Q.1 Red-collar workers are associated with which of the following activities?

a) Primary activities
b) Secondary activities
c) Quaternary activities
d) Quinary activities

Q.1) Solution: (a)

Explanation:

- Human activities which generate income are known as economic activities. Economic activities are broadly grouped into primary, secondary, tertiary and quaternary activities. Primary activities are directly dependent on environment as these refer to utilisation of earth's resources such as land, water, vegetation, building materials and minerals. It, thus includes, hunting and gathering, pastoral activities, fishing, forestry, agriculture, and mining and quarrying. **People engaged in primary activities are called red-collar workers due to the outdoor nature of their work.**

Q.2 Consider the following statements with respect to the difference between intensive and extensive farming:

1. Intensive agriculture is practiced in areas with high population density.
2. The yield per unit area is higher in case of extensive agriculture.

Which of the above statement(s) is/are correct?

a) Only 1
b) Only 2
c) Both 1 and 2
d) Neither 1 nor 2

Q.2) Solution: (a)

Explanation:

- Intensive Subsistence Agriculture
- This type of agriculture is largely found in densely populated regions of monsoon Asia. Basically, there are two types of intensive subsistence agriculture.
    - Intensive subsistence agriculture dominated by wet paddy cultivation: This type of agriculture is characterised by dominance of the rice crop. Land holdings are very small due to the **high density of population.** Hence, statement 1 is correct. Farmers work with the help of family labour leading to intensive use of land. Use of machinery is limited and most of the agricultural operations are done by manual labour. Farm yard manure is used to maintain the fertility of the soil. In **intensive agriculture, the yield per unit area is high** but per labour productivity is low. **Extensive agriculture has low yield per unit area**, but is profitable as the cultivated area is very large. Hence, **statement 2 is incorrect.**
    - Intensive subsidence agriculture dominated by crops other than paddy: Due to the difference in relief, climate, soil and some of the other geographical factors, it is not practical to grow paddy in many parts of monsoon Asia. Wheat, soyabean, barley and sorghum are grown in northern China, Manchuria, North Korea and North Japan. In India wheat is grown in western parts of the Indo-Gangetic plains and millets are grown in dry parts of western and southern India. Most of the characteristics of this type of agriculture are similar to those dominated by wet paddy except that irrigation is often used.

Q.3 With reference to Plantation agriculture, consider the following statements:

1. It is a traditional agricultural practice of India.
2. It does not require skilled labour.
3. Multiple crops can be grown together in one estate.

How many of the statements given above is/are correct?

a) Only 1 statement is correct.
b) Only 2 statements are correct.
c) All 3 statements are correct.
d) None of the statements are correct.

Q.3) Solution: (a)

Explanation:

Plantation Agriculture

- Plantation is also a type of commercial farming. In this type of farming, a single crop is grown in a large area.
- The plantation has an interface between agriculture and industry. Plantations cover large tracts of land, using capital-intensive inputs, with the help of migrant laborers. All the produce is used as raw material in respective industries.
- In India, tea, coffee, rubber, sugarcane, banana, etc., are important plantation crops. Tea in Assam and North Bengal coffee in Karnataka are some of the important plantation crops grown in these states.
- Plantation agriculture was introduced by the Europeans in colonies situated in the tropics. Some of the important plantation crops are tea, coffee, cocoa, rubber, cotton, oil palm, sugarcane, bananas, and pineapples.
- **Plantation agriculture was introduced by the Europeans in colonies situated in the tropics. Hence statement 1 is not correct.**
- Some of the important plantation crops are tea, coffee, cocoa, rubber, cotton, oil palm, sugarcane, bananas, and pineapples.
- The characteristic features of this type of farming are large estates or plantations, large capital investment, managerial and technical support, scientific methods of cultivation,

single crop specialization, **unskilled cheap labour**, and a good system of transportation which links the estates to the factories and markets for the export of the products.

Hence **statements 2 is correct and statement 3 is incorrect.**

Q.4 This form of agriculture is found in the highly developed parts of the world. Fodder crops are very important for this type of agriculture. Equal emphasis is laid on crop cultivation and animal husbandry. It involves high capital expenditure.

Identify the type of agricultural practice mentioned in the above description.

a) Plantation agriculture
b) Intensive cultivation
c) Mediterranean agriculture
d) Mixed farming

Q. 4) Solution: (d)

Explanation:

Mixed farming:

- This form of agriculture is **found in the highly developed parts of the world**, e.g. North-western Europe, Eastern North America, parts of Eurasia and the temperate latitudes of Southern continents.
- Mixed farms are moderate in size and usually the crops associated with it are wheat, barley, oats, rye, maize, fodder and root crops**. Fodder crops are an important component** of mixed farming.
- Crop rotation and intercropping play an important role in maintaining soil fertility.
- **Equal emphasis is laid on crop cultivation and animal husbandry**. Animals like cattle, sheep, pigs and poultry provide the main income along with crops.

- Mixed farming is characterised by **high capital expenditure** on farm machinery and building, extensive use of chemical fertilisers and green manures and also by the skill and expertise of the farmers.

Q. 5 Consider the following statements with respect to cooperative farming:

1. It involves social ownership of the means of production and collective labour.
2. Individual farms remain intact in cooperative farming.

Which of the above statement(s) is/are correct?

a) Only 1
b) Only 2
c) Both 1 and 2
d) Neither 1 nor 2

Q.5) Solution: (b)

Explanation:

- In **cooperative farming**, a group of farmers form a co-operative society by pooling in their resources voluntarily for more efficient and profitable farming. **Collective farming is based on social ownership** of the means of production and collective labour where the concept of individual farms is almost non-existent. Hence, **statement 1 is incorrect.**
- **Individual farms remain intact** and farming is a matter of cooperative initiative. Hence, **statement 2 is correct**.
- Co-operative societies help farmers, to procure all important inputs of farming, sell the products at the most favourable terms and help in processing of quality products at cheaper rates.

- Co-operative movement originated over a century ago and has been successful in many western European countries like Denmark, Netherlands, Belgium, Sweden, Italy etc. In Denmark, the movement has been so successful that practically every farmer is a member of a co-operative.

Q. 6 Consider the following statements with reference to the cropping intensity (CI):

1. It is the ratio of Gross Cropped Area and Net Sown Area.
2. Increasing cropping intensity will decrease the demand for labour.
3. At present, the CI in India is more than 100%.

How many of the statements given above is/are correct?

a) Only 1 statement is correct.
b) Only 2 statements are correct.
c) All 3 statements are correct.
d) None of the statements are correct.

Q.6) Solution: (b)

Explanation:

- Agriculture is a purely land-based activity, unlike secondary and tertiary activities. In other words, the contribution of land to agricultural output is more compared to its contribution to the outputs in the other sectors. Thus, lack of access to land is directly correlated with the incidence of poverty in rural areas.
- Quality of land has a direct bearing on the productivity of agriculture, which is not true for other activities.
- As the scope for bringing in additional land under the net sown area in India is limited. There is, thus, an urgent need to evolve and adapt land-saving technologies.

- Such technologies can be classified under two heads – those which raise the yield of any particular crop per unit area of land and those which increase the total output per unit area of land from all crops grown over one agricultural year by increasing land-use intensity.
- **Cropping Intensity is the ratio of Gross Area Sown to the Net Area Sown. Hence statement 1 is correct.**
- For a land-scarce but labour-abundant country like India, a **high cropping intensity is desirable** because with increased output from limited land, it also **increases the demand for labour significantly. Hence, statement 2 is incorrect.**
- Around 51% of India's geographical area is already under cultivation as compared to 11% of the world average. **The present cropping intensity of 136%** has registered an increase of only 25% since independence. Furthermore, 65% of the total net planted area consists of rainfed drylands. Hence, **statement 3 is correct.**

Q.7 With reference to cropping seasons in India, consider the following statements:

1. There are three distinct crop seasons throughout India.
2. In the northern parts of India, same crops can be grown thrice in an agricultural year provided there is sufficient soil moisture.
3. Zaid season refers to summer cropping season.

Which of the above statement(s) is/are correct?

a) Only 1 and 2
b) Only 2 and 3
c) Only 3
d) 1, 2 and 3

Q.7) Solution: (c)

Explanation:

- **There are three distinct crop seasons in the northern** and interior parts of country, namely kharif, rabi and zaid. However, this type of distinction in the cropping season **does not exist in southern parts of the country. Hence, statement 1 is not correct.**
- The kharif season largely coincides with Southwest Monsoon under which the cultivation of tropical crops, such as rice, cotton, jute, jowar, bajra and tur is possible. The rabi season begins with the onset of winter in October-November and ends in March-April. The low temperature conditions during this season facilitate the cultivation of temperate and subtropical crops such as wheat, gram and mustard.
- **Zaid is a short duration summer cropping season beginning after harvesting of rabi crops**. The cultivation of watermelons, cucumbers, vegetables and fodder crops during this season is done on irrigated lands. Thus, **statement 3 is correct**.
- **In the southern part of India, the temperature is high enough to grow tropical crops during any period in the year provided the soil moisture is available. Hence, statement 2 is not correct.** Therefore, in this region same crops can be grown thrice in an agricultural year provided there is sufficient soil moisture.

Q. 8 Consider the following statements with reference to the irrigation systems in India:

1. Minor irrigation projects have both surface and groundwater as their source while major and medium projects mostly exploit surface water resources.
2. Localized irrigation is a system where water is distributed under low pressure through a piped network.
3. Drip irrigation, spray or micro-sprinkler irrigation and bubbler irrigation belong to the furrow irrigation category of irrigation methods.

Which of the statements given above is/are correct?

a) Only 1 and 2
b) Only 2 and 3

c) Only 1 and 3

d) 1, 2 and 3

Q.8) Solution: (a)

Explanation:

- In agriculture, water is mainly used for irrigation. Irrigation is needed because of Spatio-temporal variability in rainfall in the country.
- **Minor irrigation projects have both surface and groundwater as their source, while Major and Medium projects mostly exploit surface water resources. Hence statement 1 is correct.**
- **Localized irrigation** is a system where **water is distributed under low pressure** through a piped network, in a pre-determined pattern, and applied as a small discharge to each plant or adjacent to it. It is also known as a low-flow irrigation system/low-volume irrigation/micro-irrigation. **Hence statement 2 is correct.**
- **Drip irrigation, spray or micro- sprinkler irrigation, and bubbler irrigation belong to the category of localized irrigation methods. Hence statement 3 is not correct.**
- Furrow irrigation is conducted by creating small parallel channels along the field length in the direction of the predominant slope. Water is applied to the top end of each furrow and flows down the field under the influence of gravity.

Q. 9 Which of the following are the features of intensive subsistence farming?

1. High population pressure on land
2. High yield per labour productivity
3. Heavy mechanization to increase crop production
4. High yield per unit area

Select the correct answer using the code given below.

a) 1 and 2 only
b) 2 and 3 only
c) 1 and 4 only
d) 1, 2 and 4 only

Q. 9) Solution: (c)

Explanation:

Intensive Subsistence Agriculture

- This type of agriculture is largely found in densely populated regions of monsoon Asia.
- This type of farming is practised in areas of high population pressure on land. Though the 'right of inheritance' leading to the division of land among successive generations has rendered land-holding size uneconomical, the farmers continue to take the maximum output from the limited land in the absence of an alternative source of livelihood. Thus, there is **enormous pressure on agricultural land. Hence option 1 is correct.**
- It is **labour intensive** farming, where high doses of biochemical inputs and irrigation are used for obtaining higher production.
- There are two types of intensive subsistence agriculture.
    - **Intensive subsistence agriculture dominated by wet paddy cultivation:**
        - This type of agriculture is characterised by the dominance of the rice crop. Landholdings are very small due to the high density of the population. Farmers work with the help of family labour leading to intensive use of land. The **use of machinery is limited** and most of the agricultural operations are done by manual labour. Hence **option 3 is not correct.**
        - Farmyard manure is used to maintain the fertility of the soil. In this type of agriculture, the **yield per unit area is high but per labour productivity is low**. Hence **statement 2 is not correct and statement 4 is correct.**
    - **Intensive subsidence agriculture dominated by crops other than paddy:**

- Due to the difference in relief, climate, soil and some other geographical factors, it is not practical to grow paddy in many parts of monsoon Asia.

Q.10 Consider the following statements with regard to the cultivation of rice:

1. Clayey alluvial soil in which water can remain standing is ideal for rice.
2. It requires high temperature and low humidity with annual rainfall above 100 cm.
3. About 25% of the total cropped area in the country is under rice cultivation.

Which of the statements given above is/are correct?

a) Only 1 and 2
b) Only 2 and 3
c) Only 3
d) Only 1 and 3

Q.10) Solution: (d)

Explanation:

- Rice is the staple crop of India, and every day millions of Indians find comfort in it. With a high content, it is known to provide instant energy and is a staple that is consumed by the majority of India's population.
- It is a Kharif crop that requires **high temperature**, (above 25°C) and **high humidity** with annual rainfall above 100 cm. Hence, **statement 2 is not correct.**
- In areas with less rainfall, it grows with the help of irrigation. Rice is grown in the plains of north and north-eastern India, coastal areas, and the deltaic regions. The development of a dense network of canal irrigation and tubewells have made it possible to grow rice in areas of less rainfall such as Punjab, Haryana, western Uttar Pradesh, and parts of Rajasthan.

- In southern states and West Bengal, the climatic conditions allow the cultivation of two or three crops of rice in an agricultural year. In West Bengal farmers grow three crops of rice called 'aus', 'aman', and 'boro'. But in the Himalayas and northwestern parts of the country, it is grown as a Kharif crop during the Southwest Monsoon season.
- India contributes 21.9 percent of rice production in the world and ranked second after China in 2017. **About one-fourth of the total cropped area in the country is under rice cultivation. Hence statement 3 is correct.**
- Rice being a tropical and sub-tropical plant requires a fairly high temperature of more than 22°C and an amount of rainfall of more than 100 cm. Irrigation is necessary for areas of lesser rainfall. Soils with good water retention capacity with high amount of clay and organic matter are ideal for rice cultivation. **Clayey alluvial soil in which water can remain standing is ideal for rice. Hence statement 1 is correct.**
- In India, rice is grown in almost half the states, with West Bengal leading the way in terms of production with 14.71 million tonnes, followed by Uttar Pradesh (12.22 million tonnes) and Andhra Pradesh (11.57 million tonnes) as per the Agricultural Statistics 2014-15, Ministry of Agriculture & Farmers Welfare of the Government of India.

Q.11 Which of the following statement is not correct with reference to pulses?

a) Pulses occupy about more than one-tenth of the total cropped area in the country.
b) India is the largest producer as well as the consumer of pulses in the world.
c) India has one of the highest yield in pulses.
d) Rajasthan, Maharashtra and Madhya Pradesh are the major pulse-producing state in the country.

Q.11) Solution: (c)

Explanation:

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

- India is the largest producer and consumer of pulses in the world, contributing nearly 24 percent to the global output. Hence statement (b) is correct.
- India is also the largest importer of pulses.
- Rajasthan, Maharashtra, and Madhya Pradesh are the major pulse-producing state in the country. Hence statement (d) is correct.
- A large number of pulses are grown across multiple agro-climatic zones:
    - Kharif: Arhar (pigeonpea); urad (black gram); moong (green gram); Barbati (cowpea), lathyrus
    - Rabi: gram; pea; ramjash masoor (lentil)
    - Zaid (summer): urad; moong; cow pea
- **The average yield of all pulses in India is about 660 kg/hectare compared to the world average of 909 kg/hectare. Surprisingly, the average yield of Bahrain is 18,485 kg/hectare, the highest in the world. Thus, India does not have high yield in pulses.** Hence statement (c) is not correct.
- The cultivation of pulses in the country is largely concentrated in the drylands of Deccan and central plateaus and northwestern parts of the country.
- Pulses occupy about 11 percent of the total cropped area in the country. Being the rainfed crops of drylands, the yields of pulses are low and fluctuate from year to year. Hence statement (a) is correct.
- Pulses need less moisture and survive even in dry conditions. Being leguminous crops, all these crops except arhar help in restoring soil fertility by fixing nitrogen from the air. Therefore, these are mostly grown in rotation with other crops.

Q12. Consider the following statements:

1. Kalahandi and Sambalpur are the leading producers of this mineral ore.
2. It is not specifically a mineral but a rock consisting mainly of hydrates.
3. It is associated with laterite rocks occurring extensively either on the plateau or hill ranges of peninsular India and also in the coastal tracts of the country.

Which of the following mineral ores is being described in the above statements?

a) Galena
b) Cuprite
c) Bauxite
d) Rock Salt

Q.12) Solution: (c)

Explanation:

- India is poorly endowed with non-ferrous metallic minerals except bauxite.
- Bauxite is the ore, which is used in the manufacturing of aluminium.
- Bauxite is found mainly in tertiary deposits and is associated with laterite rocks occurring extensively either on the plateau or hill ranges of peninsular India and also in the coastal tracts of the country.
- **Bauxite is not specifically a mineral but a rock consisting mainly of hydrated** aluminium oxides.
- **India is self-sufficient in bauxite reserves.**
- Odisha happens to be the largest producer of Bauxite. **Kalahandi and Sambalpur are the leading producers**. The other two areas which have been increasing their production are Bolangir and Koraput.
- Hence option (c) is the correct answer.

Q.13 Which of the following industries are categorized as a weight-losing raw materials-based industry?

1. Iron and Steel Industry
2. Pulp Industry
3. Sugar mills Industry
4. Cotton textile Industry
5. Petrochemical Industry

Select the correct answer using the code given below.

a) Only 2 and 4
b) Only 1, 2 and 3
c) Only 1, 2, 3 and 4
d) 1, 2, 3, 4 and 5

Q. 13) Solution: (b)

Explanation:

- Weight losing raw materials are materials that weigh less after getting manufactured than what should have been their weight as a raw material. For example, copper was taken from its raw material copper ore.
- Industries using weight-losing raw materials are located in the regions where raw materials are located. The sugar mills in India are located in sugarcane growing areas.
- Similarly, the locations of the pulp industry, copper smelting, and pig iron industries are located near their raw materials.
- In the iron and steel industries, iron ore and coal both are weight-losing raw materials. Therefore, **Iron and Steel Industry, Pulp Industry, and Sugar mills Industry are categorized as a weight-losing raw materials-based industry.**

- Therefore, an optimum location for iron and steel industries should be near raw material sources. This is why most of the iron and steel industries are located either near coalfields (Bokaro, Durgapur, etc.) or near sources of iron ore (Bhadravati, Bhilai, and Rourkela).
- Similarly, industries based on perishable raw materials are also located close to raw material sources.
- Markets provide outlets for manufactured products. Heavy machines, machine tools, and heavy chemicals are located near the high-demand areas as these are market-orientated.
- The cotton textile industry uses a non-weight-losing raw material and is generally located in large urban centers, e.g. Mumbai, Ahmedabad, Surat, etc.
- Petroleum refineries are also located near the markets as the transport of crude oil is easier and several products derived from them are used as raw materials in other industries. This industry is also a non- weight-losing raw material-based industry. Koyali, Mathura, and Barauni refineries are typical examples. Ports also play a crucial role in the location of oil refineries.

Q.14 Consider the following statements with regards to the footloose Industries:

1. They are largely dependent on component parts which can be obtained anywhere.
2. Footloose industries significantly contribute to pollution in the region.
3. They produce large quantities with a large labour force.
4. These industries should be located in remote areas.

How many of the statements given above is/are correct?

a) Only 1 statement is correct.
b) Only 2 statements are correct.
c) Only 3 statements are correct.
d) All 4 statements are correct.

Q.14) Solution: (a)

Explanation:

- Footloose industry is a general term for an industry that can be placed and located at any location without effect from factors such as resources or transport.
- Footloose industries can be located in a wide variety of places. They are not dependent on any specific raw material, weight losing, or otherwise. **They largely depend on component parts which can be obtained anywhere. So, statement 1 is correct**.
- The reason for the growth of footloose industries lies in the rapid development of highly sophisticated products requiring a great deal of scientific research and development. Footloose industries enable quick product improvement of their products to suit the market demand.
- Characteristic features of footloose Industries which favour the free choice of location:
    - light industries that often do not use raw materials but component parts
    - power requirements, usually only electricity — available from the national grid
    - the end product is small and often cheaper and easier to move;
    - **employs a small labor force**
    - **non-polluting industries** which can be located near residential areas
    - **accessibility - needs to be near a road network**
- **Hence statements 2, 3 and 4 are not correct.**

Q.15 Which of the following factors are responsible for the location of the fertiliser industry?

1. Presence of oil refinery.
2. Pipeline infrastructure
3. Proximity to iron and steel industry
4. Proximity to Port facility

Select the correct answer using the code given below.

a) Only 1, 3 and 4
b) 1, 2, 3 and 4
c) Only 2 and 4
d) Only 1, 2 and 3

Q.15) Solution: (b)

Explanation:

- **Presence of oil refinery:** About 70% of the plants producing nitrogenous fertilizers use naphtha as the basic raw material. Example: Gujarat-Maharashtra region fertilizer plants at Hazira, Mumbai, Trombay, Vadodara etc.
- **Proximity to natural gas source:** For the production of Urea and nitrogen based fertilizers, natural gas is a necessity.
- **Presence of Iron and steel industry in the vicinity:** Some fertilizer plants draw their feed stock from steel slug as well as coke and lignite.
- **Pipeline infrastructure:** During the recent years transportation of Naphtha or Gas through rail or pipelines has facilitated the widespread distribution of fertilizer plants with priority to seaboard location. Example: Hazira-Bijaipur-Jagdishpur (HBJ) pipeline and subsequent fertilizer industry in Bijapur, Sawai Madhopur, Shahjahanpur etc.
- **Port facilities:** Some fertilizer plants import phosphate, potash etc. Many fertilizer plants export their produce to other countries via sea ports and pipelines.
- **Raw materials:** Availability of mineral phosphate, raw potash material etc. Example: Florida, North Carolina, Utah and Idaho; India: UP, MP, Rajasthan.

Q.16 Which of the following factors are to be considered while deciding the location of an industry?

1. Raw Materials
2. Transport
3. Historical Factors
4. Market
5. Industrial policy

Select the correct answer using the code given below.

a) 1, 3 and 4 only
b) 2 and 3 only
c) 1, 2, 4 and 5 only
d) 1, 2, 3, 4 and 5

Q.16) Solution: (d)

Explanation:

- Location of industries is influenced by several factors like access to raw materials, power, market, capital, transport, labour, etc. Relative significance of these factors varies with time and place.
- **Raw Materials -** Industries using weight-losing raw materials are located in the regions where raw materials are located. Why are the sugar mills in India located in sugarcane growing areas? Similarly, the locations of the pulp industry, copper smelting, and pig iron industries are located near their raw materials. In the iron and steel industries, iron ore and coal both are weight-losing raw materials. Therefore, an optimum location for the iron and steel industries should be near raw material sources.

- **Markets** provide outlets for manufactured products. Heavy machines, machine tools, and heavy chemicals are located near the high-demand areas as these are market-orientated.
- **Transport -** Have you ever tried to find out the reasons for the concentration of industries in Mumbai, Chennai, Delhi and in and around Kolkata? It was due to the fact that they initially became the nodal point having transport links. The industries shifted to interior locations, only when railway lines were laid. All major industrial plants are located on the trunk rail routes.
- **Historical Factors -** Have you ever thought of the reasons for emerging Mumbai, Kolkata and Chennai as industrial nodes? These locations were greatly influenced by our colonial past. During the initial phase of colonisation, manufacturing activities received new impetus provided by the European traders. Places like Murshidabad, Dhaka, Bhadohi, Surat, Vadodara, Kozhikode, Coimbatore, Mysuru, etc., emerged as important manufacturing centers.
- **Industrial Policy -** India, being a democratic country aims at bringing about economic growth with balanced regional development. The establishment of the iron and steel industry in Bhilai and Rourkela was based on the decision to develop backward tribal areas of the country. At present, the government of India provides lots of incentives to industries located in backward areas.
- **Hence, option (d) is the correct answer.**

Q.17 Consider the following pairs:

Sr.no.	Category	Description
1.	Culturable Wasteland	land left without cultivation for one or less than one agricultural year.
2.	Current Fallow	land which is left uncultivated for more than a year but less than five years.

3.	Fallow other than Current Fallow	land left uncultivated for more than five years.

How many pairs given above is/are correctly matched?

(a) Only one pair

(b) Only two pairs

(c) All three pairs

(d) None of the pairs

Q.17) Solution: (d)

Explanation:

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 the area classified as forest. The latter is the area that 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.
- **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.
- **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 secondary and tertiary activities would lead to an increase in this category of land use.
- **Area under Permanent Pastures and Grazing Lands:** Most of this type of 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 in Net sown Area):** The land under orchards and fruit trees is included in his category. Much of this land is privately owned.
- **Culturable Wasteland:** 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. Hence pair 1 is not correctly matched.
- **Current Fallow:** This is the land that is left without cultivation for one or less than one agricultural year. Fallowing is a cultural practice adopted for giving land rest. The land recoups the lost fertility through natural processes. Hence pair 2 is not correctly matched.
- **Fallow other than Current Fallow:** This is also a cultivable land that 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 categorized as a culturable wasteland. Hence pair 3 is not correctly matched.
- **Net Area Sown:** The physical extent of land on which crops are sown and harvested is known as the net sown area.

Q. 18 Consider the following pairs:

Ores Location

1. Bauxite: Maikal Hills

2. Copper: Balaghat

3. Mica: Nellore

4. Manganese: Koraput

How many pairs given above is/are correctly matched?

(a) Only one pair

(b) Only two pairs

(c) Only three pairs

(d) All the pairs

Q.18) Solution: (d)

Explanation:

- India is critically deficient in the reserve and production of copper. Being malleable, ductile and a good conductor, copper is mainly used in electrical cables, electronics and chemical industries. The Balaghat mines in Madhya Pradesh, the Khetri mines in Rajasthan and the Singhbhum district of Jharkhand are leading producers of copper. Hence pair 2 is correctly matched.
- Though several ores contain aluminium, it is from bauxite, a clay-like substance that alumina and later aluminium obtained. Bauxite deposits are formed by the decomposition of a wide variety of rocks rich in aluminium silicates. India's bauxite deposits are mainly found in the Amarkantak plateau, Maikal hills and the plateau region of Bilaspur-Katni. Hence pair 1 is correctly matched.
- Mica is a mineral made up of a series of plates or leaves. It splits easily into thin sheets. These sheets can be so thin that a thousand can be layered into a mica sheet a few centimetres high. Mica can be clear, black, green, red yellow or brown. Due to its excellent di-electric strength, low power loss factor, insulating properties and resistance to high voltage, mica is one of the most indispensable minerals used in electric and electronic industries. Mica deposits are found on the northern edge of the Chota Nagpur plateau. Koderma Gaya – Hazaribagh belt of Jharkhand is the leading producer. In Rajasthan, the major mica-producing area is around Ajmer. Nellore mica belt of Andhra Pradesh is also an important producer in the country. Hence pair 3 is correctly matched.

- Manganese is an important raw material for smelting of iron ore and also used for manufacturing ferro alloys. Manganese deposits are found in almost all geological formations; however, it is mainly associated with Dharwar system. Odisha is the leading producer of Manganese. Major mines in Odisha are located in the central part of the iron ore belt of India, particularly in Bonai, Kendujhar, Sundergarh, Gangpur, Koraput, Kalahandi and Bolangir. Hence, pair 4 is correctly matched.

Q.19 Consider the following statements:

1. Manganese is one of the most common elements in the Earth's crust.
2. India holds the highest manganese reserves.

Which of the above statement(s) is/are correct?

a) Only 1
b) Only 2
c) Both 1 and 2
d) Neither 1 nor 2

Q.19) Solution: (a)

Explanation:

- Manganese is a very hard, brittle, gray-white transition metal that is naturally found in a variety of minerals, but never on its own. Manganese is one of the most common elements in Earth's crust and is widely distributed across the planet's surface. Manganese is an allotropic metal—that is, its crystal structure changes with temperature. **Hence statement 1 is correct.**
- The most important manganese ores are the oxides pyrolusite, romanechite, manganite, and hausmannite and the carbonate ore rhodochrosite.

- At 200 million MT, South Africa holds the highest manganese reserves in the world by a long shot, with a majority of manganese mining concentrated in the Kalahari Desert. **Hence statement 2 is not correct.**
- Manganese is an important raw material for smelting of iron ore and also used for manufacturing ferro alloys. Manganese deposits are found in almost all geological formations; however, it is mainly associated with Dharwar system.
- Odisha is the leading producer of Manganese. Major mines in Odisha are located in the central part of the iron ore belt of India, particularly in Bonai, Kendujhar, Sundergarh, Gangpur, Koraput, Kalahandi and Bolangir.

Q.20 Consider the following statements with reference to mica:

1. India produces more than half of the world's total mica production.
2. In India, Rajasthan has the largest deposits of mica.
3. Mica is declared as a minor mineral in India.

Which of the statements given above is/are correct?

a) 1 and 2 only
b) 1 only
c) 1 and 3 only
d) 2 and 3 only

Q.20) Solution: (c)

Explanation:

- Among the non-metallic minerals produced in India, mica is the important one.
- It has a unique combination of elasticity, toughness, flexibility, and transparency. It possesses resistance to heat and sudden changes in temperature and high dielectric

strength. It is chemically inert, stable, and does not absorb water. Mica is mainly used in the electrical and electronic industries. It can be split into very thin sheets which are tough and flexible.

- **Andhra Pradesh leads with a 41% share** of the country's total resources followed by Rajasthan (28%), Odisha (17%), Maharashtra (13%), and Bihar (2%), and a small number of resources are found in Jharkhand and Telangana. Hence, **statement 2 is not correct.**
- In Rajasthan, the mica belt extends for about 320 km from Jaipur to Bhilwara and around Udaipur.
- Mica deposits also occur in Mysuru and Hasan districts of Karnataka, Coimbatore, Tiruchirappalli, Madurai, and Kanyakumari in Tamil Nadu, Alleppey in Kerala, Ratnagiri in Maharashtra, Purulia, and Bankura in West Bengal.
- Since 2015, **'mica' has been declared as 'Minor Mineral'**. Hence, **statement 3 is correct.**
- Three major types of mica found in India are- Muscovite, Phlogopite, and Biotite.
- India has a near-monopoly in the production of mica, producing about 60% of the world's total production. Hence, **statement 1 is correct.**

Q.21) With reference to 'Urban Infrastructure Development Fund (UIDF)', consider the following statements

1. UIDF will be established through the use of priority sector lending shortfall and will be managed by the Micro Units Development and Refinance Agency Bank
2. The fund will be used by public agencies to create urban infrastructure in tier-1 and tier-2 cities

Select the correct statement(s)

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.21) Solution (d)

Explanation:

- UIDF will be established through the use of priority sector lending shortfall. It will be **managed by the National Housing Bank**. It will be established on the lines of the Rural Infrastructure Development Fund (RIDF). **Hence statement 1 is not correct**.
- The **fund will be used by public agencies to create urban infrastructure in tier-2 and tier-3 cities**. States will be encouraged to leverage resources from the grants of the 15th Finance Commission, as well as existing schemes, to adopt appropriate user charges while accessing the UIDF. **Hence statement 2 is not correct.**

Source: CLICK HERE

Q.22) Consider the following statements about Tele-MANAS Scheme

1. The scheme aims to provide free tele-mental health services all over the country 24*7.
2. It works under the National Tele Mental Health Programme.
3. The scheme is based on Maharashtra's initiative E-Manas.

Choose the correct statements:

a) 1 and 2
b) 2 and 3
c) 1, 2 and 3
d) 1 only

Q.22) Solution (a)

Explanation:

- Tele-MANAS **aims to provide free tele-mental health services all over the country 24x7**, particularly catering to people in remote or underserved areas. **Hence statement 1 is correct.**
- Tele **Mental Health Assistance and Networking Across States (Tele-MANAS) was launched under the National Tele Mental Health Programme (NTMHP).** This initiative is based on Karnataka's initiative E-Manas. **Hence statement 2 is correct.**
- **E-Manas, the tele-counselling programme, was first launched by the Karnataka State government during the first wave of COVID-19 in association with NIMHANS. Hence statement 3 is not correct**.
- The Union Government aims to open at least one Tele-MANAS Cell in each State/UT.
- Presently there are 5 regional coordination centres along with 51 State/UT Tele MANAS cells.

Source: CLICK HERE

Q.23) Consider the following statements about 'Bio-Fertilizers'

1. Bio-fertilizers are live microbial products which does not contain any nutrients
2. Indian Farmers Fertiliser Cooperative(IFFCO) has developed improved and efficient strains of biofertilizers specific to different crops under All India Network Project (AINP)
3. The quality standards and names of the bio-fertilizers have been specified under The Fertiliser (Control) Order, 1985

Choose the correct answer using the code given below

a) 1 and 2 only
b) 2 only
c) 1 and 3 only
d) 3 only

Q.23) Solution (c)

Explanation:

- **Bio-fertilizers are live microbial products which does not contain any nutrients**. The microorganisms present in the bio-fertilizer ensure availability of nutrients from non-available form present within soil and air to available form which plants can uptake. **Hence statement 1 is correct.**
- **Indian Council of Agricultural Research (ICAR) has developed improved and efficient strains of bio-fertilizers specific to different crops and soil types under All India Network Project (AINP)** on Soil Biodiversity-Bio-fertilizers and informed that Bio-fertilizers can improve crop yields by 10-25% and supplement costly chemical fertilizers (N, P) by nearly 20-25% in most of the cases when used along with chemical fertilizers without any reduction in production. **Hence statement 2 is not correct.**
- 11 bio-fertilizers namely; Rhizobium, Azotobactor, Azospirillum, Phosphate Solubilising Bacteria, Mycorrhizal Bio-fertilisers, Potassium Mobilizing Bio-fertilizers (KMB) Zinc Solubilizing Biofertilizers (ZSB) Acetobactor, Carrier Based Consortia, Liquid Consortia , and Phosphate Solubilising Fungus have been notified and included into the Fertilizer (Control) Order, 1985. **The quality standards of these biofertilizers have been specified under the FCO, 1985. Hence statement 3 is correct.**

Source: CLICK HERE

Q.24) Consider the following statements about Katkari Tribes:

1. They are part of the Particularly Vulnerable Tribal Groups (PVTGs).
2. They are located in the State of Bihar and Jharkhand.
3. The Bihu dance is performed by the Katkari tribes to mark the harvest festival.

Which of the above statement(s) is/are correct?

a) 1 only

b) 1 and 2 only
c) 1 and 3 only
d) 2 and 3

Q.24) Solution (a)

Explanation:

- They were historically forest dwellers. The name is derived from a forest based activity, the making and bartering or sale of Catechu from the Khair tree (Acacia Katechu). **They are one of the 75 Particularly Vulnerable Tribal Groups (PVTGs).** The British administration had classified them under the Criminal Tribes Act, 1871. **Hence statement 1 is correct.**
- They are primarily located in the **States of Maharashtra and Gujarat**. Hence statement 2 is correct.
- **Bihu belongs to the state of Assam**, performed by the Bihu Tribes. **Hence statement 3 is not correct.**

Source: CLICK HERE

Q.25) 'Yaya Tso' a lake seen in news recently is located in

a) Arunachal Pradesh
b) Ladakh
c) Sikkim
d) Uttarakhand

Q.25) Solution (b)

Explanation:

Lake Yaya Tso is known as a bird's paradise for its beautiful lake located at an altitude of 4,820 metres in Ladakh. It is also one of the highest breeding sites of the black-necked crane in India. Yaya Tso is set to become Ladakh's first biodiversity heritage site.

Source: CLICK HERE

Q.26) Following is a matrix of certain entries. The entries follow a certain trend row wise. Choose the missing entry (?) accordingly.

3C	27D	9E
7I	21K	3M
4D	?	7J

a) 11E
b) 35I
c) 28G
d) 48F

Q.26) Solution (c)

Explanation:

Logic for the number

Row (1) --> 3*9 = 27

Row (2) --> 7*3 = 21

Similarly,

Row (3) --> 4*7 = 28

Logic for the letter:

Row (1) --> C+1 = D -->D+1 = E

Row (2) --> I+2 = K -->K+2 = M

Similarly,

Row (3) --> D+3 = G -->G+3 = J

Q.27) Replace the incorrect term by the correct term in the given sequence: 5, 10, 17, 24, 37, 50, 65.

a) 26
b) 15
c) 17
d) 10

Q.27) Solution (a)

Explanation:

Hint: Now we are given the sequence 5, 10, 17, 24, 37, 50, 65. First we will subtract the consecutive terms and form a new sequence made of difference of two consecutive terms. Now this new sequence is in AP. hence we can easily figure out the wrong term in the given sequence.

Now consider the given sequence 5, 10, 17, 24, 37, 50, 65.

Now let us check the difference between each consecutive term.

10 – 5 = 5

17 – 10 = 7

24 – 17 = 7

37 – 24 = 13

50 – 37 = 13

65 – 50 = 15.

Now let us form a new sequence whose terms are the difference between two consecutive terms.

5, 7, 7, 13, 13, 15

Now if we change this sequence to 5, 7, 9, 11, 13, 15 then we get a proper Arithmetic progression with common difference 2.

Hence we see that there is a mistake in the calculation.

Now let us replace the number 24 by 26.

Then we get the difference as,

10 – 5 = 5

17 – 10 = 7

26 – 17 = 9

37 – 26 = 11

50 – 37 = 13

65 – 50 = 15.

Now we can see that the difference is in proper arithmetic progression 5, 7, 9, 11, 13, 15.

Hence, we can say that 24 should be replaced by 26 in the given sequence.

Q.28) You are given two identical sequence in two rows:

Sequence I:	3	4	12	45	196	1005
Sequence II:	5	A	B	C	D	ES

What is the entry in the place of C for the Sequence II?

a) 244
b) 236
c) 228
d) 250

Q.28) Solution (a)

Explanation:

The sequence follows the rule: Term 2 = Term 1 × 1 + 1^2, Term 3 = Term 2 × 2 + 2^2, Term 4 = Term 3 × 3 + 3^2, Term 5 = Term 4 × 4 + 4^2,

So, the new series is 5, 6, 16, 57, and 244

Q.29) What is the value of 'X' in the given sequence

1, 1, 2, 3, 6, 7, 10, 11, X

a) 12
b) 14
c) 16
d) 17

Q.29) Solution (b)

Explanation:

The given pattern is (Prime number - consecutive numbers starting with 1).

1 = 2 – 1

1 = 3 – 2

2 = 5 – 3

3 = 7 – 4

6 = 11 – 5

7 = 13 – 6

10 = 17 – 7

11 = 19 – 8

14 = 23 – 9

Read the following passage and answer the item that follow. Your answer to these items should be based on the passages only

Passage 1

A distinguishing feature of language is our ability to refer to absent things, known as displaced reference. A speaker can bring distant referents to mind in the absence of any obvious stimuli. Thoughts, not limited to the here and now, can pop into our heads for unfathomable reasons. This ability to think about distant things necessarily precedes the ability to talk about them. Thought precedes meaningful referential communication. A prerequisite for the emergence of human-like meaningful symbols is that the mental categories they relate to can be invoked even in the absence of immediate stimuli.

Q.30) Which one of the following best captures the main argument of the passage?

a) Thoughts precede all speech acts and these thoughts pop up in our heads even in the absence of any stimulus.
b) The ability to think about objects not present in our environment precedes the development of human communication.
c) Thoughts are essential to communication and only humans have the ability to think about objects not present in their surroundings.
d) Displaced reference is particular to humans and thoughts pop into our heads for no real reason.

Q.30) Solution (b)

Explanation:

The main idea of the given paragraph is that the ability to think about distant things precedes meaningful referential communication. Option b sums this up correctly.

Option a is incorrect, as it states that thoughts precede "all speech acts". The paragraph only states that thoughts precede meaningful referential communication. Both options c and d rule that displaced reference—the ability to think about distant objects—is unique to humans. The paragraph does not say this.