NCERT MOST IMPORTANT QUESTIONS CLASS – 11 Economics CHAPTER – 8 Infrastructure

Q1. Why are fluorescent lamps and LED bulbs getting promoted nowadays?

Ans: The light-emitting diode (LED) is emerging as the most energy-efficient lighting source. To provide the same amount of light, an LED bulb requires one-tenth the energy of a standard incandescent bulb and half the energy of a Compact Fluorescent Lamp (CFL). LED lighting is up to 70-90% more efficient than traditional lighting such as fluorescent and incandescent bulbs. Also it has life for almost 12 years longer than incandescent bulbs. Only 5% of the energy in LEDs is wasted as heat, hence reduced energy use reduces demand from power plants and minimizes greenhouse gas emissions. Upgrading to fluorescent, LED, or halogen light bulbs can help us save money on our electricity bill while also saving our time and energy by reducing the frequency with which we change them.

Q2. Write a few lines about power distribution supply in the national capital of India.

Ans: The Delhi Vidyut Board was established in 1997 by the Government of NCT Delhi with the purpose of generating and distributing electricity throughout the NCT of Delhi, with an exception of territories under the jurisdiction of the NDMC and the Delhi Cantonment Board. On July 1, 2002, he Delhi Vidyut Board (DVB) was divided into six successor corporations:

- The Delhi Power Supply Company Limited (DPCL) is the holding company;
- The Delhi Transco Limited (DTL) is the TRANSCO;
- The Indraprastha Power Generation Company Limited (IPGCL) is the GENCO;
- The BSES Rajdhani Power Limited (BRPL) is the DISCOM; and
- The North Delhi Power Limited (NDPL) is the DISCOM.

According to extant documents, the first diesel power station was created in Delhi in 1905 when a private English company called M/s. John Fleming was granted authorization to generate electricity under the rules of the Indian Electricity Act 1903. Also government plants are the major source of power for Delhi, and any increase in cost generation is passed on to Discoms (allowed (allowed by CERC / DERC).

Q3. What is morbidity?

Ans: Morbidity is defined as a departure from a state of physical or psychological well-being caused by disease, illness, injury, or sickness, particularly when the affected individual is conscious of his or her condition.

Morbidity, according to the World Health Organization (WHO), may be quantified in terms of the number of people who were ill, the illnesses they encountered, and the length of time they were ill.

Chronic diseases, such as rheumatoid arthritis, are normally not lethal, but they can cause significant morbidity in individuals, resulting in a reduced quality of life.

Ill patients are assigned morbidity scores or anticipated morbidity using methods such as the APACHE II, SAPS II and III, Glasgow Coma scale, PIM2, and SOFA. Data is gathered based on disease type, gender, age, and location.

Hence, morbidity can be said to be the prevalence of illness in a population.

Q4. What is the reason that state electricity boards suffer losses in India?

Ans: Despite substantial electricity growth over the previous 60 years, India continues to experience persistent power shortages.

The main causes of power shortages are,

- Rising demand that is not being met by rising output;
- Reliance on monsoon for hydel power;
- Delays in commissioning of additional capacity in coal in thermal and nuclear facilities;
- Non-availability of coal;
- Difficulties with new power plants;

Reasons

- Wrong pricing of power.
- Also, the losses incurred by the state power board are the result of transmission inefficiencies, including theft.
- The agricultural industry is responsible for a significant portion of theft.
- The SEBs(State Electricity Board), according to popular belief, are inefficient and poorly administered.
- Furthermore, for political reasons, they provide massive subsidies to the agriculture industry and hence are not financially viable.

According to this assessment of the issues, removing the agriculture sector should allow the SEBs to restore a significant amount of financial health.

The SEBs' financial difficulties can be attributed to three factors:

- T&D losses, especially commercial losses from power, are quickly increasing while revenue is not. As a result, the economics of power generation is utterly skewed.
- Pattern of investment in generating is unsuitable, resulting in a rapid increase in the cost per unit of power.

- The high cost of power imposed on the industry, the mainstay of the SEBs, which is now abandoning the grid in favor of the captive route, is aggravating the SEBs' dilemma.

Q5. What are the indicators of the health status of a country?

Ans: Health indicators are measurable characteristics of a population that scientists use to assist their explanations of the health status of the country. Typically, researchers will utilize a survey methodology to collect information on specific people, then use statistics to try to generalize the information acquired to the entire population, and then using the statistical analysis, make a statement on the population's health. Governments frequently utilize health indicators to form healthcare policy.

Some of the indicators are:

- Life Expectancy is the most common example. .
- Other examples are
    - Infant Mortality Rate,
    - Maternal Mortality Rate,
    - Hiv Prevalence,
    - Mortality Due To Diseases (Malaria, Tuberculosis Etc),
    - Fertility Rates Etc.

Global health indicators are classified as either directly measuring health phenomena (e.g., diseases, deaths, and service utilization) or indirectly measuring health phenomena (e.g., social development, education, and poverty indicators), these are known as proximal and distal indicators respectively.

Based on demographic statistics reflecting levels of education acquired as well as access to adequate water and sanitation, a country can be classified as having a population with a high, medium, or low illness burden.

Q6. A study estimates that medical costs alone push down 2.2 per cent of the population below the poverty line each year. How?

or

Rising healthcare is pushing the Indian population towards the poverty line. Comment.

Ans: The number of world-class hospitals and highly qualified medical workers in India has increased, and the country's emergence as a favoured destination for medical tourism has been the subject of great excitement and acclaim. However, the less-than-optimistic side of the story is that healthcare services continue to be out of reach for millions of Indians in terms of both access and pricing. In terms of hospital-bed density, physician-to-population ratio, number of doctors graduating each year, and per capita public expenditure on healthcare, India ranks low in comparison to other developing countries.

The following points depicts how medical expenses pushed people down the poverty line:

- The rising expense of diagnosis, drugs, and hospitalization is forcing millions of Indians into poverty, according to a World Health Organization official (WHO).
- The majority of Indians spend over 70% of their income on drugs and healthcare, compared to 30-40% in other Asian nations such as Sri Lanka.
- According to a survey conducted in six Indian states by the Indian Institute of Population Sciences and WHO, more than 40% of low-income households in India must borrow money from outside the family to fulfill their healthcare bills.
- According to the survey, this tendency has driven 16% of households below the poverty line. Despite the rising investment, experts say the issue of low-quality healthcare goes unaddressed.
- The country's public hospitals have grievance redressal committees in place, but few individuals are aware of how to approach the MCI.
- Between 8 and 9 percent of all households in urban and rural areas reported taking out loans to cover medical expenses.
- In the event of a medical emergency, the consequences for financially challenged households might be devastating.
- Preventive medicine is almost non-existent among the poor, and illnesses are only treated when they reach a critical stage. As a result, there is a double risk: loss of income during illness as well as significant medical costs.
- The majority of bottom-of-the-pyramid households (40 percent) experienced income loss due to illness. Almost 22% of Metro's financially disadvantaged households reported a negative surplus income.
- The share of such households in Developed Rural is 33%. As a result, for such homes, which already spend more than they make on basic necessities, a medical emergency might tip them over the edge.
- It comes as no surprise, then, that over 60% of households save primarily to be able to deal with medical emergencies. Healthcare-related savings were identified as a top priority by over 60% of households in underdeveloped rural areas and 50% of households in metro cities.

Q7. What are the six systems of Indian medicine? Explain.

Ans: Systems medicine is an interdisciplinary field of study that examines the human body's system as a whole, including biochemical, physiological, and environmental connections.

The Ministry of Ayurveda, Yoga, and Naturopathy, Unani, Siddha, and Homoeopathy, abbreviated as AYUSH, is an Indian governmental entity charged with the development, education, and research of Ayurveda (Indian traditional medicine), Yoga, Naturopathy, Unani, Siddha, Homeopathy, Sowa Rigpa (Traditional Tibetan medicine), and other Indigenous medical systems are all examples of complementary medicine.

The Department of Indian Systems of Medicine and Homoeopathy was established in March 1995. (ISM&H). It is administered by the Ministry of Health and Family Welfare. In March 2003, AYUSH was given its current name. The Ministry of AYUSH was established on November 9, 2014, with the elevation of the Department of AYUSH. They are also referred to as AYUSH.

There are six major systems of Indian medicine, which are as follows:

1. Ayurvedic medicine: Ayurvedic ideology strives to maintain structural and functional elements in a functional condition of equilibrium, which denotes good health.

Any imbalance caused by internal or environmental factors creates disease, and restoring balance by various techniques, procedures, routines, nutrition, and medicine constitutes treatment. Ayurvedic philosophy is founded on the Pancha bhootas (five element theory) notion, which all items and living bodies are made out of.

2. Siddha: The Siddha system of medicine emphasizes that medical therapy must consider the patient, surroundings, age, habits, and physical condition in addition to the disease. Siddha literature is written in Tamil and is widely practiced in Tamil-speaking India and beyond.
3. Unani: The Unani System of medicine is based on established knowledge and practices relating to the promotion of good health and disease prevention. Although the Unani system originated in Greece and spread to many nations, Arabs improved it with their knowledge and experience, and the system was carried to India throughout the Middle Ages.

The Unani system emphasizes the use of naturally occurring, primarily botanical medicines, however, it does employ animal and marine substances.

4. Homeopathy: Homeopathy is a medical system that believes in a specific way of curing ailments through the administration of potent medications that have been experimentally proven to have the ability to produce similar artificial systems on humans.
5. Yoga: Yoga is a way of life that has the ability to promote social and personal behavior, physical health by stimulating better circulation of oxygenated blood in the body, restraining sense organs, and so generating mental peace and tranquility.
6. Naturopathy: Naturopathy is also a way of life, with drug-free disease treatment. The system is based on the old practice of applying simple natural laws. Naturopaths emphasize healthy eating and living habits, the use of purifying procedures, and the use of hydrotherapy, baths, and massage, among other things.

Q8. What is the consumption pattern of conventional energy sources in India?

Ans: Energy is widely acknowledged to be one of the most significant inputs for economic progress and human development.

Economic development and energy use have a significant two-way link. On the one hand, the availability of cost-effective and environmentally friendly energy sources is critical to an economy's growth and worldwide competitiveness. The level of economic development, on the other hand, has been seen to be reliant on energy demand.

India is the Non-OECD East Asia's second-largest commercial energy consumer, accounting for 19% of the region's overall primary energy consumption. India's economic progress has been largely attributed to increased energy usage. While commercial energy sources meet 60% of overall energy needs in India, the remaining 40% is met by non-conventional fuels. Climate change has emerged as one of the primary concerns influencing energy policy in recent years.

More than 150 nations, including India, have committed to developing and implementing climate change mitigation and adaptation measures under the United Nations Framework Convention on Climate Change. India is responsible for more than 3.5 % of global carbon emissions. Because energy use is a major source of emissions, it is critical to focus on energy demand and supply management as a strategy for mitigating emissions.

While energy demand rises in tandem with economic expansion, this relationship shifts throughout time, depending on a variety of factors. Technological advancement, energy efficiency programs, and structural changes all contribute to variations in energy consumption. Understanding the many components of energy consumption is thus critical for dealing with future emissions.

Economic growth and structural change are the primary drivers of India's positive growth in energy intensity. The structural component is primarily influenced by income and forces unrelated to energy or energy legislation. Because it is impossible to directly limit energy demand that rises from increased output or activity, emphasis should be placed on conservation measures at the outset of development. Housing, commercial structures, industrial, and transportation policy must incorporate energy efficiency at the local, regional, and national levels.

Q9. How can energy sources be overcome with the use of renewable sources of energy?

or

Justify that the energy crisis can be overcome with the use of renewable sources of energy.

Ans: Renewable energy comes in a variety of forms. The majority of these renewable energies rely on sunlight in some way.

- Wind and hydropower are direct results of differential heating of the Earth's surface, which causes air to flow around (wind) and precipitation to form when the air temperature rises.

- Solar energy is the direct conversion of sunlight into electricity via panels or collectors.
- Biomass energy is the stored sunlight in plants.
- Other non-solar renewable energies include geothermal energy, which is produced by radioactive decay in the crust paired with the original heat of the Earth's formation, and tidal energy, which is a conversion of gravitational energy.

The Indian energy crisis is the outcome of the country's heavy usage of nonrenewable energy sources for current consumption, which has posed a threat to the country's long-term development.

The conventional energy sources, particularly the commercial sources, are generally depleted (except hydropower). As a tropical country, India has nearly endless potential for producing all three sources of energy. There are already some acceptable cost-effective technologies available that can be used to generate energy from these sources.

Research should be conducted to develop even cheaper technologies that would make the production of renewable energy viable and useful. This will solve the problem of depleting all energy sources while also preserving resources for future generations.

There are several options for restoring renewable energy. It is demonstrated in the following points:

1. **Solar Energy:** This type of energy is based on the nuclear fusion power of the Sun's core. This energy can be captured and converted in a variety of ways. From solar water heating with solar collectors or attic cooling with solar attic fans for residential use to the complicated technologies of direct conversion of sunlight to electrical energy utilizing mirrors and boilers or photovoltaic cells, there is something for everyone.
2. **Wind Power:** The movement of the atmosphere is caused by temperature changes at the Earth's surface as a result of the different temperatures of the Earth's surface when lit by sunlight. Wind energy can be utilized to pump water or create power, however, producing considerable amounts of energy needs wide geographical coverage.
3. **Hydroelectric energy:** This form takes advantage of the gravitational potential of raised water lifted from the oceans by sunlight. It is not strictly renewable because all reservoirs ultimately fill up and require costly excavation to be used again.
4. **Biomass:** It is a phrase for plant-based energy. This type of energy is widely used all around the world. Unfortunately, the most common is the use of firewood for cooking and heating. This process emits a large amount of carbon dioxide gas into the atmosphere and is a major contributor to poor air quality in many regions.
5. **Hydrogen and fuel cells:** These are not precisely renewable energy resources, but they are abundant and emit very little pollution when used. Hydrogen can be consumed as fuel, generally in a car, with the combustion product being just water.

6. **Geothermal power:** The heat energy emitted from the planet slowly oozes out everywhere, and this is further stimulated by the heat from radioactive decays. In some regions, the geothermal gradient is strong enough to generate energy.
7. **Other forms of energy:** Other kinds of energy that can be used to generate electricity include tides, oceans, and hot hydrogen fusion. Each of them is explored at some length, with the end result being that each has one or more serious drawbacks and cannot be relied on to solve the future energy crisis at present time.