

4 AGRICULTURE

CONCEPT

- Agriculture means land cultivation. It also includes animal husbandry and fishing.
- At present in different parts of India, the types of farming being carried out are primitive subsistence farming, intensive subsistence farming and commercial farming.
- Primitive subsistence farming is characterised by small and scattered landholdings and use of primitive tools. The farmers do not use fertilisers and high-yielding varieties of seeds.
- Intensive subsistence farming is carried out in the areas with high population pressure on land. Irrigation, fertilisers and pesticides are used to get maximum output from limited land. Various machines are introduced.
- Commercial farming is characterised by use of higher doses of modern inputs in order to obtain higher productivity.
- Plantation farming, a form of commercial farming, involves growing of a single crop on a large area.
- In India, there are three crop seasons —
 - Kharif, Rabi, Zaid.
 - Kharif — It starts with the onset of the monsoon and continues till the beginning of winter (June-July to September-October). The kharif crops include rice, maize, millet, cotton, jute, groundnut, moong, urad, etc.
 - Rabi — It starts with the beginning of winter and continues till the beginning of summer (October-December to April-June). The rabi crops include wheat, barley, gram and oilseeds.
 - Zaid — This is a short crop season in between the rabi and the kharif season. Crops like watermelons, muskmelons, cucumber, some vegetables and fodder crops are the major crops.
 - India produces a wide variety of crops, namely cereals, pulses and oilseeds, fibre crops, beverage crops, cash crops.
 - Cereals — It covers about three-fourth of the total cropped area of the country. The principal cereals grown in India are — rice, wheat, millets, maize, pulses.
 - Rice — It requires a temperature between 20° to 27°C and a rainfall above 100 cm.
 - Wheat — It requires a temperature between 16° to 22°C and a rainfall between 50-75 cm.
 - Millets — Jowar, Bajra, Ragi.
 - Fibre crops — Cotton and jute are the two important fibre crops grown in India.
 - Beverage crops — Tea and coffee are important beverage crops.
 - Cash crops — The major cash crops are sugarcane, rubber, tobacco, spices and fruits and vegetables.
 - Persian wheel has been replaced by water pump, the plough by tiller and harrow drawn by tractor, the bullock cart by truck.

- Flooding of fields is being replaced by drip irrigation. Chemical fertilisers took the place of farm manure.
- Chemical fertilisers are being replaced by bio-fertilisers.
- The technological advancements gave birth to Green Revolution, White Revolution or Operation Flood.
- The Government abolished the Zamindari system.
- Radio and television inform the farmers about the new improved techniques of farming.
- Rural banks, cooperative societies and Kisan Credit Card ensure easy availability of funds to farmers.
- Agriculture is the backbone of the Indian economy.
- Considering the importance of agriculture the Government of India took steps to modernise agriculture.
- Indian Council of Agricultural Research (ICAR) was established.
- Indian farmers are facing a big challenge from international competition but our government is going ahead with reduction in the public investment in agriculture sector, particularly in irrigation power, rural roads, market and mechanisation.
- The foodgrain production has increased from 51 million tonnes in 1950-51 to 209.8 million tonnes in 1999-2000.
- A food stock of 44.7 million tonnes had been accumulated in 2001.
- In spite of the surplus foodgrains, many Indians do not have enough money to feed themselves.
- There has been a gradual shift from cultivation of food crops to cultivation of fruits, vegetables, oilseeds and crops which also act as industrial raw material.
- In 2000-01, India produced only 196.8 million tonnes of foodgrain.
- The use of more and more land for construction of factories, warehouses and shelters has reduced the land under cultivation and new fertile land for farming is no longer available.
- Fertilisers, pesticides and insecticides which once showed a dramatic result are now being held responsible for degrading soils.
- Periodic scarcity of water has led to reduction in area under irrigation. Inefficient water management has led to waterlogging and salinity.
- Biotechnology can be used to modify different crops genetically to increase the yield per hectare.
- Biotechnology is environmentally safe and sustainable.
- Globalisation is based on the philosophy of free and open international trade.
- Globalisation ensures that good quality goods at competitive prices alone will survive in the market.
- India has an abundance of human labour. Every effort will have to be made to raise their efficiency and equip them with new and advanced tools, implements and machines to enable them to compete with their counterparts in other parts of the world.
- India will have to develop techniques which the developed countries have been using.
- An unrestricted united national market for farm products within the country must be set up. This will require the development of roads, electricity, irrigation and credit facilities to farmers and traders.

I. SUMMATIVE ASSESSMENT

A. NCERT TEXTBOOK QUESTIONS

Q.1. Choose the right answer from the four alternatives given below :

Ans. (b)

Ans. (b)

Ans. (b)

- (iv) Which one of the following is announced by the government in support of a crop?

 - (a) Maximum support price
 - (b) Minimum support price
 - (c) Moderate support price
 - (d) Influential support price

Ans. (b)

Q.2. The land under cultivation is getting reduced day-by-day. Can you imagine its consequences?

Ans. Agriculture has been the backbone of the Indian economy and provides employment and livelihood to about two-thirds of its population.

Taking into consideration the importance of agriculture, the reduction of land under cultivation has serious consequences. Diversion of land for non-agricultural use like housing, industries, etc., has resulted in reduction of net sown area and a declining trend in productivity. As such foodgrain as well as commercial crop production is declining. This will lead to :

- (a) Food shortage for the rising population.
 - (b) Rise in price unaffordable for poor people.
 - (c) Unemployment and loss of livelihood for farmers
 - (d) Shortage of supply of raw material for agro-industries.
 - (e) Adverse affect on export trade as agricultural products comprise a major section of international trade.
 - (f) Strain on foreign exchange reserves as more agricultural goods will have to be imported.

Q.3. Name one important beverage crop and specify the geographical conditions required for its growth. Name the areas of its production.

OR

Explain the favourable temperature, rainfall and soil conditions required for the growth of tea. Name the leading tea-producing states.

Ans. Tea is an important beverage crop of India. India is the leading producer as well as exporter of tea in the world. Favourable geographical conditions for growth of tea are as follows :

- (i) **Climate :** The tea plant grows well in tropical and subtropical climate. Tea bushes require warm (temperature between 20°C to 30°C), moist (annual rainfall of 150 – 250 cm) and frost-free climate throughout the year. Frequent showers evenly distributed throughout the year ensure continuous supply of tender leaves.
- (ii) **Soil :** Deep fertile, well-drained soil, rich in humus and organic matter are ideal for its growth. Hence, rolling topography is favourable for its cultivation.

Tea is grown in big plantations originally introduced by the British. The major tea-producing areas are in Assam and hills of Darjeeling and Jalpaiguri district in West Bengal. Tamil Nadu, Andhra Pradesh, Kerala in the south, Himachal Pradesh, Uttarakhand, Meghalaya and Tripura are other tea-producing states

Q.4. What was the impact of partition on the jute industry in India? What has led to decline in Jute production in recent times?

OR

How did the partition of the country in 1947 affect the jute industry ? What factors have resulted in decline of jute production in recent years?

Ans. The partition of the country in 1947 caused serious problems for the jute industry. The industrial units for jute production remained in India while the raw jute producing areas went to Bangladesh. Hence, initially there was a serious shortage of raw material for the jute industry, and it suffered considerably. Gradually, the floodplains of Ganga, especially the Hooghly basin, Mahanadi and Brahmaputra basin were brought under jute cultivation to provide raw material for jute textile industry.

In recent years high cost of jute as compared to synthetic fibres has led to decline in jute production. Due to this, jute is losing market to synthetic fibres and packing materials, particularly the nylon. In face of competition, from substitutes and from other countries like Bangladesh and Thailand, jute is losing demand and hence, its production is declining.

Q.5. Name one staple crop of India and the regions where it is produced. Describe the geographical conditions required for its growth.

OR

Which is the staple crop for majority of the people in India? What are the geographical conditions required for its growth. Name the major areas of its production.

OR

Describe the temperature, rainfall and soil conditions for the growth of rice. Name the major areas of rice production.

Ans. Rice is the staple foodcrop of a majority of the people in India. It is their main cereal and is a part of their everyday diet. India is the second largest producer of rice after China. It is grown on the plains of north and northeastern India, coastal areas and deltaic regions. West Bengal, Assam, Orissa, Bihar, eastern Uttar Pradesh, parts of Andhra Pradesh and Tamil Nadu and some parts of Chhattisgarh, Jharkhand and eastern Madhya Pradesh are the major areas of rice production. In Punjab, Haryana, Western Uttar Pradesh and parts of Rajasthan, rice is grown as commercial crop with the help of irrigation.

The geographical conditions required for growth of rice are as follows :

- (i) It is a kharif crop and requires hot and humid climate for cultivation. Temperature above 25°C and high humidity with annual rainfall above 100 cm are favourable for growth of rice.
- (ii) Rich alluvial soils of the floodplains and deltaic areas which are renewed every years are ideal for rice cultivation.
- (iii) Rice requires abundant rainfall or good water supply through irrigation and flooded fields during the earlier part of its growing season in June-July.
- (iv) Plenty of cheap labour as most of the farming involves manual labour.

Q.6. After Independence what steps were taken by government to increase agricultural production. What is Green Revolution? What programmes were launched in 1980s and 1990s for improvement of agriculture?

OR

Suggest the initiative taken by the government to ensure the increase in agricultural production.

Ans. The government has taken various steps since independence to increase agricultural production to meet the needs of its growing population.

Collectivisation, consolidation of holding, cooperation and abolition of zamindari, etc, were given priority to bring about institutional reforms in the country after independence. Land reform is the collective term for these institutional reforms introduced to make farming economic and was the main focus of our First Five Years Plan.

The Government embarked upon introducing agricultural reforms to improve Indian agriculture in 1960s. Green Revolution involving use of package technology was introduced in 1960s and 1970s with this initiative. Use of modern inputs like High Yielding Variety (HYV) seeds, chemical fertilisers, insecticides and pesticides along with use of farm machineries and irrigation, were initiated to increase yield per acre. It led to significant improvement in agricultural production. The White Revolution (Operation Flood) was another strategy adopted along with it to increase milk production.

Concentration of development in few selected areas due to Green Revolution and other problems associated with it led to launching of Comprehensive Land Development Programmes in 1980s and 1990s. It included both institutional and technical reforms aimed at improving agriculture. Some important steps included in the programme are :

- (a) Provision of crop insurance against flood, drought, cyclone, fire, diseases.
- (b) Establishment of Grameen banks, cooperative societies and banks for providing loan facilities to farmers at lower rates.

Special weather bulletin and agricultural programmes for farmers were introduced on the radio and television. Establishment of the Indian Council of Agricultural Research (ICAR), agricultural universities, veterinary services and animal breeding centres, horticulture development, research and development in the field of meteorology and weather forecast and improvement of rural infrastructure etc, were given priority for improving Indian agriculture and raising its productivity.

Q.7. What is the importance of using high yielding variety of seeds, machines and other technological advancements in increasing the agricultural production? Enlist the various

institutional reform programmes introduced by the government in the interest of farmers.

Ans. High Yielding Variety of seeds and machines form the basis of modernisation of agriculture. The Government of India has opened agricultural universities, agricultural research institutes, agricultural farms and demonstration farms. There, the seeds are improved and demonstration is given to the farmers for use of fertilisers and improved seeds. They are trained to adopt new farm machineries to increase agricultural production.

Farmers get these inputs on subsidised rates and on loan basis. This helps them to adopt these modern inputs to increase agricultural productivity.

Various institutional reform programmes introduced by the government in interest of the farmers are :

- (i) Provision for crop insurance against drought, flood, cyclone, fire, and diseases.
- (ii) Establishment of Grameen Banks, cooperative societies and banks for providing loan facilities to farmers at lower interest rates.
- (iii) Kisan Credit Card, Personal Accident Insurance Scheme.
- (iv) Special weather bulletins and agricultural programmes for farmers on television and radio.
- (v) Announcement of minimum support price, remuneration and procurement prices for important crops to check the exploitation of farmers by speculators and middlemen.

OTHER IMPORTANT QUESTIONS (AS PER CCE PATTERN)

B. MULTIPLE CHOICE QUESTIONS (1 MARK)

Q.1. Which of the following is the most important occupation of the people of India?

- (a) Food gathering
- (b) Agriculture
- (c) Manufacturing
- (d) Services

Ans. (b)

Q.2. Which of the following types of economic activity is agriculture?

- (a) Primary activity
- (b) Secondary activity
- (c) Tertiary activity
- (d) All the above

Ans. (a)

Q.3. What is Primitive Subsistence Farming known as in north-eastern states like Assam, Meghalaya, Mizoram and Nagaland?

- (a) Horticulture
- (b) Penda
- (c) Jhumming
- (d) Milpa

Ans. (c)

Q.4. Which of the following types of farming is practised in areas with high population pressure on land?

- (a) Primitive Subsistence Farming
- (b) Intensive Subsistence Farming
- (c) Commercial Farming
- (d) Plantations

Ans. (b)

Q.5. Which of the following is the principal crop grown in areas of Intensive Subsistence Farming?

- (a) Yams and Sweet Potato
- (b) Wheat
- (c) Rice
- (d) Cotton

Ans. (c)

Q.6. Rice is a subsistence crop in Orissa. In which of the following states, is rice a commercial crop?

Ans. (c)

Q.7. Which of the following is a kharif crop?

- (a) Barley (b) Peas (c) Bajra (d) Mustard

Ans. (c)

Q.8. Which of the following crops is produced during zaid cropping season?

- (a) Sugarcane (b) Muskmelon (c) Groundnut (d) Moong

Ans. (b)

Q.9. How many crops of paddy are grown in a year in the states like Assam, West Bengal and Orissa and they are termed as which of the following?

Ans. (c)

Q.10. Which of the following is an annual crop?

- (a) Sugarcane (b) Cotton (c) Jute (d) Cucumber

Ans. (a)

Q.11. Which of the following are known as coarse grains?

Ans. (b)

Q.12. Which of the following crop is used both as a food and as a fodder?

Ans (c)

Q.13. India is the largest producer as well as the consumer of which of the following crops?

- (a) Rice (b) Millets (c) Pulses (d) Oilseeds

Ans (c)

Q.14. Which of the following crops is the main source of jaggery, khandsari and molasses?

- (a) Arhar (b) Coconut (c) Linseed (d) Sugarcane

Ans. (d)

O.15. Which of the following countries is the largest producer of oilseeds?

Ans. (c)

Q.16. Which of the following is a kharif crop and accounts for about half of the major oilseeds produced in the country?

- (a) Mustard (b) Coconut (c) Groundnut (d) Soyabean

Ans. (c)

Q.17. Which of the following group of crops are known as beverage crops?

Ans. (d)

Q.18. Tea cultivation is an example of which of the following types of agriculture?

Ans. (b)

Q.19. Which of the following are known as horticulture crops?

Ans. (d)

Q.20. India is believed to be the original home of which of the following fibre crops?

- (a) Cotton (b) Jute (c) Hemp (d) Silk

Ans. (a)

Q.21. White Revolution involves improvement in the production of which of the following products?

Ans. (d)

Q.22. Which of the following is the primary objective of India's food security policy?

- (a) To ensure availability of foodgrains to the common people at an affordable price.
 - (b) To diversify crop production to increase income of the farmers.
 - (c) To provide insurance against crop failures.
 - (d) To shift from foodgrain production to commercial crops.

Ans. (a)

PREVIOUS YEARS' QUESTIONS

Q.1. Which one is an important rabi crop?

[2010 (T-1)]

- (a) Paddy (b) Watermelon (c) Wheat

Ans. (c)

Q.2. Which among the following is a fibre crop?

[2010 (T-1)]

Ans. (b)

Q.3. Of which one of the following beverage crops, India is the leading producer as well as exporter in the world? [2010 (T-1)]

- (a) Coffee (b) Pulses (c) Tea (d) Curd

Ans. (c)

Q.4. Which one of the following is the feature of plantation agriculture? [2010, 2011 (T-1)]

- (a) Single crop (b) Large area

It fulfills man's primary needs of food and clothing. It is the oldest, settled primary activity of man. It also produces raw materials for industries and products for export.

Over the years, cultivation methods have changed significantly depending upon the characteristics of physical environment, technological know-how and socio-cultural practices. With progress of time, man has improved and modernised the methods of cultivation. Depending upon the climate, environment, needs of the people and the agricultural tools and equipments they possess, different cultivation methods prevail in different parts of India and the world. They range from subsistence to commercial types. They are as rudimentary as shifting cultivation to as sophisticated as plantations and horticulture.

Q.2. What is plantation farming? What are its main characteristics? Name some plantation crops.

Ans. Plantation farming is a type of commercial agriculture in which a single crop is grown on a large scale and processed for the purpose of sale. This type of farming is mainly prevalent in the tropical and sub-tropical areas. In India plantation farming was introduced by the British. The main characteristics of Plantation farming are as follows:

- (i) A single crop is grown on a large area covering large tracts of land.
- (ii) Capital intensive inputs are used.
- (iii) Use of managerial staff and technical know-how
- (iv) Cheap, local and migrant labourers are employed.
- (v) Require well-developed transport network
- (vi) Produces special market-oriented products.

In India, tea, coffee, rubber, sugarcane, banana, etc., are the main plantation crops.

Q.3. What are millets? Why are millets very important food crops in India?

OR

Write a short note on the important millets grown in India.

Ans. Jowar, bajra and ragi are the important millets grown in India. They can grow in harsh climatic conditions with low rainfall and poor soils. Due to greater roughage content among the nutrients present they are called coarse grains.

They are important food crops after rice and wheat. Inspite of being coarse grains they have very high nutritional value and are known as the poor man's cereal.

Jowar is the third most important food crop of India with respect to area and production. It is a rain-fed kharif crop, mostly grown in the moist areas which hardly need irrigation. Maharashtra is the largest producer of jowar, followed by Karnataka, Andhra Pradesh and Madhya Pradesh.

Bajra grows well on sandy soils and shallow black soil. Rajasthan is the largest producer, followed by Uttar Pradesh, Maharashtra, Gujarat and Haryana.

Ragi is very rich in iron, calcium and other micro-nutrients and roughage. It grows in dry regions in areas of red, black, sandy, loamy and shallow black soil. Karnataka is the largest producer, followed by Tamil Nadu, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh and Jharkhand.

Q.4. Why are some pulses known as leguminous crops? Why are they grown in rotation with other crops? Name the major pulses grown in India and the states leading in their production.

Ans. Pulses are leguminous crops. In these plants the seeds are found inside pods and the root nodules have the capacity of nitrogen fixation in the soil.

As pulses are leguminous crops, and all of these except *tur* or *arhar* help in restoring soil fertility by fixing and using nitrogen from the air in the soil. Therefore, pulses are grown in rotation with other crops.

Urad, moong, masur, peas, gram and tur (arhar) are the major pulses grown in India. Madhya Pradesh, Uttar Pradesh, Rajasthan, Maharashtra and Karnataka are the major pulse-producing states of India.

Q.5. Define sericulture and horticulture. What is India's position in production of horticulture crops?

Ans. Silk farming, i.e. rearing of silk worms for the production of silk fibre, is known as sericulture. Mulberry trees are planted and silk worms are fed on their green leaves. Silk fibre is obtained from the cocoons of the silkworms.

Horticulture is a branch of agriculture concerned with the cultivation of garden plants – generally fruits, vegetables, flowers and ornamental plants which are used for landscaping.

India is the largest producer of fruits and vegetables in the world. India is a producer of tropical as well as temperate fruits. Tropical fruits like mangoes, oranges, bananas, lichi, guava, pineapples, grapes and temperate fruits like apples, pears, apricots, grow in various parts of the country and are in great demand all over the world.

About 13 percent of the world's vegetables are produced by India. India is an important producer of pea, cauliflower, onion, cabbage, tomato, brinjal and potato.

D. LONG ANSWER TYPE QUESTIONS (4 MARKS)

Q.1. Distinguish between Intensive Subsistence Farming and Commercial Farming.

Ans. The main points of distinction between the two main types of farming – Intensive Subsistence Farming and Commercial farming prevalent in various parts of India and the world are as follows :

Intensive Subsistence Farming	Commercial Farming
(i) This type of farming is practised in areas of high population pressure on land. (ii) Farmers and his family produce mainly cereal crops for subsistence of the family and for local market. (iii) It is a labour intensive agriculture. (iv) Farms sizes are small and uneconomical due to fragmentation of land holding on account of 'right of inheritance'. (v) Farmers try to take maximum output from the limited land in absence of alternative	(i) This type of farming is practised in areas of low population density. (ii) Crops are grown in large scale for commercial purposes, and for export to other countries. (iii) It is capital intensive requiring high application of modern inputs. (iv) Farm sizes are large for use of modern machineries and for large scale production. (v) Farmers earn huge profits from commercial agriculture due to sale of crops.

<p>source of livelihood.</p> <p>(vi) Farmers use high dose of biochemical inputs and irrigation to increase productivity.</p> <p>(vii) Cereals like rice, wheat, millets are mainly grown.</p> <p>(viii) It is practised in most parts of India, mainly in east and south even today.</p>	<p>(vi) Modern inputs like high-yielding variety (HYV) seeds, chemical fertilisers, insecticides and pesticides are used to obtain higher productivity.</p> <p>(vii) Wheat, cotton, sugarcane, oilseeds, tea and coffee are grown.</p> <p>(viii) This type of farming is mainly practised in Punjab, Haryana, Gujarat, Maharashtra and Western Uttar Pradesh</p>
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Q.2. Describe the geographical conditions for growth of cotton. Name the major areas of its production. Why is West Bengal the leading producer of Jute, the second important fibre crop of India?

OR

Which are the important fibre crops of India? Mention the major producing areas of each crop. Write about the geographical conditions required for the growth of the most important fibre crop.

Ans. Cotton, jute, hemp and natural silk are the major fibre crops of India. The geographical conditions required for the growth of cotton, the most important fibre crop of India are as follows :

Cotton is a kharif crop and requires high temperature, light rainfall or irrigation, 210 frost free days and bright sunshine for its growth. Rainfall at the time of bursting of the cotton balls is harmful as it spoils the cotton balls.

Cotton grows well in drier parts of the black soil area of the Deccan plateau. Black soil is also known as black cotton soil due to the fact that it is ideal for growth of cotton.

The major cotton-producing states of India are Maharashtra, Gujarat, Madhya Pradesh, Karnataka, Andhra Pradesh, Tamil Nadu, Punjab, Haryana and Uttar Pradesh.

Jute is the second most important fibre crop of India. West Bengal, especially the Hooghly basin of the state, is the leading jute-producing area of the country on account of the well-drained fertile soil of the floodplain which are renewed every year. Also the climatic condition with high temperature during time of growth and sufficient availability of water have favoured jute cultivation in the Hooghly basin of West Bengal. Bihar, Assam, Orissa and Meghalaya are the other jute-producing states.

Q.3. What are the main cropping seasons of India? Distinguish between them.

Ans. There are three cropping seasons in India—rabi, kharif and zaid.

Rabi	Kharif	Zaid.
<ul style="list-style-type: none"> (i) Winter cropping season is known as Rabi. (ii) Rabi crops are sown in winter from October to December. (iii) The crops are harvested in summer from April to June. 	<ul style="list-style-type: none"> (i) Wet summer cropping season is known as Kharif. (ii) Kharif crops are grown with the onset of monsoon in June. (iii) The crops are harvested in September-October. 	<ul style="list-style-type: none"> (i) Dry summer cropping season is known as Zaid. (ii) Zaid is a short intervening cropping season in between rabi and kharif season (iii) The crops are grown in summer months (March to May).

(iv) Availability of precipitation during winter months due to western disturbances helps in the success of these crops. (v) Wheat, barley, peas, gram and mustard are examples of crops growing in Rabi season.	(iv) These crops have high water requirement either from monsoon rain or by irrigation. (v) Paddy, maize, jowar, bajra, tur (arhar) moong, urad, cotton, jute, groundnut and soyabean are examples.	(iv) They are irrigated crops. (v) Watermelon, muskmelon, cucumber, vegetables and fodder crops are examples of crops growing in Zaid season.
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Q.4. Look at the picture carefully and answer the questions that follow :



- (i) Name the crop shown in the picture.
- (ii) State the climatic conditions required for cultivation of this crop.
- (iii) Name the two major regions growing this crop.

Ans. (i) The crop shown in the picture is sugarcane.

- (ii) **The climatic conditions required for its growth :** Sugarcane is a crop of tropical and sub-tropical climate. It grows well in hot and humid climate with temperature of 21°C to 27°C and an annual rainfall between 75 cm and 100 cm. Frost is injurious for the plant. Heavy rainfall before ripening decreases sucrose content. Hence, frost-free weather, short, cool, dry winter during ripening and harvesting is favourable.
- (iii) Uttar Pradesh and Maharashtra are two major producing states of sugarcane.

Q.5. Explain briefly any four features of intensive subsistence farming in India.

Ans. Four features of intensive subsistence farming in India are as follows :

- (i) This type of farming is practised in areas of high population pressure on land, mainly in the east and south of India. Intensive Subsistence farming is dominant in West Bengal, Assam, Orissa, Bihar, eastern Uttar Pradesh and coastal areas of Andhra Pradesh, Tamil Nadu and Kerala. There is tremendous pressure on agricultural land in these areas.
- (ii) Farmer and his family produce mainly cereal crops like rice and millets for subsistence and for local market.

<p>source of livelihood.</p> <p>(vi) Farmers use high dose of biochemical inputs and irrigation to increase productivity.</p> <p>(vii) Cereals like rice, wheat, millets are mainly grown.</p> <p>(viii) It is practised in most parts of India, mainly in east and south even today.</p>	<p>(vi) Modern inputs like high-yielding variety (HYV) seeds, chemical fertilisers, insecticides and pesticides are used to obtain higher productivity.</p> <p>(vii) Wheat, cotton, sugarcane, oilseeds, tea and coffee are grown.</p> <p>(viii) This type of farming is mainly practised in Punjab, Haryana, Gujarat, Maharashtra and Western Uttar Pradesh</p>
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- (iii) **Ceiling on ownership:-** Now there is limit on the ownership a farmer can have land in his name.

Q.4. Differentiate between the kharif and rabi crops.

[2010 (T-1)]

Ans.	KHARIF CROP	RABI CROPS
	<ul style="list-style-type: none"> (i) These crops are sown on the onset of monsoon. (ii) These crops require lot of water. (iii) Rice, maize, jowar, bajra etc. are main kharif crops. (iv) These are harvested in winter. 	<ul style="list-style-type: none"> (i) These crops are sown on the onset of winter season. (ii) These require moderate water. (iii) Wheat, barley, poes, gram, etc. (iv) Crops are harvested in summer.

Q.5. Compare the geographical conditions, required of the two major cereal crops in India, rice and wheat. Give one major area where they are grown. [2010, 2011 (T-1)]

Ans. Two major cereal crops of India are – Rice and wheat

Geographical condition for growing Rice:-

Temperature — high temperature above 25° C- and high humidity.

Rainfall — Above 100 cm annually or assured irrigation

Soil — Alluvial types of soil is good

Region — Coastal region Haryana and Punjab, Bihar, W. Bengal, Orissa

Wheat :-

Temperature — It requires cool growing season and bright sunshine at the time of ripening. Between 15°C To 30°C

Rainfall — 50 to 75 cm annual rainfall

Soil — Alluvial soil

Region — U.P., Haryana, Punjab

Q.6. State any four geographical conditions required for tea cultivation. [2010, 2011 (T-1)]

Ans. Geographical requirement for growing tea :-

(i) **Temperature** — Tea bushes requires warm and moist frost free climate all through the year.

(ii) **Soil** — It requires deep and fertile, well drained soil rich in humus and organic matter.

(iii) **Rainfall** — Frequent showers evenly distributed over the year.

Q.7. What geographical conditions are required for the cultivation of sugarcane? Name two largest producing states of sugarcane. [2010 (T-1)]

Ans. Geographical requirement for sugarcane :-

(a) **Climate** :- It is a tropical crop and it grows well in hot and humid climate with a temperatures of 21°C to 27°C.

(b) **Rainfall** :- Annual rainfall should be between 75 cm and 100 cm, irrigation needed where low rainfall takes place.

(c) **Soil** :- Alluvial soil is best suited

Region :- Uttar Pradesh and Maharashtra are the two largest producers of sugarcane.

Q.8. Describe any four features of Agriculture in India.

[2010, 2011 (T-1)]

Ans. Four features of Indian agriculture :-

- (i) Indian agriculture is the backbone of Indian economy. Its share in overall employment job is more than 60%
- (ii) Most of agriculture fields are small and scattered.
- (iii) Indian agriculture is largely dependent on Monsoons. A good Monsoon ensures
- (iv) Most of the agriculture is subsistence type. Large plantation farming is absent.

Q.9. State the geographical conditions required for growing rice and cotton.

[2010, 2011 (T-1)]

Ans. For rice, see Q. No.5.

Geographical requirement for cotton :-

- (i) Temperature — It requires high temperature
- (ii) Rainfall — Light rainfall, or irrigation
- (iii) Soil — Black soil is most suitable
- (iv) Region — Gujarat, Maharashtra etc

Q.10. Name the four fibre crops grown in India. Which one of them is not obtained directly from the crops? What is the name given to the process involved in its production?

[2010 (T-1)]

Ans. Four fibre crops are :-

- (i) Jute (ii) Cotton (iii) Hemp (iv) Natural silk

Natural silk fibre is not obtained directly from the crop.

It is called sericulture. In this silk is obtained from cocoons of the silkworm fed on green leaves specially mulberry.

Q.11. Why has Indian agriculture started a declining trend in food production? Explain any four reason.

[2010, 2011 (T-1)]

Ans. Due to the following reasons food production is declining :—

- (i) There has been a gradual shift from cultivation of food crops to cultivation of cash crops, fruits vegetable, etc.
- (ii) Area under food crop has reduced due to rapid urbanisation.
- (iii) More areas are being demanded for housing, setting up industries. etc.
- (iv) The productivity of land is also declining due to heavy use of chemical fertilizers and pesticides. The Green Revolution has outlived its utility.
- (v) Natural calamities like drought and flood have become frequent. Monsoon is still vital for food production.

Q.12. Mention the geographical conditions for the growth of wheat. Name the major areas of wheat production.

(2010)

OR

Which is the staple crop in the northern and north-western part of India? Describe the temperature, rainfall and soil conditions required for its growth. Name the major areas of its production.

Ans. Wheat is the main food crop in north and north-western part of the country.

The geographical conditions favourable for growth of wheat are as follows :

- (1) **Temperature** : Wheat is a rabi crop and requires a cool growing season. Average temperature should be between 10°C to 15°C at the time of sowing, but higher temperatures and bright sunshine is required at the time of harvesting for proper ripening of grains.
- (2) **Rainfall** : Wheat requires moderate rainfall of 50 to 75 cm annually, evenly distributed over the growing season. A little winter rain before ripening helps in increasing the yield.
- (3) **Soil**. Deep alluvial clayey soils of Northern Plains and even black soil of Deccan are suited for growth of wheat.

There are two important wheat-growing zones in the country – the Ganga-Satluj plains in the north-west and black soil region of the Deccan. Punjab, Haryana, Uttar Pradesh, Bihar, Rajasthan and parts of Madhya Pradesh are the major wheat growing states.

Q.13. Write four geographical requirements each for the growth of tea and sugarcane. [2010]

Ans. Tea is the main beverage crop of India. Four geographical requirements for its growth are :

- (a) The tea plant grows best in tropical and sub tropical climate.
- (b) Tea bushes require warm and moist and frost free climate with temperature between 20°C to 30°C and annual rainfall of 150 to 250 cm.
- (c) Frequent showers evenly distributed over the year ensure continuous growth of tender leaves.
- (d) Deep, fertile, well-drained soil, rich in humus and organic matter are ideal for its growth. Hence, gently rolling topography in uplands is favourable for its cultivation.

Four geographical conditions required for growth of sugarcane are :

- (a) Sugarcane grows best in tropical and sub-tropical climate. It is an annual crop requiring a year for maturing.
- (b) It grows well in hot and humid climate with temperature of 21°C to 27°C and an annual rainfall between 75 cm and 100 cm.
- (c) Frost is injurious for the plant and rainfall before ripening decreases sucrose content. Hence, frost free weather short, cool, dry winter during ripening and harvesting is favourable.
- (d) It can grow on a variety of soil, but clayey alluvial soil of Northern Plains and black soil in south are ideal for its growth.

Q.14. State any four characteristics of commercial farming in India. [2011 (T-1)]

Ans. Four characteristics of commercial farming in India are as follows.

- (i) Crops are grown on a large scale in large farms or plantations for commercial purposes and for export to other countries.
- (ii) It is capital intensive farming requiring high application of modern inputs.
- (iii) Modern inputs like high yielding variety (HYV) seeds, chemical fertilisers, insecticides and pesticides are used to obtain higher productivity. Irrigation is applied to meet water requirement.
- (iv) Commercial farming is mainly practised in states with less population pressure like. Punjab, Haryana, Gujarat, Maharashtra and western Uttar Pradesh. Wheat, cotton, sugarcane, oilseeds, tea and coffee are grown under commercial farming.

Q.15. Look at the given picture carefully and answer the questions that follow :

(2009)

- (i) Name the crop shown in the picture.
- (ii) State the climatic conditions required for cultivation of this crop.
- (iii) Name the two major regions growing this crop.

Ans. (i) The crop shown in the picture is paddy or rice, the main staple foodgrain for majority of the people in India.

- (ii) The climatic conditions required for cultivation of rice are as follows :

Rice is a Kharif crop and requires hot and humid climate for cultivation. Temperature above 25°C, and high humidity with annual rainfall above 100 cm are favourable for cultivation of rice.

Rice requires sufficient rainfall and flooded fields during the earlier part of its growing season in June-July. It needs plenty of sunshine.

- (iii) Two major regions of rice production are :

- (a) The Ganga-Brahmaputra Plains of north and northeastern India comprising West Bengal, Assam, Bihar and eastern Uttar Pradesh.
- (b) Coastal areas and deltaic regions with alluvial soil like Orissa, and parts of Andhra Pradesh and Tamil Nadu.

Q.16. Explain rubber cultivation in India under the following heads.

[2011 (T-1)]

- (a) Importance (b) Geographical conditions (c) Any two rubber producing states

Ans. (a) Rubber is an important industrial raw material. Tyres, tubes of vehicles and other rubber products are made from natural rubber.

(b) It is an equatorial crop but grown under special conditions. It is also grown in tropical and sub-tropical areas. It requires moist and humid climate with rainfall of more than 200 cm and temperature above 25°C.

(c) Rubber is mainly grown in Kerala and Tamil Nadu.

Q.17. Explain rice cultivation in India under the following heads.

[2011 (T-1)]

- (i) Temperature (ii) Rainfall (iii) Season (iv) Main producing areas

Ans. (i) Rice is a Kharif crop requiring high temperature (above 25°C).

(ii) Rice requires high humidity with annual rainfall above 100 cm. In the regions of less rainfall, it grows with the help of irrigation.

(iii) Rice is sown/planted with the onset of monsoon and harvested in November-December.

(iv) It is mainly grown in Bihar, Bengal, Orissa, eastern U.P., Assam, Tamil Nadu.

Q.18. Explain any four features of primitive subsistence agriculture in India. [2011 (T-1)]

Ans. (i) This type of farming is practised on small patches of land with the help of primitive tools like hoe, dao and digging sticks and family labour.

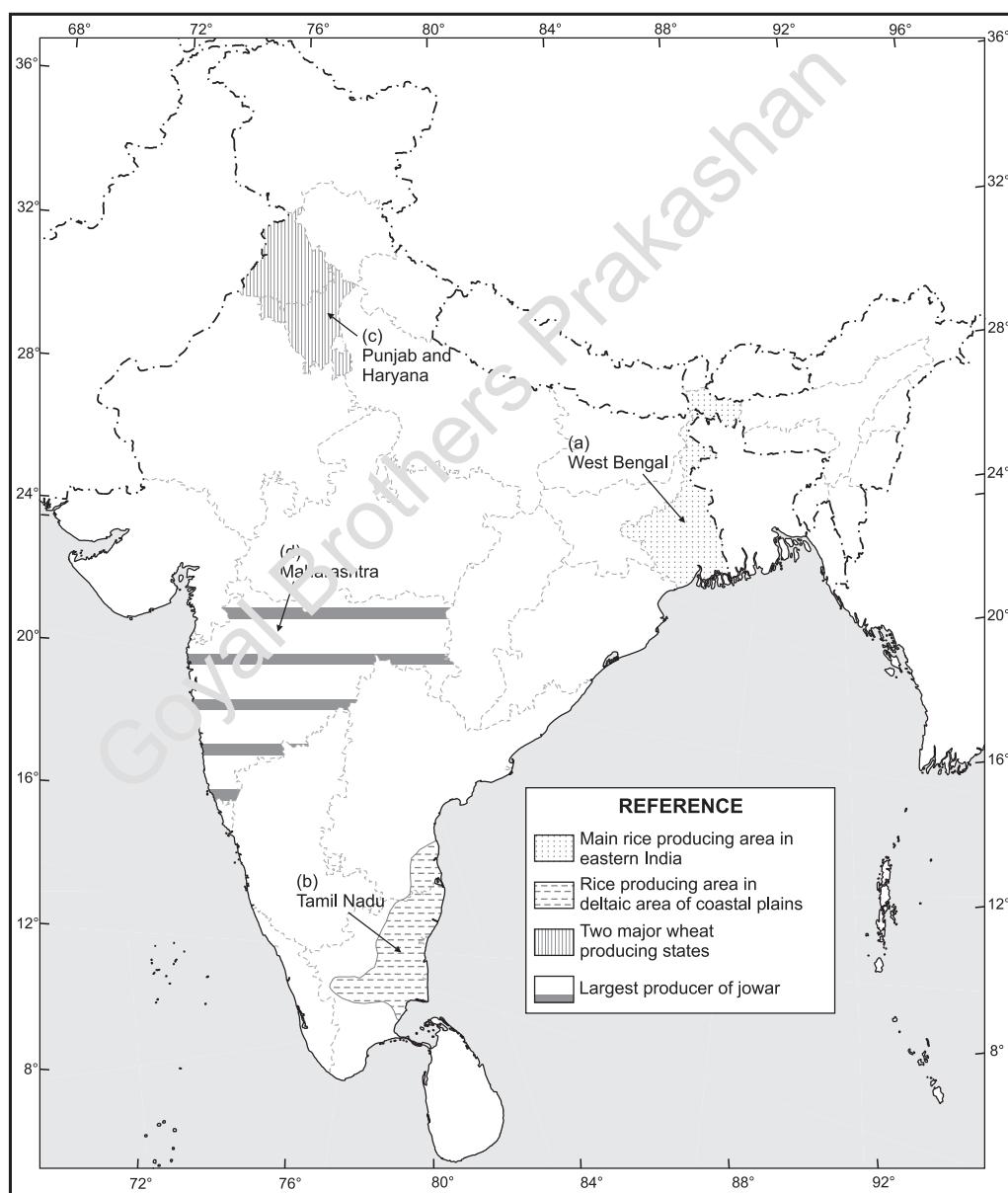


- (ii) This type of farming depends upon Monsoons, natural fertility of soil and environmental suitability.
- (iii) It is a ‘slash and burn’ agriculture. Farmers clear a patch of land and produce crops for their sustenance.
- (iv) When the soil fertility decreases, farmers shift to new area, clear forest by burning and again sow crops.

E. MAP WORK (4 MARKS)

Q.1. On an outline map of India, mark and label the following.

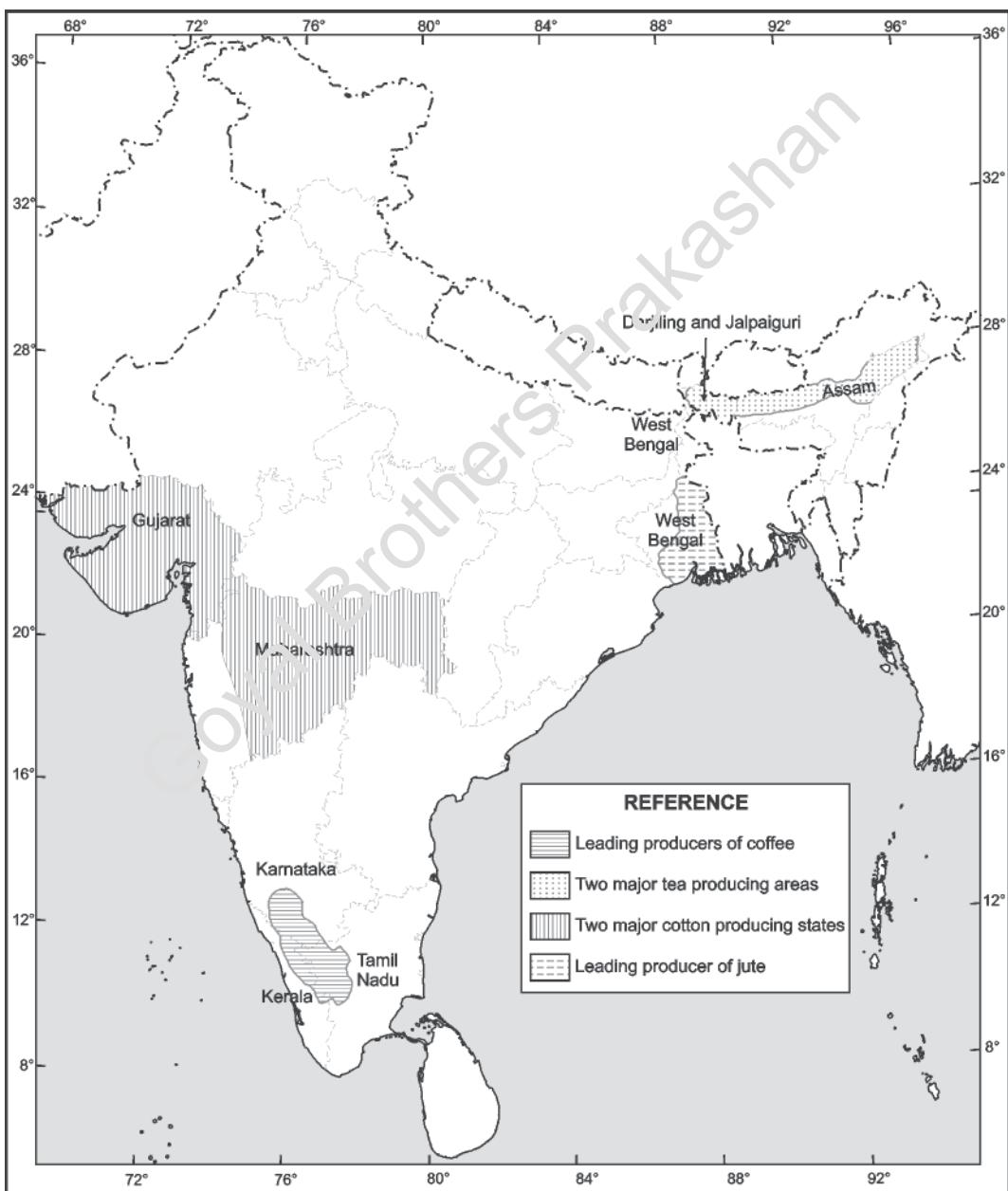
- (a) Main rice-producing state in eastern India



- (b) A rice-producing area in the deltaic area of coastal plains.
- (c) Two major wheat-producing states.
- (d) Largest producer of jowar.

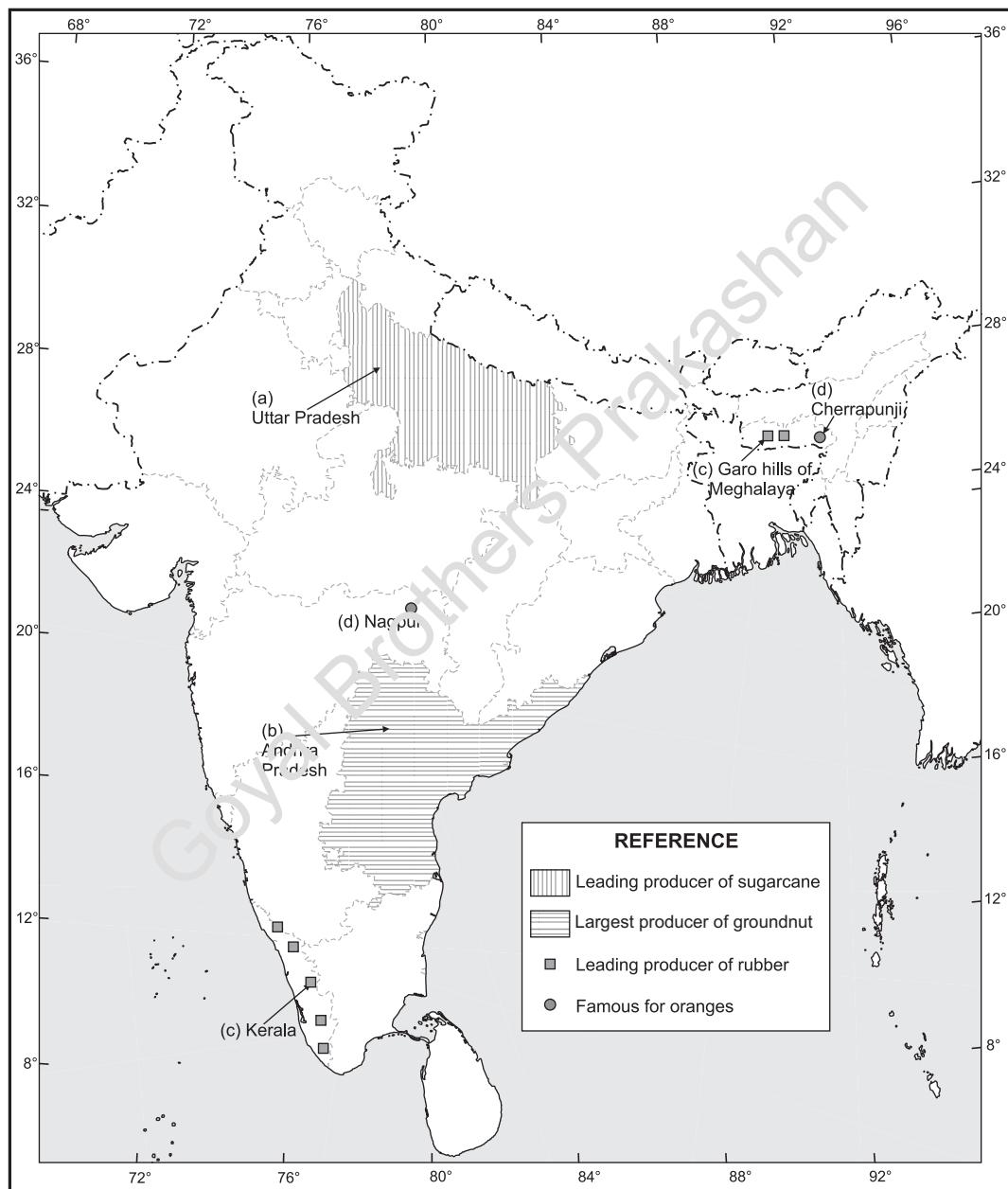
Q.2. On an outline map of India, mark and label the following.

- (a) Leading producers of coffee
- (b) Two major tea-producing areas
- (c) Two major cotton-producing states.
- (d) Leading producer of jute



Q.3. On an outline map of India, mark and label the following.

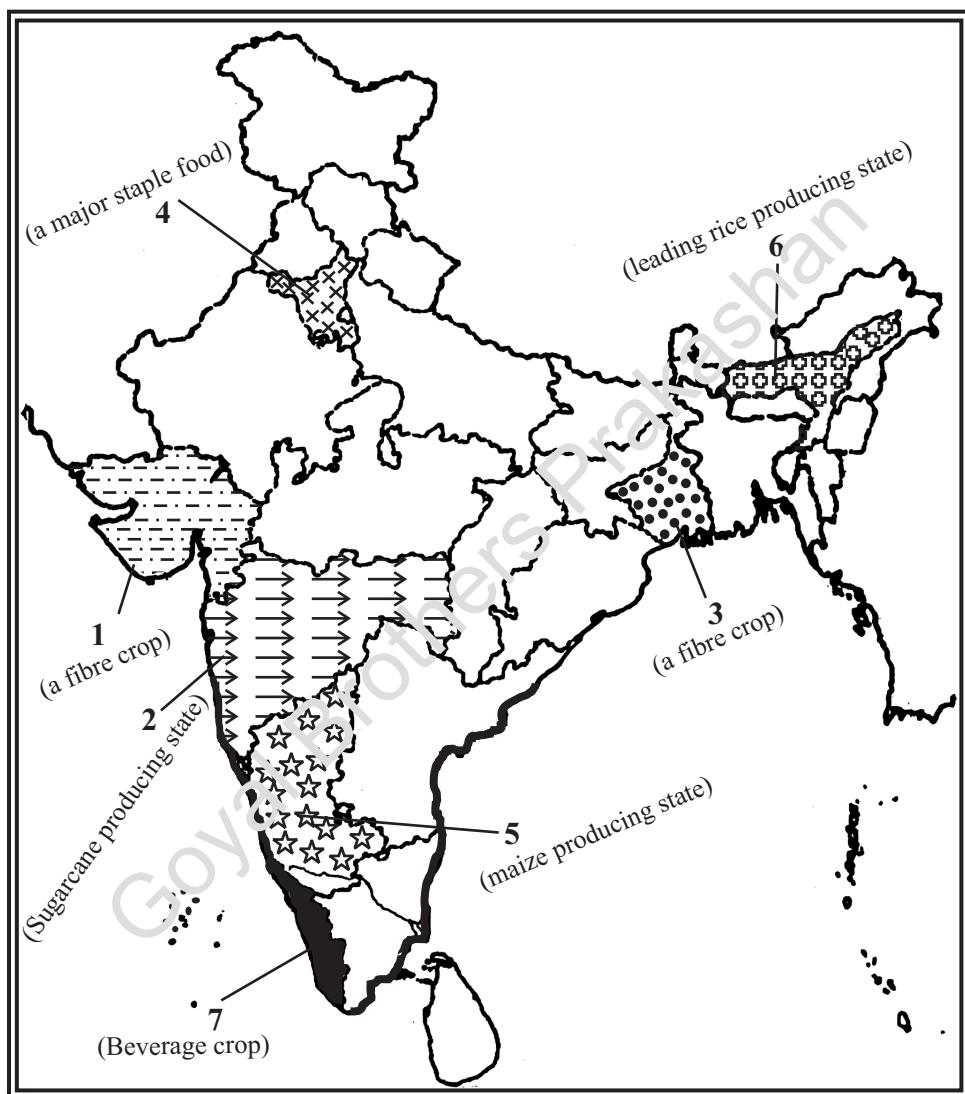
- (a) Leading producer of sugarcane.
- (b) Largest producer of groundnut.
- (c) Two leading producers of rubber, one in northeast, one in south.
- (d) Two places famous for oranges.

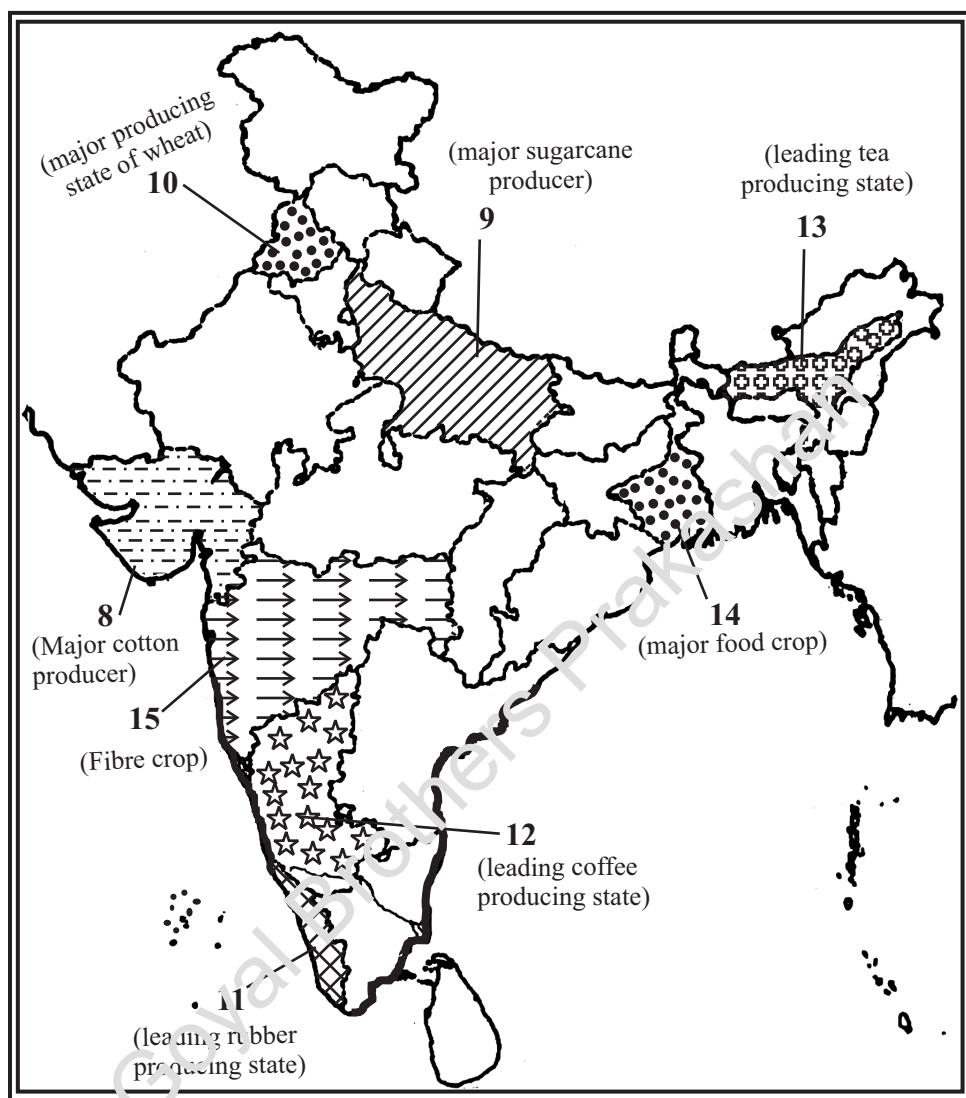


PREVIOUS YEARS' QUESTIONS

Q.1. For Identification

[2010, 2011(T-1)]





- Ans.**
- | | | | |
|---------------|-----------------|------------------|----------------|
| (1) Cotton | (2) Maharashtra | (3) Jute | (4) Wheat |
| (5) Karnataka | (6) Assam | (7) Coffee, tea | (8) Gujarat |
| (9) U.P. | (10) Punjab | (11) Kerala | (12) Karnataka |
| (13) Assam | (14) Rice | (15) Maharashtra | |

II. FORMATIVE ASSESSMENT

A. PROJECT WORK

Q.1. On a big chart paper draw or paste four outline political maps of India. On Map No. 1 mark the rice-producing areas of India. Paste grains of rice on the areas marked with the help of adhesive.

On Map No. 2, mark the wheat-producing areas and paste whole wheat over them. On Map No. 3 mark the areas producing fibre crops – cotton and jute. Paste cotton ball and jute fibre in their respective areas. On Map No. 4, mark the areas growing beverage crops—tea and coffee. Paste tea leaves and coarse coffee powder in their respective areas. Sprinkle some grounded naphthalene over the maps to prevent their spoilage by insects. Display them in the class.

Q.2. Visit a nearby village.

Find out what crops grow in that region. Identify the type of cultivation practised in the region. Talk to some farmers and find out about :

- (a) The cropping seasons and agricultural calendar.
- (b) The government support they receive.
- (c) The problems they face.

Take photographs of the crops, the farmers, the irrigation system and machineries they use.

Prepare a Project Report on the topic
‘Agricultural Economy of an Indian Village.’

B. ACTIVITIES

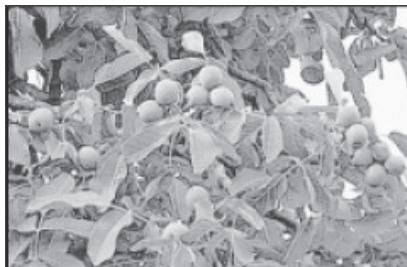
Q.1. Name game

Primitive Subsistence Farming is known by different names in different parts of India. Place the correct name beside each state or region.

State/Region	Local Name for Primitive Subsistence Farming
Assam, Meghalaya.	
Manipur.	
Mizoram.	
Bastar district of Chhattisgarh.	
Madhya Pradesh.	
Andhra Pradesh.	
Orissa.	
Western Ghats.	
South-eastern Rajasthan.	
Himalayan belt.	
Jharkhand.	
Andaman and Nicobar Islands.	

Penda, Pama Dabi, Valre, Dipa, Bewar, Pamlou, Kumari, Kuruwa, Khil, Jhumming (same name may be repeated in two or more states).

Q.2. Observe the pictures carefully and answer the following questions.



- (a) Name the fruits shown in the pictures.
- (b) Name the type of agriculture.
- (c) Name the areas where such fruits are grown.
- (d) Name a tropical fruit from India which is in great demand worldwide.

C. ASSIGNMENTS

Q.1. Name three types of crops for the following.

- (a) Pulses : _____
- (b) Oilseeds : _____
- (c) Millets : _____
- (d) Vegetables : _____
- (e) Fibre crops : _____

Q.2. For each of the cultivation types select the crop grown and circle it.

- (a) Primitive Subsistence Farming – Pulses, Wheat, Sweet Potato, Banana.
- (b) Intensive Subsistence Farming – Cassava, Wheat, Jute, Rice.
- (c) Commercial Farming – Yams, Wheat, Rice, Jowar.
- (d) Plantation - Tea, Rice, Maize, Groundnut.
- (e) Horticulture – Bamboo, Bajra, Banana, Sunflower.

D. QUIZ

Q.1. Who Am I ?

- (a) _____ (Known as golden fibre)
- (b) _____ (Grown on black soil of Deccan)
- (c) _____ (Poor man's cereal crop)
- (d) _____ (Commercial non-food crop grown in Andaman and Nicobar Islands).
- (e) _____ (Variety of coffee produced in India)