Agriculture

Fastrack Revision

- India is an agriculturally important country where agriculture is a primitive activity. Besides food grains, India also produces raw material for various industries. Nearly two-third of India's population is engaged in agricultural activities.
- Depending upon the characteristics of physical environment, technological know-how and socio-cultural practices, the following farming systems are practised:
  - **Primitive Subsistence Farming:** This type of farming is still practised in a few pockets of India. It is practised on small patches of land with the help of primitive tools like hoe, dao and digging sticks, and family/community labour. It is a slash and burn agriculture that depends upon rainfall, natural fertility of soil and production is for self-consumption only.

Knowledge BOOSTER

Primitive Subsistence Farming is practised in other countries also. It is referred to as Milpa in Mexico, Canuco in Venezuela and Roca in Brazil.

  - **Intensive Subsistence Farming:** This farming is practised in areas of high population pressure on land. It is a labour-intensive farming and uses high doses of biochemical inputs and intensive irrigation for obtaining higher production.
  - **Commercial Farming:** It is undertaken to earn profits. This farming uses higher doses of modern inputs, *i.e.,* HYV (High Yielding Variety) seeds, good irrigation facilities, chemical fertilizers, insecticides and pesticides in order to obtain higher productivity. In India, tea, coffee, rubber, sugarcane, banana, etc., are important commercial crops.

    The three cropping seasons in India are as follows:
    - **Rabi:** Rabi crops are sown in winter from October to December and harvested in summer from April to June. Some of the important Rabi crops are wheat, barley, peas, gram and mustard. These crops are mostly grown in Punjab, Haryana, Uttarakhand, Himachal Pradesh, Jammu and Kashmir and UP.
    - **Kharif:** Kharif crops are grown with the onset of monsoon in different parts of the country and are harvested in September-October. Some of the important Kharif crops are paddy, maize, jowar, bajra, tur (arhar), moong, urad, cotton, jute, groundnut and soyabean. Important paddy-growing areas are Assam, West Bengal and coastal regions of Odisha, Tamil Nadu, Maharashtra, Kerala, etc.
    - **Zaid:** Such crops are grown in between Rabi and Kharif seasons (March–June). Some crops produced during Zaid season are watermelon, muskmelon, cucumber, vegetables, fodder crops and sugarcane.
- A variety of food crops and non-food crops are grown in different parts of the country depending upon the variations in soil, climate and cultivation practices. Some of the important crops are as follows:
  - **Rice:** It is a staple food crop. Our country is the second largest producer of rice in the world after China. It is a Kharif crop which requires a high temperature (above 25°C) and high humidity with annual rainfall above 100 cm. It is mostly grown in the plains of the North and the North-Eastern India, coastal areas and the deltaic regions.
  - **Wheat:** It is the second most important cereal crop. It is the main food crop in the North and the North-Western part of the country. This rabi crop requires a cool growing season and a bright sunshine at the time of ripening. It requires 50–75 cm of annual rainfall evenly-distributed over the growing season.

Knowledge BOOSTER

There are two important wheat-growing zones in the country. They are the Ganga–Satluj plains in the North-West and the black soil region of the Deccan.

  - **Millets (Coarse Grains):** Jowar, bajra and ragi are the important millets grown in India. These are also called as coarse grains and have very high nutritional value.
  - **Maize:** It is used for both food and fodder. It is a Kharif crop which requires temperature between 21°C to 27°C and grows well in old alluvial soil.
  - **Pulses:** India is the largest producer as well as the consumer of pulses in the world. These are a major source of protein. Major pulses grown in India are tur, urad, moong, masur, peas and gram. Major pulses-producing states are Madhya Pradesh, Rajasthan, Maharashtra and Karnataka.
  - **Sugarcane:** It grows in hot and humid climate with a temperature of 21°C to 27°C and rainfall between 75–100 cm. India is the second largest producer of sugarcane after Brazil. The major sugarcane-producing states are UP, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Bihar, Punjab and Haryana.
  - **Oilseeds:** India is the second largest producer of oilseeds in the world after China. Main oilseeds produced in India are groundnut, mustard, coconut, sesame, soyabean, castor seeds, cotton seeds, sunflower, etc. The major oilseed-producing states are Andhra Pradesh, Tamil Nadu, Karnataka, Gujarat and Maharashtra.
  - **Tea:** It is an important beverage crop introduced in India by the British. It requires a tropical or sub-tropical climate throughout the year along with deep and fertile well-drained soil, rich in humus and organic matter. The major tea-producing states are Assam, hills of Darjeeling, Jalpaiguri (West Bengal), Tamil Nadu and Kerala.

- **Coffee:** India produces 4% of the world's coffee production. Its cultivation was introduced on the Baba Budan Hills and even today it is grown only in Karnataka, Kerala and Tamil Nadu.
- **Horticulture Crops:** India produces both tropical as well as temperate fruits. Most of the fruits are plantation crops. Important vegetables products of India are pea, cauliflower, onion, cabbage, tomato, brinjal and potato.
- **Rubber:** It is an equatorial crop that requires moist and humid climate with rainfall of more than 200 cm and temperature above 25 °C. It is mainly grown in Kerala, Tamil Nadu, Karnataka and Andaman and Nicobar Islands and Garo hills of Meghalaya.
- **Fibre Crops:** Cotton, jute, hemp and natural silk are the four major fibre crops grown in India.
- **Cotton:** It grows well in drier parts of black cotton soil of Deccan Plateau. It requires high temperature, light rainfall and 210 frost-free days and bright sunshine for its growth. It is a Kharif crop and requires 6 to 8 months to mature. Major cotton-producing states are Maharashtra, Gujarat, Andhra Pradesh, Tamil Nadu, Punjab, Haryana and UP.
- **Jute:** It is known as the golden fibre. It grows well on well-drained fertile soils in flood plains with high temperature at the time of growth. It is majorly grown in West Bengal, Bihar, Assam, Odisha and Meghalaya.

- Agriculture which provides livelihood for more than 60% of its population needs some serious technological and institutional reforms.

  The following institutional reforms have been introduced:
  - Collectivisation of holdings.
  - Consolidation of holdings.
  - Land reforms.
- The Government of India started introducing technological reforms to improve Indian agriculture in the 1960s and 1970s. These are as follows:
  - The Green Revolution and the White Revolution.
  - Provision for crop insurance.
  - Establishment of Grameen (regional rural) banks, cooperative societies and banks for providing loan facilities to the farmers at lower rates of interest.
  - Kisan Credit Card (KCC) and Personal Accident Insurance Scheme (PAIS) were introduced.
  - Minimum Support Prices (MSP), remunerative and procurement prices for important crops.
  - Use of HYV seeds, fertilizers, insecticides and pesticides, harvesters, threshers and tractors, etc.

Practice Exercise

Multiple Choice Questions

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

Q 2. Which of the following types of economic activity is agriculture?
a. Primary activity b. Secondary activity
c. Tertiary activity d. All of these

Q 3. Grouping of small land holding into a bigger one is called:
a. ceiling of land holding
b. collectivisation
c. cooperative farming
d. consolidation of land holding

Q 4. Which of the following right leads to the division of land among upcoming generations in India?
a. The right to property b. The right of inheritance
c. The right of successor d. None of these

Q 5. 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

TiP

Learn the different names of primitive methods of farming practiced in many parts of the world.

Q 6. Which of the following is a feature of primitive subsistence farming?
(i) It is practised on small patches of land.
(ii) It is a slash and burn agriculture.
(iii) Farmer produces for the market.
(iv) Higher doses of chemical, fertilizers and insecticides are used to increase production.
a. (i) and (ii) b. (ii) and (iii)
c. (iii) and (iv) d. All of these

Q 7. Choose the correctly matched pair about the primitive cultivation in India from the following options: *(CBSE SQP 2020)*
a. Dahiya-Madhya Pradesh
b. Kumari-Jharkhand
c. Khil -Andhra Pradesh
d. Koman - Karnataka

Q 8. The 'slash and burn' agriculture is known in Mexico as:
a. Milpa b. Conuco c. Roca d. Masole

COMMON ERROR

The names of primitive cultivation are confused so they should be revised with their respective countries or states properly.

Q 9. Jhumming in Brazil is called:
a. Ladang b. Masole
c. Roca d. None of these

Q 10. 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

Q 11. Which one of the following describes a system of agriculture where a single crop is grown on a large area? *(NCERT)*

a. Shifting agriculture
b. Plantation agriculture
c. Horticulture
d. Intensive agriculture

Q 12. Which of the following is not a feature of commercial farming?

a. Higher doses of modern inputs like HYV Seeds, chemical fertilizers, insecticides and pesticides are used to increase production.
b. It is used in areas of high population.
c. Plantation is also a type of commercial agriculture.
d. Most of the production is sold in the market.

Q 13. In states like ....., ... and ..... three crops of paddy are grown in a year.

a. Punjab, Haryana, Assam
b. Assam, West BengaL Odisha
c. Assam, Odisha, Punjab
d. Assam, Andhra Pradesh, Punjab

Q 14. Which of the following is not true with reference to the climate condition required for the cultivation of rice?

a. It requires high temperature *i.e.*, above 25°C
b. It requires high humidity
c. It requires annual rainfall above 100 cm
d. It requires 210 frost free days

TiP

Climatic conditions of crops are required to be learnt properly especially temperature and rainfall.

Q 15. Which of the following factors have promoted the growth of rice in areas of less rainfall such as Punjab, Haryana and Western Uttar Pradesh?

(i) Development of dense network canal irrigation.
(ii) Use of modern inputs like fertilizers, pesticides etc.
(iii) Heavy rainfall.
(iv) Availability of loans.

a. (i) and (ii)
b. (ii) and (iii)
c. (iii) and (iv)
d. All of these

Q 16. Which of the following is true with reference to climatic conditions required for the growth of wheat?

(i) It requires a cool growing season.
(ii) It requires bright sunshine at the time of ripening.
(iii) It requires more than 100 cm of annual rainfall.
(iv) It can be grown in all parts of India.

a. (i) and (ii)
b. (ii) and (iii)
c. (iii) and (iv)
d. All of these

Q 17. Complete the table:

Crop	Cropping pattern	Geographical conditions
Wheat	A. Kharif/ Rabi (Tick the correct option)	It requires bright sunshine. It requires B._____ cm of annual rainfall.

a. A → Kharif, B → 50-75
b. A → Rabi, B → 50-75
c. A → Rabi, B → Below 50
d. A → Kharif, B → Below 50

Q 18. In which months the Kharif crops are harvested?

a. April-June
b. September-October
c. January-February
d. June-July

COMMON ERROR

Months of Kharif crops are confused with Rabi crops so students are advised to memorise the months of sowing and harvesting of both types of crops.

Q 19. Barley: Rabi crop, cotton: kharif,_____: zaid crop. *(CBSE SQP 2020)*

a. Wheat
b. Mustard
c. Soyabean
d. Cucumber

Q 20. Choose the correct option from Column I and Column II.

	Column I (Major crops)		Column II (Conditions/Types)
1.	Rice	A.	A crop which is used as both food and fodder.
2.	Wheat	B.	High temperature and high humidity.
3.	Maize	C.	Cool growing season and a bright sunshine at the time of ripening.
4.	Millets	D.	A rain-fed crop having very high nutritional value

a. 1-A.
b. 2-B.
c. 3-C.
d. 4-D.

Q 21. Which of the following is true with reference to the climatic conditions required for the cultivation of sugarcane?

(i) It grows well in hot and humid climate.
(ii) It needs temperature of 21°C - 27°C.
(iii) It needs an annual rainfall between 75-100 cm.
(iv) It can be grown on variety of soils.

a. (i) and (ii)
b. (ii) and (iii)
c. (iii) and (iv)
d. All of these

Q 22. What is India's position with respect to production of sugarcane?

a. It is the second larger producer after Brazil
b. It is the largest producer in the world
c. It is the second largest producer after Egypt
d. It is the second largest producer after Australia

COMMON ERROR

Students get confused with the position of India with respect to production of different types of crops.

Q 23. Which of the following crop is grown both as a kharif and a rabi crop?

a. Castor
b. Groundnut
c. Soyabean
d. Linseed

Q 24. Which of the following is true with reference to the climatic conditions required for the growth of tea?

(i) It grows well in tropical and sub-tropical climate.
(ii) It needs fertile well-drained soil, rich in humus and organic matter.
(iii) Tea bushes require warm and moist free climate.
(iv) Frequent showers evenly distributed over the year ensure continuous growth of tender leaves.

a. (i) and (ii)
b. (ii) and (iii)
c. (iii) and (iv)
d. All of these

Q 25. Given below are some geographical conditions required for the growth of tea crops in India except one. Find it out:

a. Tea is a labour intensive industry.
b. It requires warm and moist frost-free climate all through the year.
c. It grows well in tropical and sub-tropical climates.
d. It is a beverage crop introduced by the Portuguese in India.

Q 26. Read the information and answer the question. It is an important beverage crop introduced in India by the British. It requires warm and moist frost-free climate all through the year. It grows well in tropical and sub-tropical climates.

a. Tea
b. Cotton
c. Sugarcane
d. Jute

Q 27. Choose the correctly matched pair about the crops and the areas they are grown in: *(CBSE SQP 2021 Term-1)*

a. Groundnut–Assam
b. Tea–Gujarat
c. Coffee–Karnataka
d. Sugarcane–Chhattisgarh

Q 28. Bajra grows well on:

a. alluvial and loamy soils
b. alluvial and sandy soils
c. sandy soils and shallow black soils
d. alluvial and clayey soils

Q 29. Match Column I with Column II and choose the correct options:

Column I	Column II
A. Horticulture	1. Grown with the onset of monsoon.
B. Sericulture	2. Grown in winter season.
C. Rabi Crops	3. Cultivation of fruits and vegetables.
D. Kharif Crops	4. Production of silk.

	A	B	C	D
a.	3	4	2	1
c.	1	2	3	4

	A	B	C	D
b.	3	4	1	2
d.	1	2	4	3

Q 30. A type of millet rich in iron, calcium other micro nutrients and roughage is: *(CBSE SQP 2021 Term-1)*

a. Bajra
b. Rajma
c. Jowar
d. Ragi

Q 31. Study the picture and answer the question that follows:

Which type of soil required for the cultivation of this crop?

a. Black soil
b. Red soil
c. Laterite soil
d. Desert soil

Q 32. Which one of the following is announced by the government in support of a crop? *(NCERT)*

a. Maximum Support Price
b. Minimum Support Price
c. Moderate Support Price
d. Influential Support Price

Q 33. Which one of the following is an example of the Ferrous Metal? *(CBSE 2023)*

a. Copper
b. Tin
c. Bauxite
d. Nickel

Q 34. Choose the correctly matched pair: *(CBSE 2023)*

a. Primitive subsistence farming—practised on large patches of land.
b. Intensive subsistence farming—single crop production farming.
c. Commercial farming—use of higher doses of modern inputs.
d. Plantation farming—practised on small patches of land.

Q 35. Mention the main reason for land degradation in states like Jharkhand, Chhattisgarh and Odisha. *(CBSE 2023)*

a. Over-grazing
b. Mining
c. Over irrigation
d. Mineral processing

Q 36. Read the following statements carefully and choose the correct option:

Statement (I): Agriculture is not an old economic activity.

Statement (II): Farming varies from subsistence to commercial type.

a. Statement (I) is correct and (II) is incorrect.
b. Statement (I) is incorrect and (II) is correct.
c. Both statements are incorrect.
d. Both statements are correct.

Q 37. Read the following statements carefully and choose the correct option:

Statement (I): Land productivity is low in primitive subsistence farming.

Statement (II): It is labour-intensive farming, where high doses of biochemical inputs and irrigation are used.

a. Statement (I) is correct and (II) is incorrect.
b. Statement (I) is Incorrect and (II) is correct.
c. Both statements are Incorrect.
d. Both statements are correct.

Q 38. **Read the following statements carefully and choose the correct option:**

Statement (I): Pulses are considered as a major source of protein in vegetarian diet.

Statement (II): Being leguminous crops they help in restoring the soil fertility by fixing nitrogen from the air.

a. Statement (I) is correct and (II) is incorrect.
b. Statement (I) is incorrect and (II) is correct.
c. Both statements are incorrect.
d. Both statements are correct.

Assertion & Reason Type Questions

Directions (Q.Nos. 39-46): *In the following questions given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:*

a. Both Assertion (A) and Reason (R) are correct and Reason (R) is the correct explanation of Assertion (A).
b. Both Assertion (A) and Reason (R) are correct, but Reason (R) is not the correct explanation of Assertion (A).
c. Assertion (A) is true, but Reason (R) is false.
d. Assertion (A) is false, but Reason (R) is true.

Q 39. **Assertion (A): Plantation has an interface of agriculture and industry.**

Reason (R): Plantation is a type of commercial farming in which a single crop is grown on a large area.

TiP

The plantation has an interface of agriculture and industry. Plantations cover large tracts of land, using capital intensive inputs, with the help of migrant labourers. All the produce is used as raw material in respective industries.

Q 40. **Assertion (A): Biochemical inputs and irrigation are used for obtaining higher production.**

Reason (R): Doses of biochemical inputs are used to grow crops rapidly.

TiP

High doses of biochemical inputs and irrigation are used for obtaining higher production to meet the growing demands of the people. The farmers continue to take maximum output from the limited land.

Q 41. **Assertion (A): Crops are grown depending upon the variations in soil, climate and cultivation practices.**

Reason (R): Crops are also grown according to availability of water.

TiP

Variety of food and non-food crops are grown in different parts of the country depending upon the variation in soil, climate and cultivation practices. Major crops grown in India are rice, wheat, millets, pulses, tea, coffee, sugarcane, oil seeds, cotton and jute, etc.

Q 42. **Assertion (A): Intensive subsistence farming is practised in areas of high population.**

Reason (R): High yielding variety seeds, modern chemical inputs and irrigation methods are used to increase the production in intensive farming.

Q 43. **Assertion (A): Indian farmers should diversify their cropping pattern from cereals to high value crops.**

Reason (R): This will increase income and reduce environmental degradation simultaneously.

(CBSE 2021 Term-1)

Q 44. **Assertion (A): Pulses are grown in rotation with other crops.**

Reason (R): It helps in restoring soil fertility by fixing nitrogen from the air.

TiP

Pulses are grown as rotation crop because pulses are leguminous crops which change atmospheric nitrogen into nitrates and restore the fertility of the soil.

Q 45. **Assertion (A): Tea is an important beverage crop introduced in India initially by the British.**

Reason (R): In 2015, India was the second largest producer of tea after China.

Q 46. **Assertion (A): The Government of India buys wheat and rice from farmers at a fair price.**

Reason (R): The public sector contributes to economic development. *(CBSE 2020)*

TiP

The government announces the minimum support price and remunerative and procurement prices for important crops to avoid the exploitation of farmers by middlemen.

Answers

1. (b)	2. (a)	3. (d)	4. (b)	5. (c)
6. (a)	7. (a)	8. (a)	9. (c)	10. (b)
11. (b)	12. (b)	13. (b)	14. (d)	15. (a)
16. (a)	17. (b)	18. (b)	19. (d)	20. (d)
21. (d)	22. (a)	23. (a)	24. (d)	25. (d)
26. (a)	27. (c)	28. (c)	29. (a)	30. (d)
31. (a)	32. (b)	33. (d)	34. (c)	35. (b)
36. (c)	37. (a)	38. (d)	39. (a)	40. (a)
41. (b)	42. (b)	43. (a)	44. (a)	45. (b)
46. (b)				

Source Based Questions

Source 1

Read the source given below and answer the questions that follow by choosing the most appropriate option:

Jhumming: The 'slash and burn' agriculture is known as 'Milpa' in Mexico and Central America, 'Conuco' in Venezuela, 'Roca' in Brazil, 'Masole' in Central Africa, 'Ladang in Indonesia' 'Ray' in Vietnam.

In India, this primitive form of cultivation is called 'Bewar' or 'Dahiya' in Madhya Pradesh, 'Podu' or 'Penda' in Andhra Pradesh, 'Pama Dabi' or 'Koman' or 'Bringa' in Odisha, 'Kumari' in Western Ghats, 'Valre' or 'Waltre' in South-Eastern Rajasthan, 'Khil' in the Himalayan belt, 'Kuruwa' in Jharkhand and 'Jhumming' in the North-Eastern region.

Q 1. How is primitive subsistence agriculture related with Jhumming?

a. It is based on shifting cultivation
b. It is intensive in nature
c. It is based on plantation cultivation
d. It depends upon cash crop

Q 2. The 'Slash and Burn' agriculture is known as 'Conuco' in which one of the following countries?

a. Venezuela b. Brazil
c. Indonesia d. Mexico

Q 3. The 'Slash and Burn' agriculture is known as 'Roca' in which one of the following countries?

a. Mexico b. Indonesia
c. Brazil d. Venezuela

Q 4. Identify the major problem of Jhumming cultivation.

a. Single crop dominance
b. Modern inputs
c. High cost
d. Low production

Q 5. In India, 'Slash and Burn' agriculture is known as 'Bewar', in which one of the following states?

a. Andhra Pradesh b. Madhya Pradesh
c. Rajasthan d. Jharkhand

Q 6. Match Column I with Column II and choose the correct options:

	Column I		Column II
A.	Andhra Pradesh	1.	Kuruwa
B.	Odisha	2.	Valre
C.	Rajasthan	3.	Penda
D.	Jharkhand	4.	Pama dabi

	A	B	C	D
a.	3	4	2	1
c.	2	1	4	3

	A	B	C	D
b.	1	2	3	4
d.	4	3	1	2

Answers

1. (a) 2. (a) 3. (c) 4. (d) 5. (b) 6. (a)

Source 2

Read the source given below and answer the questions that follow by choosing the most appropriate option: *(CBSE SQP 2021 Term-1)*

There has been a gradual shift from cultivation of food crops to cultivation of fruits, vegetables, oil-seeds and industrial crops. This has led to the reduction in net sown area under cereals and pulses. With the growing population of India, the declining food production puts a big question mark over the country's future food security.

The competition for land between non-agricultural uses such as housing and agriculture has resulted in reduction in the net sown area. The productivity of land has started showing a declining trend. Fertilizers, pesticides and insecticides, which once showed dramatic results are now being held responsible for degrading the soils. Periodic scarcity of water has led to reduction in area under irrigation. Inefficient water management has led to water logging and salinity.

Q 1. One can infer from the above given information that marginal and small farmers have been pushed out of cultivation. Which one of the following is the prominent cause?

a. Food and fruit crops are expensive in market.
b. Shift to multifarious crops according to demand.
c. Periodic scarcity of water in many regions.
d. Soil degradation and extensive Green Revolution.

Q 2. Read the following statements and find the correct option from the given options.

(i) Indian farmers are diversifying their cropping patterns.
(ii) They are shifting production from cereals to fruits, vegetables, etc.
(iii) Jute is in high demand in the Indian market.

a. (i) and (ii) b. (ii) and (iii)
c. Only (iii) d. Only (ii)

Q 3. According to the information given above, there has been reduction in the net sown area under cereals and pulses. Identify the reason.

a. Lack of market to sell cereals and pulses.
b. Earn more income from non-agricultural sector.
c. Need of huge labour in cultivating cereals and pulses.
d. Availability of more profits from commercial crops.

Q 4. 'Fertilizers, pesticides and insecticides, which once showed dramatic results, are now being held responsible for degrading the soil.' Infer the positive effects of these inputs noticed earlier from the following statements.

a. These inputs have shown increased outputs and productivity.
b. These are integral to the process of reducing agrarian losses.
c. These inputs can cut the amount of harvestable produce.
d. These are the leading causes of mortality and health problems.

Q 5. There are states in India which are using fertilizers, pesticides and insecticides at excessive level to increase their agricultural production. Identify the states which are at prominent level from the following options.

a. Karnataka and Kerala
b. Haryana and Punjab
c. Punjab and Gujarat
d. Haryana and Telangana

Q 6. Food production provides the base for food security and is a key determinant of food availability. Why is this trend shifting towards industrial crops? Choose the correct option in reference to the context.

a. To improve the land use pattern
b. To use intensive farming techniques
c. To improve the fertility of soil
d. To fetch more income and high earnings

Answers

1. (d) 2. (a) 3. (d) 4. (a) 5. (b) 6. (d)

Source 3

Read the source given below and answer the questions that follow:

This type of farming is still practiced in few pockets of India. Primitive subsistence agriculture is practiced on small patches of land with the help of primitive tools like hoe, dao and digging sticks and family/community labour. This type of farming depends upon monsoon, natural fertility of the soil and suitability of other environmental conditions to the crops grown.

It is a 'slash and burn' agriculture. Farmers clear a patch of land and produce cereals and other food crops to sustain their family. When the soil fertility decreases, the farmers shift and clear a fresh patch of land for cultivation. This type of shifting allows nature to replenish the fertility of the soil through natural processes; land productivity in this type of agriculture is low as the farmer does not use fertilizers or other modern inputs. It is known by different names in different parts of the country.

It is Jhumming in North-Eastern states like Assam, Meghalaya, Mizoram and Nagaland; Pamlou in Manipur, Dipa in Bastar district of Chhattisgarh, and in Andaman and Nicobar Islands.

Q 1. Upon which factors primitive subsistence agriculture depend?

Ans. Primitive subsistence agriculture depends upon monsoon, natural fertility of soil and suitability of other environmental conditions to the crops grown.

Q 2. In which states of India, primitive subsistence farming is known as 'Jhumming'?

Ans. Primitive subsistence farming is known as 'Jhumming' in North-Eastern states like Assam, Meghalaya, Mizoram and Nagaland.

Q 3. Why do farmers shift and clear a fresh patch of land for cultivation?

Ans. Farmers shift and clear a fresh patch of land for cultivation when the soil fertility decreases. This allows nature to replenish the soil fertility through natural processes.

Very Short Answer Type Questions

Q 1. What is 'slash and burn' cultivation?

Ans. In this form of cultivation, farmers clear a patch of land by burning the vegetation. They produce cereals and other food crops to sustain their family. When the soil fertility decreases, the farmers shift and clear a fresh patch for cultivation.

Q 2. Why jhumming is a primitive subsistence farming in India?

Ans. Jhumming is practiced in hilly areas of North-Eastern states with the use of primitive tools and it is for self consumption only. So, it is a primitive subsistence farming in India.

Q 3. Hoe, dao, digging sticks are associated with which type of farming?

Ans. Hoe, dao and digging sticks tools are associated with primitive subsistence farming.

Q 4. What is commercial farming?

Ans. Farming undertaken with an objective to earn profits from agriculture by using modern technology is referred to as commercial farming.

Q 5. Mention two factors that are important for the growth of plantations.

Ans. The two factors are:

(i) Well-developed system of transport and communication that connects the plantation to the factories.
(ii) Well-developed markets.

Q 6. What is the sowing period of rabi crops?

Ans. Rabi crops are sown at the start of winter season in the months of October to December.

Q 7. What are kharif crops?

Ans. Kharif crops are crops grown with the onset of monsoon and are harvested in September to October.

Q 8. Study the picture and answer the question that follows:

What are the farmers spraying? What is the harmful effect of such an activity?

Ans. The farmers are spraying insecticides or pesticides. This activity adversely affects the quality of the crops and of the soil.

Q 9. Explain briefly the pattern of paddy crops in Odisha and West Bengal.

Ans. Paddy is mostly a kharif crop in West Bengal and Odisha. Three crops of paddy are also grown in an year and are known as *Aus*, *Aman* and *Boro*.

Q 10. Mr. 'P' is from Assam. He wishes to cultivate either Tea or Wheat. Which one of the crops out of the two can he cultivate in his state? Substantiate your answer with any two reasons. *(CBSE SQP 2023-24)*

Ans. He cultivate Tea because:

(i) For everyone. Assam tea is the first choice.

(ii) The main reason for being famous not only in India, but also throughout the world is due to the existence of several highly unique qualities.

Q 11. A crop that is commercial crop in Punjab, but subsistence in Odisha. Give two reasons to justify the above statement.

Ans. A crop that is commercial crop in Punjab, but subsistence in Odisha because of:

(I) Rice is a commercial crop in Punjab as it is grown in huge quantities for commercial purposes.

(II) In Odisha, farmers grow mostly for self-consumption.

Q 12. Mr 'S' is from 'Andhra Pradesh' he wishes to cultivate maize. Can he cultivate maize in his state? Substantiate your answer with any two reasons.

Ans. He can cultivate maize in his state because:

(I) Maize can be grown on a variety of soils ranging from sandy to clayey, so maize is mainly grown in Karimnagar districts of Andhra Pradesh.

(II) There is an immense scope from growing maize as an irrigated crop under Srirampadasagar and Nagarjuna sagar projects and also in the non-traditional areas of the remaining districts of Andhra Pradesh.

Q 13. Karan has been cultivating wheat crop year after year in the same field. Recently he has observed decline in the yield despite best inputs. Agriculture inspector of the area suggested him to sow legume crop for one or two years before again using the field for wheat crop. What is the reason behind this suggestion?

Ans. Karan has been growing only wheat for several years. This has depleted the essential nutrients of the soil of its farms. It is suggested to him, to grow crops such as gram, pea, etc., as these are leguminous crops. They help in nitrogen fixation as they have a nitrogen fixing bacteria in their root nodules. Legumes replenish the nitrogen of soil used by other plants during their growing session.

Q 14. Write the amount of annual rainfall required for the cultivation of wheat. *(CBSE 2020)*

Ans. The amount of annual rainfall required for the cultivation of wheat is 50-75 cm.

Q 15. What are millets?

Ans. Millets are the coarse grains which have very high nutritional value.

Q 16. Which state is the largest producer of ragi?

Ans. Karnataka is the largest producer of ragi.

Q 17. Write the temperature requirement of the maize crop. *(CBSE 2020)*

Ans. The temperature requirement of the maize crop is 21-27°C.

Q 18. Which state is the leading producer of Jowar?

Ans. Maharashtra is the leading producer of Jowar.

Q 19. Write down the climatic conditions required for rubber cultivation.

Ans. Rubber can be grown in tropical and sub-tropical areas. Rainfall of more than 200 cm and temperature above 25°C like moist and humid climate is good for rubber cultivation.

Q 20. Which state is the leading producer of rubber in India? *(CBSE 2015)*

Ans. Kerala is the leading producer of rubber in India.

Q 21. Name any two major cotton producing states.

Ans. Maharashtra and Gujarat are the two major cotton producing states.

Q 22. What is meant by MSP?

Ans. Minimum Support Price is the minimum guaranteed price of a crop, fixed and announced by the government before the start of a cropping season.

Q 23. Name two schemes introduced by the Government of India for the benefit of the farmers.

Ans. The two schemes are Kisan Credit Card (KCC) and Personal Accident Insurance Scheme (PAIS).

Short Answer Type Questions ↘

Q 1. Explain briefly the features of intensive subsistence farming in India.

Ans. Intensive subsistence of farming is practised in areas of high population pressure on land. The following are its important features:

(i) It is a labour-intensive farming where high doses of biochemical inputs and irrigation are used for obtaining higher production.
(ii) HYV seeds and modern inputs are used to increase production.
(iii) This type of farming is practised in areas of high population on land.
(iv) More than one crop is cultivated during a year.

Q 2. Write two differences between intensive and extensive farming.

Ans. Difference between intensive and extensive farming are:

S.No.	Basis of Difference	Intensive Farming	Extensive Farming
(i)	Productivity	Production is increased by using improved inputs and new techniques.	Production is increased by bringing more and more area under cultivation.
(ii)	Areas	It is done in thickly populated area, where no additional land is available.	It is done in thinly populated areas.

Q 3. Write the characteristics of commercial agriculture.

Ans. The characteristics of commercial agriculture are:
(i) It is undertaken to earn profits.
(ii) It uses higher doses of modern inputs such as high yielding variety seeds, chemical fertilizers, insecticides, etc.
(iii) In this form of farming, a single crop is grown on a large area.
(iv) The production is undertaken mainly for the market.

Q 4. Describe any three main features of 'Kharif crop season'. *(CBSE 2019)*

Ans. The main features of 'Kharif crop season' are:
(i) Kharif crops are grown with the onset of monsoon in different parts of the country and are harvested in September to October.
(ii) Kharif crops require high rainfall or better irrigation facilities.
(iii) These crops are grown in all regions of the country and the major crops are paddy, maize, jowar, bajra, cotton, jute, groundnut, etc.

COMMON ERROR
Months and types of crops are confused with Rabi crops.

Q 5. Describe any three main features of 'Rabi crop season'. *(CBSE 2019)*

Ans. The main features of 'Rabi crop season' are:
(i) Rabi crops are sown in winter season from October to December and are harvested in summer from April to June.
(ii) Availability of precipitation during winter months due to Western temperate cyclones helps in the success of these crops.
(iii) Rabi crops are grown in Northern and North-Western parts of India and the major crops are wheat, barley, peas, gram, mustard, etc.

TiP
Students are advised to memorise thoroughly the months of sowing and harvesting of crops.

Q 6. What type of climate is required for the cultivation of wheat? Name any four important wheat-producing states of India.

Ans. Cultivation of wheat requires the following type of climate:
(i) Cool and moist weather during growth and warm and dry climate during ripening is needed.
(ii) 50–75 cm rainfall is required. Rainfall is necessary and beneficial.
(iii) A few light winter showers or assured irrigation ensures a bumper harvest.
Punjab, Haryana, Western Uttar Pradesh and Madhya Pradesh are the main wheat producing states of India.

Q 7. Explain any two geographical conditions required for the cultivation of pulses. Name any two important pulse-producing states.

Ans. Geographical conditions required for the cultivation of pulses are as following:
(i) Temperature is required ranging from 25°C to 30°C.
(ii) They grow well in the areas of 50–75 cm rainfall.
Madhya Pradesh and Uttar Pradesh are two important pulse-producing states.

Q 8. Which crop is known as the 'golden fibre'? Explain two geographical conditions essential for the cultivation of this crop. Mention any four uses. *(CBSE 2016)*

Ans. Jute is known as 'golden fibre'.
Two geographical conditions essential for cultivation of jute are as follows:
(i) Jute grows well in a temperature of 25°C.
(ii) 150–200 cm rainfall is essential for the cultivation of jute.
It is used to manufacture:
(i) gunny bags, (ii) mats,
(iii) ropes, (iv) carpets.

Q 9. Name one important beverage crop and specify the geographical conditions required for its growth. *(NCERT)*

Ans. Tea is an important beverage crop. Geographical conditions required for its growth are as follows:

(I) It grows in tropical and sub-tropical climates endowed with deep and fertile well-drained soil rich in humus and organic matter.

(II) Tea bushes require warm and moist frost-free climate all through the year.

(iii) Frequent showers evenly distributed over the year ensure continuous growth of tender leaves.

Q 10. What are millets? Give brief description of the climatic conditions and producing states of the millets grown in India. *(CBSE 2016)*

Ans. Millets are coarse grains having high nutritional value. The important millets grown in India are jowar, bajra and ragi. Ragi is very rich in iron, calcium, other micro-nutrients and roughage.

The climatic conditions and producing states of these millets are given as:

(i) Jowar: It is a rain-fed crop mostly grown in a moist area. States producing jowar are Maharashtra, Karnataka and Madhya Pradesh.

(II) Bajra: It grows in dry and warm climate on sandy soils and shallow black soil. The states producing bajra are Rajasthan, Maharashtra, Gujarat, Haryana and Uttar Pradesh.

(iii) Ragi: It grows well in the dry region on red, black sandy and loamy soils. The states producing ragi are Tamil Nadu, Himachal Pradesh, Uttarakhand and Sikkim.

TiP

Learn thoroughly the names of states as well as climatic conditions of all crops.

Q 11. Explain any three institutional reforms taken for the development of Indian agriculture. *(CBSE 2023)*

Ans. Institutional reforms taken for the development of Indian agriculture are:

(I) Crop Insurance was provided for disease, fire, cyclone, flood and drought.

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

(iii) To help the farmers, special agricultural programmes and special weather bulletins were introduced on television and radio.

Q 12. 'Agriculture gives boost to the industrial sector'. Justify the statement with any 3 relevant points.

(CBSE SQP 2023-24)

Ans. There are several ways in which agriculture can give a boost to the industrial sector. Three of them are as follows:

(i) Raw materials: Agriculture provides raw materials for a variety of industries, including food processing, textile manufacturing and biofuels. For example, crops such as cotton, wheat and sugarcane are used to produce textiles and food products, while crops like corn and soyabeans are used to produce biofuels.

(ii) Employment: Agriculture is a labour-intensive sector, which means it can provide employment opportunities for people in rural areas. As the agriculture sector grows, it can lead to the creation of more jobs in related industries, such as food processing and manufacturing.

(Iii) Technology: Advances in agricultural technology can lead to innovations in other sectors as well. For example, precision agricultures techniques, such as GPS-guided tractors and drones, can also be used in industries like construction and mining.

Long Answer Type Questions

Q 1. Describe any five features of primitive subsistence farming. *(CBSE 2020)*

Ans. Five features of primitive subsistence farming are:

(I) This type of farming is done on very small patches of land and farmers possess scattered land holdings.

(II) Old technology and primitive tools like hoe, dao, digging sticks are used for cultivation.

(iii) It is practiced with the help of family/community labour.

(iv) Most of the farmers are poor and do not use fertilizers and HYV seeds. So, the overall productivity is very low.

(v) The farming is dependent on rainfall and natural fertility of the soil.

Q 2. Compare primitive subsistence farming and commercial farming.

OR

Highlight any three differences between primitive subsistence farming and commercial farming.

(CBSE 2019)

Ans. Difference between primitive subsistence farming and commercial farming are:

S. No.	Basis of Difference	Primitive Subsistence Farming	Commercial Farming
(i)	Objective	It is that practice of farming in which the farmer and his family raise crops for self consumption.	Commercial farming is that practice of farming in which crops are grown for earning profits.
(ii)	Technique	It employs labour-intensive technique of production.	It employs capital-intensive technique of production.

(iii)	Area	It is practiced on small farms.	It is practiced on large farms.
(iv)	Technology	Old technology and implements are used.	Modern technology and implements are used.
(v)	Example	Production of wheat by a marginal farmer.	The production of sugarcane in Uttar Pradesh.

Q 3. Compare 'intensive subsistence farming' with that of 'commercial farming' practiced in India.

(CBSE 2018)

Ans. The comparison between intensive subsistence farming and commercial farming practised in India is given as follows:

(i) In intensive subsistence farming, pressure of population on land is high whereas it is low in commercial farming.

(ii) In intensive subsistence farming, labour intensive farming is used, but in commercial farming, mechanised form of farming is used.

(iii) In intensive subsistence farming, there is low capital investment, but there is high capital investment in commercial farming.

(iv) Land holdings are small in intensive subsistence farming whereas they are large in commercial farming.

(v) Multiple cropping is practiced in intensive subsistence farming, but in commercial farming, single cropping is practised.

(vi) In intensive subsistence farming, farmers produce for their own consumption whereas in commercial farming production is mainly for the market.

TiP

Students are advised to write correct points of comparison like capital investment, labour, etc.

Q 4. What is plantation agriculture? Write some features of the plantation agriculture

OR

Describe any four characteristics of plantation agriculture.

Ans. Plantation is a type of commercial farming. Rubber, tea, coffee, spices, coconut and fruits are some of the important crops which come under the category of plantation agriculture.

Features of plantation agriculture are as discussed below:

(i) It is capital-intensive farming, *i.e.*, huge amount of capital is required.

(ii) It is grown on a large tract of land, using capital-intensive inputs, with the help of cheap migrant labourers.

(iii) It needs vast estates, managerial ability, technical know-how, sophisticated machinery, fertilizers, good transport facilities and a factory for processing.

(iv) In this type of farming, a single crop is grown on a large area.

Q 5. Mention two geographical conditions required for the growth of maize crop in India. Describe three factors which have contributed to increase maize production.

Ans. Two geographical conditions required for the growth of maize crop are mentioned below:

(i) It requires temperature between 21°C to 27°C.

(ii) It grows well in old alluvial soil

Three factors which have contributed to increase maize production are as follows:

(i) Use of High Yielding Variety (HYV) seeds.

(ii) Use of fertilizers.

(iii) Improvement in irrigation facilities.

Q 6. Describe the geographical conditions required for the growth of rice.

OR

Explain any three geographical conditions required for the growth of rice in India. How is it possible to grow rice in areas of less rainfall? Explain with examples. *(CBSE 2015)*

Ans. Geographical conditions required for the growth of rice are:

(i) It is a Kharif crop which requires high temperature and high humidity. This means monthly temperature of above 25 °C with minor variation in season, is suitable for the growth of the plant.

(ii) Rice, a rain-fed crop, requires 100 cm and above of annual rainfall. In areas of less rainfall, it grows with the help of irrigation.

(iii) Rice can grow in a variety of soils including silts, loams and gravels, but it is grown best in alluvial soil with a sub-soil of impervious clay.

(iv) Rice also requires a large number of cheap and skilled labour for preparation of fields, transplanting of rice plants and harvesting.

(v) Rice is cultivated in almost all of the states of India, but most of its cultivation is concentrated in the river valleys, deltas of rivers and the coastal plains.

TiP

Mention the details regarding temperature and rainfall to have correct answer.

Q 7. Name the two major fibre crops grown in India. Describe the conditions required for the growth of these two crops with their growing areas. *(CBSE 2019)*

Ans. The major fibre crops grown in India are Cotton, Jute, Hemp, Natural silk. (Any two)

The conditions required for the growth of these crops are as follows:

(i) Cotton: It grows well in drier parts of the black cotton soil of Deccan Plateau. It requires high temperature, light rainfall or irrigation, 210 frost-free days and bright sunshine for its growth.
The leading cotton producing states are Gujarat, Maharashtra, Andhra Pradesh, Punjab, Haryana, Karnataka, Tamil Nadu and Madhya Pradesh.

(ii) Jute: Jute grows well on well-drained fertile soil in flood plains where soil is renewed every year. It requires high temperature during the time of growth.
Jute is grown in West Bengal, Bihar, Assam, Odisha and Meghalaya.

Q 8. 'The Government of India has introduced various institutional and technological reforms to improve agriculture in the 1980s and 1990s.' Support this statement with examples. *(CBSE 2018)*

OR

Explain any five technological and institutional reforms in the Indian agriculture. *(CBSE 2020)*

Ans. 'The Government of India has introduced various technological and institutional reforms to improve agriculture in 1980s and 1990s'. These reforms led to Green Revolution in the country.

The technological reforms which led to Green Revolution are as follows:

(i) Several schemes for irrigation were undertaken and arid and semi-arid areas were brought under cultivation.

(ii) The development of HYV seeds of wheat in the early 60s and those of rice in the 70s laid the foundation of Green Revolution in India.

(iii) Special weather bulletins and agricultural programmes for farmers were introduced on radio and television.

The institutional reforms which led to Green Revolution are as follows:

(i) Crop Insurance Scheme was launched by the government to protect the farmers against losses caused by crop failure on account of natural calamities like drought, flood, hailstorm, cyclone, fire, etc.

(ii) Collectivisation, consolidation of holdings, abolition of the Zamindari system, etc., were given top priority to bring about institutional reforms in the country after independence.

(iii) Grameen banks, cooperative societies and banks were established for providing loan facilities to the farmers at lower rates of interest.

(iv) The government announced Minimum Support Price, remunerative and procurement prices to reduce exploitation.

COMMON ERROR

Students often mix the institutional and technological reforms. Discuss both of them separately.

Chapter Test

Multiple Choice Questions

Q 1. Rice is a subsistence crop in Odisha. In which of the following states, is rice a commercial crop?

a. West Bengal and Bihar b. Jammu and Kashmir
c. Punjab and Haryana d. Tamil Nadu and Kerala

Q 2. Three crops of paddy grown in a year in the state of Assam, West Bengal and Odisha are:

a. Aus, Aman and Boro b. Aus, Aman and Poro
c. Bus, Aman and Boro d. Aman, Poro and Boro

Q 3. Which of the following is not true with context to climatic conditions required the cultivation of maize?

(i) It requires temperature between 21°C–27°C.
(ii) It requires old alluvial soil.
(iii) It needs heavy rainfall.
(iv) It needs 210 frost-free days.

a. (i) and (ii) b. (ii) and (iii)
c. (iii) and (iv) d. All of these

Q 4. Match Column I with Column II and choose the correct options:

	Column I		Column II
A.	Sugarcane	1.	It is major source of protein.
B	Tea	2.	India is the second largest producer after Brazil.
C	Fibre crops	3.	It is a type of plantation crop.
D	Pulses	4.	Silk and Jute.

	A	B	C	D
a.	2	3	4	1
c.	4	3	1	2

	A	B	C	D
b.	3	2	4	1
d.	4	2	3	1

Q 5. ..... is a scheme introduced by the Government of India for the benefit of the farmers.

a. Kisan Credit Card b. Mudra Yojana
c. Farmer Scheme d. Jan Dhan Yojana

Assertion and Reason Type Questions

Directions (Q. Nos. 6-7): *In the following questions given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:*

a. Both Assertion (A) and Reason (R) are correct and Reason (R) is the correct explanation of Assertion (A).

b. Both Assertion (A) and Reason (R) are correct. but Reason (R) is not the correct explanation of Assertion (A).
c. Assertion (A) is true. but Reason (R) is false.
d. Assertion (A) is false. but Reason (R) is true.

Q 6. Assertion (A): Plantation is a type of commercial farming.
Reason (R): High productivity is the first and the foremost aim of commercial farming.

Q 7. Assertion (A): Agriculture provides livelihood for more than 60 per cent of its population and needs serious technical and institutional reforms.
Reason (R): The right of inheritance had lead to fragmentation of land holdings necessitating consolidation of holding.

Source Based Question

Q 8. *Read the source given below and answer the questions that follow by choosing the most appropriate option:*

Tea cultivation is an example of plantation agriculture. It is also an important beverage crop introduced in India initially by the British. Today, most of the tea plantations are owned by Indians. The tea plant grows well in tropical and sub-tropical climates endowed with deep and fertile well-drained soil, rich in humus and organic matter. Tea bushes require warm and moist frost-free climate all through the year. Frequent showers evenly distributed over the year ensure continuous growth of tender leaves. Tea is a labour-intensive industry. It requires abundant, cheap and skilled labour.

Tea is processed within the tea garden to restore its freshness. Major tea-producing states are Assam, hills of Darjeeling and Jalpaiguri districts of West Bengal, Tamil Nadu and Kerala. Apart from these, Himachal Pradesh, Uttarakhand, Meghalaya, Andhra Pradesh and Tripura are also tea-producing states in the country. In 2015 India was the second largest producer of tea after China.

(i) Who among the following introduced tea crop in India?
a. Dutch b. Portuguese
c. British d. Arab

(ii) The tea plants grow well in which of the following climates?
a. Tropical b. Sub-tropical
c. Temperate d. Both a. and b.

(iii) Tea is an example of .....
a. labour-intensive industry
b. plantation agriculture
c. Both a. and b.
d. Intensive subsistence farming

(iv) Tea is processed within the ..... to restore its freshness.
a. factory b. tea garden
c. labour home d. None of these

(v) Which of the following state is the leading producer of tea?
a. Assam b. Kerala
c. Karnataka d. Andhra Pradesh

(vi) Assertion (A): Tea cultivation is a labour-intensive industry.
Reason (R): Cultivation can be done throughout the year, tea bushes require warm and moist frost-free climate.
a. Both Assertion (A) and Reason (R) are correct and Reason (R) is the correct explanation of Assertion (A).
b. Both Assertion (A) and Reason (R) are correct. but Reason (R) is not the correct explanation of Assertion (A).
c. Assertion (A) is true. but Reason (R) is false.
d. Assertion (A) is false. but Reason (R) is true.

Very Short Answer Type Questions

Q 9. Complete the following table with correct information with regard to cultivation of rice:

Rice	Annual rainfall required	Cropping season	Temperature required for its growth
	100 cm	(A)- ?	(B)- ?

Q 10. What is the amount of annual rainfall required for the cultivation of wheat?

Short Answer Type Questions

Q 11. Why the pulses are mostly grown in rotation with other crops? Name any two major pulse-producing states.

Q 12. Which crop in India is known as golden fibre? Mention any two geographical condition that it requires for its growth. What are its uses?

Q 13. Differentiate between the two major cropping seasons of India.

Long Answer Type Questions

Q 14. Explain the climatic conditions required for the production of rice. Name any two major rice producing states in India.

Q 15. Describe the reforms brought in the Indian agriculture after independence through the efforts of the Indian government.