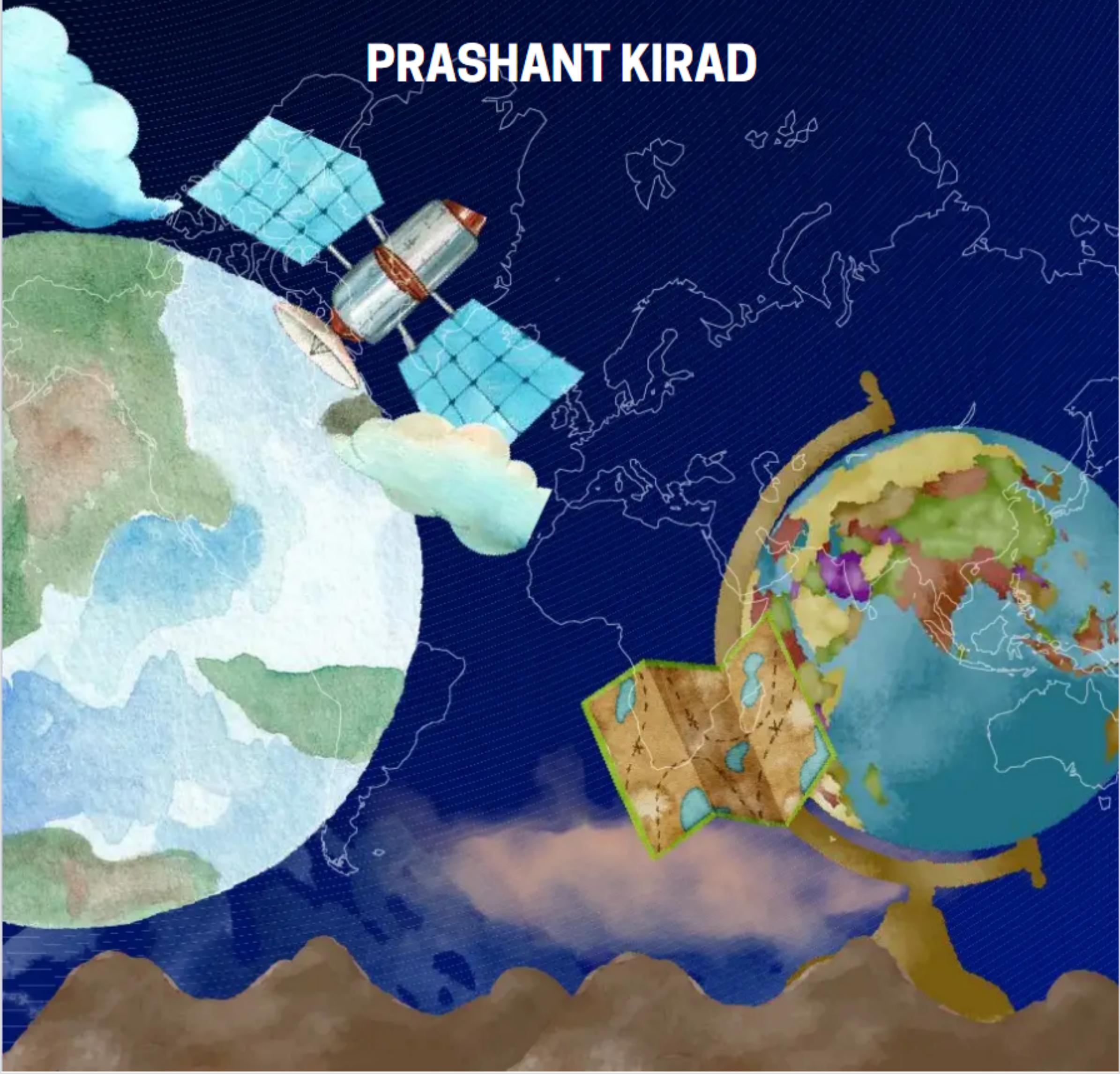


CLASS 10 NOTES

GEOGRAPHY

Agriculture

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AGRICULTURE

Two-thirds of India's population is engaged in agricultural activities.

Agriculture is a primary activity that produces most of the food raw material for various industries.

In this chapter, we will study the various types of farming, cropping patterns and major crops grown in India. In the end, you will know how much Agriculture contributes to the national economy, employment and output.

Types of Farming:

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(i) Primitive Subsistence Farming:

Carried by small farmers on small patches of land.

Use of primitive tools like hoe, dao, digging sticks with the help of family or community labour.

This farming depends upon rainfall & natural fertility of the soil.

Also known as slash and burn agriculture.

Slash and Burn Agriculture : Slash and burn is a method of farming that involves clearing land by destroying and burning all the trees and plants on it, farming there for a short time, and then moving on to clear a new piece of land. Also called Shifting Cultivation.

It is known by different names in India and the world.

(ii) Intensive Subsistence Farming:

This type of farming is practiced in areas of high population pressure on land.

It is labour-intensive farming, where high doses of biochemical inputs and irrigation are used for higher production.

Problems of Intensive Farming: Division of land through successive generations leads to plot size getting smaller and smaller. This makes it impossible to properly manage the farm inputs. Moreover, large-scale farming is not possible in that case.

(iii) Commercial Farming:

Various modern inputs are used in this type of farming, e.g. HYV(High Yielding Variety) seeds, chemical fertilizers, insecticides and pesticides.

Commercialization vary from one region to another.

Ex - Wheat and Rice.

Plantation:

A single crop is grown on a large area.

It requires intensive capital and a large number of workers.

Requires a well-developed network of transport and communication, processing industries and a good market.

Examples - Tea, coffee, rubber, sugarcane, banana, etc.

Cropping Pattern

India has three cropping seasons: Rabi, Kharif and Zaid.

(i) Rabi Crops

Sowing period : Start of winter

i.e. October to December

Harvesting period : Start of summer i.e. April to June

Crops of this season : Wheat, barley, peas, gram and mustard.

Reason for the successful rabi crops in winter months is due to the Western temperate cyclones that cause rainfall in December-January.

(ii) Kharif Crops

Sowing period : Onset of monsoon i.e. May to July.

Harvesting period : September to October.

Crops of this season : Paddy, maize, jowar, bajra, tur (arhar), moong, urad, cotton, jute, groundnut and soybean.

Reason for the successful rabi crops in winter months is due to the Western temperate cyclones that cause rainfall in December-January.

Three types of paddy crop : Aus, Aman and Boro.

(iii) Zaid Crops

Sowing period : March-June

Crops of this season : Watermelon, cucumber, vegetables and fodder crops.

Reason for the successful rabi crops in winter months is due to the Western temperate cyclones that cause rainfall in December-January.

Major Crops

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(i) Rice

Cropping Season : Kharif Crop

Temperature : 25 degree C

Rainfall : Above 100cm

Area : Northern plains, North-eastern states and deltaic region

State : Orissa, West Bengal, Bihar and Tamil Nadu.

Most important cereal crop.

(ii) Wheat

Cropping Season : Rabi Crop

Temperature : Cool growing season and Bright sunshine during harvest.

Rainfall : 50cm to 75cm.

Area : Ganga-Sutluj plain and Black soil region of Deccan

State : Punjab, Haryana, Uttar Pradesh and Madhya Pradesh.

Second most important cereal crop.

(iii) Maize

Cropping Season : Kharif Crop

Temperature : 21 degree C to 27 degree C

Rainfall : 75cm to 100cm

Area : Old alluvial tracks

State : Uttar Pradesh, Bihar and Madhya Pradesh

Used as both food and fodder.

(iv) Pulses

Cropping Season : Depend on crops

Temperature : 25 degree C to 30 degree C

Rainfall : Average 45cm

Area : Evenly distributed all over the country

State : UP, Rajasthan, Karnataka and Madhya Pradesh

Largest producer and consumer.

Millets - Have high nutritional value

1. Jowar : Third most important crop, Rainfed crop.
Maharashtra is the largest producer
2. Bajra : Grows well on Sandy soil and Black soil. Rajasthan is largest producer.
3. Ragi : Crop of dry region, grows well on Red, Black, Sandy and Loamy soil. Karnataka is the largest producer.

Food Crops other than Grains:

(i) Sugarcane

Temperature : 21 degree C to 27 degree C

Rainfall : 75cm to 100cm

Tropical as well as sub-tropical crop.

Need Manual labour.

India is the second largest producer.

Raw Material/Source of Jaggery

Khandsari, Sugar and Molasses.

Uttar Pradesh, Maharashtra, Karnataka

(ii) Oil Seeds

Groundnut, Mustard, Coconut, Sesamum, Soyabean, Caster seed, Linseed and Sunflower.

Used in the production of soap, cosmetics and ointments.

Groundnut, Kharif Crop, Major oil seed.

Andhra Pradesh is the largest producer

(iii) Horticulture Crops

India is the largest producer of fruits and vegetables.

Mangoes of Maharashtra, Andhra Pradesh and Uttar Pradesh, Oranges of Nagpur and Cherropunjee, Banana of Kerela, Lichi and Guava of Uttar Pradesh and Bihar etc.

India produces 13% of world's vegetable.

Important producer of Cauliflower, Brinjal, Potato.

(iv) Tea

Tropical as well as subtropical crops.

Plantation Crops

Beverage Crops

Grow well on deep and fertile well drained soil.

Requires warm and moist, frost-free climate.

Frequent and evenly distributed Rainfall.

Labour intensive industry

Processed within the tea garden to restore freshness.

Assam, Darjeeling Hills, Jalpaiguri District of West Bengal.

(v) Coffee

Indian coffee is known for it's quality Arabic variety brought from Yemen. India produces 4% of world Coffee Production.

Initially produced in Baba Budan Hills. Now also it's production is confined to Nilgiri in Karnataka, Kerela and Tamil Nadu.

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Non-Food Crops :

(i) Rubber

Equatorial crop, but can be grown in tropical and sub-tropical areas.

It requires a moist and humid climate.

Rainfall more than 200cm.

Temperature more than 25 degree C.

Important industrial raw material.

Major areas - Kerela, Tamil Nadu, Meghalaya, Andaman and Nicobar.

(ii) Fiber crops

Cotton, Jute, Hemp and Natural Silk are major fiber crops.
Silk Cocoons of Silkworms fed on mulberry leaves

Sericulture

Cotton

Raw material for the cotton textile industry.

Third largest producer.

Grows well on Black Soil.

High temperature, low rainfall and 210 frost-free days with bright sunshine.

Maharashtra, Madhya Pradesh,
Gujarat.

Jute

It is known as Golden Fiber.

High temperature and well drained fertile soil of flood plains.

Used for making variety of products.

Ex- Mats, Rope, Carpets, etc.

Losing market due to high cost and synthetic fiber (Nylon).

Technological and Institutional Reforms

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Technological Reforms

Green revolution and white revolution (operation flood).
Special weather bulletins and agricultural programmes for farmers were introduced on the radio and television.
Subsidy on Agricultural products.

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Institutional Reforms

After independence, major institutional reforms such as collectivisation, consolidation of holdings, cooperation and abolition of zamindari, etc. were given priority.

Land Reforms were focus of first five year plan.

Crop insurance was provided for disease, fire, cyclone, flood, and drought.

To provide loans to farmers at low-interest rates, banks, cooperative societies, grameen banks were established.

For the benefit of farmers, some of the schemes introduced were the Personal Accident Insurance Scheme (PAIS), Kissan Credit Card (KCC).

Bhoodan Gramdan Movement

Bhoodam Gramdan Movement was started by Vinoba Bhave. He was a follower of Gandhi's idea of Gramswarajya and after Gandhi's death, undertook a Padyatra to spread Gandhi's message.

The incident happened in Pochampalli, Andhra Pradesh.

Shri Ram Chandra Reddy stood up and offered 80 acres of land to 80 landless villagers, which was known as 'Bhoodan'. Later Vinoba Bhave travelled and his idea spread, some zamindars offered the villages owned by them to be distributed among landless, known as Gramdan.

This movement initiated by Vinoba Bhave is also known as Blood-less Revolution.

Contribution of Agriculture to the national economy, employment and output

In agricultural sector,

Share in GDP	Share in employment
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In 2010-2011 about 52 percent of the total workforce of India was employed by the farm sector.

Matter of concern : As agriculture is an important sector, therefore, any decline and stagnation in agriculture will lead to a decline in other spheres of the economy having wider implications for society.

Steps taken to improve the situation:

Establishment of Indian Council of Agricultural Research (ICAR)

Agricultural universities

Veterinary services and animal breeding centres, Horticulture development, research development in the field of meteorology and weather forecast, improving the rural infrastructure.

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Condition of agriculture sector in India

Big challenge from international competition

Indian Farmers

Reduction in the public investment in agricultural sector

Reduction in import duties has lead to increase in the competition.

Reduction on subsidy of fertilizers

Cost

Farmers are withdrawing their investment from agriculture causing a downfall in the employment in agricultural.

Food Security

The term 'food security' means that everybody can get enough healthy food to be well and active. For everybody to get enough healthy food, we need a food system that works well.

The government designed a national food security system to ensure food security for every citizen:

It consists of two components

- (a) buffer stock
- (b) public distribution system (PDS)

Buffer stock is the stock of food grains for the poor at affordable prices. The stock is from farmers at minimum support price (MSP).

Food Corporation of India (FCI) is responsible for procuring and stocking food grains, whereas distribution is ensured by the public distribution system (PDS).

PDS is a programme which provides food grains and other essential commodities at subsidized prices in rural and urban areas.

The primary objective of national food security:

Ensure availability of food grains to the common people at an affordable price

The poor should have access to food.

Growth in agriculture production.

Fixing the support price for procurement of wheat and rice, to maintain their stocks.

Impact of Globalisation on Agriculture

Globalisation is not a new phenomenon.

After 1990, Indian farmers faced new challenges.

Despite being an important producer of various crops, Indian products were not able to compete with the products of developed countries because of the highly subsidised agriculture in those countries.

Indian Agriculture is on crossroads.

Population Income Land size

Green Revolution promised much. But today it's under controversies.

Other alternatives of green revolution:

Gene revolution

Organic farming

Diversification of cropping pattern.

Top 7 Questions:

3 markers

1. "Irrigation has changed the cropping pattern of many regions in India". Analyse this statement.

Ans. It is true that irrigation has changed the cropping pattern of many regions. Due to availability of irrigation facilities even those crops are now cultivated which were earlier not possible to cultivate in certain areas. For example, rice requires annual rainfall of over 100 cm and standing water.

The launching of Green Revolution has enabled proper irrigation facilities in Punjab and Haryana. This has resulted in production of paddy (rice) to grow even in less rainfall areas.

2. Name any four oilseeds produced in India. What is their economic importance?

Ans. Oilseeds produced in India are groundnut, mustard, coconut, sesamum (til), soyabean, castor seeds, cotton seeds, linseed and sunflower.

Groundnut is a kharif crop, linseed and mustard are rabi crop, sesamum is a kharif crop in North India and rabi crop in South India. Castor seed is grown both as rabi and kharif crop.

Economic importance of oilseeds are as follows:

- (i) Oilseeds are used as cooking medium.
- (ii) Oil extracted from oilseeds is used as raw material in the production of soap, cosmetics and ointments.

- (iii) After extraction of oil from oilseeds, a by product is remained. This is known as oil cake. This oil cake is used as fertilisers and also for cattle fuel.
3. Explain any four characteristics of commercial farming in India.

Ans. Major characteristics of commercial farming in India are:

Commercial farming is crop selective and aims to provide raw materials for industries.
It is done for selling the agricultural products in the market or for exports.
It requires intensive use of modern inputs like High Yielding Variety (HYV) seeds, chemical fertilisers, insecticides, pesticides etc. to increase productivity.
Commercial farming induces development activities in transport, connectivity and processing industries.

4. Describe the conditions required for cultivation of sugarcane.

Ans. The conditions required for the cultivation of sugarcane are as follows:

Sugarcane is a tropical as well as subtropical crop. It requires temperature in the range of 21 degree - 27 degree Celsius and rainfall from 75-100cm.
It grows well in fertile, well drained soil and hot and humid type of climate.
It is annual crop and needs manual labour from sowing to harvesting.

5. Highlight three differences between Kharif crop and Rabi crop.

Ans.

Rabi Crop	Kharif Crop
• Sowing period starts in winter months i.e. October to December.	• Sowing period starts on the onset of Monsoon i.e. May to July.
• Harvesting period : April to June.	• Harvesting period : September to October.
• Crops of this season need less irrigation as compared to Kharif crops.	• Crops of this season need high rainfall or better irrigation sources.

5 markers

1. Why is agriculture called the backbone of Indian economy?

Ans. Agriculture is called the backbone of Indian economy due to the following reasons:

- (i) Agriculture is a primary activity in India and employs almost two-third of its population.
- (ii) Agriculture provides raw materials for various industries like sugarcane, cotton, etc. in India.
- (iii) Some agricultural products like tea, coffee, spices are major exports of India.
- (iv) Many industries that produce agricultural inputs like fertilisers, farm machinery, etc. survive because of agriculture.
- (v) Agriculture provides food for consumption due to which people directly or indirectly depend on agriculture

Their growing areas.

Ans. (a) Tea

An example of plantation agriculture, an important beverage crop introduced in India by the British. Grows well in tropical and sub-tropical climates endowed with deep and fertile well-drained soil, rich in humus and organic matter.

Require warm and moist frost-free climate, frequent showers evenly distributed over the year.

A labour intensive industry, requires abundant cheap and skilled labour.

Major producing states are Assam, West Bengal, Tamil Nadu, Kerala. Apart from these, Himachal Pradesh, Uttarakhand, Meghalaya, Andhra Pradesh and Tripura and also tea-producing states in the country.

(b) Coffee

India produces about four per cent of the world's coffee production.

The Arabica variety produced in the country is in great demand all over the world.

Is cultivated in Karnataka, Kerala and Tamil Nadu.

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Map Work:

(i) Rice

(ii) Wheat

(iii) Sugarcane

(iv) Tea

