

Q1. The most popular grape variety in India is- (a) Bangalore Blue (b) Arka Krishna (c) Thompson seedless (d) Bhokri (e) Gulabi
Q2. Which of the following is a technique for reclamation of saline sodic soils? (a) GIS (b) SRI (c) HFT (d) FIRB (e) All
Q3. Which of the following is used for primary tillage? (a) Ploughs (b) Cultivator (c) Planks (d) Rollers (e) Harrows
Q4. Which of the following indigenous buffalo breeds has high content of buttermilk fat? (a) Murrah (b) Jersey (c) Holstein (d) Kankrej (e) Khillari
Q5. Dieback in citrus and cracking of apple is due to the deficiency of- (a) Zinc (b) Copper (c) Iron (d) Sulphur (e) Boron
Q6. What should be the spacing for standard variety of apple tree? (a) 5-10 feet (b) 10-15 feet (c) 15-20 feet (d) 20-30 feet (e) 30-40 feet

(a) Pulses
(b) Vermicelli
(c) Cereals
(d) Essential oil
(e) None of these
Q8. Which state has the largest area and production of potato in India?
(a) UP
(b) MH
(c) AP
(d) Bihar
(e) MP
Q9. Which of the following is the manufacturer of Mitsubishi Shakti tillers?
(a) Jk Satoh Agricultural Machinery Ltd
(b) VST tillers
(c) BDJ International
(d) Shakitaman Farm Machinery
(e) Mahindra tillers
Q10. Which mango variety yields on an average 16 t/ha and about 1600 plants can be accommodated in
one hectare?
(a) Amrapalli
(b) Ratna
(c) Mallika
(d) Neelam
(e) Anmol
Q11. Cost of growing crops per hectare is known as?
(a) Cost of production
(b) Marginal cost
(c) Total Cost
(d) Average cost
(e) Equilibrium cost
Q12. Vasantrao Naik award is given by ICAR for research application in?
(a) Dryland agriculture
(b) Horticulture

(c) Dairy farming(d) Aquaculture(e) Pisciculture

Q13. Conversion factor for conservation of organic carbon to organic matter is usually taken as? (a) 0.45 (b) 0.91 (c) 1.36 (d) 1.72 (e) 2.04
Q14. Internal necrosis in mango and internal cork in apple is due to the deficiency of? (a) Potassium (b) Chlorine (c) Boron (d) Sulphur (e) Calcium
Q15. The pH value of alkali soil is? (a) 0 (b) 3 (c) 5 (d) 7 (e) 8
Q16. Propping in banana is? (a) Pruning the leaves (b) Giving the support (c) growing bigger tree (d) growing green manuring (e) None of these
Q17. Khapra beetle is pest of (a) Seedling (b) standing crops (c) Vine plants (d) Stored grain (e) Potato
Q18. Milk fever is also known as? (a) Foot and mouth disease (b) Monogenesis (c) Anthrax (d) Lumpy jaw (e) Parturient paresis
Q19. The Apex organization of marketing Cooperative agricultural produce in India is? (a) NABARD (b) SIDBI (c) NAFED (d) AGMARK (e) NACM

Q20. Which of the following Indian sheep breed is known for producing superior quality carpet wool?
(a) Malpura
(b) Balangiri
(c) Chokla
(d) Sonadi
(e) Bharat merino
Q21. To get maximum yield the spacing of Banana plantation for Robusta verities is (a) 1.5×1.5
(b) 2.1×2.1
(c) 1.8×3.6
(d) 0.9×0.9
(e) 1.8 × 1.8
Q22. What is the ideal time for planting the unrooted cutting of grapes direct in the field? (a) March
(b) June
(c) October
(d) August
(e) December
Q23. Which of the following the advantages of practicing drip irrigation?
(a) Reduction of weed
(b) Reduction in soil salinity
(c) Reduction in soil erosion
(d) Both 1 & 3 (e) All of these
Q24. Chausa, Dasheri, langra verities of mango are available from?
(a) February-March
(b) March-April
(c) May-June
(d) June-July (e) August-September
(e) August-September
Q25. Chemical delinting of cotton seed can be done with?
(a) Ammonia
(b) Sulphuric acid
(c) Calcium carbonated
(d) Methyl alcohol
(e) Sulphur dioxide

Q26. Which of the following is an example of sorosis type of fruit? (a) Pear (b) Jack fruit (c) Pomegranate (d) Mango (e) Orange
Q27. The plant indicator which shows the presence of gold in soil is? (a) Vallozia Cadida (b) Astragalus species (c) Viscaria alpina (d) Eriogoniurin ovalifolium (e) Salsola nitrata
Q28. Algae which is used in monitoring the water quality of estuaries is? (a) Ulva (b) Stigeoclonitum (c) Duniella teritolecta (d) Microscopium (e) Cyclotella cryptia
Q29. The National Academy of Agricultural Research and Management is located at? (a) Jodhpur (b) Hyderabad (c) Pune (d) Lucknow (e) Kurukshetra
Q30. Kabuli chamkar and Udai are chickpea verities from? (a) Bihar (b) Hariyana (c) MP (d) Rajasthan (e) Punjab
Q31. Barium carbonate and aluminum phosphate are generally used in? (a) Rodenticide (b) Fumigant (c) Avicide (d) Fungicide (e) Herbicide
Q32. Spongy tissue is a serious problem of which mango cultivar? (a) Totapuri (b) Langra (c) Maida (d) Alphanso

(e) Chausa

Q33. Symptom of which nutrient deficiency appear first on older leaves and then advance up the stem to younger leaves (a) Nitrogen Deficiency (b) Phosphorus Deficiency (c) Potassium Deficiency (d) Magnesium Deficiency (e) Calcium Deficiency
Q34. Central inland fisheries research institute was establishment in? (a) 1976 (b) 1947 (c) 1987 (d) 1924 (e) 1979
Q35. In North India rivers are perennial during the period of? (a) North east monsoon (b) South west monsoon (c) Six Month (d) Whole year (e) Both (a) & (b)
Q36. Little leaf in mango and cashew is due to deficiency of? (a) Zn (b) Calcium (c) Iron (d) Nitrogen (e) Phosphorus
Q37. The pungency in uninjured garlic is due to the presence of? (a) Allinase (b) Propyl di-sulphide (c) Memordicoside (d) Sulphur oxalate (e) Tenin
Q38. The movement and filtration of water through soils and permeable rock is termed as? (a) Osmosis (b) Percolation (c) Sedimentation (d) Neutralization (e) Diffusion

Q39. National Centre of Organic Farming is located at? (a) Ghaziabad (b) New Delhi (c) Bangalore (d) Guwahati (e) Gangtok
 Q40. Which nutrient deficiency is responsible for little leaf in mango and mottle leaf of citrus? (a) Zinc (b) Phosphorus (c) Copper (d) Mg (e) Iodine
Q41. Indian Institute of pulse research is located at? (a) Chandigarh (b) Kanpur (c) Bhopal (d) Karnal (e) Jodhpur
Q42. In India, micro propagation in fruits crops is most common and popular in? (a) Guava (b) Apple (c) Banana (d) Mango (e) Jackfruit
Q43. Which of the following onion variety is suitable for kharif crop? (a) Bhima Sweta (b) Bhima Super (c) PusaRidhi (d) both a & c (e) All of these
Q44. Trichogramma is? (a) An insect (b) Bio pesticide (c) Mutant variety of wheat (d) A fungal variety (e) None of these
Q45. Pramalini, Vikram and Chkradhar are varieties of? (a) Papaya (b) Apple (c) Lime (d) Guava (e) Pear

Q46. The finest and most popular variety of Mandarin orange?
(a) Clementine
(b) Encore
(c) Mediterranean
(d) Maltese
(e) Satsuma
Q47. Back hurt and hollow heart in potato occur due to?
(a) Environmental condition
(b) Overuse of fertilizer
(c) Rodents
(d) Bacterial infection
(e) Nutrient deficiency
Q48. Which seed rate should be adopted for major crops grown the fodder purpose
(a) 20 kg/ha
(b) 8 kg/ha
(c) 25 kg/ha
(d) 12 kg/ha
(e) 50 kg/ha
Q49. The publisher of Indian Journal of fertilizer is?
(a) NAFED
(b) ICAR
(c) NABARD
(d) NFL
(e) FAI
Q50. Till planter is not used for?
(a) Growing crops in mountains regions
(b) Preventing soil erosion
(c) Growing crops in waterlogged regions

- (d) Growing crops in barren regions
- (e) All of these

Solutions

S1. Ans.(c)

Sol. The Turkish grape Sultana (Thompson seedless) is the most widely planted grape in India. It is known for its sweet and seedless characteristics. Thompson Seedless grapes are widely cultivated across various grape-growing regions in the country. This variety is favored for both table consumption and raisin production, contributing significantly to India's grape industry.

S2. Ans.(c)

Sol. High-Frequency Tillage (HFT) is a technique used for the reclamation of saline sodic soils. This agricultural practice involves frequent tillage to improve soil structure, drainage, and aeration, ultimately helping to reduce soil salinity and sodicity. It is an effective method to reclaim degraded soils and enhance their fertility for sustainable crop production.

S3. Ans.(a)

Sol. Ploughs are primarily used for primary tillage in agriculture. They are designed to break and invert the soil, preparing it for further cultivation. The action of ploughing helps in burying crop residues, turning the soil, and creating a suitable seedbed. Ploughs are particularly effective in breaking compacted soil and improving aeration, drainage, and nutrient availability for crops during the initial stage of soil preparation.

S4. Ans.(a)

Sol. Murrah buffalo breed is known for its high content of buttermilk fat. Murrah buffaloes are predominantly found in Haryana, Punjab, and Uttar Pradesh in India, and they are renowned for their excellent milk production with a high fat content, making them a valuable breed for dairy farming. The rich fat content in their milk contributes to the production of high-quality dairy products, including buttermilk with desirable fat levels.

S5. Ans.(b)

Sol. Dieback in citrus and cracking of apples are primarily due to the deficiency of copper. Copper is an essential micronutrient for plants, playing a crucial role in various physiological processes, including lignin formation. Deficiency in copper can lead to weakened cell walls, making plants more susceptible to diseases like dieback in citrus and issues such as fruit cracking in apples.

S6. Ans.(d)

Sol. The recommended spacing for a standard variety of apple tree is (d) 20-30 feet. This spacing allows sufficient room for the apple tree to develop a healthy root system, receive proper sunlight, and facilitate air circulation.

S7. Ans.(e)

Sol. AGMARK, which stands for Agricultural Marketing, is a certification mark that ensures the quality and conformity of agricultural products in India. It encompasses a wide range of commodities, including pulses, vermicelli, cereals, and essential oils, among others, to maintain standards and protect consumer interests.

S8. Ans.(a)

Sol. The state with the largest area and production of potatoes in India is Uttar Pradesh (UP). In the year 2023, Uttar Pradesh is still the number one producer of potato in India.

S9. Ans.(b)

Sol. VST Tillers Tractors Ltd. is the manufacturer of Mitsubishi Shakti tillers. They have a licensing agreement with Mitsubishi Agricultural Machinery of Japan to produce and market Mitsubishi Shakti brand of compact and utility tractors, including tillers, in India. VST Tillers is known for its collaboration with international agricultural machinery manufacturers, providing reliable and efficient farm equipment to Indian farmers.

\$10. Ans.(a)

Sol. The mango variety that yields, on average, 16 t/ha and can accommodate about 1600 plants in one hectare is Amrapalli. Amrapalli is a popular and productive mango cultivar known for its excellent fruit quality and yield.

S11. Ans.(a)

Sol. The cost of growing crops per hectare is commonly referred to as the "Cost of production." This includes various expenses incurred during the cultivation process, such as seeds, fertilizers, pesticides, labor, machinery, and other inputs. Understanding the cost of production is essential for farmers to make informed decisions about crop management, pricing, and overall profitability.

S12. Ans.(a)

Sol. The Vasantrao Naik Award, given by ICAR (Indian Council of Agricultural Research), is awarded for outstanding research applications in the field of dryland agriculture. Dryland agriculture focuses on sustainable farming practices in regions with limited water availability, making it crucial for addressing the challenges posed by arid and semi-arid climates. This award recognizes contributions that enhance agricultural productivity and resource utilization in such challenging environments.

S13. Ans.(d)

Sol. Organic matter is difficult for laboratories to measure directly, so they usually measure total organic carbon. This is probably why organic matter and organic carbon are often confused and used interchangeably. A conversion factor of 1.72 is commonly used to convert organic carbon to organic matter:

Organic matter (%) = Total organic carbon (%) x 1.72

This conversion factor assumes organic matter contains 58 % organic carbon. However, this can vary with the type of organic matter, soil type and soil depth. Conversion factors can be as high as 2.50, especially for subsoils.

S14. Ans.(c)

Sol. Internal necrosis in mango and internal cork in apple are both related to boron deficiency. Boron is an essential micronutrient for plants, playing a crucial role in cell wall formation and development. Its deficiency can lead to disorders such as internal necrosis in mango and internal cork in apple, affecting the fruit's quality and structure.

S15. Ans.(e)

Sol. The pH value of alkali soil is typically higher than 7, and it tends to be alkaline in nature. A pH value of 8 indicates a moderately alkaline soil, which may have implications for the types of crops that can thrive in such conditions. Alkali soils often contain elevated levels of sodium and may require amendments to improve fertility and optimize agricultural productivity.

S16. Ans.(b)

Sol. Propping in banana refers to option (b) "Giving the support." This agricultural practice involves providing external support to the banana plants, typically by using stakes or other structures, to prevent the plants from falling over or bending under the weight of the fruit. It is a common method to ensure the stability and upright growth of banana plants, especially when they bear heavy fruit bunches.

S17. Ans.(d)

Sol. The Khapra beetle is a pest specifically associated with **stored grain**. It is a destructive pest that infests stored grains such as wheat, rice, and other cereals. The larvae of the Khapra beetle are known to feed on the grain, causing damage and contamination.

S18. Ans.(e)

Sol. Milk fever is also known as Parturient Paresis. It is a metabolic disorder that commonly affects dairy cows shortly after giving birth. This condition is characterized by low blood calcium levels, leading to symptoms such as weakness, difficulty standing, and loss of appetite. The term "Parturient Paresis" reflects the connection to the act of giving birth (parturition) and the resulting paralysis or weakness (paresis) associated with the condition.

S19. Ans.(c)

Sol. NAFED, or the National Agricultural Cooperative Marketing Federation of India, is the apex organization responsible for marketing cooperative agricultural produce in India. It plays a crucial role in facilitating the marketing and distribution of agricultural commodities, ensuring fair prices for farmers and promoting cooperative efforts in the agricultural sector

S20. Ans.(c)

Sol. The Indian sheep breed known for producing superior quality carpet wool is Chokla. Chokla sheep are often referred to as the "Marino of India" and are recognized for their high-quality wool. This wool is particularly suitable for carpet making due to its fine texture and desirable characteristics.

S21. Ans.(e)

Sol. The correct answer is (e) 1.8×1.8 . For maximum yield in Robusta banana varieties, a spacing of 1.8 meters between rows and 1.8 meters between plants within a row is recommended. This spacing allows for adequate sunlight exposure, efficient nutrient uptake, and optimal air circulation, contributing to the overall health and productivity of the banana plants.

S22. Ans.(c)

Sol. The ideal time for planting unrooted cuttings of grapes directly in the field is October. During this time, the soil temperature is favourable, and climatic conditions are conducive for the establishment of the cuttings. Planting in October allows the grapevines to take advantage of the upcoming growing season, promoting better root development and overall plant vigor. This timing aligns with the dormancy period of grapevines, ensuring successful establishment and growth.

S23. Ans.(d)

Sol. Drip irrigation offers the advantages of reducing weed growth, as water is directly supplied to the plant roots, minimizing moisture availability for weed germination. Additionally, it helps in the reduction of soil erosion since the water is applied directly to the root zone, preventing surface runoff.

S24. Ans.(c)

Sol. The varieties of mangoes, Chausa, Dasheri, and Langra, are available from May to June. During this period, these mango varieties are in season and can be harvested. Mango season in India typically peaks in May and extends into June, making these months the prime time for enjoying these delicious mango varieties.

S25. Ans.(b)

Sol. Chemical delinting of cotton seeds is commonly performed using (b) Sulphuric acid. This method involves treating the cotton seeds with a dilute solution of sulphuric acid to remove the fuzzy fibers (lint) from the seeds. The acid breaks down the bonding between the lint and the seed, facilitating the separation process. This process is essential for improving the quality of cotton seeds before further processing, such as oil extraction or seed planting.

S26. Ans.(b)

Sol. The correct option is (b) Jackfruit.

Sorosis is a type of multiple fruit where the ovaries of multiple flowers fuse to form a single mass of fruit. Jackfruit (Artocarpus heterophyllus) is an example of a sorosis-type fruit. In jackfruit, the edible part is not derived from the ovary of a single flower but is the result of the fusion of multiple ovaries from separate flowers on the same inflorescence.

S27. Ans.(a)

Sol. The correct option is (a) Vallozia Cadida.

Vallozia Candida is known to be a plant indicator that shows the presence of gold in the soil. Certain plants, called indicator plants, are associated with specific soil conditions or the presence of particular minerals. In this case, Vallozia Candida is considered an indicator for the presence of gold in the soil.

S28. Ans.(a)

Sol. The correct option is (a) Ulva. Ulva, commonly known as sea lettuce, is an algae that is used in monitoring the water quality of estuaries. It is considered an indicator species for assessing environmental conditions, particularly in estuarine ecosystems. The presence, abundance, or health of Ulva can provide insights into the nutrient levels, pollution, and overall water quality of estuarine environments.

S29. Ans.(b)

Sol. The correct option is (b) Hyderabad. The National Academy of Agricultural Research and Management (NAARM) is located in Hyderabad. NAARM is an autonomous organization under the Indian Council of Agricultural Research (ICAR), and it serves as a national-level institution for capacity building in agricultural research and education management.

\$30. Ans.(b)

Sol. The correct option is (b) Haryana. Kabuli Chana and Udai are varieties of chickpeas that are associated with the state of Haryana. These varieties have likely been developed or cultivated in Haryana, reflecting the region's agricultural practices and efforts in chickpea cultivation.

S31. Ans.(a)

Sol. The correct option is (a) Rodenticide. Barium carbonate and aluminum phosphate are commonly used in rodenticides. Rodenticides are substances or mixtures used to control or eliminate rodents, such as rats and mice. These chemicals are often incorporated into baits to attract and poison rodents, and substances like barium carbonate and aluminum phosphate may be components of these rodenticide formulations.

S32. Ans.(d)

Sol. The correct option is (d) Alphonso. Spongy tissue is a disorder that affects the quality of mango fruit. It is particularly associated with the Alphonso cultivar. Alphonso mangoes are known for their excellent flavor and texture, but spongy tissue can be a concern, leading to a soft and sometimes fibrous texture in the fruit. This disorder is influenced by factors such as environmental conditions, ripening practices, and storage conditions.

S33. Ans.(a)

Sol. The correct option is (a) Nitrogen Deficiency. Nitrogen deficiency symptoms often appear first on older leaves and then progress upward to affect younger leaves. This pattern is because nitrogen, being a mobile nutrient in plants, is easily translocated within the plant from older to younger tissues. When nitrogen is deficient, the plant prioritizes the allocation of available nitrogen to younger, actively growing tissues, resulting in the symptoms manifesting initially in older leaves.

S34. Ans.(b)

Sol. Central Inland fisheries research station was formally established **on17 march, 1947** in calcutta under the ministry of Food and Agriculture, Government of India.

S35. Ans.(d)

Sol. The correct option is (d) Whole year. In North India, rivers are perennial throughout the year. This means that these rivers have a continuous flow of water, and they are not subject to significant seasonal fluctuations or drying up during particular periods. The perennial nature of these rivers is attributed to the presence of glaciers, snowmelt, and other water sources that contribute to their sustained flow.

S36. Ans.(a)

Sol. The correct option is (a) Zn (Zinc). The condition known as "Little leaf" in mango and cashew is often associated with a deficiency of zinc (Zn). Zinc is an essential micronutrient for plants, and its deficiency can lead to various symptoms, including the characteristic reduction in leaf size, which is why it's referred to as "Little leaf."

\$37. Ans.(a)

Sol. The correct option is (a) Allinase. The pungency in uninjured garlic is due to the presence of an enzyme called Allinase. Allinase is responsible for converting the non-pungent compound Alliin, which is present in garlic, into Allicin. Allicin is the compound responsible for the characteristic pungent odor and flavor of garlic.

S38. Ans.(b)

Sol. The correct option is (b) Percolation. The movement and filtration of water through soils and permeable rock are termed as "Percolation." Percolation refers to the process by which water moves through the pores and interstitial spaces in soil or permeable rocks, gradually infiltrating downward into the subsurface. This process is crucial for groundwater recharge and the movement of water within the Earth's crust.

S39. Ans.(a)

Sol. National Centre of Organic Farming is located at **Ghaziabad**.

S40. Ans.(a)

Sol. The correct option is (a) Zinc. Zinc deficiency is responsible for the symptoms known as "little leaf" in mango and "mottle leaf" in citrus. Zinc is an essential micronutrient for plants, and its deficiency can lead to various physiological disorders and symptoms, including the reduction in leaf size and abnormal leaf coloration observed in these conditions.

S41. Ans.(b)

Sol. The Indian Institute of Pulses Research (IIPR) is located in Kanpur, Uttar Pradesh, India. It is an agricultural research institute dedicated to the research and development of pulse crops. Pulses are important for sustainable agriculture and nutrition, providing a source of protein and enhancing soil fertility.

S42. Ans.(c)

Sol. The correct option is (c) Banana. Micropropagation, also known as tissue culture, is most common and popular in banana crops in India. This technique involves growing plants from small tissue samples under sterile conditions. It is particularly advantageous for the rapid multiplication of disease-free and genetically uniform plants.

S43. Ans.(b)

Sol. The correct option is (b) Bhima Super. Bhima Super is an onion variety suitable for the kharif season, which refers to the summer or monsoon season in India. It is important to select onion varieties that are well-adapted to specific growing seasons, and Bhima Super is specifically recommended for kharif cultivation.

S44. Ans.(a)

Sol. Trichogramma is a genus of minute polyphagous wasps that are endoparasitoid **of insect** eggs.

S45. Ans.(c)

Sol. The correct option is (c) Lime. Pramalini, Vikram, and Chakradhar are varieties of lime. These are specific cultivars of lime, which is a citrus fruit. Different varieties of citrus fruits may have distinct taste profiles, nutritional content, and suitability for various growing conditions.

S46. Ans.(a)

Sol. The correct option is (a) Clementine. Clementine is considered one of the finest and most popular varieties of Mandarin orange. Clementines are known for their sweet and easy-to-peel characteristics, making them a favorite among consumers. They are a type of mandarin orange with a deep orange color and a distinct, sweet flavor.

S47. Ans.(a)

Sol. The correct option is (a) Environmental condition. Back hurt and hollow heart in potatoes are physiological disorders that occur due to environmental conditions rather than pests, diseases, or nutrient deficiencies. These disorders are often associated with irregular watering, especially fluctuations in soil moisture levels during the growing season. Inconsistent or inadequate irrigation practices can lead to these physiological disorders in potatoes.

S48. Ans.(e)

Sol. The correct option is (e) 50 kg/ha. For major crops grown for fodder purposes, a seed rate of 50 kg/ha is recommended. This rate ensures an adequate density of plants for the production of sufficient fodder. Fodder crops are cultivated to provide feed for livestock, and the appropriate seed rate is essential to achieve optimal yield and quality.

S49. Ans.(e)

Sol. The correct option is (e) FAI (Fertilizer Association of India). The Indian Journal of Fertilizer is published by the Fertilizer Association of India (FAI). FAI is an organization that represents the fertilizer industry in India and is involved in promoting the balanced and efficient use of fertilizers for sustainable agriculture.

S50. Ans.(b)

Sol. The correct option is (b) Preventing soil erosion. A till planter is not used for preventing soil erosion. Till planters are typically used for planting crops in various conditions, including mountainous regions, waterlogged regions, and barren regions. They are designed to work in different terrains and facilitate the planting of crops efficiently. However, preventing soil erosion is usually addressed through specific soil conservation methods, such as contour plowing, terracing, cover cropping, and the use of erosion control structures.

