results in the melting of the reactor's core. If a meltdown occurred, a nuclear power plant could release radiation into the environment. After incidents such as Chernobyl and the Fukushima disaster, countries such as Germany began to undergo a nuclear phase out shutting down their nuclear energy units.
2. **Health risks:** Nuclear power generation is fraught with ionising radiation, an invisible poison, which is unsafe in all doses, however small. Radiation causes cancers and genetic damage. Nuclear plants expose not just occupational workers, but also the general public, to radioactive hazards in numerous ways.
3. **Nuclear waste:** Nuclear power generation is not as clean as it is often considered. This is demonstrated in the case of Kudankulam. People have been protesting for decades as they worry that the hot water dispatched from the plant will affect the marine life of the surrounding water sources and subsequently their livelihood.
4. **Displacement:** To build nuclear reactors, it requires huge amounts of land. This would displace local communities who may not want to leave. Further, it is not easy to rehabilitate them and provide them with appropriate compensation.

Nuclear power can help to improve energy security. For a rapidly developing economy such as India, it can make a vitally important contribution to growth. Besides, nuclear power can also reduce the impact of volatile fossil fuel prices and mitigate the effects of climate change. India needs to come up with a durable energy strategy to meet present and future energy demands of its population and industries.

Q.2) The growing role of the private sector in space, demands India to move quickly towards a new model for India's space activity. Explain with illustrations.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss why the private sector should be involved in the space industry. Also mention issues and Concerns of private participation in the space industry in India.
Conclusion. Way forward.

India is among the global leaders in space exploration. ISRO has spearheaded India's success in space. These include various satellite launch, space-launch vehicles, and a range of associated capabilities. But the private sector has not contributed much to it. India is lagging in harnessing the power of private innovation in the space domain. This not only limits the exploitation of space for economic development, but has serious national security implications.

Why should the private sector be involved in the space industry?
1. **Increasing Demand:** Indian Space Research Organisation (ISRO)'s annual budget has crossed ₹10,000 crore ($1.45 billion) and is growing steadily. However, demand for space-based services in India is far greater than what ISRO can provide. Therefore, private sector investment is critical, for which a suitable policy environment needs to be created.

2. **Overall growth of space sector:** Private sector participation is needed to ensure overall growth of the space sector. ISRO has a strong association with the industry, particularly with Public Sector Undertakings (PSUs) like Hindustan Aeronautics Limited and large private sector entities like Larsen and Toubro. Role of private industries should be increased.

3. **Country's security:** The most basic way to secure our space capabilities is to distribute them across many different satellites and spacecraft, so that continuity is unaffected even if an adversary manages to disable one or more of our satellites. For instance, the US is highly vulnerable in space because it depends on thousands of its satellites. But it is also best equipped to deal with a potential attack on its space assets because it can find alternatives to switch to.

4. **International trends and experience-** Elon Musk's "SpaceX" and its high profile projects have highlighted the increasing significance of the private players in the space sector. In India, despite the various strategic, security and regulatory constraints, a limited private ecosystem has evolved around the ISRO.

5. **Greater pool of resources:** Public resources- land, labour, capital are limited. Private sector participation will open a new pool of resources and talent. It will bring more funding, and experience into space exploration activities.

6. **Human Capital:** Restricting space activities to ISRO, limits proper utilisation of talent all over the country. With demographic dividend, private sector participation can exploit the talent across the nation contributing a lot to space explorations in India.

7. **Technological advancement:** Commercialisation will also develop better technologies which are important. It will allow integration of many other technologies like artificial intelligence into space exploration activities. With experience from space activities, the private sector can increase the role of technology in other areas.

8. **Risk Sharing:** Every launch consists of various risks. Private sector helps in sharing the risk of cost factor. Failure costs will be distributed. Also with increased private participation, failures will reduce due to increased available human capital and mind.

9. **Commercial demand**: There is a need to enhance internet connectivity for the masses, which is another demand pull factor for increased commercial interest in space. Asteroid mining is also another potential area that looks promising, with scope for monetisation and disrupting commodity markets.

Issues and Concerns of private participation in space industry in India:
1. **Data Risk:** Though space it gives an opportunity to entrepreneurs but raw data of ISRO in the hands of the public is sensitive and consists of danger of misuse or improper utilisation of data.
2. **Regulation:** Though it is a profitable investment, regulation of private sector participation is not easy. The time taken for regulatory clearances and unstable political institutions can cause delays and hurdle in decision making of investors.
3. **Revenue loss:** ISRO will lose a fair amount of money it is earning through its space activities. This will reduce government revenue.
4. **Unfair commercial practices:** Allowing private sector may lead to lobbying and unfair means to get space projects or launch of any satellite for their own profit. It may also lead to leakage of sensitive information by private players to other countries and companies to make profit.

India should create an independent body that can create a level playing field for government and private space enterprises. A new Space law for India should be framed which should aim at facilitating growing India's share of global space economy to 10% within a decade

which requires a new kind of partnership between ISRO, the established private sector and the New Space entrepreneurs.

Q.3) What is black carbon? Discuss the consequence of rise in black carbon in the atmosphere. Suggest measures to tackle the rising level of black carbon.

Ans.

> **Demand of the question**
> **Introduction.** What is black carbon?
> **Body.** Discuss the consequence of rise in black carbon in the atmosphere. Suggest measures to tackle the rising level of black carbon.
> **Conclusion.** Way forward.

Black carbon is a potent climate-warming component of particulate matter formed by the incomplete combustion of fossil fuels, wood and other fuels. It is emitted from gas and diesel engines, coal-fired power plants, and other sources that burn fossil fuel. Black carbon has negative implications for both human health and climate.

Consequence of rise in black carbon in the atmosphere:
1. **Climate change:** Black carbon contributes to climate change causing changes in patterns of rain and clouds. It has recently emerged as a major contributor to global climate change, possibly second only to CO_2 as the main driver of change.
2. **Global warming:** Black carbon warms the Earth by absorbing sunlight and heating the atmosphere and by reducing albedo when deposited on snow and ice (direct effects) and indirectly by interaction with clouds. Per unit of mass, black carbon has a warming impact on climate that is 460-1,500 times stronger than CO2.
3. **Precipitation:** Black carbon causes changes in patterns of rain and clouds. Black carbon, like all particles in the atmosphere, affects the reflectivity, stability and duration of clouds and alters precipitation.
4. **Rise in sea level:** It could accelerate the amount of freshwater Greenland loses and raise sea levels due to warming effect.
5. **Impact on vegetation and ecosystems:** Black carbon can affect the health of ecosystems in several ways like by depositing on plant leaves and increasing their temperature, dimming sunlight that reaches the earth, and modifying rainfall patterns. Changing rain patterns can have far-reaching consequences for both ecosystems and human livelihoods, for example by disrupting monsoons.
6. **Air pollution:** It comprises a significant portion of particulate matter or PM, which is an air pollutant.
7. **Health problems:** Inhalation of black carbon is associated with health problems including respiratory and cardiovascular disease, cancer, and even birth defects.

Measures to tackle the rising level of black carbon:
1. **Reducing emission:** Black carbon has a short atmospheric lifetime. Thus, targeted strategies to reduce emissions can provide climate and health benefits within a relatively short period of time.
2. **Household energy:** It is important to replace traditional cooking to clean burning modern fuel cook stoves. The Ujjwala scheme is an important initiative in this direction.
3. **Transport:** Fast transition to Bharat 6 vehicles and soot-free buses and trucks is needed. Eliminating high-emitting diesel vehicles should be a priority.
4. **Agriculture:** It is important to ban open-field burning of agricultural waste and formulate a policy to develop a market for the agricultural waste procurement.

5. **Waste management:** Municipalities must handle waste efficiently. A ban open burning of municipal waste should be there.

India is the second largest emitter of black carbon in the world, with emissions expected to increase dramatically in the coming decades. Thus, it is important to target and reduce black carbon emission for a clean and sustainable future.

Q.4) What do you understand by the term 'informal sector'? Enumerate the steps taken by the government to improve the condition of workers in the informal sector.

Ans.

Demand of the question
Introduction. What is the informal sector?
Body. Discuss various issues in the informal sector and steps taken by the government to improve the condition of workers in the informal sector.
Conclusion. Way forward.

According to the ILO the informal sector can be characterized as a range of economic units which are mainly owned and operated by individuals and employ one or more employees on a continuous basis. Informal sector includes farmers, agricultural labourers, owners of small enterprises and people working in those enterprises and also the self-employed who do not have any hired workers.

Issues regarding condition of workers in the informal sector:
1. **Inadequate safety and health standards:** Most industries, especially mining, have inadequate safety and health standards. Environmental hazards are evident in the case of the informal sector.
2. **Irregularities in Minimum Wages:** Most of the studies on conditions of employment in the unorganised sector have examined the wage levels and earnings of workers are identified that the daily wages are below the minimum rate of wages.
3. **Long Hours of work:** Long hours work in the unorganised sector beyond the labour and regulatory norms are common in India. The long working hours have a severe repercussion on the social and family life of labourers in general and women labourers in particular.
4. **Poverty and Indebtedness:** Workers in the unorganised sector had a much higher incidence of poverty than their counterparts in the organised sector. Due to low level of income and uncertain employment in the unorganised sector make the workers unable to meet their basic necessities and other social and other cultural responsibilities.
5. **Non-Applicability of Social Security Measures:** There are many times when a worker cannot be economically active. For instance, due to biological circumstances such as sickness or old age, on account of personal calamities such as an accident or unemployment. There are no social security measures to provide risks coverage and ensure maintenance of basic living standards at times of crises such as unemployment or health issues.
6. **Lack of Proper Physical Environment:** Lack of sanitation facilities has an impact on health of the workers. But, sanitary conditions are precarious in most of the industries in the unorganised sector due to lack of proper toilet facilities. The facilities such as washing, urinal and toilet facilities at work are found to be low standard.

Steps taken by the government to improve workers' condition in the informal sector:

1. **Directive principles:** A number of directive principles of state policy relating to aspects of social security were incorporated in the Indian constitution. The legal initiatives like the Employees State Insurance Act (1948), the Minimum Wages Act (1948), the Coal Mines Provident Funds Act (1948), The Employees Provident Fund Act (1952), the Maternity Benefit Act (1961) and the Contract Labour Act (1970) etc. are important for labour welfare.

2. **National Commission for Enterprises in the Unorganised Sector:** India is perhaps the first country to set up, a commission named National Commission for Enterprises in the Unorganised Sector (NCEUS) in 2004 to study the problems and challenges being faced by the informal economy.

3. **Poverty related development schemes:** The Government of India initiated several poverty related development schemes which indirectly benefited the urban informal sector since independence. Schemes like the Nehru Rozgar Yojana, MGNREGA and the Swarna Jayanti Shahri Rozgar Yojana were launched to provide support to the poor who constitute bulk of the informal sector.

4. **Social security:** To provide social security benefits, the Parliament enacted the Unorgnaised Workers' Social Security Act, 2008. The government has also launched Atal Pension Yojana, Pradhan Mantri Suraksha Bima Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana, Rashtriya Swasthya Bima Yojana etc.

5. **Skill development**: To take care of the need for skills of workers in the informal economy, the government has started various programs such as the Skill India Mission, Pradhan Mantri Kaushal Vikas Yojana, Deen Dayal Upadhyay Grameen Kaushal Yojana, recognition of prior learning etc.

Way forward:

1. **Overhauling labour laws**: Labour, as well as tax policies, are key to improving the business environment. Labour regulations have to allow for more flexible work arrangements. Moreover, the right to associate freely should be vigorously protected.

2. **Preventing occupational hazards:** Innovative means to prevent occupational accidents and diseases and environmental hazards need to be developed through cost-effective and sustainable measures at the work-site level to allow for capacity-building within the informal sector itself.

3. **Local support:** Building-on local institutional support to progressively extend social protection will be critical.

4. **Sensitization:** Special attention should be paid to the sensitization of policy makers, municipal authorities and labour inspection services to change their traditional role towards a preventive and promotional approach.

5. **Health protection**: The extension of occupational health care to workers in the informal sector should be promoted incorporating occupational health into public health care services at district and local levels and establishing a link between first aid and prevention at the work-site's level.

India's informal sector is the backbone of the economy. The nation's quality of life hinges on things becoming better for masses of informally employed people. Improving the conditions of workers in the informal sector assumes significance from the perspective of inclusive growth. Keeping in mind the low incomes of informal works, the Government should take steps to prescribe minimum wages for the informal sector.

Q.5) What is e-waste? Discuss various issues related to e-waste. How is e-waste being regulated in India?

Ans.

Demand of the question
Introduction. What is e-waste?
Body. Discuss various issues related to e-waste and how is e-waste being regulated in India?
Conclusion. Way forward.

Electronic waste, or e-waste, is a term for electronic products that have become unwanted, obsolete, and have reached the end of their useful life. It refers to all items of electrical and electronic equipment and its parts that have been discarded by its owner as waste without the intent of re-use.

Various issues related to e-waste:
1. **Health risks:** E-waste when dismantled and shredded, release dust or large particles into the immediate environment and affects the respiratory health of workers. Further, unregulated burning of e-waste releases toxins, such as dioxins which are potent and damaging to both human (neurological disease and impact on immune system) and animal health.
2. **Water pollution:** Water is contaminated by e-waste in landfills that are not properly designed to contain e-waste and due to improper recycling and subsequent disposal of e-waste. Groundwater is polluted by e-waste as heavy metals and other persistent chemicals leach from landfills and illegal dump sites into ground water tables.
3. **Soil pollution:** Soil is contaminated by e-waste through direct contact with contaminants from e-waste or the by-products of e-waste recycling and disposal and indirectly through irrigation through contaminated water. Contaminated soils have adverse impact on microbes and plants and the pollutants pass to higher animals and humans along the food chain.
4. **Air pollution:** Most of the discarded products are set into open fire, which melts and releases harmful elements to the atmosphere. Carcinogens and neurotoxins when released into the air pollute and create smog which is very obnoxious.

E-waste regulation in India:

Hazardous Waste Management (HWM) Rules	Prior to 2011, e-waste was covered under the Hazardous Waste Management (HWM) Rules.
E-waste Rules, 2011	In 2011, under the Environmental Protection Act 1986, the E-waste (Management and Handling) Rules, 2011 were enacted.
E-Waste (Management) Rules, 2016	In 2016, the E-Waste (Management) Rules, 2016 were enacted which replaced the 2011 Rules. 1. **Collection:** The Rules adopt collection-based approach to include collection centre, collection point, take back system etc. for collection of e-waste by Producers under Extended Producer Responsibility (EPR). 2. **Deposit Refund Scheme:** Deposit Refund Scheme has been introduced as an additional economic instrument wherein the producer charges an additional amount as a deposit at the time of sale

	of the electrical and electronic equipment and returns it to the consumer along with interest when the end-of- life electrical and electronic equipment is returned. 3. **Liability for damages:** Liability for damages caused to the environment or third party due to improper management of e–waste including has been introduced. The Rules also provide for provision of financial penalty in case of violation of rules 4. **State and Urban Local Bodies:** State should ensure effective implementation of the rules. Urban Local Bodies have been assigned the duty to collect and channelize the e-wastes to authorized dismantler or recycler.
Hazardous and Other Wastes (Management) Rules, 2016	The rules seek to ensure management, trans-boundary movement, resource recovery and disposal of hazardous waste in environmentally sustainable manner. Under the rules Waste electrical and electronic assemblies scrap are prohibited for import.
Other Initiatives to reduce e-Waste	1. **Awareness Program on Environmental Hazards of Electronic Waste:** The project initiated by Ministry of Electronics and Information Technology aims to provide training, tools and films aimed at creating awareness and reducing the impact of e-waste on the environment and health. 2. **Creation of Management Structure for Hazardous Substances:** The programme seeks to raise awareness among people about the 2016 Rules and its implementation. 3. **Swachh Digital Bharat:** The programme seeks to create awareness among the public about the hazards of e-waste recycling by the unorganized sector, and to educate them about alternate methods of disposing of their e-waste.

Way Forward:
1. **Legal framework:** There is a need to strengthen the domestic legal framework to address the issue of unregulated imports of e-waste.
2. **Formalisation:** Steps should be taken to formalize the informal sector by integrating it with the formal sector. Government should introduce vocational training programs to rightly skill the current unorganized sector employees to ensure their smoother transition to working with the organized sector.
3. **R&D:** Governments must encourage research into the development of better environmentally-sustainable e-waste recycling techniques.
4. **Assessment:** There is urgent need for a detailed assessment of the E-waste including quantification, characteristics, existing disposal practices, environmental impacts.
5. **Recycling infrastructure:** There is need for more recycling facilities and development of infrastructure to handle e-waste effectively. The government should encourage Public-

Private Partnership for establishment of e-waste collection, exchange and recycling centers.

6. **Awareness:** Mass awareness programmes should be initiated to encourage consumers to reuse/ recycle electronic products and also educate them about the environmental and health hazards of e-waste.

E-waste management is a great challenge for governments of many developing countries such as India. This is becoming a huge public health issue and is exponentially increasing by the day. In order to separately collect, effectively treat, it is essential to integrate the informal sector with the formal sector. The competent authorities need to establish mechanisms for handling and treatment of e-waste in a safe and sustainable manner.

Q.6) What are cryptocurrencies? Discuss various concerns related to cryptocurrencies.

Ans.

> **Demand of the question**
> **Introduction.** What are cryptocurrencies?
> **Body.** Discuss various concerns related to cryptocurrencies in India.
> **Conclusion.** Way forward.

A cryptocurrency is a virtual currency used for financial transactions. It uses blockchain technology for various transactions. Earlier, the RBI has issued a circular prohibiting use of these virtual currencies. Recently, The Supreme Court on Wednesday lifted the ban imposed by the Reserve Bank of India (RBI) on virtual currency trading, including cryptocurrencies.

Various concerns related to cryptocurrencies:
1. **Privacy Concerns:** The privacy of users' data is at stake. There is concern regarding privacy of users data in using cryptocurrencies as all the transaction information is stored in distributed ledger (called blockchain), which is publicly visible. Thus Hacker can easily observe how the money flows.
2. **High Volatility:** The price of Bitcoin suddenly rose to almost $20,000 and then dropped to $6,000. Due to such incidents, it is complicated for the investors to trust the ecosystem.
3. **Destination for black money**: The fear among regulators and policymakers is that cryptocurrencies, being an alternative source of value to fiat currency, could be misused to launder black money or finance terrorist activities.
4. **Cybersecurity Concerns:** Cryptocurrencies are prone to cybersecurity breaches and hacks. Various attacks are common, even companies and governments are not full proof to them. For example, the Swiss blockchain company, Trade.io, has reported that crypto tokens worth almost $8 million have been stolen from their cold wallet.
5. **Dark activities:** The possibility that the new money will nurture illicit activities and markets like drug selling, weapons etc. through Darknet is always high using cryptocurrency anonymously. It also increases the risk of its use in various terrorist activities across the border.
6. **Monetary control and economic behaviour:** It could dramatically change global monetary policymaking. People will exchange their national currencies for the new digital coin in order to buy and sell the many products that will be priced in it. This will further impact the profit of banks and will put stress on their balance sheet.

7. **Inflation:** Governments and policymakers will have reduced ability to control inflation. Usually, when inflation picks up, central banks take steps to control it through various monetary rates. Cryptocurrency will be out of control of the central bank so liquidity control will be an issue.

Cryptocurrency is, despite all its risks, perhaps the most exciting asset of the 21st century. A decentralized digital currency that works on the very interesting and likely here-to-stay blockchain technology. There are a thousand reasons to be excited about cryptocurrency, but also real reason to be conservative in your investment strategy.

Q.7) What is noise pollution? Discuss various causes of noise pollution and examine its impact on human health.

Ans.

> **Demand of the question**
> **Introduction.** What is noise pollution?
> **Body.** Discuss various causes of noise pollution and examine its impact on human health.
> **Conclusion.** Way forward.

Noise pollution is generally defined as regular exposure to elevated sound levels that may lead to adverse effects in humans or other living organisms. According to the WHO, sound levels less than 70 dB are not damaging to living organisms, regardless of how long or consistent the exposure is. Noise pollution has emerged as a hazard especially in urban and industrial areas. Noise pollution or noise disturbance is the noise levels that may harm the activity or balance of human or animal life.

Various causes of noise pollution:
1. **Industrialization:** Most of the industries use big machines which are capable of producing a large amount of noise. Apart from that, various equipment like compressors, generators, exhaust fans, grinding mills also participates in producing big noise.
2. **Poor Urban Planning:** In most of the developing countries, poor urban planning also plays a vital role. Congested houses, large families sharing small space, fight over parking, frequent fights over basic amenities leads to noise pollution which may disrupt the environment of society.
3. **Social Event:** Noise is at its peak in most of the social events. Whether it is marriage, parties, pub, disco or place of worship, people normally flout rules set by the local administration and create nuisance in the area.
4. **Transportation:** A large number of vehicles on roads, airplanes flying over houses, underground trains produce heavy noise and people get it difficult to get accustomed to that. The high noise leads to a situation wherein a normal person loses the ability to hear properly.
5. **Construction Activities:** Under construction activities like mining, construction of bridges, dams, buildings, stations, roads, flyovers takes place in almost every part of the world. These construction activities take place every day. The down point is that these construction equipment are too noisy.

Effects of Noise pollution on human health:
1. **Hearing Problems:** Any unwanted sound that our ears have not been built to filter can cause problems within the body. Constant exposure to loud levels of noise can easily

result in the damage of our eardrums and loss of hearing. It also reduces our sensitivity to sounds that our ears pick up unconsciously to regulate our body's rhythm.

2. **Psychological Issues:** Studies show that the occurrence of aggressive behaviour, disturbance of sleep, constant stress, fatigue, and hypertension can be linked to excessive noise levels. These, in turn, can cause more severe and chronic health issues later in life.

3. **Sleeping Disorders:** Loud noise can certainly hamper sleeping pattern and may lead to irritation and uncomfortable situations. It may lead to problems related to fatigue and individual's performance goes down.

4. **Cardiovascular Issues:** Blood pressure levels, cardiovascular disease, and stress-related heart problems are on the rise. Studies suggest that high-intensity noise causes high blood pressure and increases heartbeat rate as it disrupts the normal blood flow.

5. **Communication troubles:** High decibel noise can put trouble and may not allow two people to communicate freely. Constant sharp noise can give you a severe headache and disturb emotional balance.

While this form of pollution may seem harmless, it, in fact, has far-reaching consequences. The adverse effects on the health of the environment are quite severe. Not only is the local wildlife affected by pollution but humans also face a number of problems due to it.

Q.8) A new study reveals that, climate change leads to more violence against women. In light of this, discuss the impact of climate change on women rights.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the impact of climate change on women rights.
Conclusion. Way forward.

Women commonly face higher risks and greater burdens from the impacts of climate change especially in situations of poverty. Women are often responsible for gathering and producing food, collecting water and sourcing fuel for heating and cooking. With climate change, these tasks are becoming more difficult. Extreme weather events such as droughts and floods have a greater impact on the poor and most vulnerable– 70% of the world's poor are women.

Impact of climate change on women rights:
1. **Lack of resources:** The inequality and discrimination experienced by marginalised girls and young women are amplified by climate change. These girls will feel the greatest impacts but will not have the information and resources they need to cope.
2. **Long distance travels:** Women are also more affected by drought and water shortages, often bearing the burden of having to spend significant time travelling to distant water resources and returning home to provide water for their families. In East Africa, drought has resulted in pastoral farmers having to travel significantly further to find water.
3. **Sexual assaults:** In the aftermath of disasters, women are more likely than men to be displaced, to be sexually assaulted, to be victims of violence and to face other human rights violations.
4. **High vulnerability:** Characteristics such as age, levels of poverty, ethnicity and marginalisation in combination with gender intersect to result in higher vulnerability for women.

5. **Food security:** Girls are also more likely than boys to be provided with less food during times of food scarcity, thus making them more susceptible to malnutrition and diseases, particularly vector-borne diseases that are made more prevalent by climate change.
6. **Limited livelihood options:** Societal norms have led to limited livelihood options for women who depend on resources that are affected by climate change.
7. **Migration:** While men are able to migrate to find work elsewhere with higher wages, women are not able to relocate due to family caretaking commitments. Women are thus obligated to work for lower wages due to their family responsibilities, resulting in income insecurity and inequality.

Way forward:
1. **Gender-responsive approach:** It is critical that all climate action takes a meaningful gender-responsive approach. This means moving beyond efforts to ensure that women and men are equally represented on discussion panels, or that projects and programmes benefit similar numbers of men and women.
2. **Addressing underlying social issues:** We must address underlying structural power relations and socio-economic marginalisation that lead to women around the world being more significantly affected by climate change through awareness generation.
3. **Recognition:** Recognising the important contributions of women as decision makers, stakeholders, educators, carers and experts across sectors and at all levels can lead to successful, long-term solutions to climate change.
4. **Climate Change Gender Action Plans:** Investing in participatory, multi-stakeholder and multi-sectoral Climate Change Gender Action Plans can help countries to develop comprehensive action that integrates gender concerns and builds on women's unique knowledge and perspectives.
5. **Decision making:** It is important to ensure equal space and resources for women and men to participate in climate change decision making and action at all levels.

Women are still a largely untapped resource. Restricted land rights, lack of access to financial resources, training and technology, and limited access to political decision-making spheres often prevent them from playing a full role in tackling climate change. Despite women being disproportionately affected by climate change, they are crucial to climate change adaptation and mitigation and must be involved in decision making.

Q.9) What is genome sequencing? Discuss the significance of genome sequencing in recent context of Coronavirus epidemic.

Ans.

> **Demand of the question**
> **Introduction.** What is genome sequencing?
> **Body.** Discuss the significance of genome sequencing.
> **Conclusion.** Way forward.

Genome sequencing is a process of determining the complete DNA sequence of an organism's genome. Breakthrough in human genome sequencing has potential to benefit mankind especially in healthcare, disease prevention etc.

Significance of genome sequencing:
1. **Origin of epidemic:** Genome sequencing helps researchers understand the arrangement of the makeup of DNA or RNA. Sequencing the genome will help us

understand where the certain virus for instance of SARS-CoV-2 came from and how it spread.

2. **Control the spread:** Sequencing is useful to know and check if the strain is evolving. By knowing change in genes it can help in preventing its spread. For instance, scientists already know the number of mutations that arise on an average in a month in the case of COVID-19, its incubation period, and the average time between cases in a chain transmission.

3. **Healthcare:** Participants of genome-sample collections represent diversity of the country's population. It will help in following ways:
    a) **Personalised Medicine:** The first obvious use would be in personalised medicine, anticipating diseases and modulating treatment according to the genome of patients. Several diseases develop through the interplay of the environment with multiple genes, which differ across populations.
    b) **Determining gene-disease link:** Human genome sequencing is important to establish a link between diseases and the unique genetic make-up of each individual. For instance, cardiovascular disease generally leads to heart attacks in South Asians. If such propensities can be mapped to variations across genomes, it is believed public health interventions can be targeted better.
    c) **Better understanding of diseases like cancer:** While genes may render some insensitive to certain drugs, genome sequencing has shown that cancer too can be understood from the viewpoint of genetics, rather than being seen as a disease of certain organs.

4. **Drug efficacy:** Another advantage of genome sequencing is that information regarding drug efficacy or adverse effects of drug use can be obtained. Drugs developed in the Western world and sold in India are pricey and may not be effective on the Indian gene. Mapping of India's genetic landscape is critical for next generation medicine.

5. **Agricultural usage:** It will enhance India's scientific capabilities. Next step would be genome sequencing of crops that would help in better understanding of the genetic basis of susceptibility of crops to blights, rusts and pests. It may become possible to deter them genetically, and reduce dependence on chemicals.

6. **Evolutionary studies:** Global science would also benefit from genome sequencing, which would provide data useful for the mapping of the spread and migration of a range of life forms in the old World and thus would help in better understanding of human evolution.

Way forward:

1. **Training:** It is important to train more clinicians for gene data interpretation and rope in more labs for sequencing. Training more physicians to study medical genetics for speedier analysis is needed.

2. **Data security:** Given the sensitivity of genomic data, every effort must be made to minimise the likelihood of data breaches and to maintain public trust in institutions that gather, store and use such data. A practical and feasible solution to build such a reliable and safe database is the application of blockchain technology to secure genomic data.

3. **Effective policy:** There is a need for a comprehensive and effective policy to guide the use of genomic information, with significant emphasis on protecting the privacy of research subjects. One way to make this possible is through 'dynamic consent' by which people who wish to participate in a research project can register themselves and provide consent on an ongoing basis.

4. **Collaborative effort:** A collaborative and harmonised effort is needed to balance sharing of genomic data with an individuals' privacy. A framework must be designed

transparent enough to specify the purpose of the collected genomic data and the duration for which it will be stored in the database.

Given the benefits of genome sequencing, it will help in better understanding of the human body and processes and will help in treating earlier untreatable diseases. Although there are some issues and challenges, these can be handled and resolved.

Q.10) Discuss how use of Unmanned Aerial Vehicles (UAVs) can help in improving pest management and crop productivity. What steps are needed in this direction?

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss how use of Unmanned Aerial Vehicles (UAVs) can help in improving pest management and crop productivity. Mention steps that are needed in this direction.
Conclusion. Way forward.

The application of pesticides and fertilizers in agricultural areas is of crucial importance for crop yields. The use of Unmanned Aerial Vehicles (UAVs) is becoming increasingly common in carrying out this task mainly because of their speed and effectiveness in the spraying operation. There is a huge potential for the application of UAVs in Agriculture.

How use of Unmanned Aerial Vehicles help in improving pest management and crop productivity?
1. **Informed decision making:** One important application of UAVs is in accurate and evidence-based forecasting of farm produce using spatial data collected by the UAV. Utilizing the information gathered, farmers can provide fast and efficient solutions to detected problems and issues, make better management decisions, improve farm productivity, and ultimately generate higher profit.
2. **Soil and field analysis:** The use of UAVs for soil information sourcing is helpful at the early start of a crop cycle. The data collected helps in early soil analysis, and is also useful in planning seed planting patterns. Using a data-driven approach, the farmers can improve the overall yield quantity of agricultural produce, while significantly saving on fertilizers and pesticides.
3. **Planting:** Planting crops is a costly and cumbersome endeavour that has traditionally requires a lot of manpower. UAVs have simplified crop planting for farmers, with their abilities to cover large acres of land within a short period with utmost precision and accuracy.
4. **Crop and spot spraying:** Crop spraying is usually a tough and onerous task for farmers and agricultural production companies. It involves covering extremely large expanses of land comprehensively to ensure proper growth of crops. Agricultural UAVs have simplified crop spraying for farmers as they can cover large expanse of land within a very short time interval.
5. **Crop monitoring:** A combination of large farm fields and low efficiency in crop monitoring system are some of the greatest farming challenges. The challenge of monitoring is further aggravated by unpredictable weather conditions, which drive up risk and field maintenance costs. An agricultural UAV helps the farmer overcome some of these challenges.
6. **Increased efficiency:** The main benefits of drones are increased efficiency and precision of agrochemical applications, in turn, leading to improved pest management

and crop productivity as well as a significant reduction in operator exposure during spray operations.

7. **Livestock:** From a livestock perspective, UAVs are being used to perform head counts, monitoring animals and also studying eating habits and health related patterns.
8. **Low water consumption:** The other benefits are lower water consumption as the material is sprayed in concentrated formulations.

Measures needed in this direction:
1. **Robust policy:** The first step in establishing a robust policy framework is to identify the various risks associated with drone application and the processes to deal with them.
2. **Standard Operating Procedure:** A Standard Operating Procedure should be put in place for spray operators, drone manufacturers and agrochemical companies to comply with.
3. **Regulatory framework:** The government should develop a regulatory framework for deploying drones in agrochemical spraying based on the experience and best practices of a country such as Japan. The necessary regulations should take into consideration the civil aviation laws.
4. **Certification system:** Government should set up a system for certification or licensing of drone operators to ensure their capability for piloting UAV machines safely. Such certification/licensing should be subject to regular renewals and conducting of refresher courses.
5. **Training facilities:** The authorities should also accredit training facilities to put in place a standardised programme for all agricultural drone operations.

The application of UAV technology in Agriculture has become increasingly necessary with the increase in global population and the resultant pressure on agricultural consumption. The ever growing population is not proportionately matched with crop growth. UAVs could help improve crop yield.

Q.11) What is inverted duty structure? Discuss the impact of Inverted Duty Structure on manufacturing sector in India.

Ans.

Demand of the question
Introduction. What is inverted duty structure?
Body. Discuss the impact of Inverted Duty Structure on manufacturing sector in India.
Conclusion. Way forward.

Inverted duty structure (IDS) refers to a duty structure where inputs having a higher tariff over the output, such that importing becomes preferable over domestic production. When the import duty on raw materials is high, it will be more difficult to produce the concerned good domestically at a competitive price. High tax on the raw materials compels them to raise price.

Impact of Inverted Duty Structure on manufacturing sector in India:
1. **Erode domestic competitiveness:** Increase in imports of foreign goods leaving domestic manufacturers uncompetitive. Imports of the final products become cheaper, which adversely affects the competitiveness and sustainability of the domestic manufacturing industry. Eroded competitiveness of manufacturing sectors, especially MSME, is not good for the economy.

2. **Distortionary:** Such an inverted levy is distortionary and results in tax inefficiencies as the manufacturer builds up unused credits.
3. **Hinder growth of domestic industries:** High tax on raw material leads to high prices of domestic goods against cheap foreign goods hindering the growth of domestic industries.
4. **Discourage Local Value Addition:** As imported material and products are cheap it discourages local value addition and weakens domestic manufacturing.
5. **Impact exports:** As products become costly due to increased input cost, it affects the export potential of the manufacturing sector.
6. **Impact business potential:** It also impede Make in India Initiative and make doing business a costly event in India leading to reduction in the FDI.
7. **Job loss:** As domestic manufacturing units bear loses it led to loss of jobs o event of loss and low job growth in manufacturing sector as a result of slowdown of the sector

Benefits:
1. **Cheaper products:** The inverted duty structure has led to greater competition leading to cheaper products for customers.
2. **More choice:** This also led to innovation to ensure high end and cost effective products giving a diverse choice options for the customers.
3. **Sophisticated foreign products:** Due to lower prices it leads to sophisticated foreign products being imported in India.

IDS has adversely impacted Indian economy. Clearly the negative impact outweighs the positive impact on our manufacturing sector. Rationalizing the import custom duty is good short term measure to neutralize the effect and allow level playing field. Increased focus on implementation of Initiatives like Make in India, Start Up and Stand up India will bring more long term benefits.

Q.12) What are differentiated banks? Discuss their significance in furthering financial inclusion in India.

Ans.

Demand of the question
Introduction. What are differentiated banks?
Body. Discuss significance of differentiated banks in furthering financial inclusion in India.
Conclusion. Way forward.

Differentiated banks are banking institutions licensed by the RBI to provide specific banking services and products. For instance, Regional Rural Banks, Local Area Banks could be considered as differentiated banks. The RBI-constituted Nachiket MOR Committee for financial inclusion first mooted the idea of having differentiated banks in the country. Though differentiated banking helps in unlocking growth potential and improving efficiency through optimal resource utilisation, it plays an important role in furthering the agenda of financial   inclusion.

Role in financial inclusion:
1. **Serving unbanked areas:** The existing set of banks may not be adequate to speed up the process of financial inclusion. The differentiated banks can be faster to replicate and expand the financial services in unbanked and under-banked areas.

2. **Credit supply:** The small finance banks can further financial inclusion by providing savings vehicles, and credit supply to small business units, small and marginal farmers, micro and small industries and other unorganised sector entities, through high technology-low cost operations.
3. **Integrate poor into the economy:** The payments banks integrate migrant labour workforce, low income households, small businesses, and other unorganised sector entities with the financial sector by providing small savings accounts and payments services to them.
4. **Lower cost of transactions:** Increase in competition among banks could lower costs of transactions that helps poor to avail banking services at affordable prices.
5. **Strengthen Small industries:** Gaps in SME finance can be filled with asset and cash flow based lending, operating leases, and factoring. This helps in strengthening SME and employment generation.
6. **Savings:** The small finance banks are furthering financial inclusion by acting as savings vehicles especially for the poor.

There is enormous unmet potential demand lying in the rural areas and other unbanked centres which needs to be tapped. To tap this unmet demand for financial services, differentiated banks for financial inclusion plays an important role. As regards the health of the differentiated banks, there is a need for creating a balance between long term sustainability and the financial inclusion goals.

Q.13) India has an opportunity to emerge as a global leader in data protection, especially for developing countries facing similar challenges and opportunities. Discuss.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss challenges and opportunities regarding data protection in India which can help India emerge as a global leader in data protection.
Conclusion. Way forward.

Over the years, rapid technological advances have led to large volumes of data which is at risk of increasing cyber-crimes. With penetration of Aadhaar, risk related to data has increased. To safeguard Indian citizen's interest, the government has introduced 'Personal Data Protection Bill, 2019'. For India this is an important step towards building the significant base of 'trusted' digital India and emerge as a global leader in data protection.

Opportunities regarding data protection in India:
1. **Data protection law:** India has introduced a Personal Data Protection Bill recently. As countries look up to India to replicate its technology-driven growth story, the country's data protection framework, can potentially offer a legislative model that others can follow-one that addresses individual privacy needs while leveraging data for development and innovation.
2. **Strong IT sector:** India's potential to lead the world into a digital economy making use of its existing strengths in information technology. India is the hub of software engineers and is exporter of IT services to the world. Thus, India can use its IT strength for data protection.

3. **Demographic dividend:** India has one of the youngest populations in the world. Thus, to reap this demographic dividend it is important to protect individual's privacy and data.
4. **Empowerment:** India is aiming to become a digital economy. It also focuses on empowerment based on data-driven access to services and benefits for example through cash transfers. Thus, it provides an opportunity for India to frame comprehensive and inclusive data protection rules.
5. **Privacy as a fundamental right:** In 2017, the Supreme Court in *Puttaswamy case* ruled that privacy is a constitutional right of Indian citizens. This allows the judiciary to safeguard citizen's interests and set an example to be followed by others.

Challenges regarding data protection in India:
1. **Infrastructure issues:** Infrastructure in India for sufficient data collection and management is lacking.
2. **Jurisdiction:** Major players in India's digital economy are not only based abroad, but also export data to other jurisdictions.
3. **Increasing Cybercrime:** Cyber-crime, hacking into people's bank accounts and stealing their money, or defrauding people in a myriad of ways is becoming a trend now. This increasing trend of cybercrime needs a proper set of codes and rules.
4. **Surveillance**: A stringent data protection framework can lead to state of surveillance and over-regulation.
5. **Digital illiteracy:** Most of the Indian citizens are digitally illiterate. Their data is at risk always, as they don't understand the nuances of the digital world. According to an ASER study conducted in 2018 only 21.3% of the students have access to computers in their schools.

Way forward: A data protection framework in India must be based on the following seven principles:
1. **Technology agnosticism:** The law must be technology agnostic. It must be flexible to take into account changing technologies and standards of compliance.
2. **Holistic application:** The law must apply to both private sector entities and government. Differential obligations may be carved out in the law for certain legitimate state aims.
3. **Informed consent:** Consent is an expression of human autonomy. For such expression to be genuine, it must be informed and meaningful.
4. **Data minimization:** Data that is processed ought to be minimal and necessary for the purposes for which such data is sought and other compatible purposes.
5. **Controller accountability:** The data controller shall be held accountable for any processing of data, whether by itself or entities with whom it may have shared the data.
6. **Structured enforcement:** Enforcement must be by a high-powered statutory authority with sufficient capacity. This must coexist with appropriately decentralized enforcement mechanisms.
7. **Deterrent penalties:** Penalties on wrongful processing must be adequate to ensure deterrence.

Data protection is a must in the age of digital era. With the right to privacy being a fundamental right and the recent rise in risks to privacy of the individuals, data protection law is need of the hour. The state must prevent and investigate digital crimes, prevent misuse of data and encourage data security through legislation. It is important to examine and put into place a robust regime for data protection.

Q.14) What is Environment Impact Assessment? Discuss its main principles and significance in various development projects.

Ans.

Demand of the question
Introduction. What is Environment Impact Assessment (EIA)?
Body. Discuss main principles of EIA and its significance in various development projects.
Conclusion. Way forward.

Environmental Impact Assessment (EIA) is one of the tools available with the planners to achieve the goal of harmonising development activities with the environmental concerns. EIA in India is statutorily backed by the Environment Protection Act 1986, which contains the provisions on EIA procedures.

Main Principles of Environment Impact Assessment (EIA):
There are eight guiding principles that govern the entire EIA process: The principles of EIA:

1. **Participation:** The process should provide appropriate opportunities to inform and involve the interested and affected publics, and their inputs and concerns should be addressed explicitly in the documentation and decision making. Appropriate/timely access for interested parties is important.
2. **Transparency:** The process should have clear, easily understood requirements for EIA content, ensure public access to the information, identify the factors that are taken into account in decision making and acknowledge limitations and difficulties. Open and accessible assessment decisions are important in EIA.
3. **Efficient:** The Process should impose the minimum cost burdens in terms of time and finance on proponents and participants consistent with meeting accepted requirements and objectives of EIA.
4. **Accountability:** The decision maker should inform decision making and result in appropriate levels of environmental protection and community well-being. Decision makers should be responsible for their actions and decisions.
5. **Credibility:** The process should be carried out with professionalism, rigour, fairness, objectivity, impartiality and balance and be subject to independent checks and verification.
6. **Cost-effective:** The process should achieve the objectives of EIA within the limits of available information, time, resources and methodology.
7. **Integrated:** The process should address the interrelationships of social, economic and biophysical aspects.
8. **Practicality:** The process should result in information and outputs which assist with problem solving and are acceptable to and able to be implemented by proponents. Information/outputs readily usable in decision making and planning is important.

Significance of EIA in various projects:
1. **Prevent conflicts:** EIA is Important to ensure peaceful operations and conflict management in many projects.
2. **Sustainable development:** EIA links environment with development for environmentally safe and sustainable development.
3. **Environmental protection:** EIA is more than technical reports, it is a means to a larger intention, the protection and improvement of the environmental quality of life.
4. **Evaluate the effects of activities:** EIA is a procedure to identify and evaluate the effects of activities (mainly human) on the environment- natural and social.

5. **Minimize the adverse impact:** EIA provides a cost effective method to eliminate or minimize the adverse impact of developmental projects.

There is a need to strengthen the implementation of EIA, Independent EIA Authority is required for fair and objective decisions. There is also a need for a centralised data bank for storing information and the transparency must be maintained in dissemination of all information related to projects from notification to clearance to local communities and general public.

Q.15) Enumerate various reasons and impact of the rise in cases of bank frauds in the last decade in India. Discuss the need of bringing reforms in banking governance to prevent such frauds.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss various reasons and impact of the rise in cases of bank frauds in the last decade in India. Explain the need of bringing reforms in banking governance to prevent such frauds.
Conclusion. Way forward.

In the present-day economic system, banks play a very important role in the economic development of the country. As the banking sector is flourishing, it is getting plagued by some operational problems such as frauds etc. The Financial Stability Report of the Reserve Bank of India (RBI) shows that the Indian banking system reported about 6,500 instances of fraud involving over ₹30,000 crore in 2017-18. These frauds need immediate attention.

Various reason behind these frauds:
1. **Poor banking governance:** Most frauds show that banks did not observe due diligence, both before and after disbursing loans. Poor level of checks and balances in the banking system is one of the reasons.
2. **Poor monitoring:** Lack of technology and fraud monitoring agencies to detect frauds makes the problem more complex. There is an absence of an effective mechanism to monitor the credit flow. Flawed risk-mitigation design, which creates an excessive focus on credit or market risks, but focuses less on operational risks also leading to more breaches.
3. **Technological backwardness:** Excessive dependence on manual supervision, at both external and internal levels makes it impossible to manually control and supervise the sheer volume of transactions.
4. **Immoral behaviour:** The disintegrating moral fibre of Indian businessmen, bankers and other white-collar professionals, nepotism in internal committees of banks, unnecessary political interventions lead to increased frauds.
5. **Political interference:** The political pulls and pressures on investigating agencies, and long-drawn processes of the legal system act less as a deterrent.

Impact of such frauds:
1. **Credibility:** This unhealthy development of rising fraudulent activities afflicting the banking sector impinges their credibility adversely.
2. **Rise in Non-performing Assets:** Frauds add to Non-performing Assets and lead to loss of banks and economy. The Gross NPAs to Gross Advances Ratio has shown a rising trend over the years

3. **Financial dilemmas:** Frauds and fraudulent activities wreak severe financial dilemmas on banks and their clients, as well as cause a significant reduction in the quantum of money accessible for economic development.
4. **Reduce profitability:** Frauds have a significant impact on profitability of the Indian banking sector. Profitability of banks is on a steady decline which needs to be an eye opener as it poses a threat to the economy.

Need of governance reforms and other measures:
1. **Checks and balance:** Banking governance needs an overhaul with proper checks and balance in places. Indian banks need significant improvements in operation and governance standards to work in an effective manner, by constantly working on the loopholes so that the banking sector can contribute more to the growth of the economy.
2. **Accountability:** Accountability needs to be established among the bank managers and other administrators.
3. **Risk assessment measures:** While it may not probable for banks to conduct their operations in a zero fraud milieu, proactive measures, such as conduct of risk assessment of policies and procedures can aid banks to circumvent their risk of contingent losses resulting from frauds.
4. **Data analysis:** The data analysis technology can be leveraged by banks to detect frauds at the incipient stage itself and reduce their loss causing impact significantly.
5. **Improving capabilities:** Apart from improving capabilities in the banking system, accountability of third-party service providers such as auditors and lawyers should also be fixed.
6. **Prior assessment:** Assessment of working capital limit should be done before the flow of credit.
7. **Awareness:** Awareness should be created about loopholes, consequences of bypassing procedural aspects and benchmarks should be provided for evaluating genuineness of various essential documents.
8. **Internal control:** The Banks should pay the required attention to the area of internal control system and the fraud prevention measures to ensure compliance of instructions issued by them from time to time.

It is evident that post liberalization era has showered new colours of growth upon the Indian banking sector but simultaneously it has also posed some serious challenges. One of them being rise in frauds and NPAs. Thus proper measures should be taken beforehand to stop such frauds in future and prevent crisis in banks.

Q.16) What are the important characteristics of footloose industries? What are the factors responsible for the location of footloose industries?

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the important characteristics of footloose industries and factors that determine the location of these industries.
Conclusion. Way forward.

Footloose industry is a general term for an industry that can be placed and located in a wide variety of places without much effect from factors such as raw material. These are called footloose as these types of industries are prone to relocation. For example, the diamond and computer chips belong to the footloose industry.

Important characteristics of footloose industries:
1. **Location:** Footloose industries can be established at any place. These industries are affected by component parts and they are available at all places.
2. **Less labour force:** These industries produce their products in small numbers and they do not require a large labour force.
3. **Eco-friendly:** These are environment-friendly industries as the process involved in these industries have a negligible carbon footprint. These industries emit less or no pollution.
4. **Less transport cost:** Their products are having very high value addition and smaller in size and so transportation cost is only a small fraction of total cost.
5. **Small plant size:** These industries require small plant size compared to heavy and small industries.
6. **Less raw material dependence:** These are less dependent on specific raw material, especially weight losing ones. Most of the raw materials are small and light and can be transported easily.
7. **Skilled workers:** It needs skilled workers as the industrial process is advanced and major work needs high-quality precision.

Factors responsible for the location of footloose industries:
1. **Connectivity:** Location with a good connectivity of roads, railways, telecommunication, airways etc. are preferred to facilitate quick movement of skilled workers and high-value outputs.
2. **Cheap land:** They are located on the edge of cities because the land is often cheaper than in the center. The out of town surroundings and easy access to workers in the suburbs provides an ideal location.
3. **Accessibility:** The important factor in their location is accessibility by transportation network enabling the workers commute hassle free. The extensive network of metro, railway and road in NCR helped service industry in Gurugram and Noida.
4. **Close to similar industries:** They are also located close to similar industries to facilitate exchange of ideas and knowledge.
5. **Raw material independent:** The computing and information technology industry are not tied to raw materials and can choose their own location. The mega cyber cities like Bangalore and Hyderabad are the best examples.
6. **Close to research centres:** The Hi-tech industries have to locate close to research centres like universities. Development in the hi-tech industry happens so fast that companies need to stay up to date to survive. For e.g. software technology parks in India.

These industries are crucial for the development of areas which lack locational advantages with respect to heavy and small industries like port facilities, availability of raw materials, etc. Good development of the footloose industry can provide high-value employment opportunities and competitive advantage in world trade.

Q.17) Critically discuss the recent NITI Aayog's proposal to build tourism villas in Andaman-Nicobar and Lakshadweep archipelagos.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the pros and cons of recent NITI Aayog's proposal to build tourism villas in Andaman-Nicobar and Lakshadweep archipelagos.
Conclusion. Way forward.

The Indian Government's policy think-tank, Niti Aayog, recently had put plans to build water villas at India's most popular island destinations, Lakshadweep and Andaman and the Nicobar Islands. While people in India usually went to island destinations such as the Maldives to experience water villas, now they can head to these popular destinations.

Advantages of NITI Aayog's proposal to build tourism villas:
1. **Job opportunities for locals:** This would help in creating satisfactory jobs, opportunities for self-employment, sufficient income for the locals.
2. **Social development:** It would further create affordable state-of-the-art facilities for healthcare, access to high quality education and adequate air, sea and web connectivity.
3. **Tourism:** It will help in creating tourism prospects in the region and thus income generation in the region.
4. **Inter-islands connectivity:** In addition to tourism it will help in improving inter-islands connectivity and better ease of living in the archipelago.
5. **Infrastructure:** Along with the villas, infrastructure would be developed, including the building of new airports, introduction of sea planes to these destinations and strengthening helicopter services as well as floating jetties to ensure smooth accessibility.
6. **Exports:** There would be increased maritime and international trade with exports of products made in the islands.

Issues related to the proposal of building tourism villas:
1. **Ecological impact:** The ecological impact of such a project on the lagoons and coral reefs is likely to be far more complex and damaging.
2. **Endangered marine life:** These waters are home to a variety of threatened and endangered marine life, including green turtles, sea cucumbers, giant clams. Any development project will impact this marine life.
3. **Waste generation:** Tourism in the area would lead to waste generation, which would harm local ecology for instance plastic waste is dangerous if it enters the marine food chain.
4. **Coral bleaching:** With human concentration and tourism in the area, it would disturb local coral species and would destroy their ecology.
5. **Destroy island's beauty:** Tourism very often destroys the serenity and beauty of islands through congestion, traffic, and unpleasant development.

Islands are frequently characterised by smallness, insularity, undiversified economies and fragile ecosystems, and thus they face particular disadvantages for tourism in this competitive environment. Moreover, as the decision to visit an island is influenced by conditions outside of the control of the island itself, islands are vulnerable to often minor fluctuations in world market conditions and their economies have tended to be heavily distorted and unstable.

Q.18) What are various reasons for the gender gap in science-related fields? Suggest some measures to improve women participation in these fields.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss various reasons for the gender gap in science-related fields? Suggest some measures to improve women participation in the science field.
Conclusion. Way forward.

Gender inequality is a big issue in India. India stands at 112th position in the latest Global Gender Gap Index. There is less participation of girls especially in Science, technology, engineering and Mathematics (STEM) Fields. For instance, IIT in 2016 got only 8% female students. This shows a clear gap when it comes to participation in science-related fields.

Various reasons for the gender gap in science-related fields:

1. **Mindset:** A major factor responsible for this is the mindset that boys are better at science and girls are not. Women are still considered less efficient to men when it comes to science related fields is a major misconception.

2. **Fewer role models:** Role models many times are a factor in making career choices. However, there are fewer female role models in the fields of science, math, or engineering for young female students to follow. Moreover, our textbooks too rarely talk about these role models.

3. **Less women specific science institutes:** Only 11% colleges in India which are exclusively for women, majority of which offer arts and commerce rather than science.

4. **Patriarchy:** When comes the question of pursuing a career in science, the entrenched patriarchy in society holds women back. There are patriarchal attitudes in hiring practices or awarding fellowships and grants etc. A male-dominated work environment and gender insensitivity are additional burdens for women scientists.

5. **Economic factors:** This is another major constraint for women in pursuing science. Even for families with greater resources, economic considerations affect the pursuit of a science degree as a science which is generally more expensive than an arts or a commerce degree.

6. **Considered as Burden:** Families expect daughters to marry and assume obligations to their husband's family. Many families think that a daughter's education would primarily benefit her in-laws rather than her natal family. Such families traditionally view boys' education differently from girls'.

Measures to improve women participation in these fields:

1. **Holistic approach:** Getting more girls and women into science education and careers requires holistic and integrated responses that reach across various sectors. Society has to understand that women are an important human resource and can play an important role in economic growth.

2. **Private participation:** Companies can invest in building female talent in a multitude of ways, some of which include providing more internship opportunities for women, giving science scholarships to meritorious yet economically backward girls, and focusing on retaining women employees in the workforce to maintain better gender ratios.

3. **Spread awareness:** Awareness needs to be spread among parents that pursuing science for girls is not as difficult as it is presumed. With family support and encouragement, girls can be high achievers in science.

4. **Mentoring:** Along with family support, having teachers who mentor and encourage girls in science subjects can have more impact. Mentorship programmes for girls at secondary and senior secondary levels are the need of the hour.

5. **Make education gender sensitive:** There is a need to promote positive stereotypes of roles of women in textbooks. It is important that when girls come out of school, they have the dream to carve a path for themselves. Education for boys at school level should be in the direction of making them gender sensitive.

6. **Science scholarships to meritorious girls:** Scholarships to meritorious girls at school levels can provide a boost to girls to pursue science at graduate and postgraduate levels and take up science as a career.

Empowering women in science and technology and their full and equal participation is one of the core objectives mentioned in the Science and Technology Policy of the Govt. of India, 2003. Accordingly, there are a number of schemes, mostly in the form of scholarships, introduced by the government. However, evidence suggests that not much progress has been made. There is a need to invest in supporting infrastructure, incentivising institutions to promote gender equity, transparency in decision making etc. to bridge the persisting gender imbalance in science major.

Q.19) What is biometrics? Discuss potential applications and dangers associated with biometric technology.

Ans.

Demand of the question
Introduction. What is biometrics?
Body. Discuss potential applications and dangers associated with biometric technology.
Conclusion. Way forward.

Biometrics are physical human characteristics that can be used to digitally identify a person to grant access to systems, devices or data. Examples of these biometric identifiers are fingerprints, facial patterns, voice or typing cadence. Each of these identifiers is considered unique to the individual, and they may be used in combination to ensure greater accuracy of identification.

Potential applications of biometric technology:
1. **Airport Security:** Biometric technology to verify passenger identities has been used in several large international airports for a number of years and the technology is quickly spreading to other locations across the globe.
2. **Biometric Attendance:** Workforce management is another field where the use of biometrics is on the rise. Fraudulent employee time and attendance activities are a common phenomenon in organizations throughout the world. Even government organizations now rely on biometrics for ensuring timely attendance of staff and accurate payroll calculations.
3. **Law Enforcement:** Organizations like the CBI have been using biometrics in criminal investigations for years. Today, biometrics is widely used by law enforcement agencies across the world for the identification of criminals.
4. **Banking:** Biometrics in banking has increased a great deal in the last few years and is being implemented by banks throughout the world. As global financial entities become more digitally-based, banks are implementing biometric technology to improve customer and employee identity management in an effort to combat fraud, increase transaction security, and enhance customer convenience.
5. **Healthcare:** In the field of healthcare, biometrics introduces an enhanced model. Medical records are among the most valuable personal documents. It also helps in timely and accurate diagnosis through available biometric linked information.
6. **Mobile technology:** Mobile integrates one or more biometric terms for authentication or identification purposes and takes advantage of smartphones, tablets, other types of handhelds, wearable technology, and the Internet of things for versatile deployment capabilities.
7. **Duplicate checking:** It is another biometric process performed to determine whether there are individuals represented more than once in a database. This might be performed to detect fraud, such as in the case where an individual has enrolled multiple times in a social benefits program.

8. **Aadhaar:** Biometrics are used in Aadhaar as a proof of identity linked to an individual. It uses Iris scan and fingerprints.

Dangers associated with biometric technology:
1. **Infringement of Privacy:** The privacy of users' data is at stake with the technology. In absence of regulations it would expose data to cyber criminals. Companies are not regulated, thus they may sell biometric data which can be misused for political purposes.
2. **State surveillance:** The most significant risk with the use of the technology is state surveillance. China's reported use of facial recognition technologies for surveillance in Xinjiang is such an example. This raises concerns as it might be misused for political purposes.
3. **Inaccuracy:** Biometrics technology is inaccurate. Evidence shows that the technology is not flawless. For example, the technology has been proven in multiple studies to be inaccurate at identifying people of colour, especially black women.
4. **Predatory marketing:** Software which analyses biometrics could potentially be put to use by some companies to prey on vulnerable customers. This could be done by segmenting extreme emotions such as distress and tailoring their products and services to these individuals.
5. **Stalking:** Tools like reverse image searches can provide stalkers with more data about their victims. This is unsafe especially for women, who can be tracked and stalked and maybe assaulted by misusing information obtained.
6. **Identity fraud:** Criminals who have collected enough personal information on an individual could commit identity fraud. This could have a significant effect on your personal life, including on finances. For example, fake id can be created by exploiting information obtained from persons' associated biometric information. Crime like photo morphing can threaten the identity of an individual.
7. **Dark activities:** There is possibility of misusing biometric information for illicit activities and markets like drug selling, weapons etc. By using stolen ids, Aadhar information, it also increases risk for being used in various terrorist activities across the border.

Biometric identification management systems offer higher security, convenience, accountability, and accurate audit trails – all attributes that motivate businesses to research and implement the technology for their own use. We believe that as time moves forward, we will see implementation of biometric technology continue to grow and be used in even more areas that touch our lives.

Q.20) Explain the benefits of micro-irrigation over the conventional irrigation systems. Also mention various challenges in the adoption of this technology.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss the benefits of micro-irrigation over the conventional irrigation systems. Mention various challenges in the adoption of this technology.
> **Conclusion.** Way forward.

Micro-irrigation is the slow application of water as discrete or continuous drips, tiny streams or miniature spray on the soil by surface drip and micro-sprinkler systems. As the agriculture sector consumes 80% of the freshwater in India, micro-irrigation is often

promoted by central and state governments as a way to tackle the growing water crisis. This is because drip and sprinkler irrigation delivers water to farms in far lesser quantities than conventional gravity flow irrigation.

Benefits of micro irrigation systems:
1. **Water saving:** Micro-irrigation (MI) is proved to be an efficient method in saving water and increasing water use efficiency as compared to the conventional surface method of irrigation, where water use efficiency is only about 35-40%.
2. **Increased irrigation efficiency:** The on-farm irrigation efficiency of properly designed and managed drip irrigation systems is estimated to be about 90%. Farmers using a pumping system to irrigate their fields should ensure that the pump and pipe size are fitting with their needs, thus avoiding water and energy overuse and consequent leakages.
3. **Higher yields:** The yields are higher than traditional flood irrigation. Productivity gain due to use of micro-irrigation is estimated to be in the range of 20 to 90% for different crops. Yields of crops increase up to 45% in wheat, 20% in gram and 40% in soybean.
4. **Less water loss:** There is also less loss of water due to reduction in loss of water in conveyance and also reduction in loss of water through evaporation, run off, and by deep percolation.
5. **Energy efficient:** The reduction in water consumption in micro-irrigation also reduces the energy use (electricity) that is required to lift water from irrigation wells.
6. **Lower consumption of fertilizers:** An efficient drip irrigation system reduces consumption of fertiliser through fertigation.
7. **Weed and disease reduction:** It helps in inhibiting growth of weeds as it keeps limited wet areas. Under this condition the incidence of disease is also reduced.
8. **Cost savings:** There are substantial reductions in irrigation costs and savings on electricity and fertilisers.
9. **Precision farming:** Emerging computerised GPS-based precision irrigation technologies for self-propelled sprinklers and micro-irrigation systems will enable growers to apply water and agrochemicals more precisely and site specifically to match soil and plant status and needs as provided by wireless sensor networks.

Challenges in the adoption of this technology:
1. **Electricity:** Uninterrupted availability of electric power is required. The electricity unavailability in India affects the timing and supply of water to crops because the crop water requirement in farms neither coincides nor follows India's timing of power availability or unscheduled power outages.
2. **Expensive:** The second impediment to micro-irrigation in India is the expense of the system itself. The adoption of this technology has high initial costs.
3. **Declining landholdings and farm income:** The data on India's operational landholdings shows that the average size of landholdings have halved since the 1960s. The meagre farm income from declining landholdings challenges the sustainability of expensive micro-irrigation on Indian farms.
4. **Maintenance:** Micro-irrigation systems normally have greater maintenance requirements. Soil particles, algae, or mineral precipitates can clog the emission devices.
5. **Water availability:** Though the average water availability in India remains more or less fixed according to the natural hydraulic cycle, per capita availability is reducing progressively owing to the increasing population.

Government of India has also accorded high priority to water conservation and its management. Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) has been formulated with the vision of extending the coverage of irrigation 'Har Khet Ko Pani' and improving water use efficiency 'More crop per drop' in focused manner using sprinkler & drip method of irrigation. This irrigation method has several advantages over furrow systems, including reduced water use.

Q.21) What is contact tracing? Discuss various steps in contact tracing and its significance in fighting epidemics.

Ans.

Demand of the question
Introduction. What is contact tracing?
Body. What are various steps in contact tracing? Discuss its significance in fighting epidemics.
Conclusion. Way forward.

In public health, contact tracing is the process of identifying, assessing, and managing people who have been exposed to a disease to prevent transmission. People in close contact with someone who is infected with a virus, such as the coronavirus, are at higher risk of becoming infected themselves, and of potentially further infecting others. Closely watching these contacts after exposure to an infected person will help the contacts to get care and treatment, and will prevent further transmission of the virus.

Various steps in contact tracing:
1. **Individual identification**: An individual is identified as having a communicable disease. This case may be reported to public health or managed by the primary health care provider.
2. **Contact identification:** Once someone is confirmed as infected with a virus, contacts are identified by asking about the person's activities and the activities and roles of the people around them since onset of illness.
3. **Contact listing:** All persons considered to have contact with the infected person are listed as contacts. Efforts are made to identify every listed contact and to inform them of their contact status, what it means, the actions that will follow, and the importance of receiving early care if they develop symptoms.
4. **Sample testing:** Samples must be collected and sent to the designated laboratory for testing, and appropriate medical management must begin.
5. **Symptomatic contacts:** Contacts are provided with information about prevention of the disease. In some cases, if contacts show symptoms, they may be isolated at a health care facility or at home until the results come in.
6. **Asymptomatic contacts:** They must remain at home (home quarantine) for at least 28 days after the last exposure with the patient. The contacts should start monitoring their health and watch for symptoms of fever and cough, within 28 days of the last exposure to the patient, and maintain a list of people they are in contact with, on a daily basis.
7. **Contact follow-up:** Regular follow-up is conducted with all contacts to monitor for symptoms and test for signs of infection.

Significance of contact tracing:
1. **Interrupt transmission:** Contact tracing is important to interrupt ongoing transmission and reduce spread of an infection.

2. **Alert Contacts:** It is important to alert contacts to the possibility of infection and offer preventive counselling or prophylactic care.
3. **Treatment:** Contact tracing is important to offer diagnosis, counselling and treatment to already infected individuals.
4. **Prevent reinfection:** If the infection is treatable, to help prevent reinfection of the originally infected patient.
5. **Study epidemiology of a disease:** To learn about the epidemiology of a disease in a particular population.
6. **Investigating new diseases:** Although contact tracing is most commonly used for control of endemic diseases, it is also a critical tool for investigating new diseases or unusual outbreaks.

Contact tracing has been a pillar of communicable disease control in public health for decades. The eradication of smallpox, for example, was achieved not by universal immunization, but by exhaustive contact tracing to find all infected persons.

Q.22) Explain the key issues in infrastructure financing in India. What steps have been taken by the government to address these issues?

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the key issues in infrastructure financing in India. Mention steps have been taken by the government to address these issues.
Conclusion. Way forward.

Infrastructure development is an arduous job. It involves huge investments, long gestation periods, procedural delays and returns spread over a long period of time. These unique features of infrastructure development raise some issues which are specific to the financing of infrastructure. As a result, mobilising and structuring financing for infrastructure development is a complex proposition.

Key issues in infrastructure financing in India:
1. **Fiscal Burden:** Almost half of the total investment in the infrastructure sector is done by the Government through budget allocations. But Government funds have competing demands, such as, education, health, employment generation, among others.
2. **Asset-Liability Mismatch of Commercial Banks:** Commercial banking sector's ability to extend long-term loans to the infrastructure sector is limited.
3. **Subdued Investments in PPP Projects:** Private sector investment is yet to revive in the backdrop of subdued interest from potential stakeholders. Legacy issues and weak balance sheets have led to limited participation from existing infrastructure players in India.
4. **Investment Obligations of Insurance and Pension Funds:** Insurance and pension funds are constrained by their obligation to invest a substantial portion of their funds in Government securities.
5. **Need for an Efficient and Vibrant Corporate Bond Market:** The corporate bond market is still a long way to go in providing adequate financing to the infrastructure sector in India.
6. **Insufficiency of User Charges:** A large part of the infrastructure sector in India especially irrigation, water supply, urban sanitation, and state road transport is not

amenable to commercialisation for various reasons. Due to this, the Government is not in a position to levy sufficient user charges on these services.

7. **Legal and Procedural Issues:** Issues relating to land acquisition and environmental clearances add uncertainty which affects the risk appetite of investors as well as banks.

Various steps have been taken by the government to address these issues:

1. **Public-Private Partnership:** Government is making efforts towards Public-Private Partnership Projects especially in Infrastructure.
2. **Viability Gap Funding:** Government has made provision to financially support the viability gap to the tune of 20% of the cost of the project in the form of capital grant from its viability gap fund.
3. **Foreign Direct Investment and Infrastructure Development:** 100% FDI is allowed under the automatic route in some of the sectors such as mining, power etc. Further, FDI is also allowed through the approval route in some sectors such as the civil aviation sector etc.
4. **India Infrastructure Finance Company Limited (IIFCL):** IIFCL is a wholly-owned Government of India company to provide long term finance to viable infrastructure projects through the Scheme for Financing Viable Infrastructure Projects through a Special Purpose Vehicle.
5. **Infrastructure Debt Funds:** IDF is a distinctive attempt to address the issue of sourcing long term debt for infrastructure projects in India.
6. **Reducing bottlenecks:** With Initiatives such as 'Housing for All' and 'Smart Cities,' the government is working on reducing the bottlenecks that impede growth in the infrastructure sector.
7. **UDAY scheme:** Under UDAY scheme the government has taken steps to improve operational and financial parameters of discoms.
8. **Masala Bonds:** The National Highways Authority of India (NHAI) launched Masala Bonds in May 2017, for raising capital for funding the infrastructure projects in India.
9. **National Infrastructure Investment Fund:** National Infrastructure Investment Fund (NIIF) with an initial corpus of Rs 40,000 crore was launched.
10. **National Infrastructure Pipeline:** The National Infrastructure Pipeline is a group of social and economic infrastructure projects in India over a period of five years with a sanctioned amount of ₹102 lakh crore.

In terms of the potential to attract global investment, India is in a sweet spot when compared to other emerging economies. Government and the corporate world should work together to iron out structural issues and develop frameworks that allow transparent and flexible risk sharing mechanisms to attract investments in the infrastructure sector. Greater Participation of State Governments must be ensured and steps must be taken to simplify the procedures and to improve efficiency of the Corporate Bond Market.

Q.23) Discuss the role of technology and private sector in fighting an epidemic like Coronavirus.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the importance of technology and private sector in fighting an epidemic like Coronavirus.
Conclusion. Way forward.

Following the recent Coronavirus outbreak, there have been a number of investigations to ensure that we learn the lessons from this epidemic and use them to prepare for the next. A significant impact in future outbreaks would be by use of technology and involvement of the private sector. With recent innovation in converging technologies such as mobile computing, mobile communications and broadband internet, it has been possible to trial a number of innovative approaches to epidemic response.

Importance of technology and private sector in fighting an epidemic:

1. **Communication:** During an outbreak, clear messaging to the local population is vital to ensure they are informed and reminded to use appropriate precautions. Thanks to technological push for mobile phones, several NGOs have been able to spread the message highlighting the hazards of Ebola and how to avoid contracting the virus.

2. **Quick training:** Technological advances in mobile computing are used to train health workers in the field. The benefit of tools such as this is that they can quickly deliver standardized learning, with the ability to be updated in the field as new procedures are validated. Additionally, by using established communications links, training material can be tailored and tested with the health workers on site.

3. **Awareness:** During an epidemic, communication is a critical tool to ensure we can both spot the virus spreading early and make attempts to contain it by educating the local population. From an NGO perspective, it also provides a means of maintaining medical services through the use of telemedicine.

4. **Accessibility:** Another critical issue faced by citizens is accessibility. Here, digital technology can help. For example, the company Practo makes it easy for patients to find medical specialists, compare reviews by patients, and book appointments online or using a mobile app.

5. **Investment:** The Indian healthcare system faces enormous challenges due to the lack of funding for preventive health care, training of healthcare professionals and investment in healthcare infrastructure, especially in rural areas and the weaker states. Start-ups can alleviate these problems.

6. **Real time monitoring:** Several innovative solutions have been trialled to assist in the monitoring of any new virus outbreak. The viability of these approaches will only grow with the increase in mobile penetration.

7. **Data examination:** Innovations are being used to examine data from mobile phones to track users who have been close to a known case of the virus. Data from these tools are now being analysed. Companies like *BlueDot* combine public health and medical expertise with advanced data analytics to track, contextualise, and anticipate infectious disease risks.

8. **Surveillance:** Technology can be used to assess risk associated and surveillance of epidemic. For instance, China has developed a Health Code to identify and assess the risk of every individual in a targeted zone based on travel history in infected places. The individuals are assigned a colour code which they can access via popular apps to know if they ought to be quarantined or allowed in public.

9. **Diagnosis:** Across the world, there is a growing role for technology in identification, tracking, and treating an epidemic. Private sector and start-ups can help in quick identification and treatment of such epidemics.

10. **Limiting the spread:** Mass surveillance system based on facial recognition technologies, sensing technologies to identify those with fever in public places and data from mobile phone companies to trace the people who might be infected, and limit the spread of the disease. Many technology firms are leveraging artificial intelligence for business and policy purposes.

11. **Vaccine development:** Technology like artificial intelligence and involvement of the private sector is must to create vaccines for epidemic in a short time.

In India, the state has dominated the development of science and its organisation. That was of great value in the early decades after Independence. Today, what India needs is a stronger private sector in science and greater synergy with it in dealing with challenges like the corona crisis. The current crisis is an opportunity for India to build on the existing domestic technological capabilities in the areas of artificial intelligence, big data analytics, life sciences, health technology in the private sector.

Q.24) What is Quantum Technology? Discuss its potential applications and significance of 'National Mission on Quantum Technologies and Applications' in this direction.

Ans.

Demand of the question
Introduction. What is Quantum Technology?
Body. Discuss potential applications of quantum technology and significance of the National Mission on Quantum Technologies and Applications.
Conclusion. Way forward.

Quantum technology is an emerging field of physics and engineering, which relies on the principles of quantum physics (the physics of subatomic particles). Quantum technology promises improvements to a vast range of everyday technology.

Potential applications of quantum technology:
1. **Industrial revolution 4.0:** Quantum computing is an integral part of Industrial revolution 4.0. Success in it will help in Strategic initiatives aimed at leveraging other Industrial revolution 4.0 technologies like the Internet-of-Things, machine learning, robotics, and artificial intelligence across sectors will further help in laying the foundation of the Knowledge economy.
2. **Financial Portfolio Optimisation:** Finding the optimum mix for a basketful of investments based upon projected returns, risk assessments, and other factors is a daily task within the finance industry. By utilizing quantum technology to perform these calculations, one could achieve improvements in both the quality of the solutions as well as the time to develop them.
3. **Logistics and Scheduling:** Many common optimisations used in industry can be classified under logistics and scheduling. Quantum computing can make logistics more efficient. For example, airlines can figure out how to stage their airplanes for the best service at the lowest cost.
4. **Pharmaceutical:** Quantum computing could reduce the time frame of the discovery of new molecules and related processes to a few days. For instance, tracking protein behaviour or even modelling new proteins with the help of quantum computers could be made easier and faster.
5. **Cyber Security:** Various techniques to combat cyber security threats can be developed using some of the quantum machine learning approaches mentioned above to recognize the threats earlier and mitigate the damage that they may do.
6. **Research:** It can help in solving some of the fundamental questions in physics related to gravity, blackhole etc. Similarly, the quantum initiative could give a big boost to the Genome India project, a collaborative effort of 20 institutions to enable new efficiencies in life sciences, agriculture and medicine.

7. **Disaster Management:** Tsunamis, drought, earthquakes and floods may become more predictable with quantum applications. The collection of data regarding climate change can be streamlined in a better way through quantum technology.

Significance of National Mission on Quantum Technologies and Applications (NMQTA):
1. **Accommodation:** Artificial intelligence, Internet-of-Things (IoT), 3D printing, drones, DNA data storage, quantum computing, etc. are re-writing the world economic order. Mission will help India to accommodate in a new economic order.
2. **Security:** It will prepare India to develop these emerging and disruptive technologies in order to secure our communications and financial transactions.
3. **Socio-economic development:** This will help India to remain competitive, drive societal progress, foster economic growth and to improve the overall quality of life.
4. **Employment generation:** With a solid research base and workforce founded on significant and reliable government support, it can lead to the creation of innovative applications by industries, thereby stimulating economic growth and job creation, which will feed back into a growing quantum-based economy.
5. **Technology requirements:** The Mission will be able address the ever increasing technological requirements of the society, and take into account the international technology trends and road maps of leading countries for development of next generation technologies.
6. **Addressing specific issues:** Implementation of the mission would help develop and bring quantum computers and associated technologies within reach in the country and help address India specific national and regional issues like in agriculture.
7. **Scientific skilled ecosystem:** The mission will help prepare next generation skilled manpower, boost translational research and also encourage entrepreneurship and start-up ecosystem development.
8. **R&D:** It will establish standards to be applied to all research and help stimulate a pipeline to support research and applications well into the future.
9. **Industrial application:** Their applications which will receive boost include those in aero-space engineering, weather prediction, simulations, cyber security, advanced manufacturing, health, agriculture, education and other important sectors.

Quantum technology is opening up new frontiers in computing, communications, cyber security with wide-spread applications. It is expected that lots of commercial applications would emerge from theoretical constructs which are developing in this area.

Q.25) In the recent event of coronavirus epidemics, there is an urgent need for effective social security measures in place. Discuss.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss why there is an urgent need for effective social security measures in place.
Conclusion. Way forward.

According to the International Labour Organization (ILO), Social Security is defined as the protection which society provides for its members through a series of public measures against the economic and social distress as the world is witnessing today due to the coronavirus pandemic. Recent events of coronavirus demand an urgent need for effective social security measures from the government.

Need for effective social security measures:

1. **Physical risks:** Due to sickness especially old age maternity, there is an urgent required for social security measures especially related to health.
2. **Loss of jobs:** Unemployment is on the rise due to the economic impact of the epidemic. It has caused a lockdown and closure of many industrial units leading to loss of jobs.
3. **Poverty:** India is home to millions of poor. An epidemic poses more risk to poor who lack resources for hospitalisation and lack money to buy nutritious food. Poor people cannot afford to stay idle at home. If they are asked to stay home, they will need help.
4. **Malnutrition:** Indians are suffering from malnutrition and undernutrition leading to weak immune systems, thus making it more vulnerable to epidemics.
5. **Women status:** Women are being discriminated against in India especially in rural areas. They are first to be fired from jobs in wake of economic losses. Any epidemic poses high risk to them and to their health, demanding measures for their wellness.
6. **Migrants:** Mass lay-offs have forced migrant workers to rush home, some without being paid, thereby needing social security measures in place.

Way forward:

1. **Using existing social-security schemes:** First step is to make good use of existing social-security schemes to support poor people pensions, the Public Distribution System (PDS), midday meals, and the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), among others.
2. **Continuing basic services:** Services that help poor people in their hour of need without creating a major health hazard should continue to function as far as possible.
3. **Universal basic income:** A minimum amount of universal income should be provided to the poor, to ensure a basic minimum.
4. **Ensuring labour welfare:** It must be ensured that welfare of labour should not be impacted and no one should lose unnecessary jobs due to the epidemic.
5. **Capping prices:** Prices of basic goods, food should be capped. Any hoarder should be punished according to laws.

We are dealing not only with a health crisis but also with an economic crisis. Even if discontinuing public services helps to contain the health crisis, the economic consequences need to be considered. A social security measure needs to be put in place.

Q.26) Explain the working mechanism of vaccines. Discuss the significance of vaccination and mention various challenges regarding vaccination in India.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss how vaccines work. Mention their significance and various challenges regarding vaccination in India.
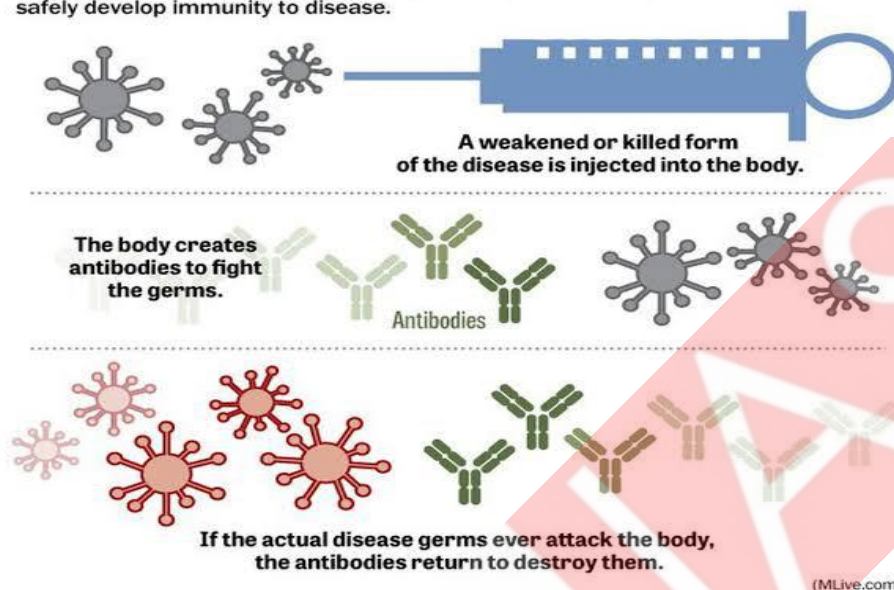**Conclusion.** Way forward.

A vaccine is a biological preparation that improves immunity to a particular disease. A vaccine typically contains an agent that resembles a disease-causing microorganism, and is often made from weakened or killed forms of the microbe, its toxins or one of its surface proteins. Vaccines are like a training course for the immune system. They prepare the body to fight disease without exposing it to disease symptoms.

How does vaccination work?

HOW DO VACCINES WORK?
Vaccines reduce the risk of infection by working with the body's natural defenses to safely develop immunity to disease.

A weakened or killed form of the disease is injected into the body.

The body creates antibodies to fight the germs.

Antibodies

If the actual disease germs ever attack the body, the antibodies return to destroy them.

(MLive.com)

1. **Recognition:** Vaccination works by teaching our immune system how to recognise new diseases. Our immune system is composed of various types of cells. These cells defend us against invaders and remove harmful pathogens.
2. **Producing antibodies:** Vaccines stimulate our bodies to make antibodies against antigens of pathogens. It also teaches the immune system to remember the antigens that cause infection, which leads to a faster response to the same disease in the future.
3. **Builds adaptive immune system:** In simple terms, vaccines work by exposing a person to a safer version of a disease. While the body responds to the vaccine, it builds an adaptive immune system, which helps the body to fight off the actual infection in the future.
4. **Memory creation:** After the threat has passed, many of the antibodies will break down, but immune cells called memory cells remain in the body. When the body encounters that antigen again, the memory cells produce antibodies fast and kill the harmful micro-organism.

Significance of Vaccination:
1. **Prevent mortality:** According to WHO, vaccination prevents between two-three million deaths each year, a figure that will rise by another 1.5 million if vaccine coverage improves.
2. **Child health:** Vaccination protects children from serious illness and complications of vaccine-preventable diseases. A study in 2017 that looked at flu seasons between 2010 and 2014 found that vaccination reduced flu-associated deaths by 65% among healthy children.
3. **Reduce expenditure:** The vaccine can also prevent hospitalisations (thereby it can check out of pocket expenditure), reduce the severity of illness and prevent severe, life-threatening complications in children.
4. **Prevent spread:** Efficacious vaccines not only protect the immunised, but can also reduce disease among un-immunised individuals in the community through indirect effects or herd protection. Because of herd protection, some diseases can be eliminated without 100% immunisation coverage.

5. **Prevent antibiotic resistance:** By reducing the need for antibiotics, vaccines may reduce the prevalence and hinder the development of resistant strains, thereby preventing antibiotic resistance.
6. **Life expectancy:** Vaccines can increase life expectancy by protecting against diseases against which one would not expect benefit.
7. **Socio-economic development:** Poor health has been shown to stunt economic growth while good health can promote social development and economic growth. Health is fundamental to economic growth for developing countries and vaccinations form the bedrock of their public health programmes.

Challenges regarding vaccination in India:
1. **Lack of social awareness:** Lack of social awareness amongst families for the need of vaccination due to illiteracy and religious beliefs.
2. **Delivery mechanisms:** There is lack of targeted and robust health delivery mechanisms and deficient last mile delivery. There is a lack of well-equipped and trained health care workers and inadequate labour force and vaccination centres in areas with sparse populations.
3. **Misconceptions:** Misconceptions about immunisation mostly among poor and underprivileged about vaccines and their side effects.
4. **Infrastructure:** Vaccines require cold chain infrastructure for storage. Logistical and Infrastructural issues in storage of vaccines hampering it's penetrability in the rural hinterland.
5. **Monitoring:** There is absence of a monitoring mechanism to ascertain the degree of coverage in every village/block/district.

The benefits of vaccination extend beyond prevention of specific diseases in individuals. They enable a rich, multifaceted harvest for societies and nations. Vaccination makes good economic sense, and meets the need to care for the weakest members of societies. A comprehensive vaccination programme is a cornerstone of good public health and will reduce inequities and poverty.

General Studies 4

Q.1) Discuss the role of parents and schools in inculcating values among children.

Ans.

Demand of the question
Introduction. Contextual introduction.
Body. Discuss the role of parents and schools in inculcating values among children.
Conclusion. Way forward.

Parents and school play an important role in inculcating values among children. They help in socialisation of children by influencing them with their attitudes and beliefs and it is from them that children primarily get their values.

Role of parents in inculcating values among children:
1. **Role models:** Parents are a child's first teachers and role models. Children listen, observe and imitate their parents. So it is important that they should be good role models the kids would want to follow.
2. **Moral development:** Child's experiences from birth especially at home, frame his/her morals, which he eventually develops. Parents, they play a significant role in instilling the morals that they feel are valuable. Moral development shapes the child's decision making process.
3. **Family values:** Ideas passed down from generation to generation make up a family values. It answers the basic question of how one wants to live the family life. Family values enhance the character and turn the children into good human beings.
4. **Right conduct:** Parents communicate this not just by discussing it with their children but also by walking the talk. They transmit simple habits, like keeping the surroundings clean, being truthful and honest etc.
5. **Activity based learning:** Activities like games and story-telling have a significant impact on children. This way parents can impart the desired values. Take for instance the value of sharing and caring.
6. **Attitude development:** The family, shapes the child's attitude towards people and society, and helps in mental growth in the child and supports his ambitions and values. Blissful and cheerful atmosphere in the family will develop love, affection, tolerance, and generosity.

Role of schools in inculcating values among children:
1. **Ethical behaviour:** In school, children are members of a small society that exerts a tremendous influence on their moral development. Teachers serve as role models to students in school. They play a major role in inculcating their ethical behaviour.
2. **Peers:** Peers at school diffuse boldness and consideration for others. They play a major role in developing ethical behaviour in children.
3. **Role model:** The teachers are the first role model to the children outside their family. When the children see the model showing concern for others, motivating them for their good deeds and cooperating and helpful with their academic issues, the children learn them by observing and imitating it with fellow peers.
4. **Helping:** The children are taught basic morals and values in school. They are taught by emphasizing the idea through many activities, stories and tales, which will encourage them to engage in more helping behaviours.
5. **Appreciation:** The school is a place to learn appreciating the children for developing prosocial behaviour, especially for any specific action they have done to help others.

6. **Character building:** The school and teacher has a powerful and enduring influence in the formation of the character of every future citizen.
7. **Skill development:** Teacher acts as a pivot for the transmission of intellectual and technical skills and cultural traditions from one generation to the other.
8. **Mentor and guide:** Teacher is a source of information, a guide, a mentor, a surrogate parent, a motivator, all at the same time. Teaching is the only profession which always deals with the future.
9. **Appropriate behaviour:** School is an important place especially to build appropriate ways of behaving towards friends, peers, the poor, elders and more.
10. **Value teaching:** School help in teaching a child values like empathy, sympathy, warmth, respect, integrity and honesty and its importance.

The role of a parent and teacher in the changing social scenario is becoming very challenging. In the earlier times the teacher was the only source of information and commanded respect on this count. Today, we have multiple information centers like books, coaching centres, the audio visual aids such as audio cassettes, video tapes, microfilms and internet services that provide information to those who need it. Society is becoming more materialistic and values appear to be pushed into the background. So the parent and teacher role is very crucial in developing values in their child.

Q.2) Anger and intolerance are the enemies of correct understanding. Elucidate.

Ans.

> **Demand of the question**
> **Introduction.** Contextual introduction.
> **Body.** Discuss how anger and intolerance are the enemies of correct understanding.
> **Conclusion.** Way forward.

Anger and intolerance are negative emotions developed in response to an adverse provocation, or any threat. As Gandhiji said, Anger and intolerance are the enemies of correct understanding, one must control anger and must be tolerant. Correct understanding is a disposition to appreciate or share the feelings and thoughts of others. Anger and intolerance reduce such ability of correct understanding as these make an individual biased and irrational.

How does anger affect understanding?
1. **Biasness:** Anger is a negative emotion that often leads to bias and clouds moral judgement. For eg. Under provocation people resort to violence and fail to understand the repercussions their actions may cause.
2. **Loss of calmness:** Anger makes a person lose calmness and forces them to take hasty decisions which may not be correct. Anger makes a person lose patience which drives him towards intolerance. Angry person is a constantly stressed person, such a person cannot think with clarity.
3. **Emotional decisions:** Anger leads to an influenced, non-objective and emotional decision, which is not based on well thought outcomes and understanding of consequences of such decisions, which could be dangerous. E.g. In anger, mobs may lynch an innocent without knowing or verifying his crime.
4. **Contiguous:** Anger affects the person who is angry as well as all the people who are touched by that person's anger. An angry person is likely to speak harshly. Sometimes angry people hurt themselves if they are unable or out of reach of the people at whom they want to direct their anger.

5. **Prevent rational thinking:** Evils like honour killing, acid attack by spurned lovers is because of anger at the moment. Anger does not allow rational thinking and people take up extreme steps and kill their own children/loved ones due to uncontrolled emotions.

How intolerance affects understanding?
1. **Ignorance:** An intolerant person will remain ignorant to diverse opinions and belief and thus act according to narrow ideals. For example, generally politicians with religious background are ignorant towards issues like LGBT rights.
2. **Contagious:** Intolerance is contagious just like anger and can encourage others to be blind for diverse views too.
3. **Cloud thinking:** Intolerance makes a person blind to other opinions and narrow down a person's thinking and judgement marred by biased views.
4. **Prevent correct understanding:** Intolerance in society prevents correct understanding as people only see one side of the coin. For example, not all Muslim are terrorists as are branded by some individuals which lead to development of intolerance against them and may lead to violence.

Way forward:
1. **Emotional intelligence:** It is very necessary for a person in a position of authority and responsible for decision making to keep their negative emotions in check. It requires development of emotional intelligence.
2. **Sensitivity training:** To manage emotions sensitivity training can be given to the individuals.
3. **Interaction:** Encouraging sarva dharma sambhava by making people of diverse cultures to interact with each other.
4. **Meditation:** Yoga and meditation techniques to control anger is a must in a way it gives one control over one's own mind.
5. **Acceptance:** It is important to accept other views and thoughts so as to develop as a rational human being. For this education and awareness about other's rights also plays an important role.

It is common to find people and leaders losing steadiness of mind when faced with stress. Thus, in today's world administrators need to be emotionally intelligent to act in a fair and unbiased manner. Balanced decision making for social progress and development can only be made with an objective and unbiased mind, which can be achieved by controlling anger and being tolerant and open.

Q.3) What is John Stuart Mill's idea on freedom of thought and expression? Also discuss Mill's views on representative democracy.

Ans.

> **Demand of the question**
> **Introduction.** What is John Stuart Mill's idea on freedom of thought and expression?
> **Body.** Discuss Mill's views on representative democracy.
> **Conclusion.** Way forward.

John Stuart Mill was a political thinker and an activist of the 19th century in Britain. He was one of the foremost believers in and practitioners of Utilitarianism, a system of thought that essentially declared an action to be proper if it was beneficial to the largest portion of society. In his essay, *On Liberty*, he is adamant that the preservation of individual liberty

rests largely on protecting freedom of thought no matter how egregious or immoral and, by extension, the freedom to express oneself based on that thought.

Stuart Mill's idea on freedom of thought and expression:
1. **The Harm Principle:** According to this, state is only allowed to limit an individual's liberty for the sake of preventing that person from harming others. Mill seeks to show that society should never suppress opinions unreasonably.
2. **Freedom of expression:** He offered four reasons why there should be freedom of expression even for those who espouse ideas that appear false or misleading today:
    a) **No idea is completely false:** What appears to us as false has an element of truth. If we ban false ideas, we would lose that element of truth that they contain.
    b) **Truth does not emerge by itself:** It is only through a conflict of opposing view that truth emerges.
    c) **Trustworthiness:** Thirdly, it is only when an idea is exposed to opposing views that we can be sure that this idea is trustworthy.
    d) **Suppression:** Very often ideas that were considered false at one point by the entire society and therefore suppressed turned out to be true later on. A society that completely suppresses all ideas that are not acceptable today, runs the danger of losing the benefits of what might turn out to be very valuable knowledge.
3. **Man as a progressive being:** Mill argues that the freedom of thought and expression will contribute to the permanent interests of man as a progressive being and to discover and know what is true is in our interests.
4. **Develop rational thinking:** According to him, freedom helps us to develop rational thinking and intellectual faculties and makes us open-minded and thoughtful.
5. **Challenging hypocrisy:** According to Mill, freedom helps in challenging hypocrisy, intellectual lethargy and leads to self-satisfaction. Public censure undermines intellectual courage and slows down the discovery of truth.
6. **Essential for meaningful life:** He considered liberty of conscience, liberty to express and publish one's opinions, liberty to live as one pleased and freedom of association as essential for a meaningful life and for the pursuit of one's own good.

Mill's views on representative democracy:
1. **Utilitarianism:** According to his utilitarian principle, greatest happiness means happiness of the greatest number as represented in democracy.
2. **Direct democracy not feasible:** According to Mill, in a country with a large population, direct democracy is not feasible, so a democratic government should be a representative democracy.
3. **Means to achieve the liberty of thought:** He considered democracy as a sole means to achieve the end of the liberty of thought, expression and action, which, in turn, would develop, enrich and expand the personality of individuals in fullness.
4. **Certain prerequisite for democracy:** According to Mill, there are certain prerequisite for democracy and democracy without a democratic culture results into a 'False Democracy'. For instance, democracy is only applicable where people are matured enough to develop a democratic culture.
5. **Mobocracy:** Mill recognized that democracy can be transformed into tyranny of majority or mobocracy based on the numerical strength of the least educated class. To overcome this, Mill suggested reforms such as proportional representations, plural voting and women franchise.

6. **Liberal individualism:** According to him, a representative government encourages individuality and liberal individualism with tendency to foster self-development and individuality.

7. **Participation:** According to Mill, democracy leads people to take a more active and intelligent participation in society and encourages the development of natural human sympathies.

8. **Not applicable to all:** Mill did not consider representative democracy being applicable for all societies like uncivilized and barbaric societies were suitable for despotic rule.

According to Mill, individuality means power or capacity for critical enquiry and responsible thought. It means self-development and the expression free will. He stressed total liberty of conscience, belief and expression as they were crucial to human development.

Q.4) What do you understand by the term 'diaspora diplomacy'? Discuss the usefulness and limitations of 'diaspora diplomacy'.

Ans.

Demand of the question
Introduction. What is diaspora diplomacy?
Body. Discuss the usefulness and limitations of diaspora diplomacy.
Conclusion. Way forward.

Diaspora refers to the scattered population of a country whose origin lies in a separate geographic locale. Diaspora diplomacy is the practice of influence and negotiations between nations by using the country's diaspora to pursue the advancement of the home country. India has the world's largest diaspora, about 17.5 million and receives the highest remittance of $78.6 billion from Indians living abroad (Global Migration Report 2020). Indian government has always given serious consideration to the enormous financial and political heft of the diaspora.

Usefulness of diaspora diplomacy:

1. **Promote trade:** They help to promote trade across national boundaries by acting as middlemen by providing market information and consumer preferences in both host and origin countries.

2. **FDI:** They help their home country through their implicit method of attracting foreign direct investments (FDI).

3. **Instruments of exchange:** They serve as instruments for knowledge exchanges, transfer of skills and technology between their host and origin countries.

4. **Economic development:** Diasporas have been contributing to the development of their home countries through the sending of remittances, as well as managing businesses in the latter. The Diaspora helps in poverty alleviation at household level though remittances that are being sent to their relatives.

5. **Promote soft power:** Diasporas promote the image and culture of their homeland. Thus they act as a tool to display soft power of a nation. Soft power is the ability to affect others in order to acquire the planned outcomes through attraction, instead of coercion or the use of force.

6. **Promote cooperation:** Diasporas promote friendship and cooperation between the host and origin country through their personal contacts and networks.

Limitations of diaspora diplomacy:
1. **Linguistic barrier:** In some countries like Uganda, the diversity of culture specifically in the aspect of language makes it difficult for the government to unite their diaspora community in order for the latter to contribute effectively to national development.
2. **Loyalty:** The second issue is that politically active members of the diaspora don't necessarily support the country's actions, and often, because they are of Indian origin, hold loyalty to their home nation.
3. **Less strength:** Most of the diaspora migrate to other countries for better opportunities. Diasporic community in a country may not be large enough to make a difference.
4. **May not wish to engage:** The other limitation of Diaspora diplomacy lies in the fact that Diasporas may not wish to engage with their home nation given their critical view of their home country and its government. This may lead Diasporas to vocally express their criticism impacting the image of the country.

The process of diaspora is speedily emerging as one of the forces towards development in the globalizing world. Diasporas abroad amass human and financial capital for the economic and social development of their host communities. Efforts like Pravasi Bharatiya divas plays an important role in garnering support of Diaspora for diplomatic efforts.

Q.5) What do you understand by the term 'social justice'? Explain why it is imperative for a society to promote social justice.

Ans.

Demand of the question
Introduction. What is social justice?
Body. Discuss needs to promote social justice in a society.
Conclusion. Way forward.

Social justice means a fair and just relationship between individual and society. In simple terms, *social justice* refers to justice in terms of the distribution of wealth, opportunities, and privileges within a society. It aims to meet the challenge of socio-economic inequality by rule of law.

Importance of Social Justice in a society: Social justice is important for the welfare of society as a whole. Having social justice and responsibility leads to satisfaction and pleasure of life, as well as the respect and loyalty to the leaders.
1. **Equality**: Social justice means that everyone is living in equity, regardless of a person's race, gender or religion. The idea of social justice is that all people should have equal access to wealth, health, well-being, justice, privileges, and opportunity regardless of their legal, political, economic, or other circumstances.
2. **Diversity**: Social justice helps us work toward celebrating diversity in our communities and country. It acknowledges the differences that we are born with which can otherwise lead to resentment and hostility.
3. **Economic upliftment**: In economic terms, social justice efforts usually seek to elevate the economic status of various groups defined by group identity or demographic characteristics like race, gender, and religion.
4. **Democratic system:** A democratic system has to ensure that the social development is in tune with democratic values and norms reflecting equality of social status and opportunities for development, social security and social welfare.
5. **Dignity**: To ensure life to be meaningful and liveable with human dignity it is important to provide justice to all and enable their rights as enshrined in our constitution.

6. **Mitigate Sufferings**: It is a tool to mitigate the sufferings of the poor, weak Dalits, tribals' and deprived sections of the society.
7. **Human Resources**: It will help in the conservation of human resources by provision of health and education facilities.
8. **Freedom to form political, economic or religious institutions**: It will help to eradicate the challenges of caste system, untouchability and other discrimination in the society.
9. **Improving status of women**: Social justice is must to address ill treatment of women. Ill practices of dowry, female foeticide would decline. It can also address the issues declining sex ratio and limited education opportunities for girls.
10. **Legal Justice**: It means that the system of administration of justice must provide a cheap, expeditious and effective instrument for realization of justice by all sections of the people irrespective of their social or economic position or their financial resources

Social justice is a dynamic tool to improve the conditions of the marginalised sections of the society. If implemented in letter and spirit can help ensure human dignity and equal opportunities. It focuses more on just relations between groups within society as opposed to the justice of individual conduct or justice for individuals.