

TNPSC GROUP I MAIN - 2021
MODEL EXAM I
PAPER - III

Time: 3 hours

Total marks: 250

SECTION A

UNIT- I: Geography of India with special reference to Tamil Nadu

3 x 10 = 30

Answer all the questions. Answer not exceeding 150 words each

1. Discuss the significance of Himalayas.
இமயமலையின் முக்கியத்துவத்தை விவாதி.

- ❖ Himadri
- ❖ Himachal
- ❖ Siwaliks

Importance of Himalayas

- Himalayas blocks southwest monsoon winds and causes heavy rainfall to north India.
- It forms a natural barrier to the sub-continent.
- It is the source for many perennial rivers like Indus, Ganges, Brahmaputra etc.
- The Northern Mountains are described as the paradise of tourists due to its natural beauty.
- Many hill stations and pilgrim centres like Amarnath, Kedarnath, Badrinath and Vaishnavidevi temples are situated here.
- It provides raw material for many forest based industries.
- It prevents the cold winds blowing from the central Asia and protects India from severe cold.
- Himalayas are renowned for the rich biodiversity.

Longitudinal Divisions of Himalayas

- The Kashmir Punjab Himachal Himalayas- Located between the rivers of Indus and Sutlej.
- The Kumaun Himalayas- Located between the rivers of Sutlej and Kali.
- The Central-Nepal Himalayas- Located between the rivers of Kali and Tista.
- The Assam Eastern Himalayas- Located between rivers of Tista and Dihang.

2. Write a short note on the following.

பின்வருவனவற்றிற்கு சிறுகுறிப்பு வரைக

a. Jal Sakthi Abhiyan

b. Jal Jeevan Mission

சிறுகுறிப்பு வரைக

a. ஜல் சக்தி அபியான்

b. ஜல் ஜீவன் திட்டம்

Jal Sakthi Abhiyan

Union Jal Shakti Minister, Shri Gajendra Singh Shekhawat on July 1, 2019 announced the commencement of the Jal Shakti Abhiyan—a campaign for water conservation and water security. The campaign will run through citizens participation during the monsoon season, from 1st July, 2019 to 15th September, 2019. An additional Phase 2 will be run from 1st October, 2019 to 30th November, 2019 for States receiving the North East retreating monsoons. The focus of the campaign will be on water stressed districts and blocks.

Action Plan

- The Jal Shakti Abhiyan is a collaborative effort of various Ministries of the Government of India and State Governments, being coordinated by the DDWS.
- Teams of officers from the central government will visit and work with district administration in 1592 water stressed blocks in 256 districts, to ensure five important water conservation interventions.
- These will be water conservation and rainwater harvesting, renovation of traditional and other water bodies/tanks, reuse, bore well recharge structures, watershed development and intensive afforestation.
- These water conservation efforts will also be supplemented with special interventions including the development of Block and District Water Conservation Plans, promotion of efficient water use for irrigation and better choice of crops through Krishi Vigyan Kendras.

Jal Jeevan Mission

Jal Jeevan Mission, is envisioned to provide safe and adequate drinking water through individual household tap connections by 2024 to all households in rural India. The programme will also implement source sustainability measures as mandatory elements, such as recharge and reuse through grey water management, water conservation, rain water harvesting. The Jal Jeevan Mission will be based on a community approach to water and will include extensive Information, Education and communication as a key component of the mission. JJM looks to create a jan andolan for water, thereby making it everyone's priority

The broad objectives of the Mission are:

- ❖ To provide FHTC to every rural household. Functional Household Tap Connection
- ❖ To prioritize provision of FHTCs in quality affected areas, villages in drought prone and desert areas, Sansad Adarsh Gram Yojana (SAGY) villages, etc.
- ❖ To provide functional tap connection to Schools, Anganwadi centres, GP buildings, Health centres, wellness centres and community buildings
- ❖ To monitor functionality of tap connections.
- ❖ To promote and ensure voluntary ownership among local community by way of contribution in cash, kind and/ or labour and voluntary labour (shramdaan)
- ❖ To assist in ensuring sustainability of water supply system, i.e. water source, water supply infrastructure, and funds for regular O&M
- ❖ To empower and develop human resource in the sector such that the demands of construction, plumbing, electrical, water quality management, water treatment, catchment protection, O&M, etc. are taken care of in short and long term
- ❖ To bring awareness on various aspects and significance of safe drinking water and involvement of stakeholders in manner that make water everyone's business

3. What is Urban Sprawl? What are the causes of Urban Sprawl?

நகர்ப்புற விரிவாக்கம் என்றால் என்ன? மேலும் அதற்கான காரணங்களை எழுதுக.

Urban sprawl or suburban sprawl

Urban sprawl or suburban sprawl describes the expansion of human population away from central urban areas into low-density, monofunctional and usually car-dependent communities, in a process called suburbanization. In addition to describing a particular form of urbanization, the term also relates to the social and environmental consequences associated with this development. In Continental Europe the term "peri-urbanization" is often used to denote similar dynamics and phenomena, although the term urban sprawl is currently being used by the European Environment Agency. There is widespread disagreement about what constitutes sprawl and how to quantify it. For example, some commentators measure sprawl only with the average number of residential units per acre in a given area. But others associate it with decentralization (spread of population without a well-defined centre), discontinuity (leap frog development), segregation of uses, and so forth.

Causes of Urban Sprawl

Urban sprawl can be caused by many factors. They are:

Lower Land Rates:

Lower cost land and houses in the outer suburbs of the cities, because the centers of urban development have really made people want to stop settling in these areas and want to venture further out.

Rise in Standard of Living:

There are also increases in standards of living and average family incomes, which means that people have the ability to pay more to travel and commute longer distances to work and back home.

Lack of Urban Planning:

People love to find areas that are less trafficked and more calm, which leads them to sprawl out to other sections of the town. Unprecedented development, cutting of trees, loss of green cover, long traffic jams and poor infrastructure force the people to move out to new areas.

Lower House Tax Rates:

Cities will usually have high property taxes, and you can usually avoid these taxes by living in the outer suburbs because the taxes are usually lower than they are in other situations.

Rise in Population Growth:

Another factor that contributes towards urban sprawl is rise in population growth. As number of people in a city grows beyond capacity, the local communities continue to spread farther and farther from city centers.

Consumer Preferences:

People in high income groups have stronger preferences toward larger homes, more bedrooms, bigger balconies and bigger lawns. This also causes urban sprawl as this option is not available in crowded cities. People generally look out for low-density residential areas where they can get home according to their preference.

UNIT- II: Environment, Bio Diversity and Disaster Management

3 x 10 = 30

Answer all the questions. Answer not exceeding 150 words each

4. What is Ecological Succession? What are the causes and types of Ecological Succession?
சுற்றுச்சூழல் தொடர்வரிசை என்றால் என்ன? சுற்றுச்சூழல் தொடர்வரிசையின் காரணங்கள் மற்றும் வகைகள் யாவை?

ECOLOGICAL SUCCESSION

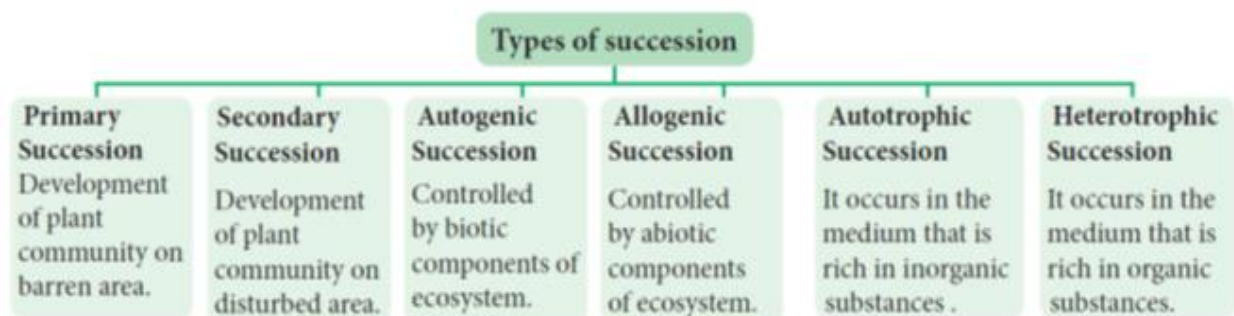
We very often see that forests and lands in our areas are drastically affected by natural calamities (Flood, earthquake) and anthropogenic activities (Fire, over grazing, cutting of trees). Due to these reasons all plants of an area are destroyed and the areas become nude. When we observe this area, over a period of a time we can see that it will be gradually covered by plant community again and become fertile. Such successive replacement of one type of plant community by the other of the same area/ place is known as plant succession. The first invaded plants in a barren area are called pioneers. On the other hand, a series of transitional developments of plant communities one after another in a given area are called seral communities. At the end a final stage and a final plant community gets established which are called as climax and climax community respectively.

Causes of Succession

Ever since the onset of origin of life, organic evolution and ecological succession are taking place parallelly. Ecological succession is a complex process. There are three types of causes for any ecological succession. They are

- Initiating causes** - Activity of abiotic (light, temperature, water, fire, soil erosion and wind) and biotic factors (competition among organisms) leads to formation of a barren area or destruction of the existing community of an area, initiating primary or secondary succession respectively.
- Continuing causes** - The processes of migration, aggregation, competition, reaction etc, are the continuing causes which lead to change the plant communities and nature of the soil in an area.
- Stabilizing causes** - The stabilization of the plant community in an area is primarily controlled by climatic factors rather than other factors.

Types of succession



Types of succession

The various types of succession have been classified in different ways on the basis of different aspects. These are as follows:

1. **Primary succession** - The development of plant community in a barren area where no community existed before is called primary succession. The plants which colonize first in a barren area is called pioneer species or primary community or primary colonies. Generally, Primary succession takes a very long time for the occurrence in any region.
Example: Microbes, Lichen, Mosses.
2. **Secondary succession** - The development of a plant community in an area where an already developed community has been destroyed by some natural disturbance (Fire, flood, human activity) is known as secondary succession. Generally, This succession takes less time than the time taken for primary succession.
Example: The forest destroyed by fire and excessive lumbering may be re-occupied by herbs over period of times.

3. Autogenic succession

Autogenic succession occurs as a result of biotic factors. The vegetation reacts with its environment and modifies its own environment causing its own replacement by new communities. This is known as autogenic succession.

Example: In forest ecosystem, the larger trees produce broader leaves providing shade to the forest floor area. It affects the shrubs and herbs which require more light (heliophytes) but supports the shade tolerant species (sciophytes) to grow well.

4. Allogenic succession

Allogenic succession occurs as a result of abiotic factors. The replacement of existing community is caused by other external factors (soil erosion, leaching, etc.,) and not by existing organisms.

Example: In a forest ecosystem soil erosion and leaching alter the nutrient value of the soil leading to the change of vegetation in that area.

5. Autotrophic succession

If the autotrophic organisms like green plants are dominant during the early stages of succession it is called autotrophic succession, this occurs in the habitat which is rich in inorganic substances. Since, green plants dominate in the beginning of this succession, there is a gradual increase in organic matter and subsequently the energy flow in the ecosystem.

6. Heterotrophic succession

If heterotrophic organisms like bacteria, fungi, actinomycetes, and animals are dominant during the early stages of succession it is called heterotrophic succession. Such a succession takes place in organic habitats. Since heterotrophs dominate in the beginning of such succession, there will be a gradual decrease in the energy content.

5. Enlist the major water pollutants and describe their effects on human health.

முக்கிய நீர் மாசுபடுத்திகளை பட்டியலிட்டு அவை மனித நலனை எவ்வாறு பாதிக்கிறது என்பது பற்றியும் விவரிக்க.

Effects of important water pollutants on human health:

1. Mercury

- ❖ Mercury compounds in waste water are converted by bacterial action into extremely toxic methyl mercury, which can cause numbness of limbs, lips and tongue, deafness, blurring of vision and mental arrangement
- ❖ A crippling deformity called Minamata disease due to consumption of fish captured in minamata bay of Japan was detected in 1952.

Formation of methyl mercury: Plastic, caustic soda, fungicide and pesticide manufacturing factories release mercury along with other effluents in the water body nearby. Mercury enters food chain through bacteria -algae-fish and finally the humans. Those who ate these fish were affected by mercury poisoning which proved fatal in certain cases. The high concentration of Mercury in water and in tissues of fish resulted from formation of soluble mono methyl mercury (CH_3Hg^+) and volatile dimethyl mercury [$(\text{CH}_3)_2\text{Hg}$] by the action of anaerobic bacteria.

Minamata convention: The Minamata Convention on Mercury is an international treaty designed to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. The convention has prohibited a myriad of products containing mercury, and their production and trade will be altogether prohibited by 2020.

2. Cadmium

- ❖ Cadmium poisoning can cause softening of the bones and kidney failure.
- ❖ The cadmium was released into rivers by mining and water contaminated with cadmium resulted in Itai Itai disease (A painful disease of bones and joints) in Japan.
- ❖ It can cause cancer of lungs and liver.

3. Lead

- ❖ Water contaminated with lead can cause anaemia, headache, and loss of muscle power and bluish around the gum.

4. Nitrate

- ❖ Presence of excess nitrate in drinking water is dangerous to human health and may be fatal for infants.
- ❖ Excess nitrate in drinking water reacts with haemoglobin to form non-functional methemoglobin, and impairs oxygen transport.

- ❖ This condition is called Blue baby syndrome.

5. Fluorine

- ❖ Excess fluoride content in drinking water causes neuro- muscular disorders, gastro intestinal problems, teeth deformity, hardening of bones and stiff and painful joints.
- ❖ Long term ingestion of fluorine can cause fluorosis.

6. Arsenic

- ❖ Over exploitation of ground water may lead to leaching of arsenic from soil and rock resources contaminate ground water.
- ❖ Arsenic contamination of drinking water causes a disease called arsenicosis, for which there is no effective treatment, though consumption of arsenic free water could help affected people at early stages of ailment to get rid of the symptoms of arsenic toxicity.
- ❖ Chronic exposure to arsenic causes black foot disease.
- ❖ It also causes diarrhea, peripheral neuritis, hyperkeratosis and also lung and skin cancer.

6. Explain

i. Basel convention

(4 marks)

Basel Convention:

It is an international treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries (LDCs). opened for signature on 22 March 1989 and entered into force on 5 May 1992. Parties – 187.

Objectives:

To protect the human health and environment against adverse effects of hazardous wastes. The hazardous wastes based covers based on their origin and/or composition and their characteristics as well as two types of wastes defined as “other wastes”- household wastes and incinerator waste.

Principal aim:

The reduction of hazardous waste generation and promotion of environmentally sound management of hazardous wastes, wherever the place of disposal;

The restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management.

A regulatory system applying to cases where transboundary movements are permissible.

Waste under the Basel convention:

Waste are substances or objects which are disposed of or are intended to be disposed of by the provisions of national law.

ii. Rotterdam convention (3 marks)

The Rotterdam Convention (formally, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade) is a multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals. It was adopted in September 1998 and entered into force on 24 February 2004. It's jointly administered by the United Nations Food and Agriculture Organization (FAO) and UN Environment (UNEP). It creates legally-binding obligations for the implementation of the Prior Informed Consent (PIC) procedure.

Objectives:

To promote shared responsibility and cooperative efforts among parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm.

To contribute to the environmentally sound use of those hazardous chemicals by:

1. Facilitating information exchange about their characteristics;
2. Providing for a national decision-making process on their import and export;
3. and disseminating these decisions to parties

iii. Stockholm convention (3 marks)

Aim – to eliminate or restrict the production and use of persistent organic pollutants United Nations treaty Signed – 2001 and Effective – 2004. The POPs are classified into Annexure A, Annexure B, Annexure C

Persistent organic pollutants (POPs)

1. POPs are chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of living organisms and are toxic to humans and wildlife
2. POP can lead to serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and damages to the central and peripheral nervous systems.
3. Given their long-range transport, no one government acting alone can protect its citizens or its environment from POPs Global Environmental Facility (GEF) is the designated interim financial mechanism for the Stockholm Convention.
4. It distributed throughout the environment as a result of natural process involving soil, water, and most notably air.

5. Accumulates in the fatty tissue of living organism including humans, and or found at higher concentrations at higher levels in the food chain and toxic to both humans and wildlife.

The initial 12 POPs

Initially, 12 POPs have been recognized as causing adverse effects on humans and the ecosystem. They were placed in 3 categories as:

- ❖ Pesticides: aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene.
- ❖ Industrial chemicals: hexachlorobenzene, polychlorinated biphenyls (PCBs).
- ❖ By-products: hexachlorobenzene, polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans (PCDD/PCDF), and PCBs.

List of New POPs

Nine new POPs have been added to the list of POPs under Stockholm Convention at the CoP held in 2009. Annexures A, B, and C were amended to include the following chemicals as POPs.

1. Pesticides: chlordecone, Alpha Hexachlorocyclohexane, Beta Hexachlorocyclohexane, lindane, Pentachlorobenzene.
2. Industrial chemicals: Hexabromobiphenyl, Hexabromodiphenyl Ether and Heptabromodiphenyl Ether, Pentachlorobenzene, Perfluorooctane Sulphonic Acid, its salts and Perfluorooctane Sulphonyl Fluoride, Tetrabromodiphenyl Ether and Pentabromodiphenyl ether.
3. By-products: Alpha Hexachlorocyclohexane, Beta hexachlorocyclohexane, and Pentachlorobenzene.

விளக்குக:

- i. பசல் மாநாடு
- ii. ரோட்டர்டாம் மாநாடு
- iii. ஸ்டாக்ஹோம் மாநாடு

UNIT- III: Indian Economy – Current Economic Trends and impact of Global Economy of India

4 x 10 = 40

Answer all the questions. Answer not exceeding 150 words each

7. Describe the role of public sector enterprises in Indian economy

இந்திய பொருளாதாரத்தில் பொதுத்துறை நிறுவனங்கள் பங்கு பற்றி விவரி

Role of Public Sector

- (1) Rapid Industrial Development. – As India requires quick and rapid development of industries, the State has to assume a dominant role in industrialization. Some of the basic and heavy industries which are not generally undertaken by the private enterprise as they yield very often low rate of profit, are to be started by the public sector.
- (2) Building Socialistic Pattern of Society. – The growth of public sector ensures rapid economic development and greater employment opportunities.
- (3) Provision of Infrastructure. – There is the need of adequate infrastructure for rapid industrial development and particularly for the private sector to undertake enterprise.
- (4) Social Overheads. – It is for the public sector to create social overheads like institutions for research and general and technical education, hospitals, etc.
- (5) Balanced Regional Development. – The private sector as it is interested in its own profit motive may not start enterprises in backward and underdeveloped regions. The public sector can do what the private sector cannot do. The development of under developed regions is more a special responsibility of the public sector.
- (6) Resource Mobilization. – Rapid industrialization requires resource mobilization on a massive scale. Such large scale mobilization of resources is not possible for the private sector. The Government has to take a big lead in collecting resources for rapid industrialization.
- (7) Optimum Allocation of Resources. – The scarce resources should be put to the best possible uses. The private sector which is profit motivated, mis-allocate the resources by providing non-essential luxury goods at a time when the need is that of producing the necessities for masses. For correcting such misallocation of resources, the public sector has to expand its activities.
- (8) Provision of Employment. – Public sector provides two categories of employment : (i) Government administration and other Government services like health, education, research and various activities to promote economic development, and (ii) public sector proper, i.e., economic enterprises owned by the Centre, State and local Governments.
- (9) Share in Saving and Capital Formation of the Economy. – The share of the public sector is nearly one-half of the capital formation.

- (10) Import Substitution and export promotion. –Some public sector enterprises were started specifically to produce goods, which were formerly imported and thus to save foreign exchange. Some other public enterprises have done much to promote India's exports.
- (11) Volume of Sales of the Public Sector. –The share of the public sector has increased significantly in net domestic product (NDP). This is largely due to a rapid expansion of the public sector enterprises.
- (12) Contribution to Central Exchequer. –The public enterprises contribute to the Central Exchequer through the payment of : (i) dividends, (ii) corporate taxes, (iii) excise duties, etc. In this way, they help in mobilization of resources for the planned development.

8. What is FDI and FPI? Mention the objectives of FDI. Explain the role of FDI in Economic Development of India

அந்நிய நேரடி முதலீடு மற்றும் அந்நிய தொகு முதலீடு என்றால் என்ன? அந்நிய நேரடி முதலீட்டின் நோக்கங்கள் யாவை? இந்திய பொருளாதார வளர்ச்சியில் அந்நிய நேரடி முதலீட்டின் பங்கினை விளக்குக

Meaning of FDI

FDI means an investment in a foreign country that involves some degree of control and participation in management. It corresponds to the investment made by a multinational enterprise in a foreign country. It is different from portfolio investment, which is primarily motivated by short term profit and it does not seek management control.

Objectives of FDI

FDI has the following objectives.

1. Sales Expansion
2. Acquisition of resources
3. Diversification
4. Minimization of competitive risk.

Advantages of FDI

Foreign investment mostly takes the form of direct investment. Hence, we deal here with the foreign direct investment.

The important advantages of foreign direct investment are the following:

1. FDI may help to increase the investment level and thereby the income and employment in the host country.

2. Direct foreign investment may facilitate transfer of technology to the recipient country.
3. FDI may also bring revenue to the government of host country when it taxes profits of foreign firms or gets royalties from concession agreements.
4. A part of profit from direct foreign investment may be ploughed back into the expansion, modernization or development of related industries.
5. It may kindle a managerial revolution in the recipient country through professional management and sophisticated management techniques.
6. Foreign capital may enable the country to increase its exports and reduce import requirements. And thereby ease BoP disequilibrium.
7. Foreign investment may also help increase competition and break domestic monopolies.
8. If FDI adds more value to output in the recipient country than the return on capital from foreign investment, then the social returns are greater than the private returns on foreign investment.
9. By bringing capital and foreign exchange FDI may help in filling the savings gap and the foreign exchange gap in order to achieve the goal of national economic development.
10. Foreign investments may stimulate domestic enterprise to invest in ancillary industries in collaboration with foreign enterprises.
11. Lastly, FDI flowing into a developing country may also encourage its entrepreneurs to invest in the other LDCs. Firms in India have started investing in Nepal, Uganda, Ethiopia and Kenya and other LDCs while they are still borrowing from abroad. Larger FDI to India comes from a small country (Mauritius).

FDI in India

The early 1990s witnessed reforms in the economic policy. This helped to open up Indian markets to FDI. FDI in India has increased over the years. In India, FDI has been advantageous in terms of free flow of capital, improved technology, management expertise and access to international markets.

The major sectors benefited from FDI in India are:

- (i) financial sector (banking and non-banking)
- (ii) insurance
- (iii) telecommunication
- (iv) hospitality and tourism
- (v) pharmaceuticals and

(vi) software and information technology.

FDI is not permitted in the industrial sectors like

- (i) Arms and ammunition
- (ii) atomic energy,
- (iii) railways,
- (iv) coal and lignite and
- (v) mining of iron, manganese, chrome, gypsum, sulphur, gold, diamonds, copper etc.,

FDI inflow in India has increased from \$97 million in 1990-91 to \$5,535 million in 2004-2005. It amounted to \$32,955 million in 2011-2012. UNCTAD's World Investment Report 2018 reveals that FDI to India declined to \$40 billion in 2017 from \$44 billion in 2016.

Role of Foreign Capital in Economic Development

Foreign capital combined with skill and enterprise is essential for the development of under-developed countries in several ways:

1. It is necessary to invite foreign capital when domestic capital is inadequate for the purpose of economic growth.
2. Foreign capital supplements domestic savings and harnesses them to secure a rapid rate of growth.
3. It provides technological expertise and helps in building a modern industrial structure.
4. It paves the way for the investment of domestic capital into new and desirable channels not attempted in the country before for lack of bold entrepreneurship.
5. It provides valuable foreign exchange.
6. It eases pressures on the balance of payments.
7. It can help developing countries in breaking the vicious circle of poverty.
8. During the early stages of economic development of backward countries, the vast natural resources would be exploited quickly with foreign capital.
9. Foreign capital helping to import some of the essential goods of consumption can help contain inflationary pressures in the economy making the process of development relatively easy and smooth.
10. Foreign capital reduces the strain of development on the people of developing countries

9. Explain the role of Non-Banking Financial Institution (NBFI) in Indian Economy

இந்திய பொருளாதாரத்தில் வங்கி சாராத நிதி நிறுவனங்களின் பங்கு பற்றி விளக்குக

NON-BANKING FINANCIAL INSTITUTION (NBFI)

1. A non-banking financial institution (NBFI) or non-bank financial company (NBFC) is a financial institution that does not have a full banking license or is not supervised by the central bank but it is a company registered under the Companies Act, 1956. The NBFIs do not carry on pure banking business, but they will carry on other financial transactions. They receive deposits and give loans. They mobilize people's savings and use the funds to finance expenditure on investment activities. In short, they are institutions which undertake borrowing and lending. They operate in both the money and the capital markets.
2. NBFCs are fast emerging as an important segment of Indian financial system. It is a heterogeneous group of institutions (other than commercial and co-operative banks) performing financial intermediation in a variety of ways, like accepting deposits, making loans and advances, leasing, hire purchase, etc. They cannot have certain activities as their principal business – agricultural, industrial and sale-purchase or construction of immovable property.
3. They raise funds from the public, directly or indirectly, and lend them to ultimate spenders. They advance loans to the various wholesale and retail traders, smallscale industries and self-employed persons. Thus, they have broadened and diversified the range of products and services

NBFIs can be broadly classified into two categories

1. Financial institutions Under this category comes Finance Companies, Finance Corporations, Chit Funds, Building Societies, Issue Houses, Investment Trusts and Unit Trusts and Insurance Companies. And;

2. Stock Exchange or Stock market

1. Financial companies:

1. Asset Finance Company (AFC): An AFC is a company which is a financial institution focussing on financing of physical assets supporting productive/economic activity, such as automobiles, tractors, generator sets etc.
2. Investment Company (IC): IC means any company which is a financial institution carrying on as its principal business the acquisition of securities.
3. Loan Company (LC): LC means any company which is a financial institution carrying on as its principal business the providing of finance whether by making loans or advances or otherwise for any activity other than its own but does not include an Asset Finance Company.

NBFCs categorized as Asset Finance Companies (AFC), Loan Companies (LCs) and Investment Companies (ICs), will be merged into a new category called NBFC - Investment and Credit Company (NBFC-ICC).

2. Chit Funds:

1. Chit funds are included in the definition of Non-Banking Financial Companies (NBFCs) (LINK) by RBI under the sub-head Miscellaneous Non-Banking Company (MNBC).
2. RBI however has not laid out any separate regulatory framework for them. At present chit funds are governed by Chit Funds Act of 1962, RBI Act of 1934, and SEBI Act of 1992 etc. Under the Chit Fund Act of 1962, businesses can be registered and regulated only by the respective State Governments. Regulator of chit funds is the Registrar of Chits appointed by respective state governments under Section 61 of Chit Funds Act.
3. Chit funds are a popular type of savings institutions in India. It is one of the main parts of the unorganized money market industry.
4. It refers to an agreement arrived at by a group of individuals to invest a certain amount through periodic instalments over a specified period of time.
5. The chit fund provides access to savings and borrowings for people with limited access to banking facilities.
6. Chit funds in India are managed, conducted, and regulated according to Chit Funds Act of 1982.
7. They are governed through central legislation while state governments are responsible for their administration.
8. Chit funds are the Indian versions of Rotating Savings and Credit Associations found across the globe.

Types of Chit Funds

There are three types of chit funds:

1. Chit funds run by state governments

1. These funds are managed and regulated by state governments.
2. Funds run by PSUs (public sector undertakings) also belong to this class.
3. These are safe and chances of loss are limited. Business processes are transparent and clean.

2. Private registered chit funds

1. These chit funds are registered as per Chit Funds Act of 1982.
2. These are normally floated by prominent financial institutes or business houses.
3. Participating in these funds is not as safe as in state governments or public sector undertakings.
4. However, as they are under the management of leading private sector companies or institutes the risk is calculated and bearable.

3. Unregistered chit funds

1. Unregistered chit funds are not legal and participation in these is up to the risk of members.
2. Such types of chit funds are common throughout India and are usually formed by a close group of associates.
3. Participation in these funds should be avoided as disputes are subject to members' integrity and honesty.

10. Write a short note on the following

பின்வருவனவற்றிற்கு சிறுகுறிப்பு வரைக

a. e-NAM

National Agriculture Market (NAM) is a pan-India electronic trading portal launched on 14th April, 2016 completely funded by Central Government and implemented by Small Farmers Agribusiness Consortium (SFAC). NAM portal networks the existing APMC (Agriculture Produce Marketing Committee) / Regulated Marketing Committee (RMC) market yards, sub-market yards, private markets and other unregulated markets to unify all the nationwide agricultural markets by creating a central online platform for agricultural commodity price discovery. The scheme envisages deployment of a common e-market platform of 585 selected regulated wholesale agriculture market yards by March, 2018. The common electronic trading portal will be called as e-NAM.

Objectives

- b. To integrate markets first at the level of the States and eventually across the country through a common online market platform, to facilitate pan - India trade in agricultural commodities;
- c. To streamline marketing / transaction procedures and make them uniform across all markets to promote efficient functioning of the markets;
- d. To promote better marketing opportunities for farmers / sellers through online access to more buyers / markets, removal of information asymmetry between farmer and trader, better and real-time price discovery based on actual demand and supply of agri-commodities, transparency in auction process, prices commensurate with quality of produce, online payment etc. that contribute to marketing efficiency;
- e. To establish quality assaying systems for quality assurance to promote informed bidding by buyers; and
- f. To promote stable prices and availability of quality produce to consumers.

e-NAM is designed and implemented to benefit all the stakeholders - Farmers, Mandis, Traders, Buyers, Processers and Exporters.

The benefits to stakeholders include:

- ❖ Transparent online trading with enhanced accessibility to the market
- ❖ Real time price discovery for better & stable price realization for producers
- ❖ Reduced transaction cost for buyers

- ❖ Availability of information on e-Nam mobile app about commodity prices.
- ❖ The details of price of commodity sold along with quantity are received through SMS
- ❖ Quality certification
- ❖ More efficient supply chain & warehouse based sales
- ❖ Online payment directly to the bank accounts of the farmers.

b. e-Shram

Developed by the Ministry of Labour and Employment, the e-Shram portal is built to create a national database of unorganised workers, which is seeded with an individual's Aadhaar. The data includes details of name, occupation, address, educational qualification, skill types and family details etc. for understanding their employability and extending the benefits of the social security schemes to them. It is the first-ever national database of unorganised workers including migrant workers, construction workers, gig and platform workers, etc.

Objectives of eSHRAM Portal

Creation of a centralized database of all unorganized workers (UWs) including Construction Workers, Migrant Workers, Gig and Platform workers, Street Vendors, Domestic Workers, Agriculture Workers, etc., to be seeded with Aadhaar.

To improve the implementation efficiency of the social security services for the unorganized workers. (ii) Integration of Social Security Schemes meant for UWs being administered by MoLE and subsequently those run by other ministries as well.

Sharing of information in respect of registered unorganised workers with various stakeholders such as Ministries/ Departments/ Boards/ Agencies/ Organisations of the Central & State Governments through APIs for delivery of various social security and welfare schemes being administered by them.

Portability of the social security and welfare benefits to the migrant and construction workers.

Providing a comprehensive database to Central and State Governments for tackling any National Crises like COVID-19 in future.

SECTION - B
UNIT- I: Geography of India with special reference to Tamil Nadu

3 x 15 = 45

Answer all the questions. Answer not exceeding 250 words each

11. Climate of India is labelled as tropical monsoon type - justify.

இந்தியாவின் காலநிலை அயன மண்டலப் பருவக்காற்று எனப்படுகிறது - நியாயப்படுத்துக

- 1) climate definition, koeppen classification
- 2) location - tropical country
- 3) yearly definite pattern of wind system
- 4) sw monsoon
- 5) NE monsoon

Tropical Climate

Climate is defined as the average weather condition of a place for a larger period of time especially about 35 years.

The word 'monsoon' has been derived from the Arabic word 'Mausim' which means 'season'. Originally, the word 'monsoon' was used by Arab navigators several centuries ago, to describe a system of seasonal reversal of winds along the shores of the Indian Ocean, especially over the Arabian Sea. It blows from the south-west to north-east during summer and from the north-east to south-west during winter.

1. Location - 8°4' N to 37°6'N
2. South west Monsoon - June to September
3. North East or Retreating Monsoon

Reasons for Tropical Climate

1. Koeppen classification
 - a. He classified India into 7 climatic zones
 - b. Am - Monsoon with dry summer
 - c. Aw - Tropical savannah
2. Definite wind pattern
 - a. Seasonal reversal of winds every year in a definite pattern
 - b. Madagascar to Peshawar, deflected by Coriolis force
3. Definite wind patterns followed
 1. Seasonal reversal of wind direction takes place
 2. 180° Reversal of Wind direction
 3. Occurs over larger areas
4. South West monsoon

- a. It hits the coast of Kerala on June first week every year
- b. Branches:
 1. Arabian Sea Branch
 - i. Gives heavy rainfall to western side of western ghats
 - ii. No rainfall in Rajasthan – Aravallis remain parallel
 2. Bay of Bengal Branch
 - i. Tamil Nadu does not get rain fall as it is in parallel
 - ii. Heavy rain in North East
 - iii. Funnelling effect – Mawsynram is the wettest spot

Mawsynram – Highest Rainfall
Kosi – sorrow of Bihar

5. North East Monsoon
 - a. It is also called as the retreating monsoon – seasonal reversal
 - b. High rainfall in Andhra and Tamil Nadu. TN – 60% annual rain
 - c. Nagapattinam receives 100 cm rainfall
 - d. North India does not get rain as the air loses its moisture
6. Dominance of Monsoonal rainfall
 - a. India gets almost 75% of rainfall from the 2 monsoons
 - b. The pattern of rainfall is decided by the onset of monsoon

Characteristics of Monsoon

1. Affecting larger part of the continent
2. Reversal of winds of minimum 180°
3. High rainfall in particular area

12. Answer the following questions

- a. “Iron and Steel Industry is called as Mother of all Industries” – Comment.
“இரும்பு, எஃகு தொழில் தொழில்களின் தாய் என்று அழைக்கப்படுகிறது” – கருத்துரைக்க

Do you know?

The first attempt to produce iron and steel unit was set up at Porto Novo in Tamil nadu in 1830.

Iron and steel industries

Iron and steel industry is called a basic metallurgical industry as its finished product is used as raw material by host of other industries. Several industries like engineering, heavy machines and machine tools, automobile, locomotives and railway equipment

industries use iron and steel as their primary raw material. Due to this, the steel producing capacity of a country is generally taken as an indicator of its level of industrial development.

The modernization of the industry was started in 1907 with the establishment of Tata Iron and Steel Company at Sakchi, now called Jamshedpur. Iron and steel industry of India is mainly concentrated in the states of Jharkhand, West Bengal and Odisha. Proximity to the coal fields of Jharia, Raniganj, Bokaro and Karanpura and the iron ore mines of Mayurbhanj, Keonjar and Brona are responsible for this. This area also has sufficient deposits of limestone, dolomite, manganese, silicon and dolomite which are required for the industry.

S.No	Name of Industry	Place	Establishment Year	Product
1	Tata Iron and Steel Company (TISCO)	Jamshedpur, Jharkhand	1911	Pig Iron
2	Indian Iron and Steel Company (IISCO)	Burnpur, Hirapur, Kulti, West Bengal	1972	Pig Iron & Crude steel
3	Visweshwaraya Iron Steel Ltd (VISL)	Bhadravati, Karnataka	1923	Alloy and Sponge steel
4	Hindustan Steel Ltd (HSL) collaborated with Russia	Bhilai, Chattisgarh	1957	Railway Equipment's and Ship Building
5	Hindustan Steel Ltd (HSL) Collaborated with Germany	Rourkela, Odisha	1965	Hot and Cold rolled sheets, Galvanized sheets and electrical plates
6	Hindustan Steel Ltd (HSL) Collaborated with United Kingdom	Durgapur, West Bengal	1959	Alloy steel, Construction materials and railway equipment's
7	Hindustan Steel Ltd (HSL) Collaborated with Russia	Bokaro, Jharkhand	1972	Sludge and Slog
8	Salem Steel Ltd	Salem, Tamil Nadu	1982	Stainless Steel
9	Vijayanagar Steel Plant	Tornagal, Karnataka	1994	Flat steel and Long Steel
10	Visakhapatnam Steel Plant (VSP)	Visakhapatnam, Andhra Pradesh	1981	Hot Metal

b. Overall development of India is limited by the distribution of minerals. Comment

இந்தியாவின் ஒட்டுமொத்த வளர்ச்சியை பாதிப்பது கனிம வளங்களின் பரவல். கருத்துரைக்க

- Distribution of minerals
- Iron ore, Bauxite, Copper, Mica etc.
- Minerals linking with development.

1. Concentration of more minerals in a particular area
 - Chottanagpur Plateau
 - Telangana
 - Assam
2. Extracting the minerals and its difficulties.
3. Lack of technical know-how to extract the available mineral like shale gas in the Himalayas.
4. Distribution of minerals to other parts of India.
5. Concentration Industries in the areas where the mineral resources available.
6. Employment opportunities
7. Infrastructure

13. **On the Outline map of India provided to you, mark the location of all of the following. Write in your Answer Booklet the significance of these locations whether physical / commercial / economic / ecological / environmental / cultural, in not more than 30 words for each entry:**

கொடுக்கப்பட்டுள்ள இந்திய மாதிரி வரைபடத்தில் பின்வரும் இடங்களை குறிக்கவும். கொடுக்கப்பட்டுள்ள விடைத்தாளில் அவ்விடங்களின் இட அமைப்பு / வணிக / பொருளாதார / சூழலியல் / சுற்றுச்சூழல் / கலாச்சார முக்கியத்துவத்தினை 30 வார்த்தைகளுக்கு மிகாமல் எழுதுக

a. Indore

- Swach Survekshan Award
- Madhya Pradesh
- Cleanest city

b. Puri

- Jal Jeevan Mission
- Odhisha

c. Corbett National Park

- Uttarkhand
- First National Park in India

d. Galwan Valley

- Ladakh
- India - China Dispute

e. Siliguri

- Chicken Neck Corridor
- West Bengal

f. Loktak

- Lake in Manipur

g. Digboi

- Oil field in Assam

h. Palk Bay

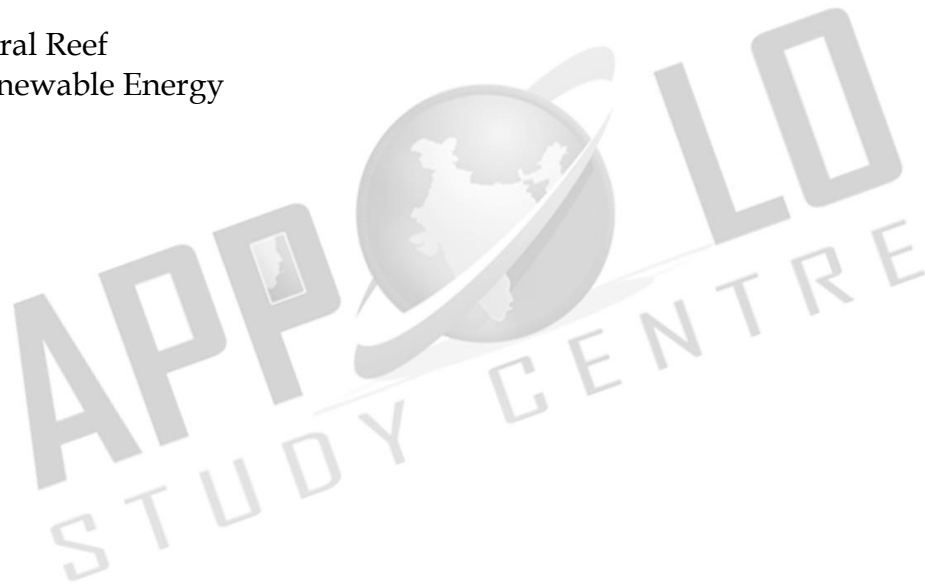
- Between India and Sri Lanka
- Rich in marine resource

i. Bandipur

- Tiger Reserve in Karnataka
- First Tiger Reserve in India

j. Gulf of Kutch

- Coral Reef
- Renewable Energy



UNIT- II: Environment, Bio Diversity and Disaster Management

3 x 15 = 45

Answer all the questions. Answer not exceeding 250 words each

14. Answer the following questions.

பின்வருவனவற்றிற்கு விடையளி

a. Describe the composition, jurisdictions and powers of National Green Tribunal.

தேசிய பசுமை தீர்ப்பாயத்தின் அமைப்பு, நீதி வரையறை மற்றும் அதிகாரங்கள் பற்றி விவரிக்க

The National Green Tribunal

The National Green Tribunal has been established on 18th Oct,2010 under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto. It is a specialized body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues.

The Tribunal's dedicated jurisdiction in environmental matters shall provide speedy environmental justice and help reduce the burden of litigation in the higher courts. The Tribunal is mandated to make and endeavor for disposal of applications or appeals finally within 6 months of filing of the same.

Initially, the NGT is proposed to be set up at five places of sittings and will follow circuit procedure for making itself more accessible. New Delhi is the Principal Place of Sitting of the Tribunal and Bhopal, Pune, Kolkata and Chennai shall be the other four places of sitting of the Tribunal.

Composition of National Green Tribunal (NGT)

NGT comprises of both judicial and expert members as adjudicators. The Chairman of NGT is a judicial member and must be or has been a judge of the Supreme Court of India or Chief Justice of a High Court. The Chairman is appointed by the Central Government in consultation with the Chief Justice of India. Other judicial members of the NGT must be or has been a judge of the High Court. For an expert member a person must have a doctorate degree in life sciences or physical sciences with fifteen years experience in the relevant field including five years practical experience in the field of environment and forest in a reputed national level institution or an administrative experience of fifteen years including experience of five years in dealing with environmental matters in the Central or State Governments or in a reputed National or State level institution. The Judicial and expert members are appointed by the Central Government on the recommendation of a Selection Committee.

Jurisdiction and Powers of NGT

Jurisdiction means authority of any Court or Tribunal to accept a matter for hearing and decision. NGT has the jurisdiction over all civil cases where a substantial question

relating to environment (including enforcement of any legal right relating to environment), is involved and such question arises out of the implementation of the enactments specified in Schedule I of the National Green Tribunal Act, 2010.

Schedule I of the Act lists following legislations:

1. The Water (Prevention and Control of Pollution) Act, 1974.
2. The Water (Prevention and Control of Pollution) Cess Act, 1977.
3. The Forest (Conservation) Act, 1980.
4. The Air (Prevention and Control of Pollution) Act, 1981.
5. The Environment (Protection) Act, 1986.
6. The Public Liability Insurance Act, 1981.
7. The Biological Diversity Act, 2002.

NGT is empowered to provide by an order:

Relief and compensation to the victims of pollution and other environmental damage arising under the enactments specified in Schedule I (including accident occurring while handling any hazardous substance) of the Act.

The Act mandates that in case of accident, the Tribunal shall, apply the principle of 'no fault'. 'No fault principle' stipulates that in case of accident the owner or the employer cannot take the defense of him/her having committed no fault. If accident occurs and as a consequence of it damage is caused to any person or environment, the owner or the employer is liable, only because of the fact that accident occurred in his/her enterprise. Apart from this principle, NGT has to also apply the principles of 'Sustainable Development', 'precautionary principle' and 'polluter pays principle', while giving an order or decision or award.

Procedure NGT is not bound to follow the procedures laid down in the Code of Civil Procedure, 1908; or the Indian Evidence Act, 1872; rather it has to be guided by the principles of natural justice. It has for the purposes of discharge of its functions all the powers of the Civil Court for trying a suit as given under the Code of Civil Procedure, 1908. Any decision, order or 'award' of the Tribunal is executable by the Tribunal as a 'decree' of the Civil Court and, therefore, for this purpose the 'Tribunal' will have all the powers of a Civil Court. The Tribunal can also if it deems fit transmit its order or award for execution to a Civil Court having local jurisdiction as if it were the 'decree' of that Civil Court.

Minimum number of members who must together hear and decide a case is two, out of which one must be a judicial member and other an expert member. The decision of Tribunal by majority is binding. In case the opinion of the bench is equally divided then the matter is to be heard and decided by the Chairman of NGT if he/she was not part of the equally divided bench. In cases, where the Chairman himself/herself is part of the equally divided bench then he/she shall refer the matter to other member of the Tribunal not part of that equally divided bench to hear the case and decide.

Penalty

Whoever fails to comply with any order, decision or award of the NGT under the National Green Tribunal Act, 2010, commits a cognizable offence and shall be punishable with an imprisonment for a term which may extend to three years or with fine which may extend to 10 Crore rupees (25 Crore in case of a company) or with both and in case the failure or contravention continues, with additional fine which may extend to 25,000 Crore (1 Lakh Crore in case of a company) for every day during which such failure or contravention continues after conviction for first such failure or contravention.

Appeal

In an appeal the person who has lost the case can again challenge the decision made by the NGT before the Supreme Court. Any person aggrieved by any decision, order or award of the Tribunal, may file an appeal before the Supreme Court within 90 days from the date of communication of such decision, order or award. Though, the Supreme Court may allow a person to file such appeal even after 90 days if the Court is satisfied that the person appealing was prevented to do so for sufficient cause.

b. Write a short on Montreal Protocol

மாண்ட்ரியல் நெறிமுறை பற்றி சிறுகுறிப்பு வரைக

The Montreal Protocol on Substances that Deplete the Ozone Layer was designed to reduce the production and consumption of ozone depleting substances in order to reduce their abundance in the atmosphere, and thereby protect the earth's fragile ozone Layer. The original Montreal Protocol was agreed on 16 September 1987 and entered into force on 1 January 1989.

The Montreal Protocol includes a unique adjustment provision that enables the Parties to the Protocol to respond quickly to new scientific information and agree to accelerate the reductions required on chemicals already covered by the Protocol. These adjustments are then automatically applicable to all countries that ratified the Protocol.

Since its initial adoption, the Montreal Protocol has been adjusted six times. Specifically, the Second, Fourth, Seventh, Ninth, Eleventh and Nineteenth Meetings of the Parties to the Montreal Protocol adopted, in accordance with the procedure laid down in paragraph 9 of Article 2 of the Montreal Protocol, certain adjustments and reductions of production and consumption of the controlled substances listed in the Annexes of the Protocol. These adjustments entered into force, for all the Parties, on 7 March 1991, 23 September 1993, 5 August 1996, 4 June 1998, 28 July 2000 and 14 May 2008, respectively. The Parties to the Montreal Protocol have amended the Protocol to enable, among other things, the control of new chemicals and the creation of a financial mechanism to enable developing countries to comply.

India and Montreal Protocol

India became a party to the Montreal Protocol in 1992.

15. Define Climate Change. Explain the Climate Change Mitigation Strategies.

காலநிலை மாற்றம் வரையறு. காலநிலை மாற்றத்தினை மட்டுப்படுத்தும் உத்திகள் பற்றி விவரிக்க

MITIGATION STRATEGIES

1. Climate change mitigation

- ❖ The term mitigation refers to efforts to cut or prevent the emission of greenhouse gases - limiting the magnitude of future warming.
- ❖ It may also encompass attempts to remove greenhouse gases from the atmosphere.
- ❖ It differs from climate change adaptation, which refers to the actions taken to manage the unavoidable impacts of climate change.

2. Energy Technologies To Mitigate Climate Change

- ❖ Switching to low-carbon energy sources such as wind power, solar, geothermal, hydroelectric or nuclear represents one of the major strategies for lowering the emissions of greenhouse gases in the atmosphere.
- ❖ The scale of the challenge is daunting - fossil fuels make up about 80% of all energy.
- ❖ But technologies such as carbon capture and storage (CCS) could help reduce their impact.
- ❖ One form of CCS involves chemically capturing the carbon dioxide from a power station flue, and then piping it underground so that the invisible gas is contained in rock formations without leaking.
- ❖ Existing oil fields, un-mineable coal seams and underground salty aquifers are all among the geological sites that are considered suitable for CO₂ storage.
- ❖ But while CCS could, in theory, limit the amount of carbon going into the atmosphere; it doesn't do much for the CO₂ already there.

3. Carbon Capture and Storage (CCS)/ Carbon Sequestration

- ❖ Carbon dioxide (CO₂) capture and sequestration (CCS) is a set of technologies that can greatly reduce CO₂ emissions from new and existing coal and gas-fired power plants and large industrial sources. CCS is a three-step process that includes:
 - Capture of CO₂ from power plants or industrial processes.
 - Transport of the captured and compressed CO₂ (usually in pipelines).
 - Underground injection and geologic sequestration (also referred to as storage) of the CO₂ into deep underground rock formations. These formations are often a mile or more beneath the surface and consist of porous rock that holds the CO₂. Overlying these formations are impermeable, non-porous layers of rock that trap the CO₂ and prevent it from migrating upward.

The figure illustrates the general CCS process and shows a typical depth at which CO₂ would be injected.

3 steps in carbon sequestration

1. Trapping and separating the CO₂ from other gases.
2. Transporting this captured CO₂ to a storage location.
3. Storing that CO₂ far away from the atmosphere (underground or deep in the ocean).

Types of Carbon Sequestration

- ❖ **Ocean sequestration:** Carbon stored in ocean through direct injection.
- ❖ **Geologic sequestration:** Natural pore spaces in geologic formations serve as reservoirs for long term CO₂ storage. This sequestration has the largest potential.
- ❖ **Terrestrial sequestration:** A large amount of carbon is stored in soils and vegetation, which is our natural carbon sinks. Increased carbon fixation through photosynthesis, reduced decomposition of organic matter and changed land use practices enhance carbon uptake in natural sinks.

Capture of Carbon Dioxide

- ❖ After capture, carbon dioxide (CO₂) is compressed and then transported to a site where it is injected underground for permanent storage (also known as sequestration).
- ❖ CO₂ is commonly transported by pipeline, but it can also be transported by train, truck, or ship.
- ❖ Geologic formations suitable for sequestration include depleted oil and gas fields, deep coal seams, and saline formations

Significance of Carbon Sequestration

Carbon dioxide capture and sequestration (CCS) could play an important role in reducing greenhouse gas emissions, while enabling low-carbon electricity generation from power plants. CCS technologies are currently available and can dramatically reduce (by 80-90%) CO₂ emissions from power plants that burn fossil fuels. Applied to a 500 MW coal-fired power plant, which emits roughly 3 million tonnes of CO₂ per year, the amount of GHG emissions avoided (with 90% reduction efficiency) would be equivalent to:

- ❖ Planting more than 62 million trees, and waiting at least 10 years for them to grow.
- ❖ Avoiding annual electricity-related emissions from more than 3 lakh homes.

Carbon capture, storage and utilization

- ❖ In the total energy generations, dominance of coal is expected to continue in the coming decades.
- ❖ Targets are 1 billion tonnes of coal by 2020 and 2 billion tonnes or more by 2030.
- ❖ India's INDCs envisage additional sinks for carbon dioxide for 2.5 to 3 billion tonnes in the next 15 years.
- ❖ In this respect development of perspective technologies such as carbon dioxide capture and storage- CO₂ sequestration, becomes inevitable.

- ❖ The CO₂ sequestration involves capture of excess of CO₂ from its point sources and its permanent fixation through storage or utilization away from the atmosphere.
- ❖ Captured CO₂ is sequestered by means of surface processes or by sub-surface storage and/ or by utilization in recovery of energy fuels and minerals.
- ❖ If the source and the underground fixation sites are not near to each other, transport of liquid CO₂ over long distances is required.
- ❖ The CO₂ sequestration technology is a multi-disciplinary scientific and engineering topic.

Clean Coal Technology

- ❖ All technologies for reduction of pollution from coal combustion can be termed as clean coal technology.
- ❖ CO₂ can be captured in a coal based plant either in pre-combustion or during combustion or post-combustion stages.
- ❖ All three processes involve physical, chemical or biological means of separation.
- ❖ In Pre-combustion capture, coal is first converted into syn gas or liquid fuels before the power is generated.
- ❖ The coal syn gas comprises mainly of carbon monoxide (CO) and hydrogen (H₂).
- ❖ H₂ is used as fuel for pollution free power generation.
- ❖ For capture of CO₂ processes such as hydrogen membrane reforming, shift gas reaction in association with Integrated Gasification Combined Cycle and Fischer-tropch synthesis are adopted.
- ❖ Pre-combustion CO₂ capture is preferred option at high temperature and high pressure as compared to post combustion capture.
- ❖ Post combustion capture is end-of-pipe alternative in which CO₂ is separated from the flue gas tracks.
- ❖ Chemical separation using amine based CO₂ capture techniques have been developed, but their application in large-scale operation almost doubling the cost of electricity.
- ❖ Research is therefore needed in developing other processes like use of polymeric members for carbon capture, physical adsorbents and using nanotubes.
- ❖ In-combustion CO₂ capture has two technology possibilities; Supercritical and ultra-supercritical coal combustions, where efficiency is more, CO₂ emissions per unit of generation are reduced.
- ❖ Advance technologies like oxy fuel combustion and chemical looping which produce higher CO₂ concentrations in the fuel gas.
- ❖ Research is directed towards development of materials for ultra-supercritical boilers and reduction in the cost of oxygen separation from air for oxy fuel combustion technology.

5. CARBONCREDIT

The Kyoto Protocol is an international treaty, which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gases emissions, based on the premise that (a) global warming exists and (b) man-made CO₂ emissions have caused it

16. Answer the following questions

a. Define Biodiversity Hotspots. Explain the Biodiversity Hotspots in India

உயிரிய மிகப் பல்வகைமை – வரையறு. இந்தியாவின் உயிரிய மிகப் பல்வகைமை இடங்கள் பற்றி விளக்குக

Biodiversity hotspots

Areas that are rich in species diversity are called as “Hotspots”. The hottest spots for species diversity are the tropical rainforests. Tropical rainforests comprise of only 7% of all land on earth, yet are home to nearly 50% of all the species on Earth! India is among the World’s 17 nations that are exceptionally rich in species diversity.

The British biologist Norman Myers coined the term ‘biodiversity hotspot’ in 1988. According to him, a biodiversity hotspot is a biogeographic region characterised both by exceptional levels of plant endemism and by serious levels of habitat loss. Conservation International (CI) adopted Myers concept of ‘hotspots’ and it made an extensive global study of hotspots in 1999. According to CI, to qualify as a hotspot a region must meet two strict criteria: (i) It must contain at least 1,500 species of endemic plants, and (ii) It must have lost at least 70% of its original habitat. In 1999, CI’s book ‘Hotspots: Earth’s Biologically Richest and Most Endangered Terrestrial Ecoregions’, identified 35 biodiversity hotspots in the different countries of the world.

There are 35 biodiversity hotspots in the world. India is home to four biodiversity hotspots (as per ENVIS). They are

- Himalaya (the entire Indian Himalayan region)
- Western Ghats
- Indo-Burma: includes entire North-eastern India, except Assam and Andaman group of Islands (and Myanmar, Thailand, Vietnam, Laos, Cambodia and Southern China)
- Sundalands: includes Nicobar group of Islands (and Indonesia, Malaysia, Singapore, Brunei, Philippines)

The Western Ghats

- Western Ghats are the ranges in western peninsular India. They are close to Arabian sea and therefore receive high rainfall due to orographic effect. Western ghats have moist deciduous and rain forests. The region have high endemic species and species diversity.
- 62% reptiles and 77% amphibians are endemic to WGs

Biodiversity

- Western Ghat has over 6000 vascular plants of which 2500 are endemic.
- World spices like black pepper and cardamom owes their origin to this region.

- Agasthyamalai hills in the southern western ghat shows highest richness in species.
- Western ghats are habitat of 450 birds species, 140 mammals, 260 reptiles and 175 amphibians.
- About 60% of amphibian and reptiles are purely endemic to the region
- Although, Western Ghat has species richness but today, they are threatened.

The Eastern Himalayas

- Eastern Himalayas spread in Bhutan, North East India, South Nepal
- The region is young in geographical scale and has high altitude differences. Himalayas is home to world highest peaks like Mount Everest.
- About 40 million year ago, Indian tectonic plate moving towards the Eurasian Plate forms the basis for formation of Himalayas.
- The hypothesis is that sea bed of that time uplifted due to collision of tectonic plates and it is shown by the fact that summit of Himalayas are made of Marine Limestone.

Biodiversity

- Eastern Himalayas is one of the biodiversity hotspots and is habitat to nearly 163 endangered species including One-horned Rhinoceros, Wild Asian Water buffalo. The list of threatened species includes 50 birds, 17 reptiles, 12 amphibians, 3 invertebrate, 45 mammals and 36 plant species.
- Relict Dragonfly found in eastern Himalayas is an endangered species and other species of this genus found in Japan.
- They provide habitat to Himalayan Newt, the unique salamander species found in India.
- Overall Himalayas are home to 10 thousand species of plants, of which one third is endemic to eastern Himalayas.
- Himalayas has 300 species of mammals, of which, about 12 are endemic to eastern Himalayas.
- Mammals of Himalayas includes, Langurs, Asiatic wild dogs, Black bear, blue sheep, Takin, Golden langur, The Himalayan tahr, the pygmy hog, Gangetic dolphin, wild water buffalo, swamp deer call, sloth bears, Gaurs, Muntjac, Sambar, Snow leopard.
- The only critically endangered species is Namdapha flying squirrel.

Indo - Burma Biodiversity Hotspot

- This hotspots is spread in many countries that includes Malaysia, North East India, Bangladesh, China, Cambodia, Vietnam, Thailand and Lao
- Indo-Burma hotspots cover 2 million km fof Asia. It show varied diversity of climate as it passes through various landforms.

Biodiversity

- In past few years, Indo Burma biodiversity has declining. Although, much of the region is still exist in the wilderness.
- Recently, 6 species of mammals have been discovered. These are Large-antlered muntjac, Leaf deer, Saola, Annamite muntjac, Grey-shanked douc, Annamite striped rabbit.
- Indo Burma homes various primate species like monkeys, langurs and gibbons which population in hundreds only. Freshwater turtles are endemic to this region.
- About 1300 birds species lives in this region which includes the endangered white-eared night-heron, the grey-crowned crocias, and the orange-necked partridge.
- Indo Burma has 13,500 flora species in this hotspot of which half are endemic like Ginger.

Sundaland

This region exists in SE Asia that covers part of the Indo-Malayan archipelago. Sundaland spreads in Thailand, Malaysia, Sigapoor, Brunei, Indonesia, India (Nicobar Islands). In 2013, UNESCO declared the islands as one of the World Biosphere Reserve. These Islands have rich ecosystems including terrestrial and marine. Mangrove, coral reefs and sea grass beds forms the resource treasure of these Islands. Marine resources includes whales, dolphins, prawns, lobsters, sea shells, dugong, turtles, crocodiles, fishes. Over exploitation of marine resources present a primary threat to the biodiversity of sundaland.

b. Write a detailed note on the values of Biodiversity

உயிரியல் பல்வகைமையின் வேறுபாட்டின் பயன்கள் பற்றி விரிவாக எழுதுக

Values of biodiversity

i. Ethical value (existence value)

It involves ethical issues like "all life must be preserved". It is based on the concept of "Live and Let Live". If we want our human race to survive, then we must protect all biodiversity, because biodiversity is valuable. The ethical value means that we may or may not use a species, but knowing the very fact that this species exists in nature gives us pleasure. We all feel sorry when we learn that "passenger pigeon" or "dodo" is no more on this earth. We are not deriving anything direct from kangaroo, zebra or giraffe, but we all strongly feel that these species should exist in nature. This means, there is an ethical value or existence value attached to each species.

ii. Aesthetic Value

The use of plants and animals in beautifying the surrounding is said to be their **aesthetic value**. Biodiversity includes attractive species of plants, animals and birds, which give a natural beauty to the habitat. Examples-

- **Ornamental plants** are grown in hanging baskets in rooms and home gardens to beautify the surrounding.
- Beautiful birds are reared in small cabinets.
- **Ornamental fishes** having various colours are grown in glass containers to enhance the beauty of the indoor **environment**.
- **Zoos** and **Museum** harbouring different species of animals and birds attract many people and children.
- Trees with **attractive flowers** and dense vegetation on hills increase the touristic value of the regions.
- Parks in cities and towns are visited by thousands of people every day because of their aesthetic value given by attractive flowers and plants.
- **Tulsi** plants are placed at door steps of houses, it is an example of aesthetic value of biodiversity.

iii . Social value of biodiversity

These are the values associated with the social life, customs, religion and psycho-spiritual aspects of the people. Many of the plants are considered holy and sacred in our country like Tulsi (holy basil), Peepal, Mango, Lotus, Bael etc. The leaves, fruits or flowers of these plants are used in worship or the plant itself is worshipped. The tribal people are very closely linked with the wildlife in the forests. Their social life, songs, dances and customs are closely woven around the wildlife. Many animals like cow, snake, bull, peacock, owl etc. also have significant place in our psycho-spiritual arena and thus hold special social importance. Thus, biodiversity has distinct social value, attached with different societies.

- Social value of biodiversity refers to religious and cultural importance.
- Trees are worshiped as God. Eg. Banyan tree, Peep tree, Neem tree, etc.
- Flowers, Tulsi, 'Punkan' leaves, etc. are used in poojas.
- Lime fruit, banana fruit and many other fruits are given to God.
- Sandal obtained from trees is used as a cosmetic in poojas.
- Banyan seedlings are planted in marriage tents with an anticipation that the life will flourish like a banyan tree.
- Goats, chicks, pigs, etc. are sacrificed to God.
- Cobra is worshiped as a God.
- Skins are used to make shoes, belts, bags, purses, etc.
- Tribal people collect honey from the forests and the mountains.
- Hunting in the forests is the main occupation of tribals.
- Herbs, shrubs, climbers and their roots are used as Ayurveda medicines.
- Domesticated animals are allowed to graze on grasslands.
- Trees on the road sides give shadow to passengers.

iv. Consumptive value:

These are direct use values where the biodiversity product can be harvested and consumed directly. Fuel, food, **drugs**, fibre, pulp, wood **fall under** this group,

i. Food:

A large number of wild plants are consumed by human beings as food. About 80,000 edible plant species have been reported from wild. About 90% of present day food crops have been domesticated from wild tropical plants. The agricultural scientists make use of the existing wild species of plants that are closely related to our crop plants for developing new hardy strains. Wild relatives usually possess better tolerance and hardiness. A large number of wild animals are also our sources of food.

ii. **Drugs and medicines:**

About 75% of the world's population depends upon plants or plant extracts for medicines. Isabgol, a domestic herbal cure for bowel disorders is obtained from the husk of *Plantago*. There are hundreds of such herbs. The wonder drug *Penicillin* used as an antibiotic is derived from a fungus called *Penicillium*. Likewise, we get *Tetracyclin* from a bacterium. Quinine, the cure for malaria is obtained from the bark of *Cinchona* tree, while *Digitalin* is obtained from foxglove (*Digitalis*) which is an effective cure for heart ailments. Recently *vinblastin* and *vincristine*, two anticancer drugs, have been obtained from Periwinkle (*Catharanthus*) plant, which possesses anti-cancer alkaloids. Many animals are useful for medical research.

iii. **Fuel:**

Our forests have been used since ages for fuel wood. The fossil fuels coal, petroleum and natural gas are also products of fossilized biodiversity. Firewood collected by individuals are not normally marketed, but are directly consumed by tribals and local villagers, hence falls under consumptive value.

UNIT- III : Indian Economy – Current Economic Trends and impact of Global Economy of India

4 x 15 = 60

Answer all the questions. Answer not exceeding 250 words each

17. Answer the following questions

பின்வருவனவற்றிற்கு விடையளி

a. Define Capital Formation. Explain the process of Capital Formation

மூலதன உருவாக்கம் வரையறு. மூலதன உருவாக்க செயல்முறைகள் பற்றி விளக்குக

Process of Capital Formation:

Capital formation or accumulation undergoes three main stages:

1. Creation of Saving:

The creation of saving is the first stage of capital formation. It means that there must be an increase in the volume of real savings, so that the sources may be used for the production of consumption purposes and further may be released for other purposes. Therefore, for capital formation, some current consumption has to be sacrificed for obtaining a larger part of the flow of consumer goods in the near future.

2. Mobilisation of Saving:

The next process of saving is that it must be mobilised by converting into investible funds. For this purpose, the existence of banking and other financial institutions is must. Banking facilities give considerable help to promote high rate of mobilisation and channelization of saving. In brief, sound and efficient banking system enables investors to invest more and more.

3. Investment of Saving:

The final stage is the investment of saving into capital goods. It needs a class of efficient, dynamic, daring and skilled entrepreneurs. An able and efficient entrepreneur is always ready to make investments for the production of capital goods. In short, both saving and investment are crucial for capital accumulation.

b. Explain the significance of Capital Formation in Economic Development.

பொருளாதார வளர்ச்சியில் மூலதன உருவாக்கத்தின் முக்கியத்துவம் குறித்து விளக்குக

Significance of Capital Formation in Economic Development:

1. Formation of Sound Infra-Structures:
2. Use of Round-about Methods of Production:
3. Maximum Utilisation of Natural Resources:
4. Proper Use of Human Capital Formation
5. Improvement in Technology:
6. High Rate of Economic Growth

7. Agricultural and Industrial Development:
8. Increase in National Income:
9. Expansion of Economic Activities
10. Less Dependence on Foreign Capital:
11. Increase in Economic Welfare

18. Define inequality and classify them. What are consequences of inequalities and explain the measures to deal with inequality.

ஏற்றத்தாழ்வினை வரையறுத்து அவற்றை வகைப்படுத்துக. ஏற்றத்தாழ்வின் விளைவுகள் மற்றும் அவற்றை களைவதற்கான நடவடிக்கைகள் யாவை?

INEQUALITY

Inequality as “the state of not being equal, especially in status, rights and opportunities”. Inequality can be broadly classified in to:

Economic inequality:

Economic inequality is the unequal distribution of income and opportunity between individuals or different groups in society.

Social inequality:

1. It occurs when resources in a given society are distributed unevenly based on norms of a society that creates specific patterns along lines of socially defined categories e.g. religion, kinship, prestige, race, caste, ethnicity, gender etc. have different access to resources of power, prestige and wealth depending on the norms of a society.
2. Both these categories are deeply intertwined and inequality of one type affects the inequality in another e.g. Social Inequality due to gender have large impact on income of women. In patriarchal societies large gender wage gap tends to exist.

Dimensions of Inequality in India

In India, following are distinctive forms of social inequality:

Gender

Gender inequality refers to unequal treatment or perceptions of individuals wholly or partly due to their gender. It arises from differences in socially constructed gender. Global gender gap report by the world economic forum since 2006. Global gender gap index is a part of this which measures gender equality across four pillars- they are economic opportunity, political empowerment, educational attainment and health and survival. India has been ranked at 108.

Caste

Caste is significant factor for determining access to resources like education, income, health valued by individuals.

Religion

Religious identities are significant for an individual's ability to mobilize resources. Religious identities can cause prejudices which may lead to economic exclusion and other forms of discrimination which can impact jobs and livelihood opportunities. While minorities such as Christians, Parsis and Jains have a larger share of income/consumption than their population share, Muslim and Buddhist populations have significantly lower access to economic resources.

Ethnicity

Tribal communities in India have been identified as ethnic group on the basis of their unique culture, language, dialect, geographical location, customs etc. The National Family Health Survey 2015-16 (NFHS-4) showed that 45.9% of ST population were in the lowest wealth bracket as compared to 26.6% of SC population, 18.3% of OBCs, 9.7% of other castes.

Economic Inequality

The 2019 report by Oxfam, titled "Public good or Private Wealth?" showed that India's top 10% holds 77.4% of the total national wealth, while the top 1% holds 51.53% of the wealth. The bottom 60% population holds only 4.8% of the national wealth. 13.6 crore Indians, who make up the poorest 10% of the country, have continued to remain in debt for the past 15 years. The Gini coefficient of wealth in India in 2017 is at 0.83, which puts India among the countries with highest inequality countries.

Consequences of Inequalities

1. Inequalities tend to produce social conflict among the social groups e.g. caste groups like Jaats, Maratha, Patels are demanding reservations but this demand is opposed by caste groups already claiming the benefits of reservations, such clash of interest due to perceived inequality tend to produce violent conflicts between opposing caste groups.
2. Inequalities among ethnic groups have led to various ethnic movements demanding separate states or autonomous regions or even outright secession from India. North East has been rocked by numerous such ethnic movement e.g. by Nagas for greater Nagalim etc.
3. Religious inequality tends to generate feeling of exclusion among religious minority groups. This reduces their participation in mainstream, in India religious minorities have large population their economic exclusion compromises the GDP growth of nation as whole.
4. Poor development indicators like IMR, MMR, low per capita income, lower education and learning outcomes at schools, high rate of population growth can be traced to existing socio-economic inequalities.

Measures to Deal with Inequalities

Constitutional Provision

Enforcement of Constitutional Guarantee of equality as enshrined in fundamental rights. Articles 14, 15 and 16 form part of a scheme of the Constitutional Right to Equality. Article 15 and 16 are incidents of guarantees of Equality, and gives effect to Article 14.

Promoting Civil Society

Provide a greater voice to traditionally oppressed and suppressed groups, including by enabling civil society groups like unions and association with in these groups. Scheduled castes and Scheduled tribes should be motivated to become entrepreneurs, schemes like Stand-up India need to be expanded to widen its reach by increasing funding.

Women Empowerment

For gender equality policies like affirmative action by reserving seats in legislatures, increasing reservation at Local self-government both at Urban and village level to 50% in all states, strict implementation of The Equal Remuneration act,1976 to remove wage gap, making education curriculum gender sensitive, raising awareness about women right, changing social norms through schemes like Beti Bachao Beti Padhao etc.

Inclusion of Religious Minorities

Religious minority groups need special attention through representation in government jobs, provision of institutional credit, improvement of their education access, protection of their human rights by empowering National commission for Minority, strengthening rule of law etc.

Progressive Taxes

Additional public resources for public services by progressive taxes on wealthy and by increasing the effective taxation on corporations, more importantly broadening the tax base through better monitoring of financial transactions.

Economic Policies

By ensuring universal access to public funded high-quality services like Public health and education, social security benefits, employment guarantee schemes; inequality can be reduced to great extent.

Employment Generation

The failure to grow manufacturing sectors like Textile, Clothing, automobiles, consumer goods etc. is the important reason of rising inequalities. The Labour-intensive manufacturing has the potential to absorb millions of people who are leaving farming while service sector tends to benefit majorly urban middle class.

19. Write a short note on the following
பின்வருவனவற்றிற்கு சிறுகுறிப்பு வரைக

a. e-RUPI

How will digital voucher payment system work?

On August 2, Prime Minister Narendra Modi launched a new digital payment system to send the government's monetary benefits directly to beneficiaries' mobile phones. The e-RUPI platform, developed by the National Payments Corporation of India (NPCI), the Department of Financial Services, the National Health Authority and the Ministry of Health and Family Welfare, is said to be 'leak-proof' and offers non-transferable monetary service to citizens. The e-RUPI system is accessible to anyone with a mobile phone, even if the recipient does not have a bank account. It comes in the form of one-time use e-vouchers to access government health services. It could gradually be implemented to cover welfare services a beneficiary is already receiving from different government agencies.

What is the need for this?

The e-RUPI is a digital voucher that can be redeemed by beneficiaries to avail themselves of a specific service. The digital platform does not require a card, app or internet access to redeem an e-voucher. The e-vouchers can be issued by the government or private entities to the beneficiaries through QR codes or long-string SMS. The service is aimed at plugging holes in the existing welfare payment disbursement system. "The idea here is to track and trace how the subsidies and benefits given to citizens are used," Mihir Gandhi, partner at PwC, told The Hindu. Secondly, with e-RUPI, government agencies can keep track of how much of the allocated funds have been disbursed to citizens. Otherwise, carrying out reconciliation for unused subsidies could be an accounting "nightmare for the government", Mr. Gandhi explained.

How does e-RUPI work and where can it be used?

The contactless prepaid payment system can be issued by both government agencies and corporate entities to a specific individual to avail a targeted service. The Union government plans to use e-RUPI for its COVID-19 vaccination drive for citizens and gradually implement it as part of other government schemes. To begin with, the NPCI has tied up with more than 1,600 hospitals where e-RUPI can be redeemed. The transaction begins with a QR code or a long-string SMS pushed into a beneficiary's mobile device. The beneficiary will then need to show it to the welfare service provider to authenticate the transaction. Citizens do not have to carry any printout, and as these vouchers are created for a specific purpose, they cannot be transferred or cashed out.

e-RUPI is powered by the NPCI's UPI platform, and the service has authorised 11 banks to issue digital vouchers. These include both private and public banks. Beneficiaries will be identified by their mobile numbers, and the e-vouchers will be sent to their phone through the bank's voucher management system. The digital voucher can only be issued by a government agency or a corporate entity. It cannot be issued by one person to another.

Is it a digital currency?

The e-RUPI is built for a specific transaction to avail a service at a particular welfare centre. The digital vouchers have a one-time use case and they can't be transferred. This puts e-RUPI within a voucher-based payment system rather than a virtual currency. But the government's move could be a good starting point to experiment with digital currency. "It can be a preamble to a digital currency, but it may not directly be the platform that is used for the digital currency because UPI will be the overlay on top and below it can be actual or digital currency," Mr. Gandhi said.

What are some of the challenges in implementation?

A 2018 research by Harvard University revealed a 33-percentage point gender gap in mobile phone ownership in India. In their study titled 'A tough call: Understanding barriers to and impacts of women's mobile phone adoption in India,' the authors point to the economic and normative barriers as important drivers of the mobile gender gap. They also note that the disparity exists across Indian society, and is not limited to rural, less educated or poorer groups. In the same study, even among men, only 71% owned a cell phone, an essential device to access digital schemes like the e-RUPI vouchers. Online data portal Statista pegs India's smartphone penetration rate at 42% in the financial year 2020 and estimates it to reach 51% by 2025. Closing the mobile gender gap and enabling a large proportion of citizens to own a mobile phone will remain a problem to be solved.

b. BHIM

Bharat Interface for Money (BHIM) is a payment app that lets you make simple, easy and quick transactions using Unified Payments Interface (UPI). You can make direct bank payments to anyone on UPI using their UPI ID or scanning their QR with the BHIM app. You can also request money through the app from a UPI ID.

Pioneered and developed by National Payments Corporation of India (NPCI), BHIM has been conceived and launched by the Hon'ble Prime Minister of India, Narendra Modi on 30th December 2016 to bring in Financial Inclusion to the nation and a digitally empowered society.

c. UDAN

This scheme is a part of the National Civil Aviation Policy (NCAP) and is funded jointly by the GoI and the state governments. The following are its salient features:

Objectives of the Regional Connectivity Scheme

- ❖ Operationalization and development of 425 underserved or unserved airports in the country
- ❖ Boost inclusive economic development by providing faster connectivity
- ❖ Development of air transport infrastructure in remote areas aiding job growth

UDAN 1.0

- ❖ Under this phase, 5 airlines companies were awarded 128 flight routes to 70 airports (including 36 newly made operational airports)

UDAN 2.0

- ❖ In 2018, the Ministry of Civil Aviation announced 73 underserved and unserved airports.
- ❖ For the first time, helipads were also connected under phase 2 of UDAN scheme.

UDAN 3.0

Key Features of UDAN 3 included:

- ❖ Inclusion of Tourism Routes under UDAN 3 in coordination with the Ministry of Tourism.
- ❖ Inclusion of Seaplanes for connecting Water Aerodromes.
- ❖ Bringing in a number of routes in the North-East Region under the ambit of UDAN.

UDAN 4.0:

- ❖ The 4th round of UDAN was launched in December 2019 with a special focus on North-Eastern Regions, Hilly States, and Islands.
- ❖ The airports that had already been developed by the Airports Authority of India (AAI) are given higher priority for the award of VGF (Viability Gap Funding) under the Scheme.
- ❖ Under UDAN 4, the operation of helicopters and seaplanes is also been incorporated.

d. UDAY

Ministry of Power, GoI launched Ujwal DISCOM Assurance Yojana (UDAY) which was approved by Union Cabinet on 5th November, 2015.

The scheme envisages:

- ❖ Financial Turnaround
- ❖ Operational improvement
- ❖ Reduction of cost of generation of power
- ❖ Development of Renewable Energy
- ❖ Energy efficiency & conservation

Salient Features of the Scheme

For Financial Turnaround

- ❖ States will take over 75% of the DISCOM debt as on Sept 30, 2015 - 50% in FY 2015-16 and 25% in FY 2016-17.

- ❖ States to issue non-SLR including SDL bonds, to take over debt and transfer the proceeds to DISCOMs in a mix of grant, loan, equity.
- ❖ Maturity period of bonds - 10-15 years.
- ❖ Moratorium period – up to 5 years.
- ❖ Rate - G-sec plus 0.5% spread plus 0.25% spread for non-SLR.
- ❖ Borrowing not to be included for calculating fiscal deficit of the State.

Achieving Financial Turnaround

- ❖ Balance 25% of debt to remain with the DISCOMs in the following manner:
 - i. Issued as State-backed DISCOM bonds; or
 - ii. Re-priced by Banks/FIs at interest rate not more than bank base rate + 0.10%
- ❖ States to take over future losses of DISCOMs as per trajectory in a graded manner.
[0% of loss of 14-15 & 15-16; 5% of 16-17; 10% of 17-18; 25% of 18-19 & 50% of 2019-20]
- ❖ Balance losses to be financed through State bonds or DISCOM bonds backed by State Govt guarantee, to the extent of loss trajectory finalised with MoP.
- ❖ Jharkhand and J&K given special dispensation for take over of outstanding CPSU dues

e. Digital India

The Indian Government launched the Digital India campaign to make government services available to citizens electronically by online infrastructure improvement and also by enhancing internet connectivity. It also aims to empower the country digitally in the domain of technology. Prime Minister Narendra Modi launched the campaign on 1st July 2015.

Digital India Mission is mainly focused on three areas:

1. Providing digital infrastructure as a source of utility to every citizen.
2. Governance and services on demand.
3. To look after the digital empowerment of every citizen.

Objectives of Digital India

The motto of the Digital India Mission is 'Power to Empower'. There are three core components to the Digital India initiative. They are digital infrastructure creation, digital delivery of services, and digital literacy.

The major objectives of this initiative are listed below:

1. To provide high-speed internet in all gram panchayats.
2. To provide easy access to Common Service Centre (CSC) in all the locality.
3. Digital India is an initiative that combines a large number of ideas and thoughts into a single, comprehensive vision so that each of them is seen as part of a larger goal.

4. The Digital India Programme also focuses on restructuring many existing schemes that can be implemented in a synchronized manner.

Digital India aims to provide the much-needed thrust to the nine pillars of growth areas. Each of these areas is a complex programme in itself and cuts across multiple Ministries and Departments. The nine pillars of Digital India are given below:

- ❖ **Broadband Highways**- This covers three sub components, namely Broadband for All - Rural, Broadband for All - Urban and National Information Infrastructure (NII).
- ❖ **Universal Access to Mobile Connectivity**- This initiative focuses on network penetration and filling the gaps in connectivity in the country.
- ❖ **Public Internet Access Programme**- The two sub components of Public Internet Access Programme are Common Services Centres (CSCs) and Post Offices as multi-service centres.
- ❖ **e-Governance**: Reforming Government through Technology- Government Process Re-engineering using IT to simplify and make the government processes more efficient is critical for transformation to make the delivery of government services more effective across various government domains and therefore needs to be implemented by all Ministries/ Departments.
- ❖ **e-Kranti** - Electronic Delivery of Services- To improve the delivery of public services and simplify the process of accessing them. In this regard, several e-governance initiatives have been undertaken by various State Governments and Central Ministries to usher in an era of e-Government. e-Governance in India has steadily evolved from the computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency.
- ❖ **Information for All**- This pillar aims to ensure transparency and availability of reliable data generated by the line ministries for use, reuse and redistribution for the people of India.
- ❖ **Electronics Manufacturing**- This pillar focuses on promoting electronics manufacturing in the country.
- ❖ **IT for Jobs**- This pillar focuses on providing training to the youth in the skills required for availing employment opportunities in the IT/ITES sector.
- ❖ **Early Harvest Programmes**- This pillar consists of a group of different short-term projects which have immediate effect on the Indian digital ecosystem like IT platform for mass messaging, crowd Sourcing of eGreetings, biometric attendance in the government offices, WI-FI in all universities etc.

20. Answer the following questions

பின்வரும் வினாக்களுக்கு விடையளி

a. What are the observations of A.K. Rajan Committee on NEET? (7.5 Marks)

நீட் தேர்வு குறித்து A.K. ராஜன் குழுவின் புரிதல்கள் யாவை?

JUSTICE A.K. RAJAN COMMITTEE RECOMMENDATION - NEET

Introduction:

The report submitted by the Justice AK Rajan Committee stated that if NEET continues for a few more years, it would affect the healthcare infrastructure of Tamil Nadu, bringing a shortage of doctors' appointments in primary health centres and government hospitals.

In a 165-page report submitted by retired Justice AK Rajan Committee on the impact of NEET, the report stated that NEET should be eliminated immediately.

The report submitted on September 14 to the Tamil Nadu Chief Minister MK Stalin stated that if NEET continues for a few more years, it would affect the healthcare infrastructure of Tamil Nadu, bringing a shortage of doctors' appointments in primary health centres and government hospitals.

The report also stated that students from rural regions and poor backgrounds might lose access to medical education.

The Committee also laid out that students who studied Tamil as a medium couldn't fare well in NEET and strongly condemned the culture of 'coaching', claiming that it is gradually replacing 'learning', which is very essential for the would-be-Doctors (medical aspirants) to acquire all skills reasoning, decision making, judgemental, analytical and psychosocial skills which are acquired only in the schooling-learning, not in the coaching.

The committee made the below recommendations to state governments:

- ❖ The state government may undertake immediate steps to eliminate NEET from being used in admission to medical programmes at all levels by following the required legal and/or legislative procedures.
- ❖ The government may take a stand that the words ' university education' found in Entry 25 List III is a general provision and 'Regulation of Universities' in Entry II is a special provision: Entry 32 is an exclusive state subject that cannot be ignored. Therefore, Article 254 cannot be invoked to override Act 3/2007 insofar as it relates to entry 32. Hence, admission to affiliated colleges under the Tamil Nadu Dr M G R Medical University are governed by Act 3 of 2007 and hence admission to those seats will be filled as per the provisions of that Act. (S.14 of NMC Act has no application to those seats). In this regard, the state may follow the required procedures to satisfy the legal and constitutional provisions.

- ❖ Alternatively, the state government may pass an Act, similar to the Act 3/2007, indicating the need for elimination of NEET at all levels of Medical Education, and get the President's assent for the same. This will ensure social justice and protect all vulnerable student communities from being discriminated in admission to medical education programmes.
- ❖ The HSc (Higher Secondary) scores shall become the sole admission criteria for admission to first degree medical programmes, and to ensure equality in opportunity for students from different Boards of Education, normalisation of scores may be followed.
- ❖ The socio, economic and other demographic adversities that cause poor performance of all relevant students, mainly the disadvantaged and underprivileged, in their HSc examination shall be identified, and according to the degree of intensities of adversities, re-profiling of scores can be done using a pre-developed framework of 'Adversity Score'.
- ❖ The school education, up to the level of HSc, shall be reformed such that 'learning' as opposed to 'coaching' is fostered, and that right from curriculum through teaching and learning to learning assessment (Board Examination), all shall be tweaked toward enabling and empowering students with subject knowledge and higher order skills including reasoning, decision making, social disposition and so on. In particular, the rote form of learning assessment that leads to coaching shall be eliminated and the acquired knowledge and skills shall be focussed on.
- ❖ So far as the 'Deemed Universities' is concerned, an Act has to be passed by the Tamil Nadu assembly to bring all the Deemed Universities of Tamil Nadu under its purview, as under Act 3/2007 and the President's assent has to be obtained.
- ❖ The report concluded by saying that if NEET continues, Tamil Nadu may go back to the pre-independence days, where in small towns and in villages only 'bare-foot' doctors were catering for the needs that were available and that Tamil Nadu as a state would go down in the rank among States, in the Medical and Health Care system.

நீட் தேர்வு குறித்த ஏ.கே. ராஜன் கமிட்டியின் அறிக்கை

மருத்துவ கல்லூரிகளில் மாணவர்கள் சேர நீட் தேர்வு எழுதுவது கட்டாயமாக்கப்பட்டிருப்பதற்கு தமிழ்நாட்டில் உள்ள அரசியல் கட்சிகள் எதிர்ப்பு தெரிவித்திருக்கும் நிலையில், அந்தத் தேர்வித் தாக்கம் குறித்து ஆராய்வதற்காக, ஓய்வுபெற்ற உயர்நீதிமன்ற நீதிபதி ஏ.கே. ராஜன் தலைமையில் ஒரு குழுவை தமிழ்நாடு அரசு அமைத்தது.

இந்தக் குழுவில் சமூக சமத்துவதற்கான மருத்துவர்கள் அமைப்பின் பொதுச் செயலாளர் டாக்டர் ஜி.ஆர். ரவீந்திரநாத், முன்னாள் துணை வேந்தர் எல். ஜவஹர் நேசன், மருத்துவத் துறைச் செயலர் டாக்டர் ஜெ. ராதாகிருஷ்ணன், பள்ளிக் கல்வித் துறை முதன்மைச் செயலர் காகர்லா உஷா உள்ளிட்ட 9 பேர் இடம்பெற்றிருந்தனர்.

நீட் தேர்வானது சமூக, பொருளாதார, கூட்டாட்சி அரசியலை எவ்விதத்தில் பாதித்திருக்கிறது, அரசுப் பள்ளிகளில் படிக்கும், கிராமப்புற, நகர்ப்புற ஏழைகளை இந்தச் சேர்க்கைமுறை எவ்விதத்தில் பாதித்திருக்கிறது என்பதை ஆராய்வது, அப்படித் தடைகள் இருந்தால் அந்தத் தடைகளை நீக்குவதற்கான வழிகளைப் பரிந்துரைப்பது, மாணவர்களைத் தேர்வுசெய்ய நீட் தேர்வு சமத்துவமான வழிதானா என்பதை ஆராய்வது, காளான்களைப் போல முளைத்து வரும் நீட் பயிற்சி மையங்கள் தமிழகக் கல்வி முறையின் மீது ஏற்படும் தாக்கத்தை ஆராய்வது போன்றவை இந்தக் குழுவின் பணிகளாக வரையறுக்கப்பட்டிருந்தன.

ஏ.கே. ராஜன் குழுவின் முடிவுகள்

1. நீட் தேர்வானது, பலதரப்பட்ட சமூகங்களின் பிரதிநிதித்துவத்தை மருத்துவக் கல்வியில் குலைக்கிறது. சமூகத்தில் வசதியான பிரிவினருக்கு சாதகமாக இருப்பதோடு, பின்தங்கிய நிலையில் இருப்பவர்களின் மருத்துவக் கனவைக் குலைக்கிறது. தமிழ் வழியில் படித்தோர், கிராமப்புறங்களைச் சேர்ந்தவர்கள், அரசுப் பள்ளிகளில் படித்தவர்கள், 2.5 லட்ச ரூபாய் வருமானத்திற்கு கீழே உள்ளவர்கள், மிகவும் பிற்படுத்தப்பட்டோர், பட்டியலினத்தினர், பழங்குடியினர் ஆகியோர் இந்தத் தேர்வால் மிகவும் பாதிக்கப்படுகின்றனர்.
2. நீட் தேர்வானது, மீண்டும், மீண்டும் தேர்வுமுதுபவர்களுக்கே சாதகமானதாக இருக்கிறது. முதல் முறையாக தேர்வு எழுதுவோருக்கு பாதகமாக இருக்கிறது.
3. நீட் தேர்வு மாணவர்களிடம் பெரும் அழுத்தத்தையும் பதற்றத்தையும் உருவாக்குகிறது. இந்தத் தேர்வில் நடக்கும் முறைகேடுகள், மாணவர்களிடம் பெரும் பதற்றத்தை ஏற்படுத்துகின்றன.
4. தரமான மாணவர்கள் மருத்துவப் படிப்புகளில் சேர்வதை நீட் தேர்வு உறுதிசெய்யவில்லை. மாறாக குறைவான திறனுள்ள மாணவர்கள் எம்பிபிஎஸ் இடங்களைப் பெறுவதையே உறுதிசெய்கிறது. மாறாக, 12ஆம் வகுப்பு மதிப்பெண்களின் அடிப்படையில் சேர்க்கையை நடத்தும்போது தரமான மாணவர்கள் எம்.பி.பி.எஸ். இடங்களைப் பெறுகிறார்கள்.

படக்குறிப்பு:

நீட் தேர்வுக்கு முன்னும் பின்னும் எம்.பி.பி.எஸ் படிப்பில் சேர விண்ணப்பித்த கிராமப்புற மற்றும் நகர்ப்புற மாணவர்களின் எண்ணிக்கையைக் காட்டும் தரவுகள்.

5. மருத்துவ படிப்பில் முதுநிலை இடங்களில் 50 சதவீதத்தையும் சூப்பர் ஸ்பெஷலிட்டி பரிவில் 100 சதவீதத்தையும் அகில இந்திய ஒதுக்கீட்டிற்கு அளிப்பதால், அரசு மருத்துவமனைகளில் பணியாற்றும் மருத்துவர்கள் கடுமையாகப் பாதிக்கப்படுகிறார்கள். இது மாநிலத்தின் மருத்துவக் கட்டமைப்பை குலைக்கிறது. அகில இந்திய ஒதுக்கீட்டில் பிற்படுத்தப்பட்டோருக்கு இட ஒதுக்கீடு அளிக்கப்படாததால், இது சமூக நீதிக்கு எதிரானது.
6. இந்த பாரபட்சமான நீட் தேர்வினால், மாநிலக் கல்வி வாரியத்தின் கீழ் படிப்பவர்கள் கல்வி முறை மீதே நம்பிக்கை இழக்கிறார்கள்.
7. நீட் தேர்வுக்கு முந்தைய மருத்துவர்கள், பிந்தைய மருத்துவர்கள் என பிரித்துப் பார்த்தால், நீட் தேர்வுக்குப் பிந்தைய மருத்துவர்கள் அனைவரும் வசதியான, நகர்ப்புறங்களைச் சேர்ந்தவர்களாக இருக்கின்றனர். அடிமட்ட சமூகத்தின் பல்வேறு விதமான வித்தியாசங்கள் குறித்த புரிதல் இல்லாமல் இருக்கிறார்கள். இதனை துவக்கத்திலேயே சரிசெய்யா விட்டால், வருங்காலத்தில் இது மிக மோசமாக எதிரொலிக்கும்.

ஏ.கே. ராஜன் குழுவின் பரிந்துரைகள்

நீட் தேர்வு தொடர்பான பிரச்சனையை சரி செய்ய ஏ.கே. ராஜன் குழு பல்வேறு பரிந்துரைகளை முன்வைத்துள்ளது.

1. நீட் தேர்வை அகற்றுவதற்கான சட்டரீதியான வழிகளை மாநில அரசு மேற்கொள்ள வேண்டும்.
2. 2007ஆம் ஆண்டின் 3வது சட்டத்தைப் போல, மருத்துவக் கல்வியின் அனைத்து நிலைகளிலும் நீட் தேர்வை நீக்குவதற்கான ஒரு சட்டத்தை இயற்றி அதற்கு குடியரசுத் தலைவரின் ஒப்புதலைப் பெற வேண்டும்.
3. எம்பிபிஎஸ் படிப்பில் சேர்க்கைக்கு 12ஆம் வகுப்புத் தேர்வு மதிப்பெண்களையே அடிப்படையாகக் கொள்ள வேண்டும். பல்வேறு வாரியங்களைச் சேர்ந்த மாணவர்கள் போட்டியிடுவதால், அதனை சமப்படுத்த ஒரு முறையைக் கையாளலாம்.
4. மாணவர்களின் சமூக, பொருளாதார பின்னணி அவர்களின் 12ஆம் வகுப்பு மதிப்பெண்களை வெகுவாகப் பாதிக்கிறது. ஆகவே, அவற்றை அடையாளம் கண்டு சரிசெய்ய வேண்டும். அவர்களை மதிப்பிட "Adversity Score" என்ற முறையைப் பின்பற்ற வேண்டும்.
5. 12ஆம் வகுப்புவரை எல்லா மட்டங்களிலும் மனப்பாடம் செய்து, பயிற்றுவித்து தேர்வடைவதை ஊக்குவிக்காமல், கற்பதை ஊக்குவிக்க வேண்டும்.
6. எல்லா நிகர்நிலை பல்கலைக்கழகங்களையும் தன்னுடைய கட்டுப்பாட்டில் கொண்டு வருவதற்கான சட்டத்தை தமிழக அரசு இயற்றி, குடியரசுத் தலைவரின் ஒப்புதலைப் பெற வேண்டும்.

b. Discuss the impact of NEET on Social Justice in Tamil Nadu (7.5 Marks)

தமிழகத்தில் நீட் தேர்வானது சமூக நீதியில் ஏற்படுத்தியுள்ள தாக்கம் குறித்து விவாதி

Introduction:

Elections were held in the Province of Madras when the electoral system was first established in India to elect people's representatives by the people. The Justice Party, pioneer of the Dravidian movement, formed the government in the first general election in 1920, when the country was under British rule.

All those who travelled to India from England to observe the working of the Madras Provincial Assembly remarked that the Madras Province is the only province in India governed by the rule of law and administrative protocols.

This is a significant day in the history of this House, which established such democratic values. We have assembled here to defend democracy, to preserve democracy's dignity, to uphold the principle of federalism, and to secure the right to education.

To defend federal philosophy

We are not only getting together to talk about the NEET Exam [the National Eligibility-cum-Entrance Test]. We have gathered to preserve the Tamil Nadu Legislature's sovereignty and rights. Federalism is a fundamental idea that truly safeguards the

ethnic, linguistic, and cultural diversity of the Indian subcontinent! We have come together to ensure that the great federal philosophy remains intact.

I stand in this Assembly that has laid the foundation for success in upholding social justice, legal justice, oppressed people's rights, the greatness of Tamil ethnic community and its language. And I speak with the confidence that this Assembly can and will definitely eliminate the social injustice of NEET. Today, we are here in this Special Assembly to propose a policy of social justice in education for the entire country, having been trained in the footsteps of our leader Anna. To quench students' passion for medical education, we have all come together to work in solidarity and promote social justice.

NEET is not a system established by the Constitution. It was not made a part of the Constitution. The Medical Council of India mandated the creation of NEET. When such an examination was proposed in 2010, Muthamizharinar Kalaiginar, the then-Chief Minister of Tamil Nadu, vehemently opposed it.

Much opposed

It was also opposed by a number of Indian States. This examination has been challenged in 115 cases across India. Tamil Nadu is the State that is leading the charge in this direction. All of these cases were heard by the Supreme Court.

NEET was declared unconstitutional by the Supreme Court itself on July 18, 2013. The Chief Justice of India delivered the judgment. The exam was subsequently abolished across the Indian subcontinent.

However, after the Bharatiya Janata Party (BJP) won the election and formed the government, a private training institute reopened the issue. The Supreme Court heard the case of NEET. "Judgment is recalled" and "Hear this case afresh," the Supreme Court said on May 24, 2016 after hearing the case. On this basis, the BJP-led Union government issued an ordinance on April 11, 2016, which quickly implemented NEET across the country.

Private training institutes benefit from NEET. The NEET Exemption Bill is being introduced for the benefit of those who cannot afford to pay so much for training. NEET is an impediment to the entitlement of poor and needy children to education. In their dream of becoming doctors, a barrier wall has been placed in the name of NEET. "You can't be a doctor," says NEET. "You don't deserve it," it says, halting one's progress. That is why the NEET Exemption Bill has been introduced. I do not think I need to go into great detail about the abnormalities in that exam at this assembly.

So, to summarise, NEET is not a holy cow. It attempts to marginalise students from low-income families in the guise of merit. As a result, we oppose the examination and demand an exemption.

The question I would want to address in this forum is whether NEET, which has sent some students to the graveyard and others to jail, is really required. This is a question that has been raised by the entire student community as well as parents.

A detailed review

On June 19, 2021, a committee led by retired High Court judge A.K. Rajan was formed to investigate the issues and submit a report on the effects of NEET on poor and backward students. The public was consulted. On July 14, 2021, the Committee submitted a 193-page report to the Government based on those comments. They claimed that Government school students were unable to follow their dreams of pursuing a medical education.

I have formed a committee under the leadership of the Chief Secretary to provide detailed recommendations on this report. After careful consideration, the Bill exempting Tamil Nadu from NEET was enacted by this Assembly. We did a lot of study and were able to pass this Bill, supported with factual information.

The NEET Exemption Bill was passed with the support of all members of this House, with the exception of four BJP members. The Bill reflected not only the sentiments of Tamil Nadu as a whole, but also the Assembly's notion of its sovereignty.

It had to be approved by the Hon'ble Governor, and he should have sent it to the Hon'ble President for his approval. Instead, he kept it pending for 142 days before reaching a decision – despite our numerous requests – and then returned it to us. In this Assembly, I must state unequivocally that the reasons he cited for rejecting the Bill were incorrect.

On June 10, 2021, the Justice A.K. Rajan Committee was set up under G.O. No.283, Department of Health and Family Welfare. The committee was made up of academics and government officials. The study's terms of reference were also made public by this high-level group.

The public was asked to provide feedback to the committee. Hundreds of thousands of people had expressed their opinions to the Commission by email, mail, and petition boxes put in various locations.

According to the recommendation, NEET has limited the diversity of community representation in MBBS and higher medical courses by impeding the desire of those underprivileged of receiving medical education and favouring the socio-economically rich sections. The statistics for this can be found in the report as well. According to the survey, government schoolchildren, those whose parents' annual income is less than ₹2.5 lakh, the backward (BC), the most backward (MBC), Scheduled Castes (SC), and Scheduled Tribes (ST) are the most affected.

The Governor criticised the study for claiming that NEET is “against merit”. It is worth noting that the report of the Justice A.K. Rajan committee includes proven facts rejecting this. Among those chosen so far, rural poor students have been affected. According to the research, those who studied in the Tamil medium in government schools are also harmed. At this point, I strongly advise that no one mistakenly counts those who benefit from the Government of Tamil Nadu's 7.5% reservation as having profited from NEET.

The power to legislate

A five-judge Supreme Court Bench heard the matter of Modern Dental College vs Madhya Pradesh government. The Supreme Court verdict was clear: The State government has the power to legislate on student admissions to higher education institutions.

In a separate judgment delivered by Justice Banumathi in the same case, she also ruled that the law regulating student admission was within the jurisdiction of the State government. We passed the Bill against NEET solely using the legislative power of the State legislature.

The Governor has urged that NEET be made mandatory by the Constitution. According to the Constitution, any legal provision can be made, but only for the rights of the socially and economically disadvantaged. We are bringing this NEET Exemption Bill back on that basis. The Constitution is anti-discriminatory. However, NEET is inherently discriminatory. Social justice is emphasised in constitutional law. NEET, on the other hand, is opposed to social justice. The term “justice of the law” is used in constitutional law. But NEET favours the rich. The Indian Constitution is built on the principle of equality. NEET, on the other hand, is the polar opposite of equality. NEET is opposed to all of the Constitution’s fundamental rights. That is why we are requesting NEET exemption.

My pain stems from having to debate for so long about a dreadful exam that disproportionately impacts poor and rural students.

The return of this Bill has also put into doubt the right of our State of Tamil Nadu. This legislature’s sovereignty has been brought into question. The autonomy of States has been questioned. That is what concerns me. What will happen to the constitutionally mandated relationship between the Union and State governments? What are the rights and responsibilities of people of various races, languages, and cultures?

We passed a Bill on September 13, 2021 to exempt students from NEET based on the power we have. The Governor is required by law to reserve it to the President for approval. I expect the Governor to carry out his responsibilities correctly. That is the Governor’s responsibility, which is limited by the legislative power of the legislature, which is elected by the people.

I hope that the Governor will respect the sentiments of the people of Tamil Nadu and act in the best interests of the students of Tamil Nadu by sending the NEET Exemption Bill to the President without delay, which will be reconsidered and passed under the power conferred on the people elected by the Legislature by the Constitution. I urge everyone to support this Bill in order to defend the right to education, which has been denied for a long time, as well as the State rights of Tamil Nadu and the social rights of Scheduled Castes, tribals, backward/most backward/the oppressed/the poor/the marginalised/and rural peoples.

நீட்' சமூக நீதிக்கு எதிரானது! என முதல்வர் மு.க.ஸ்டாலின் அறிக்கை

இந்தியாவில் மக்களால் மக்கள் பிரதிநிதிகள் தேர்ந்தெடுக்கப்படும் தேர்தல் ஆட்சி முறை நிறுவப்பட்ட போது சென்னை மாகாணத்திலும் தேர்தல் நடந்தது. 1920-ம் ஆண்டு நடந்த முதல் பொது தேர்தலில் திராவிட இயக்கத்தின் தலைமகனான நீதிக்கட்சி ஆட்சி அமைத்தது. அது பிரிட்டிஷ் ஆட்சிக்காலம்.

இங்கிலாந்தில் இருந்து இந்தியாவுக்கு வந்தவர்கள் எல்லாம் சென்னை மாகாணத்தின் சட்டமன்றம் எப்படி நடக்கிறது என்பதை பார்க்க வந்ததாகவும், அப்போது இந்தியாவிலேயே சென்னை மாகாணத்தில் தான் நிர்வாக நெறிமுறைப்படி சட்டத்தின் ஆட்சி நடப்பதாகவும் அவர்கள் எழுதி வைத்திருக்கிறார்கள்.

அப்படிப்பட்ட மக்கள் ஆட்சியின் விழிமியங்களை உருவாக்கிய மாமன்றத்தில் இந்த நாள் என்பது மிக முக்கியமானது. ஜனநாயகத்தை காக்க மக்களாட்சியின் மாண்பை காப்பாற்றுவதற்காக கூட்டாட்சி தத்துவத்தை நிலை நிறுத்துவதற்காக கல்வி உரிமையை வென்றெடுப்பதற்காக இன்று நாம் கூடி இருக்கிறோம்.

நீட் தேர்வுக்கு எதிராக விவாதிப்பதற்காக மட்டும் நாம் கூடவில்லை. நமது தமிழ்நாட்டின் சட்டமன்றத்தின் இறையாண்மையை உரிமையை காப்பாற்றுவதற்காகவும் கூடி இருக்கிறோம். பல்வேறு இனம், மொழி, பண்பாடு கொண்ட இந்திய பெருநாட்டை உண்மையில் காக்கும் உன்னதமான தத்துவம் என்பது கூட்டாட்சி தத்துவம்.

அந்த கூட்டாட்சி தத்துவம் காப்பாற்றப்பட வேண்டும் என்பதற்காக நாம் இங்கு கூடி இருக்கிறோம். 16 வயதிலே அரசியல் களத்துக்குள் நான் நுழைந்தேன். எனது பொது வாழ்வில் மறக்க முடியாத நாளாக இந்த நாள் அமைந்துள்ளது.

அந்த உணர்வோடு தான் இந்த மாமன்றத்தில் நான் நின்று கொண்டிருக்கிறேன். நூறு ஆண்டுகளுக்கு முன்பே சமூகநீதிக்கு அடித்தளம் அமைத்தது இந்த சட்டமன்றம். நமது அரசியலமைப்பு சட்டத்தில் முதல் திருத்தம் கொண்டுவர உந்து சக்தியாக அமைந்தது இந்த சட்டமன்றம்.

அகில இந்திய அளவில் பிற்படுத்தப்பட்ட சமுதாயத்துக்கு மத்திய அரசு பணிகளில் 27 விழுக்காடு இட ஒதுக்கீடு வழங்கும் மண்டல் கமிஷன் அறிக்கையை செயல்பட வைத்ததும் இந்த சட்டமன்றம் தான்.

அரசு கல்லூரி மாணவர்களுக்கு பொறியியல் உள்பட தொழில் கல்வியில் 7.5 விழுக்காடு இடஒதுக்கீடு வழங்கியதும் இந்த சட்டமன்றம்.

அகில இந்திய தொகுப்பிற்கு அளிக்கும் மருத்துவ இடங்களில் 27 விழுக்காட்டில் இடஒதுக்கீட்டை தமிழ்நாட்டுக்கு மட்டுமல்ல ஒட்டு மொத்த இந்திய துணை கண்டத்துக்கும் பெற்றுத் தந்தது இந்த சட்டமன்றம் தான்.

இன்றைக்கு இருக்கிற 69 இட ஒதுக்கீட்டை நாட்டிலேயே முதல் முறையாக தமிழ்நாட்டில் செயல்படுத்தி சாதனை படைத்தது இந்த சட்டமன்றம். மருத்துவம் மற்றும் பொறியியல் கல்லூரிகளில் மாணவர் சேர்க்கைக்கு இருந்த நுழைவுத் தேர்வை ரத்து செய்து இதே சட்டமன்றத்தில் சட்டம் ஏற்றப்பட்டது.

அப்போது இந்திய குடியரசு தலைவரும் ஒப்புதல் அளித்துள்ளார்.

நீட் தேர்வில் வெற்றிபெற ஆள்மாறாட்டங்கள் நடந்து இருக்கின்றன. தேர்வர்களுக்கு நேரடியாகவோ, மறைமுகமாகவோ உதவும் முறைகேடுகள், மதிப்பெண்களை திருத்தம் செய்வது, தேர்வு எழுத மாற்று நபர்களை பயன்படுத்துதல் போன்ற முறைகேடுகள் வழக்கமாகிவிட்டன.

நீட் தேர்வு மாணவர்களை கொல்லக்கூடியது. அது மாணவர்களுக்கு பலி பீடம். சில மாணவர்களை சிறைச்சாலைக்கும், சில மாணவர்களை கல்லறைக்கும் அனுப்பிய நீட் தேர்வு தேவையா?

நீட் தேர்வு என்பது ஊரக மாணவர்களை மருத்துவ கல்லூரிகளுக்குள் நுழைய விடாமல் தடுக்கிறது. மாணவர்களின் மருத்துவ கனவுக்கு தடுப்புச்சுவராக உள்ளது. இது ஏழை-எளிய மாணவர்களை ஓரம் கட்டுவதற்காக கொண்டுவரப்பட்டது.

நீட் விலக்கு கோரும் மசோதாவை கவர்னர் திருப்பி அனுப்பியதற்கு கூறிய காரணங்கள் சரியானவை அல்ல. சம்பந்தப்பட்ட அனைவரிடமும் கருத்து கேட்டே ஏ.கே.ராஜன் குழுவின் அறிக்கை அளித்துள்ளனர்.

நீட் தேர்வு வருவதற்கு முன்பு 90 சதவீத இடங்களை மாநில பாடத்திட்டத்தில் படித்த மாணவர்கள் பெற்று வந்தனர். பள்ளிகளில் படித்து வெற்றிபெற்ற மாணவர்களுக்கும் தகுதி என்ற போர்வையில் கொண்டுவரப்பட்டுள்ள இந்த அறிவுத்தீண்டாமை அகற்றப்பட வேண்டும்.

நீட் என்பது சமூக நீதிக்கு எதிரானது. பயிற்சி பெற முடியாதவர்கள், நீட் தேர்வில் வெற்றிபெற முடியாத நிலைதான் உள்ளது. நீட் தேர்வு பணக்கார நீதியை பேசுகிறது. அரசியல் அமைப்பு சட்டம் தான் சமூக நீதியை பேசுகிறது.

மக்களால் தேர்ந்தெடுக்கப்பட்ட அரசின் கொள்கை முடிவை வெறும் நியமன பதவியில் அமர்ந்திருக்கும் ஒரு ஆளுநர் மதிக்காமல் திருப்பி அனுப்புவது மக்களாட்சி தத்துவத்துக்கு எதிரானதல்லவா? பிறகு எந்த நம்பிக்கையில் மக்கள் வாக்களிப்பார்கள்? யாரை நம்பி வாக்களிப்பார்கள்? என்பது தான் நாம் எழுப்ப வேண்டிய கேள்வி?

அரசியல் அமைப்புச் சட்டம் கூறக்கூடிய சமத்துவத்துக்கு எதிரானது நீட் தேர்வு. மசோதாவை ஆளுநர் திருப்பி அனுப்பியதன் மூலம் சட்டமன்றத்தின் இறையாண்மை கேள்விக்குறியாகி உள்ளது. நீட் விலக்கு சட்ட முன் வடிவை நிறைவேற்றி மீண்டும் அனுப்பி வைப்பதன் மூலமாக இந்தியாவுக்கே ஒரு ஒளி விளக்கை நாம் ஏற்றி வைக்கிறோம்.

ஆளுநர் என்பவர் அமைச்சரவைக்கு கட்டுப்பட்டே நடந்துகொள்ள வேண்டும். மத்தியில் கூட்டாட்சி, மாநிலத்தில் சுயாட்சி என்பதை இதே சட்டமன்றத்தில் முன் மொழிந்தவர் முன்னாள் முதல்வர் கருணாநிதி.

மீண்டும் சட்டமன்றத்தில் நிறைவேற்றி அனுப்பப்படும் நீட் விலக்கு மசோதாவை காலம் தாழ்த்தாமல் ஆளுநர், குடியரசு தலைவருக்கு அனுப்பி வைப்பார் என்று

நம்புகிறேன்.

அரசியல் சட்டப்பிரிவு 254-1-ன் கீழ் மாநில சட்டமன்ற கூட்டம் நிறைவேற்றினால் அரசியல் சட்டப் பிரிவு 200-ன் கீழ் அதற்கு ஒப்புதல் வழங்கக்கூடிய அதிகாரத்தை ஆளுநர் அமைச்சரவையின் முடிவுக்கு கட்டுப்பட்டு நடக்க வேண்டும்.

ஆளுநருக்கு அனுப்பப்படும் சட்ட முன் வடிவு சொந்த கொள்கைக்கு மாறாக உள்ளது என்று நிராகரிக்காமல் அமைச்சரவை எந்த அறிவுரை வழங்குகிறதோ அதன்படி நடக்க வேண்டும்.

13.9.2022 அன்று நீட் தேர்வில் இருந்து விலக்கு அளித்த சட்ட முன் வடிவை நாம் நிறைவேற்றினோம். அதை குடியரசுத்தலைவருக்கு அனுப்பி வைக்க வேண்டியது ஆளுநரின் அரசியல் சட்ட கடமை. அந்த கடமையை முறையாக இனியாவது ஆளுநர் செய்வார் என்று நான் நினைக்கிறேன். எதிர் பார்க்கிறேன். நீட் விலக்கு சட்ட முன்வடிவை இந்த அவையில் மீண்டும் நான் முன்மொழிகிறேன்.

தமிழ்நாட்டு மக்களின் உணர்வுகளை மதித்து தமிழ்நாட்டு மாணவர்களின் நலன்களை எண்ணி, மக்களால் தேர்ந்தெடுக்கப்பட்ட சட்டமன்றத்தில் அரசியல் சட்டம் வழங்கி இருக்கிற அதிகாரத்தின் கீழ் மீண்டும் நிறைவேற்றி அனுப்பப்படும் நீட் விலக்கு வடிவை காலம் தாழ்த்தாமல் குடியரசு தலைவருக்கு அனுப்பி வைப்பார் என்று நான் நம்புகிறேன்.

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STUDY CENTRE