

Agriculture is a primary activity. It includes growing crops, fruits, vegetables, flowers and rearing of livestock. In the world, 50 per cent of persons are engaged in agricultural activity. Two-thirds of India's population is still dependent on agriculture.

*Note – The land on which the crops are grown is known as arable land*

### **Important Term**

**Agriculture** – The science and art of cultivation on the soil, raising crops and rearing livestock. It is also called farming

**Sericulture** – Commercial rearing of silk worms. It may supplement the income of the farmer

**Viticulture** – Cultivation of grapes

**Pisciculture** – Breeding of fish in specially constructed tanks and ponds

**Horticulture** – Horticulture Growing vegetables, flowers and fruits for commercial use.

**Olericulture** – Study of vegetable science

**Green Revolution** – It stands for a major technological breakthrough in India based on (i) improved seeds of high yielding varieties, (ii) adequate and assured supply of water for irrigation, and (iii) increased and appropriate application of chemical fertilizers for increasing agricultural production

**White Revolution** – It stands for remarkable increase in milk production

**Blue Revolution** – It refers to big rise in catching of fresh water and marine fish

**Yellow Revolution** – It refers to remarkably steady and assured supply of poultry products

**Pink Revolution** – It refers to a considerable rise in the production of quantity of apples particularly in the states of Himachal Pradesh and J&K

**Black Revolution** – Petroleum Production

**Brown Revolution** – Leather/non-conventional(India)/Cocoa production

**Golden Fibre Revolution** – Jute Production

**Golden Revolution** – Fruits/Overall Horticulture development/Honey Production

**Grey Revolution** – Fertilizer

**Red Revolution** – Meat & Tomato Production

**Round Revolution** – Potato

**Silver Fiber Revolution** – Cotton

**Silver Revolution** – Egg/Poultry Production

**Evergreen Revolution** – Overall development of Agriculture

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### **Soils of India: Six Different Types of Soils Found in India are as follows:**

Soil is our prime natural and economic resource. Soils in India differ in composition and structure.

#### **1. Alluvial Soils:**

largest and the most important soil group of India

These are formed by the deposition of sediments by rivers.

They are rich in humus and very fertile.

They are found in Great Northern plain, lower valleys of Narmada and Tapi and Northern Gujarat.

These soils are renewed every year.

*Influence on Agriculture:* Alluvial soil is very productive. Abundant of wheat, sugarcane, oilseeds, pulses, rice and jute is grown on this soil.

### **2. Black Soils:**

These soils are made up of volcanic rocks and lava-flow.

It is concentrated over Deccan Lava Tract which includes parts of Maharashtra, Chhattisgarh, Madhya Pradesh, Gujarat, Andhra Pradesh and Tamil Nadu.

It consists of Lime, Iron, Magnesium and also Potash but lacks in Phosphorus, Nitrogen and Organic matter.

*Influence on Agriculture:* They retain moisture for a long period. These soils are fertile and suitable for the production of cotton, sugarcane, wheat and groundnut.

### **3. Red Soils:**

These are derived from weathering of ancient metamorphic rocks of Deccan Plateau.

Its redness is due to iron composition. When iron content is lower it is yellow or brown.

They cover almost the whole of Tamil Nadu, Andhra Pradesh, Chhattisgarh, Karnataka, Maharashtra and parts of Orissa.

*Influence on Agriculture:* They are relatively less fertile, but are capable of growing good crops with the help of irrigation and fertilizers. Rice, wheat, millet, gram, pulses, sugarcane, oilseeds and cotton are cultivated on these Soils.

### **4. Laterite Soils:**

These soils are formed due to intense leaching and are well developed on the summits of hills and uplands.

They are commonly found in Kerala, Tamil Nadu, Maharashtra, Chhattisgarh and hilly areas of Orissa and Assam.

*Influence on Agriculture:* These soils are infertile as they cannot retain moisture. They are unsuitable for agriculture. Some plants like the cashew can thrive on lateritic soils. Root crops like tapioca also do reasonably well on these soils

### **5. Mountain Soils:**

These soils are formed as a result of the accumulation of organic matter derived from forest growth.

They are found in Himalayan region and vary in different regions according to altitude.

Tea is grown in those areas which receive sufficient rainfall.

*Influence on Agriculture:* They are fertile and suitable for cultivation of potatoes, rice, wheat, fruits and tea.

### **6. Desert Soils:**

In the desert regions of Rajasthan, soils are not well developed.

As evaporation is in excess of rainfall, the soil has a high salt content and saline layer forms a hard crust.

These soils are generally sandy and deficient in organic matter.

*Influence on Agriculture:* These soils are not suitable for agriculture due to scanty rainfall; however, agriculture can be carried on with the help of irrigation. Bajra, wheat, groundnut can be grown on these soils.

Points to remember	Type of Soil
<i>The soil most common in Indo-gangetic plains</i>	Alluvial
<i>The soil which swells when wet and develops cracks when dry</i>	Black
<i>The soil which owes its colour to oxides of iron</i>	Laterite
<i>The soil which requires least use of fertilisers</i>	Alluvial
<i>The soil which requires least tilling</i>	Black
<i>The kind of soil which is treated with gypsum to make it suitable for cropping</i>	Alkaline soil
<i>The soil which is poor in soluble salts</i>	Laterite
<i>The soil which is rich in surface accumulation of organic matter</i>	Peaty soil
<i>The soil which is most suitable for cultivation of cotton</i>	Black

### **CROPPING PATTERN**

**Rabi:** Rabi crops are also known as winter crops.

*Sown* – October to December and

*Harvested* – April to June.

*Main Crop* – Wheat, barley, pea, gram and mustard.

*Note* – Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir, Uttarakhan and Uttar Pradesh are the important producers of rabi crops.

**Kharif:** Kharif crops are also known as summer crops.

*Sown* – The beginning of monsoon

*Harvested* – September-October.

*Main Crop* – Paddy, maize, jowar, bajra, tur, moong, urad, cotton, jute, groundnut and soyabean crops.

*Note* – Assam, West Bengal, coastal regions of Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Maharashtra, Uttar Pradesh and Bihar are important rice growing states.

*Note – In Assam, West Bengal and Orissa, three crops of paddy are grown in a year. These are called Aus, Aman and Boro.*

**Zaid:** The zaid season falls in between the rabi and kharif seasons.

*Main Crop – Watermelon, muskmelon, cucumber, vegetables and fodder crops*

*Note – Sugarcane is planted in this season but takes almost a year to grow.*

### **Based on climatic condition**

1) *Tropical crop* : Coconut, sugarcane

2) *Sub-tropical crop* : Rice, cotton

3) *Temperate crop* : Wheat, barley

4) *Polar crop* : All pines, pasture grasses

### **Farm System Agriculture**

*Inputs – seeds, fertilisers, machinery and labour.*

*Operation – Ploughing, sowing, irrigation, weeding and harvesting.*

*Output – crops, wool, dairy and poultry products.*

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### **Farming Type**

Farming can be classified into two main types.

#### **1.Subsistence Farming**

*Intensive Subsistence*

*Primitive Subsistence*

*Shifting Cultivation*

*Nomadic Herding*

#### **2.Commercial Farming.**

*Commercial Frain Farming.*

*Mixed Farming*

*Plantation Agriculture.*

#### **1. Subsistence Farming –**

This type of farming is practised to meet the needs of the farmer's family.

Traditionally, low levels of technology and household labour are used to produce on small output.

Subsistence farming can be further classified as *Intensive Subsistence* and *Primitive Subsistence Farming*.

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*In Intensive Subsistence Agriculture –*

The farmer cultivates a small plot of land using simple tools and more labour.

Climate with large number of days with sunshine and fertile soils permit growing of more than one crop annually on the same plot.

Rice is the main crop.

Other crops include wheat, maize, pulses and oilseeds.

*Primitive Subsistence* – agriculture includes *shifting cultivation* and *nomadic herding*.

*Shifting Cultivation*

These are the areas of heavy rainfall and quick regeneration of vegetation.

A plot of land is cleared by felling the trees and burning them.

The ashes are then mixed with the soil and crops like maize, yam, potatoes and cassava are grown. After the soil loses its fertility, the land is abandoned and the cultivator moves to a new plot.

Shifting cultivation is also known as ‘slash and burn’ agriculture.

*Note – Shifting cultivation is known by different names in different parts of the world Jhumming – North-East India Milpa - Mexico Roca – Brazil. Ladang – Malaysia*

*Nomadic Herding*

Practised in the semi-arid and arid regions of Sahara, Central Asia and some parts of India, like Rajasthan and Jammu and Kashmir.

In this type of farming, herdsman move from place to place with their animals for fodder and water, along defined routes.

This type of movement arises in response to climatic constraints and terrain. Sheep, camel, yak and goats are most commonly reared.

They provide milk, meat, wool, hides and other products to the herders and their families.

**2. Commercial Farming –**

In commercial farming crops are grown and animals are reared for sale in market.

The area cultivated and the amount of capital used is large.

Most of the work is done by machines.

Commercial farming includes *Commercial Grain Farming*, *Mixed Farming* and *Plantation Agriculture*.

*Commercial Grain Farming –*

Crops are grown for commercial purpose.

Wheat and maize are common commercially grown grains.

Severe winters restrict the growing season and only a single crop can be grown.

**Mixed Farming –**

It is a situation in which both raising crops and rearing animals are carried on simultaneously.

Here farmers engaged in mixed farming are economically better off than others

**Plantations –**

It is an estate where a single cash crop is grown for sale.

This type of agriculture involves growing and processing of a single cash crop purely meant for sale. Tea, coffee, rubber, banana and spices are all examples of plantation crops

*Note – Organic Farming In this type of farming, organic manure and natural pesticides are used instead of chemicals. No genetic modification is done to increase the yield of the crop.*

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**MAJOR CROPS OF INDIA**

**Food grains –** Crops that are used for human consumption

**Main Crop –** Rice, Wheat, Maize, Millets, Pulses and Oil seeds

**Commercial Crops –** Crops which are grown for sale either in raw form or in semi-processed form

**Main Crop –** Cotton, Jute, Sugarcane, Tobacco and Oilseeds

**Plantation Crops –** Crops Which are grown on Plantations covering large estates

**Main Crop –** Tea, Coffee, Coconut and Rubber

**Horticulture –** Sections of agriculture in which Fruits and Vegetables are grown

**Main Crop –** Fruits and Vegetables

**Let us discuss the Important Food grains**

**Rice – Kharif or Summer Crop**

**Temperature Require:** Rice requires hot and humid conditions. The temperature should be fairly high i.e. 24°C mean monthly temperature with average temperature of 22°C to 32°C

**Rainfall:** Rainfall ranging between 150-300 cm is suitable for its growth in areas of Punjab, Haryana and Western Uttar Pradesh where rainfall is less than 100 cm, rice is cultivated with the help of irrigation.

**Soil:** Rice is grown in varied soil conditions but deep clayey and loamy soil provides the ideal conditions. Rice is primarily grown in plain areas. It is also grown below sea level at Kuttinad (Kerala), hill terraces of north eastern part of India and valleys of Kashmir

**Note –** China leads in the production of rice followed by India, Japan, Sri Lanka and Egypt.

### **Wheat – Rabi or Winter Crop**

*Temperature Require:* It is primarily a crop of mid-latitude grassland. It requires cool climate. The ideal temperature is between 10°C to 15°C at the time of sowing and 21°C to 26°C at the time of ripening and harvesting.

*Rainfall:* Wheat thrives well in areas receiving annual rainfall of about 75cm. Annual rainfall of about 100cm is the upper limit for wheat cultivation

*Soil:* Although wheat can be grown in a variety of soils but well drained fertile loamy and clayey loamy soil is best suited for wheat cultivation. Plain areas are very well suited for wheat production.

*Note – Wheat is grown extensively in USA, Canada, Argentina, Russia, Ukraine, Australia and India. In India it is grown in winter.*

### **Millets(Jawar, Bajra): Millets are short duration warm weather crops – Kharif Crop**

*Temperature Require:* These crops are grown where the temperature is high which ranges between 27°C to 32°C.

*Rainfall:* As mentioned earlier that millets are 'dry land crops', therefore, rainfall ranging from 50 to 100cm is ideal for their cultivation.

*Soil:* Millets are less sensitive to soil deficiencies. They can be grown in inferior alluvial or loamy soil

### **Pulses-**

*Note – Gram: It is the most important of all the pulses. It accounts for about 37% of the production and about 30% of the total area of pulses in India*

*Temperature Require :* It is grown in a wide range of climatic condition. Mild cool and comparatively dry climate with 20°C-25°C temperature.

*Rainfall:* 40-45 cm rainfall is favourable for gram cultivation.

*Soil:* It grows well on loamy soils

### **Other Important**

*Maize:* Maize requires moderate temperature, rainfall and lots of sunshine. It needs well-drained fertile soils.

*Note – Maize is grown in North America, Brazil, China, Russia, Canada, India, and Mexico.*

*Cotton:* Cotton requires high temperature, light rainfall, two hundred and ten frost-free days and bright sunshine for its growth. It grows best on black and alluvial soils. It is one of the main raw materials for the cotton textile industry.

*Note – China, USA, India, Pakistan, Brazil and Egypt are the leading producers of cotton*

*Jute:* Jute was also known as the 'Golden Fibre'. It grows well on alluvial soil and requires high temperature, heavy rainfall and humid climate. This crop is grown in the tropical areas.

*Note – India and Bangladesh are the leading producers of jute.*

*Coffee:* Coffee requires warm and wet climate and well drained loamy soil. Hill slopes are more suitable for growth of this crop.

*Note – Brazil is the leading producer followed by Columbia and India.*

*Tea:* Tea is a beverage crop grown on plantations. This requires cool climate and well distributed high rainfall throughout the year for the growth of its tender leaves It needs well-drained loamy soils and gentle slopes. Labour in large number is required to pick the leaves.

*Note – Kenya, India, China, Sri Lanka produce the best quality tea in the world.*

*Note – Spice producing areas in India are Kerala, Karnataka, and Tamil Nadu.*

*Note – Tobacco producing states are Gujarat, Uttar Pradesh, Andhra Pradesh and Karnataka.*

Point to remember	Crop
<i>The crop which requires water-logging for its cultivation</i>	Rice
<i>The crop best suited in areas where rain falls only for two months</i>	Pulses
<i>The ideal crop for areas with rainfall above 200 cm and sloping hills</i>	Tea
<i>The crop which requires a large amount of rainfall and no standing water</i>	Tea
<i>The crop which is sown in largest area in India</i>	Rice (43.9 million hectares as per 2013-14 estimates)
<i>The crop whose production is the largest in India</i>	Sugarcane (348.4 million tonnes as per 2013-14 estimates)
<i>The cereal crop whose production is the largest in India</i>	Rice (106.3 million tonnes as per 2013-14 estimates)
<i>The agricultural produce which has the highest percentage share of imports</i>	Edible Oil (about 68% of imports of food and allied products)
<i>The agricultural produce which has the highest percentage share of exports</i>	Rice

#### **Crops : India's Rank in the World**

<i>Millets, Lemon &amp; limes, Bananas, Ginger, Mangoes, Papayas, Jute, Castor Oil seed, Safflower oil seed</i>	First
<i>Sugarcane, Wheat, Onion, Potatoes, Garlic, Rice, Tea, Cottonseed</i>	Second

#### **Food Security**

In order to ensure food security to all sections of society, the government has carefully designed a national food security system. It has two components:



**Buffer Stock:** Once the government procures food grains through FCI (Food Corporation of India), buffer stock is maintained at various locations. This stock is utilised in case of food shortage at any place. This stock is also utilised in case of natural disasters; like flood and drought.

**Public Distribution System:** PDS is a programme which provides food grains and other essential commodities at subsidised prices to poor people in rural and urban areas. A person needs to get a ration card made to avail the benefits of PDS. Separate cards are made for BPL (Below Poverty Line) and APL (Above Poverty Line) families. The PDS is also fed by the FCI.

Importance of agriculture in Indian economy.

India is an agricultural country.

Nearly two-thirds of its population depends directly on agriculture for its livelihood.

Agriculture is the main stay of India's economy.

It accounts for 26% of the gross domestic product.

It ensures food security for the country and produces several raw materials for industries.

Agricultural development is therefore, a precondition of our national prosperity.

### **Additional Important Byte**

*Age at which white leghorn starts laying eggs* – 5-6 months

*Apex body of agricultural marketing* – NAFED

*ASPEE is related to* – Sprayer

*At which temperature milk is stored* – 4c

*Critical Irrigation stage for Wheat* – CRI

*Crop intensity of wheat paddy* – 200%

*Dapog Method* – Nursery preparation

*Depth of shallow tillage according to the CRIDA* – 5-6 cm

*Disc angle of disc plough* – 42-45

*Disc harrow is involved in which kind of tillage* – Secondary

*Farmers not classified on the basis of price, area* – Ranching

*High pressure Sprayer* – Gear pump

*Jwala is the variety of* – Chilli

*Minimum Land required for loan* – 2000 ha

*Minimum level of Water erosion* – Splash irrigation

*Minimum loss of water* – Drip irrigation

*Minor irrigation area* – 2000 ha

*Mulching is* – Conservative tillage

*Percentage of clay in sandy loam* – 0-20%

*Plantation system having one tree at the center* – Quincunx

*PLP initiated by* – NABARD, GOI, RRB

*Power tiller* – Rotatory implement

*Pusa kranti is the variety of* – Brinjal

*Reason for Seed-lessness in fruit* – Embryo Abortion

*Red label on fertilizer box indicates* – Extremely toxic

*Rinderpest is not a disease of* – Poultry

*Root-Rot disease related to* – Groundnut

*Rotavator is involved in which type of tillage* – Secondary tillage

*Seedless variety of Grapes* – Thompson

*Size of coarse sand particle* – 2mm-0.2mm

*Size of Mould board plough determines* – Width of Cut

*Soil with pH less than 3.5* – Ultra acidic soil

*Soyabean root (which type)* – Deeply-rooted

*Tractor working hours* – 10000 hours

*Vaishali is the variety of* – Tomato

*Water conservation is studied under* – Soil science

*Water loss in air least in* – Drip irrigation

*Which is not a micro nutrient* – Ca

*Why puddling is done* – Conserving moisture by breaking by breaking an impermeable layer

*Zero tillage means* – Neither primary nor secondary

### **Economic Activities**

This transformation from a plant to a finished product involves three types of economic activities. These are

- 1) *Primary* – Primary activities include all those connected with extraction and production of natural resources or raw materials from the Earth. Example – Agriculture, Fishing and Gathering
- 2) *Secondary* – Secondary activities involves the transformation of raw materials into goods, Example – Manufacturing of steel, Baking of bread and Weaving of cloth
- 3) *Tertiary Activities* – Provide support to the primary and secondary sectors through services. Example – Transport, trade, banking, insurance and advertising

### **Land Use Categories Land**

Land Use Categories Land-use records are maintained by land revenue department. The land use categories add up to reporting area, which is somewhat different from the geographical area. The Survey of India is responsible for measuring geographical area of administrative units in India. Have you ever used a map prepared by Survey of India? The difference between the two concepts are that while the former changes somewhat depending on the estimates of the land revenue records, the latter does not change and stays fixed as per Survey of India measurements

The land-use categories as maintained in the Land Revenue Records are as follows :

*Forests* : It is important to note that area under actual forest cover is different from area classified as forest. The latter is the area which the Government has identified and demarcated for forest growth. The land revenue records are consistent with the latter definition. Thus, there may be an increase in this category without any increase in the actual forest cover.

**Land put to Non-agricultural Uses :** Land under settlements (rural and urban), infrastructure (roads, canals, etc.), industries, shops, etc. are included in this category. An expansion in the secondary and tertiary activities would lead to an increase in this category of land-use.

**Barren and Wastelands :** The land which may be classified as a wasteland such as barren hilly terrains, desert lands, ravines, etc. normally cannot be brought under cultivation with the available technology.

**Area under Permanent Pastures and Grazing Lands :** Most of this type land is owned by the village 'Panchayat' or the Government. Only a small proportion of this land is privately owned. The land owned by the village panchayat comes under 'Common Property Resources'.

**Area under Miscellaneous Tree Crops and Groves(Not included is Net sown Area) :** The land under orchards and fruit trees are included in this category. Much of this land is privately owned.

**Culturable Waste-Land :** Any land which is left fallow (uncultivated) for more than five years is included in this category. It can be brought under cultivation after improving it through reclamation practices.

**Current Fallow :** This is the land which is left without cultivation for one or less than one agricultural year. Fallowing is a cultural practice adopted for giving the land rest. The land recoups the lost fertility through natural processes.

**Fallow other than Current Fallow :** This is also a cultivable land which is left uncultivated for more than a year but less than five years. If the land is left uncultivated for more than five years, it would be categorised as culturable wasteland.

**Net Area Sown :** The physical extent of land on which crops are sown and harvested is known as net sown area.

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### **Varieties of Different Important Crops**

**Rice :** (First introduced drawf variety into India), IR-8, Jaya (Blast Resistant), Padma, Mashuri, Kakatiya, Pusa Basumati, Pusa Jaldidan, Lunisree, Ratna, TKM-6 (Stem borer resistant), Kataribogh (Tungro resistant), ADT-27 (indica x japonica), Santchousong (High protein content), Dee-Gee-Woo-Gen, Bala (Drought resistant), IR-20 (Resistant to Blast, BLB, stemborer, leafhopper).

**Wheat :**

Introduction from Mexico: Lerma Rojo and sonara-64.

**Single gene dwarf varieties :** Safed lerma, Sharbati sonara, pusa Lerma, Chotu lerma.

**Double gene dwarf varieties:** Shera, Arjun, Janak.

**Triple gene dwarf varieties:** Heera, Moti.

**HD series, Kundan, C-306 (drought resistant).**

**Chickpea :** Pusa 256 PBG-1 203, Pusa 209: Gaurav ICC-32, Ajay.

**Pigeonpea :** UPAS-120 (short duration), ICPH-8 (First Hybrid), (Arhar) Pusa 33, Pusa Agati, ICPL 37. Hira, Mukta, Bahar, Prabat. SBH-8. Sugarcane: Noble Canes: CO-419, Co-997

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*Soybean* : Bragg, Lee Clark-63, Shilajeet, Pusa 16, 20, 24, PK-327

*Tomato* : Pusa Sheetal, Pusa-120, Pusa Early Dwarf, Pusa Ruby, Margolage, Sioux, Pusa Gauray, Best of All.

*Mango* :

Malika (neelam x dasheri), Amrapali (dasheri x neelam)

Ratna (neelam x alphonso)

*Bannana* :

Poovan (larplur, Chakrakeli), Basrai, Champa

*Hill Bananas* : Sirumali, virupakshi

*Culinary varieties* : Monthan, Gross Mitchell, Mindoli Robusta Rasthali

*Rose*: Chitra, Dr. B. P. Pal, Priyadarshini, Nehru Ceremony, Jawhar, Abisarika, Banjara, Randhawa.

*Califlower*: Pusa Deepali, Pusa synthetic, Pusa Katki, Early Snowball, Kanwari, Early, Patna, Patna Main crop, Snowball-16, Sutton's Snowball Japanese improved, Dania, Aghani, Poosi.

### **Top producing state**

*Apple* – Jammu & Kashmir Largest

*Banana* – Tamil

*Cashew nut* – Maharashtra

*Citrus, Lemon, Mosambi* – Pradesh

*Coarse Cereal* – Karnataka, Rajasthan

*Cocoa* – Kerala

*Coconut* – Tamil Nadu

*Cotton* – Gujarat

*Grapes* – Maharashtra

*Horticulture Products* – West Bengal

*Jute* – West Bengal

*Litchi* – Bihar

*Maize* – Andhra Pradesh

*Mango* – Uttar Pradesh & Andhra Pradesh

*Oilseeds* – Gujarat

*Orange* – Punjab

*Rapeseed & Mustard* – Rajasthan

*Rice* – West Bengal

*Soybean* – Madhya Pradesh

*Sugar* – Maharashtra

*Sugarcane* – Uttar Pradesh

*Sunflower* – Karnataka

*Total Food Grains* – Uttar Pradesh

*Total Fruits* – Andhra Pradesh Largest

*Total Spices* – Andhra Pradesh Largest

*Total Vegetables* – West Bengal

*Wheat* – Uttar Pradesh

### **Fruit types with Example**

*Berries* : Grapes, Guava, Phalsa, Tomato, Brinjal, Chitiles

*Drupe* : Mango, Peach, Plum, Cherry, Apricot

*Hesperidum* : Citrus4. *Amphisarca* : Wood apple, Bael

*Balusta* : Pomegranate

*Pome (false fruit)* : Apple, Pear

*Pepo* : Cucurbits

*Single seeded berry* : Dates

### **IMPORTANT key points to remember**

*U.P has highest total fertilizer consumption*

*Crop under highest irrigation is 1st-wheat, 2nd-rice.*

*Irrigated area to Net sown area highest in Sugarcane followed by Wheat*

*Largest imported fertilizer is potash.*

*26 % of Indian population are under below poverty line*

*State having maximum area under irrigation – Punjab*

*Major source of irrigation in India – Canal*

*Maximum area under fruit crops – Mango*

*Maximum production under fruit crops – Banana*

*First agricultural census in India conducted in 1970*

*As per National forest policy, for ecological balance, the forests cover should be on 1/3rd area (i.e. 33 %) of the country*

### **Famous name of crops**

*National fruit of India* : Mango

*Adams fig* : Banana

*Apple of paradise* : Banana

*Autumn queen* : Chrysanthemum

*Bio energy plant* : Jatropha

*Brown gold* : Dead pupae of silkworm

*Butter fruit* : Avocado

*China's miracle fruit* : Kiwi fruit

*Drosophila of crop plants* : Maize

*Egg plant* : Brinjal

*Famine reserves* : Millets

*Food of god* : Cocoa

*Glory of East* : Chrysanthemum

*King of arid and semi fruits* : Ber

*King of cereals* : Wheat

*King of coarse cereals* : Sorghum

*King of fodder crops* : Berseem

*King of fruits* : Mango

*King of oilseeds* : Mustard

*King of spices* : Black Pepper

*King of temperate fruits* : Apple

*King of weeds* : Congress grass

*Oldest cultivated tropical fruits* : Banana

*Poor man's food* : Pearl millet

*Poor man's friend* : Potato

*Poor man's fruit* : Jackfruit, Ber

*Poor man's meat* : Soybean

*Poor man's orange(India) and love of apple (England)* : Tomato

*Poor man's substitute for ghee* : Sesamum

*Queen of beverage crop* : Tea

*Queen of cereals* : Maize

*Queen of flowers* : Rose

*Queen of fodder crops* : Lucerne

*Queen of fruits* : Pineapple

*Queen of oilseeds* : Sesame

*Queen of spices* : Cardamom

*Queen of vegetables* : Potato

*Small holder's irrigated crop* : Oil palm

*Tree of heaven* : Coconut

*Vegetable meat* : Cowpea

*Wonder crop* : Soybean

*Wonder tree* : Neem

**Terms used with associated crops**

*Curing* : Tobacco, Tea

*Stripping* : Jute

*Nipping* : Cotton

*Wrapping* : Sugarcane

*Propping* : Banana, sugarcane

*Trashing* : Sugarcane

*Dapog seedling* : Rice seedling

*De-suckering* : Tobacco, Banana

*De-tasseling* : Maize

*Pegging* : Groundnut

*Retting* : Jute

*Ginning* : Cotton

*Tapping* : Gram

*Staking* : Tomato

*Arrowing* : Sugarcane

*Rationing* : Sugarcane

*Tipping* : Tea

#### **list of Agricultural Research Centers In India**

*Central Arid Zone Research Institute(CAZRI)* – Rajasthan

*Central Food Technological Research Institute (CFTRI)* – Mysore

*Central Inland Fisheries Research Institute(CIFRI)* – West Bengal

*Central Institute for Cotton Research (CICR)* – Maharashtra

*Central Institute for Research on Goats (CIRG)* – Uttar Pradesh

*Central Institute of Agricultural Engineering (CIAE)* – Bhopal

*Central Institute of Brackishwater Aquaculture (CIBA)* – Chennai

*Central Institute of Freshwater Aquaculture (CIFA)* – Orissa

*Central Plantation Crops Research Institute (CPCRI)* – Kerala

*Directorate of Maize Research (DMR)* – New Delhi

*Directorate of Water Management (DWM)* – Bhubaneswar

*Directorate of Wheat Research(DWR)* – Haryana

*Indian Agricultural Research Institute(IARI)* – New Delhi

*Indian Agricultural Statistics Research Institute(IASRI)* – New Delhi

*Indian Institute of Forest Management (IIFM)* – Bhopal

*National Academy of Agricultural Research Management (NAARM)* – Andhra Pradesh

*National Botanical Research Institute (NBRI) – Uttar Pradesh*

*National Bureau of Animal Genetic Resources (NBAGR) – Haryana*

*National Bureau of Plant Genetic Resources (NBPGR) – New Delhi*

*National Bureau of Plant Genetic Resources (NBPGR) – New Delhi*

*National Centre for Agricultural Economics and Policy Research (NCAP) – New Delhi*

*National Dairy Research Institute (NDRI) – Haryana*

*National Institute of Agricultural Extension Management (MANAGE) – Hyderabad*

*National Institute of Agricultural Marketing (NIAM) – Rajasthan*

*Sugarcane Breeding Institute (SBI) – Tamil Nadu*

### **Quick Review Some Important points**

*Growing of only one crop on a piece of land year after year is called – Mono Cropping*

*Growing two or more crops on the same piece of land in one calendar year is called – Multiple cropping*

*Growing 2 or more crops simultaneously with definite row arrangement is called -Inter cropping*

*Growing at low or more crops in sequate on the same piece of land in a farming year – Sequential cropping*

*Ratio between grass sown area and Net sown area is called – Cropping Intensity*

*Cropping Intensity can be obtained from the formula –  $(\text{Gross Sown Area} / \text{Net sown areas}) \times 100$*

*Growing of crops in between Kharif and rabbi season is called – Zaid cropping*

*The slash and burn type of cultivation in the hill treats of North Eastern Region is called – Jhum/ shifting cultivation*

*Crops which are grown primarily to cover the soil and to reduce the loss of moisture and erosion is called – Cover crop*

*System of growing together crops of different heights at the same time on the same piece of land is called – Multy storey cropping*

*Example of Multy storey cropping is – Coconut + Pepper + cocoa + Pineapple*

*Botanical name of wheat – Triticum aestivum*

*Protein of wheat is called – Gluten*

*Bread wheat is scientifically called – Triticum aestivum*

*Macroni wheat is scientifically called – Triticum durum*

*Emmer wheat is scientifically called – Triticum dicoccum*

*A condition of atmosphere at a given place at a given time is called – Weather*

*A weather condition over a given region during a longest period is called – Climate*

*All weather phenomena like rain, fog occur in -Troposphere*

*Wheat, Barley and Oat are the example of – Long day plant*

*Rice, Sorghum and Maize are the example of – Short day plant*

*Cotton, Sunflower and Buck wheat are the example of – Neutral plants*

*Average rainfall in India – 120 cm*

*Rain bearing clouds is – cumulonimbus, cumulus*

*A chemical used for cold cloud seeding – Silver iodide*



*A chemical used for warm cloud seeding* – Sodium chloride

*Indian Meteorological Organization situated at* – New Delhi(earlier Pune)

Agriculture Notes (Part-1)

<http://www.punjabexamportal.com/2015/11/12/agriculture-notes-mcqs-1/>

**Multiple Choice Question**

**Q-1 The Crops which are grown in rainy season are called**

- a) Rabi crop
- b) Seasonal crop
- c) Monsoon crop
- d) Kharif crop**

- a) 1/2
- b) 2/3**
- c) 1/4
- d) 2/5

**Q-2 Rabi Crops are grown in \_\_\_\_\_ season**

- a) Summer
- b) Spring
- c) Winter**
- d) rainy

**Q-7 Which Indian state stands first in the production of coffee?**

- a) Kerala
- b) Karnataka**
- c) Assam
- d) Gujarat

**Q-3 The Bhoodan-Gramdaan movement was initiated by**

- a) Vinoba Bhave**
- b) Mahatma Gandhi
- c) Pandit Nehru
- d) R. C. Reddy

**Q-8 In which type of soil does Maize grow well?**

- a) Black
- b) Sandy Soil
- c) Old alluvial**
- d) None of the above

**Q-4 Cultivation of coffee is confined to which of the following hills?**

- a) Nilgiri**
- b) Aravali
- c) Shivalik
- d) Chhota Nagpur

**Q-9 Which are the two main beverage crops produce in India ?**

- a) Sugar cane and oilseeds
- b) Tea and coffee**
- c) Jowar and bajra
- d) Rice and wheat

**Q-5 Which Indian state leads in the production of rubber?**

- a) Tamil Nadu
- b) Kerala**
- c) Karnataka
- d) Gujarat

**Q-10 Which country is the largest producer of oil seeds in the world?**

- a) China
- b) India**
- c) U.S.A
- d) Pakistan

**Q-6 What part of Total population of India is engaged in agriculture activities:**

**Q-11 Which one of the following crops is known as 'Golden Fibre'?**

- a) Wheat
- b) Rice**

c) Groundnut

*d) Jute*

**Q-12 Which of the following crops is not a millet?**

a) Jowar

*b) Maize*

c) Ragi

d) Bajra

**Q-13 The rearing of silk worms for the production of silk fiber is known as :**

*a) Sericulture*

b) Horticulture

c) Floriculture

d) Agriculture

**Q-14 What is Pink Revolution –**

a) It refers to big rise in catching of fresh water and marine fish.

b) It stands for remarkable increase in milk production

c) It refers to remarkably steady and assured supply of poultry products.

*d) It refers to a considerable rise in the production of quantity of apples*

**Q-15 Which of the following soil type is most suitable for garlic cultivation ?**

a) Loamy sand

*b) Sandy loam*

c) Loam

d) Clay

**Q-16 Which type of soil is best for knolkhol ?**

a) Loam

*b) Clayey loam*

c) Silty clayey loam

d) Clay

**Q-17 Which of the following soil type has the highest field capacity ?**

a) Loam

b) Silty loam

c) Clayey loam

*d) Clay*

**Q-18 Which among the following is a fibre crop?**

a) Rubber

*b) Jute*

c) Tomato

d) Coffee

**Q-19 About 90% of Rubber demand is met by**

*a) Kerala*

b) Karnataka

c) Tamil Nadu

d) Maharashtra

**Q-20 Pulses fit well in cropping system as they are—**

a) Short duration crops

b) Disease resistant crops

c) Long duration crops

*d) Moisture stress resistant crops*

**Q-21 Wheat is a**

a) Cash crop

*b) Cereal crop*

c) Covered crop

d) None of these

**Q-22 Which one of following is not Agro-based industry:**

*a) Cement Industry*

b) Jute Industry

c) Cotton textile Industry

d) Sugar Industry

**Q-23 India is the larger producer as well as the consumer of the world?**

a) Apple

b) Rice

*c) Chickpeas*

d) Millets

**Q-24 Which of the following oil seed is both a karif and Rabi crop?**

a) Groundnut

b) Mustard

c) Sesamum

d) Soyabean

**Q-25 Which state is the largest producer of Groundnut?**

- a) Uttar Pradesh
- b) Gujarat**
- c) Maharashtra
- d) Andhra Pradesh

**Q-26 Growing different crops alternately on the same land is technically called**

- a) Crop Alternation
- b) Crop Rotation**
- c) Crop Revolution
- d) Crop Change

**Q-27 Moat, Dhekli and Rahat are different**

- a) Traditional methods of cultivation
- b) Traditional methods of Weeding
- c) Traditional methods of Seed sowing
- d) Traditional methods of irrigation**

**Q-28 In the harvested crop the grain seed is separated from the chaff. This process is called \_\_\_ a**

- a) Threshing**
- b) Seeding
- c) Ploughing
- d) Weeding

**Q-29 Hoe, dao, digging sticks are associated with**

- a) Primitive subsistence farming**
- b) Commercial farming
- c) Green Revolution
- d) Horticulture

**Q-30 Which of the following is grown in rotation with other crops?**

- a) Arhar
- b) Moong**
- c) Sunflower
- d) Groundnut

**Q-31 Which of the following description is true for describing 'fertiliser'**

- a) Used in large quantity
- b) Organic in nature

- c) Does not cause pollution
- d) Produced in factories**

**Q-32 Rhizobium (a Bacteria) which fixes atmospheric nitrogen are found in nodules growing in**

- a) Roots of leguminous plants**
- b) Leaves of leguminous plants
- c) Stem of Leguminous plants
- d) All of the above.

**Q-33 Before sowing the seeds, it is necessary to break soil to the size of grains to get better yield. The main tools used for such are**

- a) Tractor, Hoe, Seed drill
- b) Bullock, tiller, tractor
- c) Plough, Hoe, Cultivator
- d) Plough, Seed Drill, Tractor**

**Q-34 In India which crop is sown on the largest area?**

- a) Jowar
- b) wheat
- c) tobacco
- d) rice**

**Q-35 The science concerned with vegetable culture is called**

- a) floriculture
- b) olericulture**
- c) horticulture
- d) agriculture

**Q-36 The science concerned with Cultivation of grapes.**

- a) Viticulture**
- b) olericulture
- c) horticulture
- d) agriculture

**Q-37 Rock phosphates are used in—**

- a) Saline soil
- b) Sodic soil
- c) Acidic soil**
- d) Neutral soil

**Q-38 Red soil is poor in which of the following nutrients**

?

- a) Phosphorus and Sulphur
- b) Phosphorus and Nitrogen
- c) Nitrogen and Zinc
- d) *Nitrogen and Potassium*

**Q-39 What is Blue Revolution –**

*a) It refers to big rise in catching of fresh water and marine fish.-*

- b) It stands for remarkable increase in milk production
- c) It refers to remarkably steady and assured supply of poultry products.
- d) It refers to a considerable rise in the production of quantity of apples

**Q-40 Which type of soil is found near the canal banks ?**

- a) Acidic and alkaline
- b) Acidic
- c) *Alkaline*
- d) None of these

**Q-41 Which one of the following is a Kharif crop?**

- a) *bajra*
- b) wheat
- c) mustard
- d) barley

**Q-42 Which one of the following is a rabi crop?**

- a) rice
- b) jowar
- c) cotton
- d) *peas*

**Q-43 Who is known as the 'Father of White Revolution'?**

- a) *V Kurien*
- b) MS Swaminathan
- c) JP Narayan
- d) Baba Amte

**Q-44 Who was the chief architect of Green Revolution that significantly improved the agricultural yield in the country?**

*a) MS Swaminathan*

- b) VR Krishna Aiyar
- c) V Kurien
- d) Jawaharlal Nehru

**Q-45 Which soil largest and the most important soil group of India**

- a) *Alluvial Soils*
- b) Black Soils
- c) Red Soils
- d) Laterite Soils

**Q-46 The zaid season falls in between the rabi and kharif seasons.**

- a) Watermelon
- b) muskmelon
- c) cucumber
- d) *all of above*

**Q-47 Which type of farming is practised to meet the needs of the farmer's family.**

- a) *Subsistence farming*
- b) Mixed Farming
- c) Plantation Agriculture
- d) none of these.

**Q-48 Growing of two or more crops simultaneously on the same piece of land is called**

- a) *mixed cropping*
- b) mixed farming
- c) intercropping
- d) fanning

**Q-49. Temperature Require at the time of sowing wheat**

- a) *10°C to 15°C*
- b) 21°C to 26°C
- c) 22°C to 32°C
- d) 32°C to 42°C

**Q-50 Farm Planning means—**

- a) Farm Budgetting
- b) *Cropping pattern*

- c) Type of enterprises
- d) None of these

**Q-51. Jalpriya is a variety of—**

- a) Maize
- b) Jowar
- c) *Paddy*
- d) Barley

**Q-52. Sugarcane + Potato is an intercropping system of—**

- a) *Autumn season*
- b) Zaid season
- c) Spring season
- d) Rainy season

**Q-53 Seed-rate of potato per hectare is—**

- a) 25 quintal/hectare
- b) 10 quintal/hectare
- c) 15 quintal/hectare
- d) *40 quintal/hectare*

**Q-54. Deficiency symptoms of calcium on plants first appear at—**

- a) Lower leaves
- b) Middle leaves
- c) *Terminal leaves*
- d) All leaves

**Q-55. Which weedicide is used to kill broad leaf weeds in wheat ?**

- a) *2, 4 – D.S.S. (WPSS)*
- b) 2, 4, 5 – T
- c) 2, 4 – DB
- d) None of these

**Q-56. Maya is the variety of—**

- a) Potato
- b) Gram
- c) Pea
- d) *Mustard*

**Q-57. The weed that causes Asthma is—**

- a) Hirankhuri

- b) Bathua
- c) *Parthenium*
- d) Krishna Neel

**Q-58. Which crop requires maximum amount of nitrogen ?**

- a) Potato
- b) Wheat
- c) Barley
- d) *Sugarcane*

**Q-59. First dwarf variety of paddy developed in India is**

- a) Jaya
- b) Saket-4
- c) *Govind*
- d) Narendra-97

**Q-60. Sprinkler irrigation is suitable, where the soil has—**

- a) Clayey texture
- b) Loamy texture
- c) Undulating topography
- d) All of these-

**Q-61. Endosulphan is also known as**

- a) Lindane
- b) *Thiodan*
- c) Aldrin
- d) B.H.C.

**Q-62. Which of the following is systemic poison ?**

- a) Metasystox
- b) Phosphomidan
- c) *Phorate*
- d) All of these

**Q-63. DDVP is known as**

- a) *Nuvan*
- b) Malathion
- c) Thiodan
- d) Sulfex

**Q-64. Seed treatment with Vitavex is the main controlling method of**

- a) Loose smut
- b) Rust
- c) Downy mildew
- d) *All of these*

**Q-65. Covered smut of barley is a disease of**

- a) Externally seed-borne
- b) *Internally seed-borne*
- c) Air-borne
- d) None of these

**Q-66. The period of 11th Five Year Plan is**

- a) 2000-2005
- b) 2002-2007
- c) *2007-2012*
- d) 2008-2012

**Q-67. Acid rain contains mainly**

- a) PO<sub>4</sub>
- b) *NO<sub>2</sub>*
- c) NO<sub>3</sub>
- d) CH<sub>4</sub>

**Q-68. Which of the following cakes is not edible ?**

- a) *Castor cake*
- b) Mustard cake
- c) Sesame cake
- d) Groundnut cake

**Q-69. In India, about 142 million hectare land is under**

- a) *Cultivation*
- b) Waste land
- c) Forest
- d) Eroded land

**Q-70. The headquarters of Indian Meteorological Department was established in 1875 at**

- a) New Delhi
- b) Hyderabad
- c) Pune
- d) *Calcutta*

**Q-71. Moisture condensed in small drops upon cool surface is called**

- a) Hail
- b) *Dew*
- c) Snow
- d) Fog

**Q-72. How many agro-climatic zones (ACZ) are found in India ?**

- a) 16
- b) 18
- c) *15*
- d) 20

**Q-73. Tilt angle of a disc plough is generally**

- a) 10°
- b) 15°
- c) 20°
- d) *45°*

**Q-74. Pudding is done to**

- a) Reduce percolation of water
- b) Pulverise and levelling soil
- c) Kill weeds
- d) *All of the above*

**Q-75. The Community Development Programme (CDP) was started in India on**

- a) 2nd October, 1950
- b) *2nd October, 1952*
- c) 2nd October, 1951
- d) None of these

**Q-76. The main unit of Integrated Rural Development Programme is**

- a) Family
- b) *Village*
- c) Block
- d) District

**Q-77. Element of Communication is**

- a) Message
- b) Feedback
- c) Channel
- d) *All of these*

**Q-78. The first Kshetriya Gramin Bank (KGB) was opened in India is**

- a) 1972
- b) 1980
- c) 1975
- d) 1969

**Q-79. The main function of NABARD is**

- a) Farmers' loaning
- b) Agricultural research
- c) *Refinancing to agricultural financing institutions*
- d) Development of agriculture

**Q-80. Rent theory of profit was given by**

- a) Hawley
- b) C.P. Blacker
- c) Tanssig
- d) *F.A. Walker*

**Q-81. In L.D.R., the profit will be maximum when**

- a)  $MC = MP$
- b)  $MC > MP$
- c)  $MP = TP$
- d)  *$MP > TP$*

**Q-82. Cell Organelle found only in plants are**

- a) Mitochondria
- b) Golgi complex
- c) Ribosomes
- d) *Plastids*

**Q-83. Proteins are synthesized in**

- a) Centrosomes
- b) *Ribosomes*
- c) Mitochondria
- d) Golgi bodies

**Q-84. Milk fever is caused due to the deficiency of**

- a) P
- b) *Ca*
- c) Mg
- d) K

**Q-85. The most efficient use of potassium is achieved by—**

- a) Broadcasting at the sowing time
- b) Top dressing after one month of sowing
- c) *Basal placement at the sowing time*
- d) Foliar spray

**Q-86. The term 'Extension' was first used in—**

- a) U.K.
- b) *U.S.A.*
- c) India
- d) France

**Q-87. The first K.V.K. (Krishi Vigyan Kendra) in India was established in—**

- a) Bombay
- b) Port Blair
- c) *Pondicherry*
- d) Madras

**Q-88. ATMA is related to—**

- a) NARP
- b) NAARM
- c) NREP
- d) *None of these*

**Q-89. Albert Mayer is the name associated with—**

- a) Nilokheri Development Project
- b) Firka Development Project
- c) *Etawah Pilot Project*
- d) Shriniketan Project

**Q-90. Co-operative Credit Societies Act was passed in India in—**

- a) 1902
- b) 1904
- c) 1906
- d) *1912*

**Q-91. Maximum photosynthesis takes place in—**

- a) Blue light
- b) Red light
- c) Violet light
- d) *Green light*

**Q-92. Farm Planning means—**

- a) Farm Budgetting
- b) Cropping pattern**
- c) Type of enterprises
- d) None of these

**Q-93. The first product of photosynthesis in C3 plant is—**

- a) Pyruvic acid
- b) Phospho-glyceric acid**
- c) Oxalo-acetic acid
- d) Succinic acid

**Q-94. Bending of plants towards light is called—**

- a) Phototropism**
- b) Vernalisation
- c) Photo-respiration
- d) None of these

**Q-95. Germination is inhibited by—**

- a) Red light
- b) Blue light
- c) U.V. light**
- d) I.R. light

**Q-96. The best method of milking is—**

- a) Knuckling method
- b) Fisting method
- c) Stripping method
- d) None of these**

**Q-97. Line breeding is a type of—**

- a) Inbreeding**
- b) Outbreeding
- c) Natural breeding
- d) None of these

**Q-98. Match List-I with List-II and select answer from the codes given below—**

**List-I**

- a) White Revolution
- b) Grey Revolution
- c) Blue Revolution
- d) Green Revolution

**List-II**

- 1. Fertilizer production
- 2. Fish production
- 3. Cereal production
- 4. Milk production

Codes :

- a) 4 1 2 3**
- b) 1 2 3 4
- c) 2 4 3 1
- d) 1 3 4 2

**Q-99. 'Tharparkar' breed of cow is—**

- a) Milch breed
- b) Working breed
- c) Dual purpose breed**
- d) None of these

**Q-100. Cow and buffalo belong to the family—**

- a) Bovidae**
- b) Suidae
- c) Equidae
- d) Cammelidae

**Q-101. What is the contribution of Animal Husbandry Sector in the agricultural growth ?**

- a) 10%
- b) 12% – 15%
- c) 7% – 9%**
- d) 5%

**Q-102. How many labourers are required to run a 30 cows milch herd ?**

- a) 8
- b) 6**
- c) 4
- d) 10

**Q-103. What is the availability of per day per capita milk in India presently (2008-09) ?**

- a) 229 gram
- b) 239 gram
- c) 219 gram
- d) 252 gram**



**Q-104. Which place is occupied by India in egg production ?**

- a) First
- b) Second
- c) Third
- d) Fourth

**Q-105. How much calories (cal) may be obtained from 100 gram chicken egg ?**

- a) 175 cal
- b) 180 cal
- c) 160 cal
- d) 130 cal

**Q-106. Main function of biofertilizer is—**

- a) To increase chemical process
- b) To increase physiological process
- c) To increase biological process
- d) To increase photosynthesis process

**Q-107. How much tomato average production (q.) may be yield from one hectare ?**

- a) 100
- b) 105-150
- c) 250
- d) 160-275

**Q-108. Inland fisheries is referred to**

- a) culturing fish in freshwater
- b) trapping and capturing fish
- c) deep sea fisheries
- d) extraction of oil from fish

**Q-109. Which one is not biofertilizer ?**

- a) Multiflex
- b) PSB
- c) Vermicompost
- d) NADEP

**Q-110. In which form is nitrogen absorbed by paddy under waterlogged condition ?**

- a)  $\text{NH}_4$  ion
- b) Nitrate ion

- c)  $\text{NO}_2$  ion
- d)  $\text{N}_2$

**Q-111. Which one of the following do not relate to groundnut ?**

- a) Brazil
- b)  $2n = 40$
- c) Pink disease
- d) Tikka disease

**Q-112. Which of the following is produced highest in India ?**

- a) Mango
- b) Banana
- c) Papaya
- d) Grapes

**Q-113. The optimum temperature for the Banana crop is—**

- a)  $30^\circ\text{C}$
- b)  $23^\circ\text{C}$
- c)  $21.5^\circ\text{C}$
- d)  $26.5^\circ\text{C}$

**Q-114. Which one of the following varieties has been selected to develop Narendra Aonla-6 variety ?**

- a) Chakaiya
- b) Hathijhool
- c) Banarasi
- d) Narendra Aonla-6

**Q-115. The desired varieties of economically useful crops are raised by**

- a) Vemalisation
- b) Mutation
- c) Natural selection
- d) Hybridization

**Q-116. A farming system in which airable crops are grown in alleys formed by trees or shrubs, to establish soil fertility and to enhance soil productivity, is known as—**

- a) Relay cropping
- b) Multiple cropping

- c) *Alley cropping*
- d) Mixed cropping

**Q-117. The cropping intensity of Groundnut + Arhar – Sugarcane is—**

- a) 200%
- b) 300%
- c) *150%*
- d) 250%

**Q-118. The scented variety of paddy is—**

- a) Jaya
- b) Bala
- c) *Type-3*
- d) Type-1

**Q-119. From which language is the word 'Agronomy' taken ?**

- a) Latin
- b) *Greek*
- c) French
- d) German

**Q-120. Tarameera is belonged to which family ?**

- a) *Cruciferae*
- b) Linaceae
- c) Compositae
- d) Graminae

**Q-121. The size of clay particles are—**

- a) 1•0 mm
- b) 0•2 – 0•02 mm
- c) < 0•02 mm
- d) *< 0•002 mm*

**Q-122. When one plant has both male and female flowers separately, is called—**

- a) Monophrodits
- b) Monoecious
- c) Hermaphrodite
- d) *Apomixis*

**Q-123. Aamrapali is the cross of—**

- a) Neelam x Dashaheri

- b) Dashaheri x Langra
- c) Langra x Dashaheri
- d) *Dashaheri x Neelam*

**Q-124. Seed-plot technique is adopted in—**

- a) Onion
- b) *Potato*
- c) Sugarcane
- d) Tomato

**Q-125. The origin of litchi is—**

- a) India
- b) Philippines
- c) *China*
- d) Burma

**Q-126. Milk sugar is a type of**

- a) Glucose
- b) Sucrose
- c) *Lactose*
- d) Fructose

**Q-127. Muriate of Potash is**

- a)  $K_2SO_4$
- b) *KCl*
- c)  $K_2HPO_4$
- d)  $KNO_3$

**Q-128. Azotobacter fixes atmospheric nitrogen in the soil by**

- a) *Symbiotically*
- b) Non-symbiotically
- c) Both a) and b)
- d) None of these

**Q-129. The chemical formula of iron pyrites is**

- a)  $FeSO_4$
- b)  $FeS$
- c)  *$FeS_2$*
- d)  $Fe_2(SO_4)_3$

**Q-130. Intervenus chlorosis is caused due to the deficiency of**

- a) N

- b) Mg
- c) S
- d) Fe

**Q-131. Kinnow is the hybrid variety of**

- a) Citrus
- b) Orange
- c) Mandarin
- d) Lemon

**Q-132. The permanent preservative, which is used for preservation of fruit and vegetables, is**

- a) Sodium chloride
- b) Potassium metabisulphate
- c) Potassium sulphate
- d) Sugar

**Q-133. Whip tail disease of cauliflower is caused by deficiency of**

- a) Nitrogen
- b) Boron
- c) Molybdenum
- d) Zinc

**Q-134. The word 'Agriculture' is derived from**

- a) Greek
- b) Latin
- c) Arabic
- d) French

**Q-135. Motha (Grass nut) belongs to the family of**

- a) Cruciferae
- b) Tiliaceae
- c) Cyperaceae
- d) Graminaceae

**Q-136. Which of the followings are short day crops ?**

- a) Maize, Lobia, Bajra
- b) Wheat, Mustard, Gram
- c) Moong, Soybean, Bajra
- d) Wheat, Soybean, Bajra

**Q-137. What is the sequence of C4 plants ?**

- a) Sudangrass – Sugarcane – Paddy – Bajra

b) Sugarcane – Maize – Sudangrass – Bajra

- c) Sugarcane – Cotton – Paddy– Maize
- d) Cotton – Maize – Bajra – Sugarcane

**Q-138. Match List-I (crops) with List-II (water requirement) and select your answer from the code given below—**

**List-I**

- a) Jowar
- b) Soybean
- c) Cotton
- d) Groundnut

**List-II**

1. 140 mm – 300 mm
2. 350 mm – 450 mm
3. 200 mm – 300 mm
4. 300 mm – 350 mm

Codes :

- a) b) c) d)
- a) 3 1 2 4
- b) 4 2 3 1
- c) 1 4 2 3
- d) 3 1 4 2

**Q-139. In which state, are there biggest area, highest production and number of Sugar Mills in relation to Sugarcane ?**

- a) Maharashtra
- b) Bihar
- c) Uttar Pradesh
- d) Andhra Pradesh

**Q-140. Which is not prepared by potato ?**

- a) Acetic Acid
- b) Paper
- c) Wine
- d) Fanina

**Q-141. Uttar Pradesh is occupying which place in India, for Guava production ?**

- a) Second
- b) First

- c) Third
- d) Fifth

**Q-142. Which of the following is TPS variety of Potato ?**

- a) JH 222
- b) Chipsona-II
- c) Anand
- d) *HPS-1/113*

**Q-143. What is VAM ?**

- a) Virus
- b) Bacteria
- c) Algae
- d) *Fungi*

**Q-144. What is the main function of zinc in the plants ?**

- a) Synthesis of nitrogen
- b) Synthesis of phosphorus
- c) *Required for synthesis of Tryptophos*
- d) To increase activity of the boron

**Q-145. What is the area in floriculture (in 000 hectare) in India ?**

- a) 40 – 50
- b) 60 – 80
- c) *100 – 120*
- d) None of these

**Q-146. Which of the following factors does not affect the nitrification ?**

- a) Air
- b) *Seed*
- c) Temperature
- d) Moisture

**Q-147. Which is the correct sequence of soil erosion ?**

- a) Rill – Sheet – Gully
- b) Gully – Sheet – Rill
- c) *Sheet – Rill – Gully*
- d) Sheet – Gully – Rill

**Q-148. Zinc Sulphate (ZnSO<sub>4</sub>) should not be mixed with—**

- a) *D.A.P.*

- b) Compost fertilizer
- c) Ammonium Chloride
- d) Urea

**Q-149. Insecticides are specific inhibitors of—**

- a) Excretory system
- b) Digestive system
- c) Nervous system
- d) *Blood Circulatory system*

**Q-150. The credit for the success of Krishi Vigyan Kendras (KVK) goes to—**

- a) Dr. R. S. Paroda
- b) Dr. Chandrika Prasad
- c) Dr. Mohan Singh Mehta
- d) *Dr. Mangla Rai*

**Q-151. Cauliflower belongs to the family—**

- a) *Cruciferae*
- b) poaceae
- c) Malvaceae
- d) Leguminaceae

**Q-152. The trade name of phorate is—**

- a) Temic
- b) Thiordan
- c) *Phortox*
- d) Metasystox

**Q-153. The sprayers are cleaned before use by—**

- a) 1% chlorine water
- b) *1% hydrochloric acid*
- c) 1% ammonia water
- d) 1% bromine water

**Q-154. The cyanogas pump is a /an—**

- a) Duster
- b) Fumigator
- c) Sprayer
- d) *Emulsifier*

**Q-155. The main reason of Irish Famine in Potato was—**

- a) *Late Blight disease*
- b) Bacterial Blight disease

- c) Blast disease
- d) Ear Cockle disease

**Q-156. The instrument, which is used for sowing of seed with fertilizer together at a time, is—**

- a) Seed drill
- b) Dibbler
- c) Seed sowing behind plough
- d) *Ferti-cum Seed drill*

**Q-157. Seed treatment is done to control—**

- a) Soil-borne disease
- b) Air-borne disease
- c) *Seed-borne disease*
- d) None of these

**Q-158. Salt tolerant crop is—**

- a) *Cowpea*
- b) Field pea
- c) Garlic
- d) Longmelon

**Q-159. Which of the following is not a dairy breed of cattle ?**

- a) Sahiwal
- b) Sindhi
- c) Nagore
- d) *All these*

**Q-160. Which of the following pesticides has been banned in India ?**

- a) Rogor
- b) *DDT*
- c) Metasystox
- d) Dimecron

**Q-161. Pulses fit well in cropping system as they are—**

- a) Short duration crops
- b) Disease resistant crops
- c) Long duration crops
- d) *Moisture stress resistant crops*

**Q-162. Wheat is a—**

- a) Cash crop

*b) Cereal crop*

- c) Covered crop
- d) None of these

**Q-163. Autumn sugarcane is planted in month of—**

- a) February-March
- b) July
- c) *October*
- d) December

**Q-164. Seed-rate for timely sown wheat is—**

- a) 75 kg/ha
- b) 100 kg/ha
- c) *125 kg/ha*
- d) 150 kg/ha

**Q-165. Most critical stage in wheat for irrigation is—**

- a) *C.R.I.*
- b) Flowering
- c) Milk
- d) Dough

**Q-166. Name of most popular variety of wheat in Uttar Pradesh is—**

- a) PBW – 343
- b) *U.P. – 2338*
- c) K – 7903
- d) K – 9107

**Q-167. KPG – 59 (Udai) is a variety of—**

- a) Field pea
- b) Vegetable pea
- c) Lentil
- d) *Gram*

**Q-168. In plain, Rajma is cultivated during—**

- a) *Kharif*
- b) Rabi
- c) Zaid
- d) None of these

**Q-169. Which crop is recommended for Zaid season cultivation in Uttar Pradesh ?**

- a) Vegetable pea

b) Groundnut

- c) Barley
- d) Lentil

**Q-170. Which one among the following chemicals is used for causing defoliation of forest trees?**

- a) Posphon D
- b) Malic hydrazide
- c) 2, 4-D
- d) Amo 1618

**Q-172. Norin-10 gene from Japan is a**

- a) Dwarf gene of wheat
- b) Dwarf gene of rice
- c) Dwarf gene of maize
- d) disease resistant gene of rice

**Q-173. Bioherbicides have been recommended**

- a) to prevent ecodegradation
- b) Because of their ready availability
- c) Because of their cheap rates
- d) Because of their abundance

**Q-174. The Mexican dwarf wheat variety was developed by**

- a) Swami Nathan
- b) Borlaugh
- c) Watson
- d) Khush

**Q-175. High-yielding varieties of wheat were primarily developed by Indian scientist by crossing- breeding traditional varieties with**

- a) American varieties
- b) Mexican varieties
- c) European varieties
- d) African varieties

**Q-176. A plant breeder: waists to develop a disease resistant variety. What should he do first?**

- a) Hybridization
- b) Mutation

c) Selection

- d) Production of crop

**Q-177. Which of the following is an example of kharif crop?**

- a) Rice
- b) Wheat
- c) Gram
- d) Mustard

**Q-178. Removal of stamens in an inter-sexual flower before they dehisce is called**

- a) Protogyny
- b) Protandry
- c) Inducing male sterility
- d) Emasculation.

**Q-179. Selection of homozygous plant is**

- a) Pure line selection
- b) Mass selection
- c) Mixed selection
- d) Introduction

**Q-180. The study of fish culture is called**

- a) Ophiology
- b) Ichthyology
- c) Herpetology
- d) Pisciculture

**Q-181. Murrah is a high-yielding breed of**

- a) cow
- b) hen
- c) buffalo
- d) sheep

**Q-182. Which of the following is called the "Father of White Revolution" in India?**

- a) Hargobind Khorana
- b) V. Kurian
- c) M.S. Swaminathan
- d) P. K. Sethi

**Q-183. Foot and Mouth Disease is a highly contagious disease almost exclusive to cattle, sheep, swine, goats,**

and other cloven-hoofed animals. It is caused by

- a) fungi
- b) bacteria
- c) protozoa
- d) *Erus*

**Q-184. Anthrax is a serious disease of**

- a) *cattle*
- b) poultry
- c) fish
- d) all of these

**Q-185. High milk yielding varieties of cows are obtained by**

- a) super ovulation
- b) artificial insemination
- c) use of surrogate mothers
- d) *all of these*

**Q-186. Which of the following is the high milk yielding variety of cow?**

- a) Jamunapari
- b) Murrah
- c) *Holstein*
- d) Kathiyabari

**Q-187. A fan produces a feeling of comfort during hot weather because**

- a) Fan supplies cold air
- b) *Our perspiration evaporates rapidly*
- c) Our body radiates more heat in air
- d) Conductivity of air increases

**Q-188. The water can be made to boil even at 0°C if the pressure of surrounding is**

- a) 76cm of Hg
- b) 5cm of Hg
- c) 0.1 cm of Hg
- d) *4.6 mm of Hg*

**Q-189. First stable compound in C3 cycle is**

- a) *Phosphoglyceraldehyde*
- b) Phosphoglyceric acid

- c) fructose -1-6 diphosphate
- d) Glucose -6-phosphate

**Q-190. Compensation point is**

- a) where there is neither photosynthesis nor respiration
- b) *when rate of photosynthesis is equal to the rate of respiration*
- c) when there is enough water just to meet the requirements of plant
- d) when the entire food synthesized in photosynthesis remain unutilized

Indian Agriculture – MCQs with answers – Part I (01-19-2015)

Indian Agriculture – MCQs with answers – Part I

**Q-191. Which sector is the backbone of Indian economy?**

- a) Service Sector
- b) Financial Sector
- c) Tourism Sector
- d) *Agriculture Sector*

**Q-192. Which among the following is not a cereal?**

- a) Rice
- b) Wheat
- c) *Gram*
- d) Maize

**Q-193. Who announced the introduction of National Food Security Act?**

- a) *Pranab Mukherjee*
- b) Manmohan Singh
- c) P.Chidambaram
- d) Arun Jaitley

**Q-194. When was NFSM launched?**

- a) Mid of 9th Five-Year Plan
- b) End of 10th Five-Year Plan
- c) Mid of 11th Five-Year Plan
- d) *End of 11th Five-Year Plan*

**Q-195. Who announced the launch of Rashtriya Krishi Vikas Yojana?**

- a) Narendra Modi
- b) Dr. Manmohan Singh**
- c) Atal Bihari Vajpayee
- d) I.K.Gujral

**Q-196. Which among the following does not belong to welfare schemes for the farmers?**

- a) Kisan Credit Card Scheme
- b) SHG Bank Linkage Programme
- c) National Agricultural Insurance Scheme
- d) Employee Referral Scheme**

**Q-197 when did the Government present Kisan Credit Card Scheme?**

- a) April 1853
- b) August 1998**
- c) July 1991
- d) November 1995

**Q-198 When was On Farm Water Management Scheme launched?**

- a) July 2000
- b) March 2002**
- c) March 2004
- d) January 2004

**Q-199 When were Kisan Call Centres established?**

- a) July 2000
- b) March 2002
- c) March 2004**
- d) January 2004

**Q-200. Which of the following is the largest fertiliser producer in India?**

- a) Coromande International Ltd.
- b) Indian Farmers Fertiliser Corporation Limited**
- c) Gujarat State Fertilizers & Chemicals Ltd.
- d) Rashtriya Chemicals & Fertilizers Ltd.

**Q-201. Consider the following statements. Identify the right ones.**

- I. Agriculture is a purely land based activity unlike secondary and tertiary activities.
- II. The lack of access to land is directly correlated with

incidence of poverty in rural areas.

- a) I only
- b) II only
- c) Both**
- d) None

**Q-202. Consider the following statements. Identify the right ones.**

I. There are three distinct crop seasons in the northern and interior parts of the country, namely kharif, rabi and zaid)

II. The kharif season largely coincides with Southwest Monsoon.

- a) I only
- b) II only
- c) Both**
- d) None

**Q-203. Which of these are not rabi crop?**

- a) Wheat
- b) Mustard
- c) Barley
- d) Cotton**

**Q-204. Match the following crop seasons with respective months.**

I. Kharif — A) October- March

II. Rabi — B) April-June

III. Zaid — C) June-September

- a) IA, IIB, IIIC
- b) IB, IIC, IIIA
- c) IC, IIA, IIIB**
- d) IC, IIB, IIIA

**Q-205. Consider the following statements. Identify the right ones.**

I. On the basis of main source of moisture for crops, the farming can be classified as irrigated and rain fed)

II. While irrigated farming is dependent on irrigation facilities but rain fed farming is done with the help of rainfall received during Southwest Monsoon.

- a) I only
- b) II only



c) Both

d) None

**Q-206. Consider the following statements about dry land farming. Identify the right ones.**

I. The dry land farming is largely confined to the regions having annual rainfall less than 75cm.

II. These regions grow hardy and drought resistant crops.

a) I only

b) II only

c) Both

d) None

**Q-207. Consider the following statements about wetland farming. Identify the right ones.**

I. In wet land farming, the rainfall is in excess of soil moisture requirement of plants during rainy season.

II. These areas grow various water intensive crops such as rice, jute and sugarcane.

a) I only

b) II only

c) Both

d) None

**Q-208. Consider the following statements. Identify the right ones.**

I. Food grains are dominant crops in all parts of the country.

II. Rice is a staple food for the overwhelming majority of population in India)

a) I only

b) II only

c) Both

d) None

**Q-209. Consider the following statements. Identify the right ones.**

I. Maize is a food as well as fodder crop grown under semi-arid climatic conditions.

II. Yield level of maize is higher than other coarse cereals.

a) I only

b) II only

c) Both

d) None

**Q-210. Consider the following statements about the pulses. Identify the right ones.**

I. Pulses are very important ingredient of vegetarian food as these are rich sources of proteins.

II. These are legume crops which increase the natural fertility of soils through nitrogen fixation.

a) I only

b) II only

c) Both

d) None

**Q-211. Which of these are oilseeds growing regions of the country?**

I. Maharashtra

II. Telangana

III. Andhra Pradesh

IV. Uttar Pradesh

a) I and III only

b) II and III only

c) I, II and III only

d) All

**Q-212. Consider the following statements. Identify the right ones.**

I. Cotton is a tropical crop grown in kharif season in semi-arid areas of the country.

II. India grows both short staple cotton as well as long staple cotton.

a) I only

b) II only

c) Both

d) None

**Q-213. Consider the following statements about jute crop. Identify the right ones.**

I. Jute is one of the fibre crops grown in India)

II. It is used for making coarse cloth, bags, sacks and decorative items.

III. It is grown in the states of West Bengal, Assam and

Bihar.

- a) I and II only
- b) II and III only
- c) I and III only

d) All

**Q-214. Consider the following statements about the sugarcane crop. Identify the right ones.**

- I. Sugarcane is a crop of tropical areas.
- II. Its cultivation is largely concentrated in Uttar Pradesh, Maharashtra and Gujarat.
- III. It is also cultivated in southern states where the yield of the crop is very high.

- a) I and II only
- b) II and III only
- c) I only

d) All

**Q-215. Consider the following statements about tea crop. Identify the right ones.**

- I. Tea is a plantation crop used as beverage.
- II. Tea leaves have rich content of caffeine and tannin.
- III. It is grown over undulating topography of hilly areas and well-drained soils in humid and sub-humid tropics and sub-tropics.

- a) I and II only
- b) II and III only
- c) I and III only

d) All

**Q-216. Consider the following statements. Identify the right ones.**

- I. Coffee is a tropical plantation crop.
- II. Its seeds are roasted, ground and are used for preparing a beverage.
- III. There are three varieties of coffee i.e. Arabica, Robusta, Liberia)
- IV. India mostly grows inferior quality coffee.

a) I,II and III only

- b) IV only
- c) III only
- d) All

**Q-217. Consider the following statements about agricultural development in India) Identify the right ones.**

- I. Indian agriculture economy was largely subsistence in nature before independence.
- II. It had a dismal performance in the first half of twentieth century.

- a) I only
- b) II only
- c) Both
- d) None

**Q-218. Consider the following statements about Green Revolution in India) Identify the right ones.**

- I. The Green Revolution was launched in the decade of 1960s to increase the agriculture production in India)
- II. It was a "package revolution" combining HYVs seeds, chemical fertilizer, pesticide, water and agriculture machinery.

III. It was an energy-intensive method)

- a) I and II only
- b) III only
- c) I,II and III only
- d) I only

**Q-219. What were the harmful effects of the strategy of the Green Revolution?**

- I. Degradation of the soil
- II. Lowering of the water tables
- III. Loss of Biodiversity
- IV. Impoverishment of the small farmers

- a) I,II and IV only
- b) III only
- c) I,II and III only

d) All

**Q-220. What are the real problems of the Indian agriculture?**

- I. Dependence on Erratic Monsoon
- II. Low productivity
- III. Constraints of financial resources and indebtedness
- IV. Lack of land reforms
- V. Small land size and fragmentation of landholdings

- a) I,II,III and IV only
- b) II and IV only
- c) III and V only
- d) All

**Q-221. Which one of the following crops is not cultivated under dry land farming?**

- a) Ragi
- b) Groundnut
- c) Jowar
- d) *Sugarcane*

**Q-222. In which of the following group of countries of the world, HYVs of wheat and rice were developed?**

- a) Japan and Australia
- b) *Mexico and Philippines*
- c) Mexico and Singapore
- d) USA and Japan

**Q-223. Consider the following statements. Identify the right ones.**

I. Organic farming does not use chemical fertilizers and chemical pesticides.

II. Organic farming can, over a period of time, reverse soil degradation and improve soil health.

- a) I only
- b) II only
- c) *Both*
- d) None

**Q-224. Consider the following statements. Identify the right ones.**

I. Genetic engineering manipulates the genes in an organism to change its characteristics.

II. It can move a favourable gene from one organism to another.

III. Genetic modification can make a plant resistant to specific pests or diseases.

- a) I and II only
- b) II and III only
- c) I only
- d) *All*

**Q-225. Bt Cotton and Bt Brinjal are the examples of genetic ally modified crops. What does Bt stand for?**

- a) *Bacillus Thuringiensis*
- b) Bacteria tera
- c) Ficus religiosa
- d) None

**Q-226. Consider the following statements. Identify the right ones.**

I. Aquaculture is the artificial production of fish in ponds and underwater cages.

II. A third of the world's fish harvest is used as animal feed, fishmeal and oils.

- a) I only
- b) II only
- c) *Both*
- d) None

**Q-227. The global fisheries have nearly collapsed) What are the factors responsible for the decline in fisheries?**

I. Massive harvesting of fish

II. Pollution of water bodies

III. Climate change

IV. Destruction of mangroves and coral reefs

- a) I and II only
- b) II and III only
- c) III and IV only
- d) All

ANSWER: d) All

**Q-228. What is the way out to save global fisheries?**

I. Adopting an ecosystem based approach

II. Establishing marine reserves as no-fishing zones

III. Elimination of fishing gear and bottom trawlers

- a) I and II only
- b) II and III only
- c) I and III only
- d) *All*

**Q-229. Consider the following statements. Identify the right ones.**

I. A mineral is any substance that is naturally present in the earth's crust and is not formed from animal or

vegetable matter.

II. The earth's geological processes have formed these minerals over millions or billions of years and hence they are non-renewable.

- a) I only
- b) II only
- c) Both*
- d) None

**Q-230. Consider the following statements. Identify the right ones.**

I. Mining is the process of extracting and processing minerals.

II. Underground mining has little direct effect on the environment, but it can cause long-term problems like subsidence and pollution of aquifers.

- a) I only
- b) II only
- c) Both*
- d) None

**Q-231. Which is the most important support for all plant growth and all life?**

- a) Topsoil*
- b) Fertilizer
- c) Farming
- d) Pesticide

**Q-232. Which of the following is not a problem associated with land?**

- a) Water logging
- b) Salinization
- c) Desertification
- d) Climate Change*

**Q-233. Which of the following statements is true with regard to food on this planet?**

- a) There is unlimited amount of fish.
- b) There is enough food to feed every person.*
- c) Every person is able to buy food)
- d) Green Revolution has solved the problem of hunger.

**Q-234. Which of the following statements is not true with regard to the Green Revolution?**

- a) It increases crop yields.
- b) It needs fertilizers and pesticides.
- c) It requires decreasing inputs over time.*
- d) It uses high-yielding varieties of seeds.

**Q-235. Which of the following statements is not true with regard to GM crops?**

- a) They could have greater resistance to pests.
- b) They are proven to be completely safe.*
- c) They could resist drought or salinity.
- d) They could reduce the amount of fertilizer needed)

**Q-236. Consider the following statements. Identify the right ones.**

I. Soil pollution is any physical or chemical change in the soil conditions that may adversely affect the growth of plants and other organisms living in or on it.

II. Most soil pollutants are agricultural chemicals, primary fertilizers and pesticides.

- a) I only
- b) II only
- c) Both*
- d) None

**Q-237. What are the ways for the restoration of the soil?**

- I. Dilution
- II. Vapour extraction
- III. Bioremediation
- IV. Phytoremediation
- a) I and II only
- b) II, III and IV only
- c) I, II and III only
- d) All*

**Q-238. Consider the following statements. Identify the right ones.**

I. Irrigation has two roles to play: one is for protective purpose and another one for making the land useful for second crop.

II. In India, there are three basic sources of irrigation: wells, canals and tanks.

- a) I only

b) II only

c) Both

d) None

**Q-239. What are the benefits of micro irrigation?**

I. Most efficient method of irrigation

II. Increases crop productivity with less water usage

III. Saves electricity

IV. Enhances fertilizer use efficiency

V. Reduces the problems of water logging

a) I and II only

b) II and III only

c) I,II,III,IV only

d) All

**Q-240. Consider the following statements. Identify the right ones.**

I. Drip irrigation is an irrigation method that saves water and fertilizer by allowing water to drip slowly to the roots of the plants.

II. The efficiency of drip irrigation is 85%.

a) I only

b) II only

c) Both

d) None

**Q-241. What are the problems related with irrigation?**

I. Delay in the completion of major irrigation projects

II. Rising costs

III. Inadequacy of finance and organization

IV. Underutilization of existing capacity

a) I,II and III only

b) II,III and IV only

c) II and III only

d) All