

Public services like education, housing, health and sanitation, transport and communication, banking, roads and markets are limited and unavailable.

- 4. Population Density:** Population density, measured by number of persons living per sq. km is very low and houses are scattered in the entire villages.
- 5. Employment:** Exists unemployment, seasonal unemployment and underemployment in rural areas.
- 6. Poverty:** About 22 crores of people in rural areas are poor and live below the poverty line.

39. Discuss the problems of Rural Economy.

1. The problems related to individuals and their standard of living consist of illiteracy etc.,
2. Agricultural problems as 1. Lack of expected awareness, knowledge, skill and attitude, Unavailability of inputs and so on.
3. Poor infrastructure facilities like, water, electricity, transport, educational institutions, communication, health and etc.,
4. The economic problems related to rural areas are: inability to adopt high cost technology, high cost of inputs and so on.
5. Leadership among the hands of inactive and incompetent people, self-interest of leaders.

40. Analyse the causes for Rural Indebtedness.

Meaning

Rural indebtedness refers to the **situation of the rural people unable to repay the loan** accumulated over a period.

1. Poverty of Farmers:

The vicious circle of poverty forces the farmers to borrow for consumption, cultivation and celebrations. Thus, poverty, debt and high rates of interest hold the farmer in the grip of money lenders.

2. Failure of Monsoon:

Frequent failure of monsoon is a curse to the farmers and they have to suffer due to the failure of nature. Therefore, farmers find it difficult to identify good years to repay their debts.

3. Litigation:

Due to land disputes litigation in the court compels them to borrow heavily. Being uneducated and ignorant they are caught in the litigation process and dry away their savings and resources.

4. Money Lenders and High Rate of Interest:

The rate of interest charged by the local money lenders is very high and the compounding of interest leads to perpetuate indebtedness of the farmer.

Chapter 11

II. Very Short Answer Questions:

21. State any two districts with favorable sex ratio. Indicate the ratios.

S.No	District	Sex Ratio (No. of Females per 1000 Males)
1	The Nilgiris	1041
2	Thanjavur	1031
3	Nagapattinam	1025
4	Tirunelveli	1024
5	Thoothukkudi	1024
Source : Census of India, 2011		

22. Define GSDP.

1. The Gross State Domestic Product refers to the total money value of all the goods and services produced annually in the State.
2. Tamil Nadu is the second largest economy (GSDP) in India

23. Mention any four food crops which are favourable to Tamil Nadu.

1. Rice, 2. Kambu, 3. Corn, 4. Groundnut, 5. Oil Seeds 6. Sugarcane

24. What are major ports in Tamil Nadu?

Tamil Nadu has three major ports, - Chennai, Ennore, and Tuticorin

25. What is heritage tourism?

“Heritage tourism is traveling to experience the places, artifacts and activities that authentically represent the stories and people of the past and present. It includes cultural, historic, and natural resources.”

26. What are the nuclear power plants in Tamil Nadu?

The Kalpakkam Nuclear Power Plant and the Koodankulam Nuclear Power Plant are the major nuclear energy plants for the energy grid.

27. Define Micro industry

The guidelines with regard to investment in plant and machinery or equipment as defined in the MSMED Act, 2006 are: Enterprise with a capital investment, not exceeding 25 lakhs is called micro industry

III. Short Answer Questions:

28. Write a note on mineral resources in Tamil Nadu.

- ▲ Tamil Nadu has a few mining projects based on Titanium, Lignite, Magnesite, Graphite, Limestone, Granite and Bauxite.
- ▲ The first one is the Neyveli Lignite Corporation that has led development of large industrial complex around Neyveli in Cuddalore district with Thermal power plants.
- ▲ Magnesite mining is at Salem from which mining of Bauxite ores are carried out at Yercaud and this region is also rich in Iron Ore at Kanjamalai.

29. Explain GSDP in Tamil Nadu.

- ★ Tamil Nadu is the second largest economy in India with a GSDP of \$ 207.8 billion in 2016-17 according to the Directorate of Economics and Statistics, Tamil Nadu.
- ★ The GSDP of Tamil Nadu is equal to the GDP of Kuwait on nominal term and GDP of UAE on PPP terms.
- ★ The GSDP of Tamil Nadu is far higher compared to many countries as shown below. This is mainly due to population effect.

30. Describe development of textile industry in Tamil Nadu.

1. **Tamil Nadu is the largest textile hub of India.**
2. Tamil Nadu is known as the “*Yarn Bowl*” of the country accounting for 41% of India’s cotton yarn production.
3. Employment to an estimated 35 million people
4. The textile sector contributes to 14% of the manufacturing sector.

31. Compare productivity of any two food crops between Tamil Nadu and India.

1. The Government of Tamil Nadu lays emphasis on agricultural production and productivity.
2. As a result, Tamil Nadu tops in productivity, in food crops as well as non-food crops, among the States in India.

32. Explain the prospect for development of tourism.

1. Tamil Nadu has since ancient past been a hub for tourism. In recent years, the state has emerged as one of the leading tourist destinations for both domestic and foreign tourists.
2. The State currently ranks the highest among Indian States with about 25 crore arrivals
3. Approximately 28 lakh foreign and 11 crore domestic tourists visit the State.

33. What are the renewable sources of power in Tamil Nadu?

1. Hydel Energy

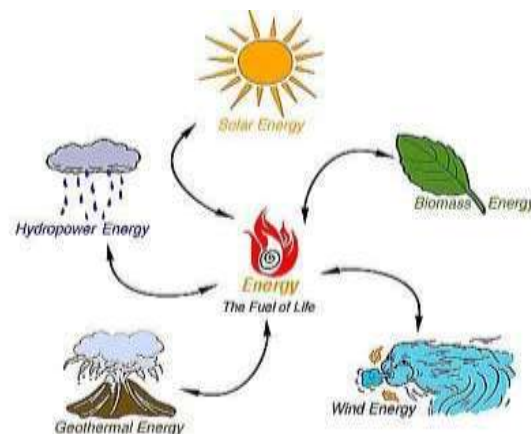
There are about 20 hydro electric units in TamilNadu.
The prominent units are Hundah, Mettur, Periyar, Maravakandy, Parson Valley etc.

2. Solar Energy

Southern Tamil Nadu is considered as one of the most suitable regions in the country for developing solar power projects.

3. Wind Energy

Tamil Nadu has the highest installed wind energy capacity in India. The State has very high quality of off shore wind energy.



34. Describe the performance of Tamil Nadu economy in health.

- ➔ Tamil Nadu has a three – tier health infrastructure comprising hospitals, primary health centres, health units, community health centres and sub-centres.
- ➔ As of March 2015, the State had 34 district hospitals, 229 sub-divisional hospitals, 1,254 primary health centres, 7,555 Sub-centres and 313 community health centres.

IV. Long Answer Questions:

35. Describe the qualitative aspects of population.

Meaning

Quantitative aspects include composition, density, distribution, growth, movement, size, and structure of the population.

1. Sex ratio (Number of female per 1000 males)

Balanced sex ratio implies improvement in quality of life of female population. The sex ratio in Tamil Nadu is nearing balance with 995 which is far better compared to most of the States and all India level.

2. Infant Mortality Rate (mortality before completing 1 year)

3. Maternal Mortality Rate (MMR) (Mother's death at the time of delivery per 1 lakh)

4. Life Expectancy at birth

The average period that a person may expect to live is called life expectancy.

5. Literacy

The literacy rate of Tamil Nadu is higher than in many States.

36. Explain the various sources of energy in Tamil Nadu.

- ❖ Tamil Nadu **tops in power generation** among the southern States
- ❖ Tamil Nadu is in the **forefront of all other Indian States in installed capacity.**
- ❖ There are about **20 hydro electric units in Tamil Nadu.**
- ❖ The **Kalpakkam Nuclear Power Plant and the Koodankulam Nuclear Power Plant** are the major nuclear energy plants for the energy grid.
- ❖ The thermal power plants are at **Athippattu (North Chennai) Ennore, Mettur, Neyveli and Thoothukudi.**
- ❖ Tamil Nadu has the **highest installed wind energy capacity in India.**

37. Explain the public transport system in Tamil Nadu.

Tamil Nadu Public Transport System

Tamil Nadu has a well established transportation system that connects all parts of the State.

- a. Road:** There are 28 national highways in the State, covering a total distance of 5,036 km. It ranks second in India with a share of over 20% in total road projects under operation.

b. Rail: Tamil Nadu has a well-developed rail network as part of Southern Railway, Headquartered at Chennai. Tamil Nadu has a total railway track length of 6,693 km and there are 690 railway stations in the State.

d. Ports: Tamil Nadu has three major ports; one each at Chennai, Ennore, and Tuticorin, as well as one intermediate port in Nagapattinam, and 23 minor ports.

Chapter 12

II. Very Short Answer Questions:

21. If $62 = 34 + 4x$ what is x ?

Solution :

$$62 = 34 + 4x$$

$$62 - 34 = 4x$$

$$28 = 4x$$

$$x = \frac{28}{4}$$

$$\therefore x = 7$$

22. Given the demand function $q = 150 - 3p$, derive a function for MR.

Solution :

Demand function $q = 150 - 3p$, MR = ?

$$\frac{dq}{dp} = -3$$

$$\eta_d = \frac{-p}{q} \frac{dq}{dp} = \frac{-p}{150-3p} (-3)$$

$$= \frac{3p}{150-3p}$$

$$MR = p \left[1 - \frac{1}{\eta_d} \right] = p \left[1 - \frac{1}{\frac{3p}{150-3p}} \right]$$

$$= p \left[1 - \frac{(150-3p)}{3p} \right]$$

$$= p \left[\frac{3p-150+3p}{3p} \right]$$

$$= p \left[\frac{6p-150}{3p} \right]$$

$$= \frac{6}{3} [p-25]$$

$$= 2[p-25]$$

$$\boxed{MR = 2p - 50}$$

23. Find the average cost function where

$$TC = 60 + 10x + 15x^2.$$

[BE]

Solution :

$$TC = 60 + 10x + 15x^2$$

$$\text{Formula} = \frac{TC}{x}$$

$$\text{Average cost function} = \frac{60}{x} + \frac{10x}{x} + \frac{15x^2}{x}$$

$$= \frac{60}{x} + 10 + 15x$$

24. The demand function is given by $x = 20 - 2p - p^2$ where p and x are the price and the quantity respectively. Find the elasticity of demand for $p = 2.5$

[Govt. MQP-2018]

Solution :

$$\eta_d = \frac{p}{x} \frac{dx}{dp}$$

$$\frac{dx}{dp} = -2 - 2p$$

$$\eta_d = \frac{-p}{20-2p-p^2} (-2-2p)$$

$$= \frac{2p(p+1)}{20-2p-p^2}$$

When $p = 2.5$

$$\eta_d = \frac{2(2.5)(1+2.5)}{20-2(2.5)-(2.5)^2}$$

$$= \frac{5(3.5)}{20-5-6.25}$$

$$= \frac{17.5}{15-6.25}$$

$$\eta_d = \frac{17.5}{8.75}$$

$$\boxed{\text{Ans.} = 2}$$