Q1. Hen requires how much sq/ft as per NABARD norms?
(a) 1sq ft.
(b) 2 sq ft.
(c) 5 sq ft.
(d) 3 sq ft.
(e) 10 sq ft.

Q2. Shallow depth consists of the following:
(a) 15-20 cm
(b) 5-10 cm
(c) 25-30 cm
(d) 2-4 cm
(e) 10-15 cm

Q3. The method by which seed is sown and closed by soil in a regular process?
(a) Sowing behind ploughing
(b) Broadcasting
(c) Seed driller
(d) None of these
(e) All of these

Q4. Organic farming in India gets how much amount of loan?
(a) 50000 per ha
(b) 10000 per ha
(c) 20000 per ha
(d) 5000 per ha
(e) All the above

Q5. Which Fish has the highest protein content?
(a) Tuna
(b) Salmon
(c) Mrigal
(d) Rohu
(e) Catla

Q6. What is the optimum temperature for the heat crop?
(a) 20-25°C
(b) 8-10°C
(c) 10-15°C
(d) 40-45°C
(e) 30-35°C

Q7. Citrus cracking is due to-
(a) Deficiency of Mn
(b) Deficiency of B
(c) Deficiency of Fe
(d) Deficiency of Cu
(e) Deficiency of Al

Q8. Deficiency symptoms of which nutrient first appears on older or lower leaves?
(a) Sulphur
(b) Manganese
(c) Carbon
(d) Oxygen
(e) Nitrogen

Q9. Which one of the following is a variety of onions?
(a) Barkha
(b) Pusa Kranti
(c) Pusa Lal
(d) Agri Found
(e) Pusa Nanha

Q10. Alkali soil has a pH of?
(a) 7
(b) <7
(c) 7-8.5
(d) >8.5
(e) None of These

Q11. Which is the following is an off-season intercultivation?
(a) Conventional tillage
(b) Clean tillage
(c) Conservation tillage
(d) Mulch Tillage
(e) None of these

Q12. Which of the following is NOT a micronutrient?
(a) Fe
(b) Zn
(c) B
(d) Mg
(e) N

Q13. ICAR was established in which year?
(a) 15 May 1930
(b) 15 Nov. 1964
(c) 16 July 1929
(d) 16 July 1955
(e) None of these

Q14. Which among the following states have highest Alkali problematic soil?
(a) Chhattisgarh
(b) MP
(c) Haryana
(d) Maharashtra
(e) Gujarat

Q15. Under PMFBY the premium % to be paid by Farmer of the total cost for kharif season crop?
(a) 2%
(b) 3%
(c) 5%
(d) 1.5%
(e) 4%

Q16. Feed is given to the newborn calf. What is daily weight gain of well-fed crossbreed calf?
(a) 400 grams
(b) 325 grams
(c) 200grams
(d) 300 grams
(e) None of these

Q17. Which of the following is a temperate crop?
(a) Rice
(b) Wheat
(c) Coconut
(d) Sugarcane
(e) None of these

Q18. How much percentage of subsidy is given by the government of India for 10 hp pumps?
(a) 10000 and 50%
(b) 15000 and 50%
(c) 50000 and 10%
(d) 2000 and 15%
(e) 1000 and 5%

Q19. Which element is most useful for root growth?
(a) C
(b) O
(c) S
(d) Mn
(e) P

Q20. What is the optimum pH required for Grapes?
(a) 4.5 - 5.5
(b) 4-6
(c) 6.5-8
(d) less than 2.5
(e) 1.5-2.25

Q21. The lifespan of coconut in years for coconut palm?
(a) 100 Years
(b) 150 Years
(c) 5 Years
(d) 10-20 Years
(e) 30-50 Years

Q22. Which tillage implement requires minimum draft per unit width?
(a) Cultivator
(b) Harvester
(c) Planter
(d) Dibbler
(e) Driller

Q23. What is the Capacity of High-volume sprayer?
(a) 100-400
(b) Less than 400
(c) 200-250
(d) More than 400
(e) 300- 500

Q24. Aluminum phosphide is a?
(a) Herbicide
(b) Insecticide
(c) Weedicide
(d) Fungicide
(e) Rodenticide

Q25. Water use efficiency highest for drip irrigation?
(a) 35%
(b) 50%
(c) 70%
(d) 100%
(e) 90-95%

Q26. MB plough, for the tractor pull, can work in per day (2 bottoms)?
(a) 1.5-2.0 ha per day
(b) 5-6 ha per day
(c) 5 ha per day
(d) 10 ha per day
(e) 30 ha per day

Q27. What is the plant population for long rice?
(a) 33300 Plant
(b) 10000 plant
(c) 1000 plant
(d) 50000 plant
(e) 100000 plant

Q28. Highest % of fat in the Buffalo breed?
(a) Murrah
(b) Mehsana
(c) Jafrawadi
(d) Neeli Rawi
(e) Bhadawari

Q29. The causal agent of Powdery Mildew in mango plants?
(a) VAM
(b) Meliola mangiferae
(c) Mycorhizhae
(d) Coletotricum falcatum
(e) Xanthium spp.

Q30. J & K, Uttarakhand, Himachal Pradesh lies under which agro-climatic zone?
(a) Eastern Himalaya
(b) Central Himalaya
(c) Western Himalayas
(d) Central Plains
(e) None of these

Q31. The black heart of the potato is a?
(a) Argon deficiency disorder
(b) Oxygen deficiency disorder
(c) Manganese deficiency disorder
(d) Carbon deficiency disorder
(e) Sulphur deficiency disorder

Q32. What is the ideal minimum temperature for the wheat crop?
(a) 3-5°C
(b) 5-10°C
(c) 25-30°C
(d) 15-20°C
(e) 40-45°C

Q33. Khapra beetle is related to the?
(a) Field pest
(b) Rodent
(c) Bacteria
(d) Virus
(e) Storage food grain pest

Q34. National Research Centre for Groundnut is located at?
(a) Bangalore
(b) Ahmedabad
(c) Surat
(d) Junagarh
(e) Anand

Q35. Dual purpose breed of cow in India?
(a) Haryana
(b) Punjab
(c) Karnataka
(d) Assam
(e) Manipur

Q36. Maximum export agriculture product from India?
(a) Potato
(b) Onion
(c) Wheat
(d) Gram
(e) Rice

Q37. The causal agent of Bacterial spot in citrus?
(a) Candidatus liberobacter
(b) Phytophthora palmivora
(c) Ustilago hoodia
(d) Xanthomonas compestris pv. Citrumelo
(e) None of these

Q38. If a farmer has to pay Interest on a 3-lakh loan after interest subvention farmer has to pay what percentage of interest?
(a) Only 4%
(b) Only 10%
(c) 20%
(d) 15%
(e) None of these

Q39. In which method of seed sowing, is the seed manages to be sown at the required depth in a hole?
(a) Dibbling
(b) Line sowing
(c) Broadcasting
(d) Behind local Plough
(e) all the above

Q40. Which state/union territory has a minimum percentage of land area?
(a) Gujrat
(b) Haryana
(c) Punjab
(d) Bihar
(e) Daman and Diu

Q41. What is the plant population for a medium cotton crop?
(a) 40000 Plant
(b) 15000 Plant
(c) 55000 Plant
(d) 25000 Plant
(e) 10000 Plant

Q42. No, till planter is used for?
(a) Sowing
(b) Ploughing
(c) Weeding
(d) Pest control
(e) None of these

Q43. Which soil is maximum in hills and gigantic plans?
(a) Saline soil
(b) Alkaline Soil
(c) loamy Soil
(d) Lateritic Soil
(e) Sandy soil

Q44. Which one of the following is calculated in quintals per ha.?
(a) Yield
(b) Cost of production
(c) Cost of cultivation
(d) Income
(e) None of these

Q45. Money allocated for 1 ha horticulture crop as per the national horticulture mission programme?
(a) 15 lakh per Nursery
(b) 2 lakh per nursery
(c) 1 lakh nursery
(d) 10 lakh per nursery
(e) 5 lakh per nursery

Q46. What is the aggregate loan limit from the banking system for the category of food and Agro - processing under ancillary agriculture under priority sector lending?
(a) 1 crore
(b) 100 crores
(c) 30 lakhs
(d) 50 crores
(e) None of these

Q47. What is the target for lending to small and marginal farmers within the target for the agriculture sector by the domestic scheduled commercial bank by March 2017 bank credit or credit equivalent amount of off-balance sheet exposure whichever is higher as per RBI guidelines?
(a) 2%
(b) 8%
(c) 13%
(d) 17%
(e) 22%

Q48. Which tillage is used in which no soil particles are disturbed?
(a) Minimum tillage and Stubble mulching
(b) Plastic mulching
(c) Zero tillage
(d) None of these
(e) All of these

Q49. Which of the following is a disease-causing pathogen in the mango group?
(a) Colletotricum gloeosporicides
(b) Phytophthora parasitic
(c) Olpidium brassicae
(d) Alloryces Balanus
(e) All of these

Q50. Which of the following is a disease-causing pathogen in the citrus group?
(a) Alloryces Balanus
(b) Colletotricum glocaspariaides
(c) Phytophthora parasitica
(d) Olpidium brassicae
(e) All of these

Q51. In which cropping method, two or more crops are grown simultaneously during the part of the life cycle of each i.e. second crop is planted after the first crop has reached its reproductive stage of growth?
(a) Mixed cropping
(b) Parallel cropping
(c) Intercropping
(d) Relay Cropping
(e) None of these

Q52. Which of the following is a major nutrient requiring larger countries compared to other nutrients for the human body?
(a) N
(b) Ca
(c) K
(d) Mn
(e) P

Q53. Coconut pair harvested during various intervals in the year. What is the economic life of the
(a) 40 years
(b) 55 years
(c) 60 years
(d) 70 years
(e) None of these

Q54. What is the size of semi-intensive fish farm pond?
(a) 0.5 ha
(b) 1 ha
(c) 2 ha
(d) 2.5 ha
(e) 3 ha

Q55. What is the interest subvention amount payable by govt. of India for short-term crop loans up to one year for timely repayment of loans?
(a) 4%
(b) 5%
(c) 2%
(d) 9%
(e) 3%

Q56. What is the minimum amount of assistance under the National Horticulture Mission (NHM) for the adoption of organic farming?
(a) Rs 20,000/ha
(b) Rs 10,000/ha
(c) Rs 50,000/ha
(d) Rs 40,000/ha
(e) RS 60,000/ha

Q57. What is the floor space required (sq ft) per bird in brooder-cum-grower house (deep litter system) in case of a poultry layer
(a) 1.0
(b) 2.5
(c) 1.5
(d) 0.5
(e) 3.5

Q58. Liming is done to increase the pH value of pond water for intensive fish culture. What is the dose of lime required in kg/ha., if the pH of the pond bottom soil is less than 6.5?
(a) 300
(b) 400
(c) 450
(d) 500
(e) 600

Q59. Which state/union territory in India has the maximum forest area out of the total geographical area of the state/union territory?
(a) UP
(b) AP
(c) Mizoram
(d) Bihar
(e) MP

Q60. What is the optimum temp? for growth of wheat in India?
(a) 30 °C
(b) 25 °C
(c) 29 °C
(d) 32 °C
(e) 35 °C

Solutions

S1. Ans.(a)
Sol. The correct answer is (a) 1 sq ft. According to NABARD norms, the space requirement for a hen is specified as 1 square foot. This means that, based on NABARD guidelines, each hen should ideally have a minimum of 1 square foot of space for proper housing and management.

S2. Ans.(b)
Sol. Shallow depth refers to the distance from the surface to a certain level below, and in this case, it is between 5 to 10 centimeters. This depth range is commonly associated with shallow planting or shallow water levels in various contexts, such as gardening, agriculture, or hydrology.

S3. Ans.(a)
Sol. The correct answer is (a) Sowing behind ploughing. This method involves sowing seeds immediately after ploughing the field. The ploughed soil is prepared for seed placement, and the seeds are sown in rows behind the plough. This ensures proper seed-to-soil contact and facilitates the subsequent covering of seeds by soil during the regular ploughing process, promoting optimal germination and crop establishment.

S4. Ans.(b)
Sol. In India, organic farmers can avail a loan of Rs. 10,000 per hectare under various government schemes and initiatives to support organic farming practices. This financial support aims to encourage sustainable agricultural practices and promote the adoption of organic farming methods among farmers.

S5. Ans.(a)
Sol. Tuna is known for its exceptionally high protein content, with around 29 grams of protein per 3-ounce (85-gram) serving. This makes tuna a popular choice for individuals seeking a protein-rich diet. Additionally, tuna is a good source of essential omega-3 fatty acids, further enhancing its nutritional value.

S6. Ans.(a)
Sol. The optimum temperature for the heat crop is 20-25°C, as indicated by option (a). This temperature range is favorable for the crop's growth and development, providing an optimal environment for various physiological processes. Deviations from this range, either too high or too low, may negatively impact the crop's productivity and overall health.

S7. Ans.(b)
Sol. Citrus cracking is primarily attributed to the deficiency of Boron (B). Boron plays a crucial role in cell wall formation and stability. Its deficiency can result in poor development of cell walls, leading to the susceptibility of citrus fruits to cracking. Therefore, option (b) Deficiency of B is the correct answer as it addresses the specific nutrient deficiency associated with citrus cracking.

S8. Ans.(e)
Sol. Nitrogen deficiency symptoms typically appear first on the older or lower leaves of a plant. This is because nitrogen is a mobile nutrient, meaning that the plant can translocate it from older tissues to younger ones when there is a shortage. As a result, the older leaves show signs of nitrogen deficiency, such as yellowing (chlorosis), while the younger leaves remain relatively unaffected initially.

S9. Ans.(d)

Sol. Agrifound Dark Red (NHRDF, Nasik) : Bulbs are dark red, globular in shape, 4-6 cm in size with tight skin, moderately pungent. TSS is 12-13%. Plant matures in 95-110 days after transplanting. Yield is 30-40 t/ha. Average keeping quality. Recommended for kharif season. Suitable for export purpose.

Agrifound Light Red (NHRDF, Nasik) : The bulbs are of globular shape with tight skin, light red colour and 4-6 cm in size. TSS is 13%. It has good keeping quality. Plants mature in 160-165 days after sowing. Average yield is 30-32.5 t/ha. Recommended for growing during rabi all over country. It can be grown in late kharif season also in Nasik district of Maharashtra.

S10. Ans.(d)

Sol. Alkali soil has a pH level above 8.5, indicating it is basic or alkaline in nature. Soils with pH values higher than 8.5 can affect the availability of nutrients to plants, potentially leading to nutrient deficiencies. This alkalinity is often a result of the presence of basic minerals, such as sodium carbonate, in the soil.

S11. Ans.(e)

Sol. The correct answer is (e) None of these. Off-season intercultivation refers to the cultivation practices performed between the main crops during the off-season. Options (a) Conventional tillage, (b) Clean tillage, (c) Conservation tillage, and (d) Mulch tillage are all types of tillage practices, but they do not specifically refer to off-season intercultivation. Therefore, the correct answer is (e) None of these, as none of the provided options explicitly represent off-season intercultivation.

S12. Ans.(e)

Sol. Nitrogen (N) is not considered a micronutrient in the context of plant nutrition. Micronutrients are elements required by plants in smaller quantities compared to macronutrients like nitrogen, phosphorus, and potassium. The elements listed in options (a) Fe (iron), (b) Zn (zinc), (c) B (boron), and (d) Mg (magnesium) are all micronutrients essential for plant growth.

S13. Ans.(c)

Sol. The Indian Council of Agricultural Research (ICAR) was established on July 16, 1929.

S14. Ans.(e)

Sol. Gujarat has a higher prevalence of alkali problematic soil compared to the other states listed. Alkali soils have elevated levels of soluble salts, particularly sodium, which can adversely affect soil fertility and crop growth. The alkalinity issue in Gujarat may be attributed to factors such as arid climate, inadequate drainage, and irrigation practices that contribute to the accumulation of salts in the soil.

S15. Ans.(a)

Sol. Under the Pradhan Mantri Fasal Bima Yojana (PMFBY) a uniform premium of only 2% to be paid by farmers for all Kharif crops and 1.5% for all Rabi crops. In case of annual commercial and horticultural crops, the premium to be paid by farmers will be only 5%. The premium rates to be paid by farmers are very low and balance premium will be paid by the Government to provide full insured amount to the farmers against crop loss on account of natural calamities.

S16. Ans.(a)

Sol. The daily weight gain of a well-fed crossbreed calf is typically around 400 grams.

S17. Ans.(b)
Sol. Wheat is a staple cereal crop that thrives in temperate climates with moderate temperatures. Unlike rice, which prefers warmer conditions, and crops like coconut and sugarcane, which are suited to tropical climates, wheat is well-adapted to temperate regions,making it the correct choice in this context.

S18. Ans.(a)
Sol. The government of India provides a subsidy of Rs. 10,000 and 50% of the cost for 10 hp pumps. This means that the government contributes Rs. 10,000 and covers half of the total cost to support farmers in acquiring these pumps, promoting agricultural development.

S19. Ans.(e)
Sol. Phosphorus (P) is the most crucial element for root growth among the options provided. Phosphorus plays a vital role in energy transfer and storage within plant cells, promoting root development and overall plant growth. It is a key component of ATP (adenosine triphosphate), the energy currency of cells, and is involved in various metabolic processes necessary for root elongation and branching. Therefore, the correct answer is (e) P.

S20. Ans.(c)
Sol. The optimum pH required for grapes is in the range of 6.5-8, as indicated by option (c). This pH range is conducive to the healthy growth and development of grapevines, ensuring optimal nutrient uptake from the soil. Maintaining the correct pH is crucial for the overall health of the grape plants and influences factors such as nutrient availability, soil microbial activity, and the absorption of essential minerals, all of which contribute to the quality of grape production.

S21. Ans.(e)
Sol. Coconut palms typically have a lifespan ranging from 30 to 50 years. The longevity of coconut palms depends on various factors such as environmental conditions, soil quality, and disease management. With proper care and favorable conditions, coconut palms can thrive and produce coconuts for several decades within this specified range.

S22. Ans.(c)
Sol. The planter requires minimum draft per unit width among the given options. This is because a planter is designed to efficiently sow seeds at a consistent depth, requiring less power compared to other tillage implements. Cultivators, harvesters, dibblers, and drillers often involve more soil disturbance or cutting resistance, leading to higher draft requirements. Therefore, in terms of draft efficiency, the planter is the most economical choice per unit width.

S23. Ans.(d)
Sol. The capacity of the high-volume sprayer is greater than 400. This means it can hold and dispense a liquid volume exceeding 400 units, whether measured in liters, gallons, or any other applicable unit. This distinction is crucial for users who require larger capacity sprayers for their specific applications, such as agricultural or industrial spraying tasks.

S24. Ans.(e)
Sol. Aluminum phosphide is commonly used as a rodenticide. When it comes into contact with moisture or acids in the stomach, it releases phosphine gas, which is highly toxic and acts as a fumigant. This gas is effective in controlling rodent populations, making aluminum phosphide a widely used substance for rodent control in agricultural and storage settings.

S25. Ans.(e)
Sol. The answer (e) 90-95% is correct because drip irrigation is highly efficient in delivering water directly to the root zone of plants, minimizing water wastage through evaporation or runoff. This method ensures that a significant proportion of the water applied is utilized by the plants, resulting in a water use efficiency of 90-95%. In contrast, traditional irrigation methods, such as surface irrigation, may have lower efficiency due to water losses during distribution.

S26. Ans.(a)
Sol. A two-bottom MB plough is generally designed for smaller-scale agricultural operations. Its working capacity is limited, and it can effectively plough approximately 1.5 to 2.0 hectares per day. This range is influenced by factors such as soil conditions, tractor power, and the efficiency of the ploughing process. It is essential to consider these variables when estimating the daily working capacity of a tractor-mounted plough.

S27. Ans.(a)
Sol. The recommended plant population for long rice is 33,300 plants per unit of cultivation. This specific planting density is likely determined based on factors such as soil fertility, water availability, and the specific variety of long rice being cultivated, aiming to optimize yield and overall crop performance.

S28. Ans.(e)
Sol. Among the given buffalo breeds, Bhadawari is known for having the highest percentage of fat content. This breed is recognized for its high milk yield and rich fat content in the milk, making it a valuable breed for dairy purposes. The fat content in buffalo milk is an essential factor in determining its suitability for various dairy products.

S29. Ans.(b)
Sol. Meliola mangiferae is a fungus that causes Powdery Mildew in mango plants. This fungal pathogen infects the leaves, flowers, and fruit of mango trees, leading to the characteristic powdery white growth on the affected plant parts. It is essential to manage and control this disease to prevent significant damage to mango crops.

S30. Ans.(c)
Sol. Jammu and Kashmir (J&K), Uttarakhand, and Himachal Pradesh lie under the Western Himalayas agro-climatic zone. This region is characterized by its specific climatic and geographical features, including the presence of the western range of the Himalayan mountain system. The Western Himalayas agro-climatic zone has distinct climatic conditions that influence agricultural practices and cropping patterns in these states.

S31. Ans.(b)
Sol. The black heart of the potato is an oxygen deficiency disorder. It occurs when the internal tissues of the potato tuber experience a lack of oxygen, leading to a darkening or blackening of the affected areas. This disorder is often associated with storage conditions that limit proper aeration, such as compact storage or inadequate ventilation. Ensuring proper storage conditions with adequate oxygen levels helps prevent the development of the black heart disorder in potatoes.

S32. Ans.(b)

Sol. The ideal minimum temperature for the wheat crop is in the range of 5-10°C. Wheat is a cool-season crop, and its growth and development are influenced by temperature. The mentioned temperature range is favorable for the germination of wheat seeds and the early stages of crop establishment. Temperatures outside this range can affect the germination process and subsequent plant growth. Therefore, maintaining suitable temperature conditions is essential for the successful cultivation of wheat.

S33. Ans.(e)

Sol. The Khapra beetle (Trogoderma granarium) is related to storage food grain pests. It is a highly destructive pest that infests stored grains such as wheat, rice, and other cereals. The larvae of the Khapra beetle feed on the stored grains, causing significant damage and leading to economic losses. Due to its destructive nature and potential impact on grain storage, the Khapra beetle is a notable concern for agriculture and food storage industries

S34. Ans.(d)

Sol. The National Research Centre for Groundnut is located at Junagarh. This research center is dedicated to conducting research and development activities related to groundnut (peanut) cultivation, improvement, and technology. It plays a crucial role in enhancing the productivity and sustainability of groundnut farming practices.

S35. Ans.(a)

Sol. Haryana is known for its dual-purpose breed of cow. The Haryana breed is well-suited for both milk production and agricultural work. Dual-purpose breeds are those that are valued for both milk and draught (work) capabilities. The Haryana breed is adapted to the climatic conditions of the region and serves the dual role of providing milk and contributing to agricultural activities.

S36. Ans.(b)

Sol. Onions are considered one of the maximum export agriculture products from India. India is a significant exporter of onions to various countries. The export of agricultural products, including onions, contributes to the country's economy. The demand for Indian onions in the international market has led to their prominence in agricultural exports.

S37. Ans.(d)

Sol. The causal agent of Bacterial spot in citrus is Xanthomonas compestris pv. Citrumelo. Bacterial spot is a plant disease caused by the bacterium Xanthomonas citri subsp. citri, and it affects citrus plants. The correct taxonomic name reflects the specific strain that affects citrumelo, a citrus hybrid. Managing and preventing the spread of this bacterium is essential for citrus cultivation.

S38. Ans.(a)

Sol. Interest subvention is a subsidy provided by the government to farmers to reduce the effective interest rate on their loans. If a farmer has a 3-lakh loan with interest subvention, the effective interest rate becomes lower. In this case, the farmer would only have to pay **4% interest,** as the government covers a portion of the interest cost, making it more affordable for the farmer.

S39. Ans.(a)

Sol. Dibbling is a method of seed sowing where the seed is manually placed in a hole or pit at the required depth in the soil. In this method, individual holes are made in the soil, and seeds are placed in these holes. Dibbling allows for proper seed placement and spacing, ensuring that seeds are sown at the desired depth for optimal germination and plant establishment. This method is commonly used for sowing seeds of certain crops or vegetables.

S40. Ans.(e)

Sol. Daman and Diu, a union territory in India, is likely to have the minimum percentage of land area. Union territories are generally smaller in size compared to states, and Daman and Diu, being a coastal union territory, has limited land area. The states mentioned (Gujarat, Haryana, Punjab, Bihar) are likely to have larger land areas than the union territory of Daman and Diu.

S41. Ans.(c)

Sol. The plant population for a medium cotton crop is typically around 55000 plants per hectare. Cotton plants need adequate spacing for proper growth, development, and efficient utilization of resources. The specific plant population can vary based on factors such as the cotton variety, local growing conditions, and cultivation practices. In a medium cotton crop, the planting density is managed to achieve a balanced and healthy plant stand for optimal yield.

S42. Ans.(a)

Sol. A "No-till planter" is used for sowing seeds without prior plowing or tilling of the soil. It is a type of agricultural equipment designed for no-till or minimum tillage farming practices. In no-till agriculture, the soil is left undisturbed, and seeds are planted directly into the untilled soil. The no-till planter helps in placing seeds at the desired depth without the need for extensive soil preparation. This conservation tillage method helps reduce soil erosion, improve water retention, and conserve soil structure.

S43. Ans.(d)

Sol. Lateritic soil is maximum in hills and gigantic plains. Lateritic soils are formed in tropical and subtropical regions with high temperatures and heavy rainfall. These soils are characterized by the process of laterization, which involves leaching and the accumulation of iron and aluminum oxides. The result is a reddish-brown, well-drained soil known as lateritic soil. This type of soil is often found in hilly regions and large plains with tropical climatic conditions.

S44. Ans.(b)

Sol. The cost of production is calculated in quintals per hectare. It represents the cost incurred in producing a specific quantity of agricultural produce per unit area, typically measured in quintals (100 kg) per hectare. This metric helps farmers and policymakers understand the economic aspects of agricultural production, including the expenses associated with cultivating a particular crop over a specified land area.

S45. Ans.(a)

Sol. The money allocated for 1 hectare (ha) horticulture crop under the National Horticulture Mission program is approximately 15 lakh per nursery. This allocation is intended to support the establishment and management of nurseries for horticultural crops, contributing to the overall development of horticulture in the country. The exact amounts and criteria may vary, and it's advisable to refer to the specific guidelines of the National Horticulture Mission for the most accurate and up-to-date information.

S46. Ans.(b)

Sol. The aggregate loan limit from the banking system for the category of food and agro-processing under ancillary agriculture under priority sector lending is 100 crores. This means that borrowers engaged in food and agro-processing activities can avail loans up to a maximum limit of 100 crores from the banking sector. Priority sector lending aims to provide financial support to sectors that are crucial for the economic development of the country, and food and agro-processing is one such priority sector.

S47. Ans.(b)

Sol. As per the RBI guidelines, the target for lending to small and marginal farmers within the target for the agriculture sector by domestic scheduled commercial banks by March 2017 is **8%** of the adjusted net bank credit (ANBC) or credit equivalent amount of off-balance sheet exposure, whichever is higher. This target is set to ensure that a certain percentage of the total agricultural lending is directed towards small and marginal farmers, who are considered vulnerable and in need of financial support.

S48. Ans.(a)

Sol. Minimum tillage and stubble mulching is the tillage practice in which no soil particles are disturbed or turned over extensively. This method involves minimal soil disturbance while retaining crop residues (stubble) on the field. It aims to reduce soil erosion, conserve soil moisture, and improve soil structure. While zero tillage also involves minimal soil disturbance, the inclusion of stubble mulching specifically refers to retaining the crop residues on the field surface, contributing to soil health and sustainability.

S49. Ans.(a)

Sol. Colletotrichum gloeosporioides is a pathogenic fungus that causes anthracnose disease in mangoes. Anthracnose is a common fungal disease affecting various plant species, and in mangoes, it leads to the development of dark lesions on leaves, stems, and fruit. The disease can result in significant economic losses for mango growers due to reduced fruit quality and yield. Proper disease management practices, including the application of fungicides and good orchard hygiene, are essential to control anthracnose in mango crops.

S50. Ans.(c)

Sol. Phytophthora parasitica is a pathogenic oomycete (water mold) that causes citrus root rot, also known as Phytophthora root rot, in citrus plants. This disease affects the roots and lower trunk of citrus trees, leading to symptoms such as wilting, yellowing, and decline of the affected tree. The pathogen thrives in waterlogged or poorly drained soils, making proper soil drainage and disease management crucial for preventing and controlling Phytophthora root rot in citrus orchards.

S51. Ans.(d)

Sol. Relay cropping is a cropping method in which two or more crops are grown simultaneously during part of their life cycle. In relay cropping, the second crop is planted after the first crop has reached its reproductive stage of growth but before it is harvested. This allows for the efficient use of land and resources, as the two crops occupy the same field at different times. It is a form of intercropping where the planting and harvesting of one crop coincide with the growth stages of another crop.

S52. Ans.(c)

Sol. Potassium (K) is a major nutrient required in larger quantities compared to other nutrients for the human body. Potassium is an essential mineral and electrolyte that plays a crucial role in various physiological functions, including the regulation of fluid balance, nerve signals, and muscle contractions. Adequate potassium intake is important for maintaining proper heart and muscle function, as well as supporting overall health. While other nutrients such as nitrogen (N), calcium (Ca), manganese (Mn), and phosphorus (P) are important for various biological processes, potassium is specifically highlighted for its significance in larger quantities for human nutrition.

S53. Ans.(c)

Sol. The economic life of a coconut palm is generally considered to be around 60 years. Coconut palms are known for their long productive life, and they can continue to yield coconuts for several decades under favorable growing conditions. The economic life is the period during which the coconut palm remains productive and economically viable for harvesting coconuts. While individual palms may vary, and factors like environmental conditions and management practices can influence productivity, the typical economic life of a coconut palm is often estimated to be around 60 years.

S54. Ans.(b)

Sol. The size of a semi-intensive fish farm pond is typically around 1 hectare (ha). Semi-intensive fish farming involves a moderate level of management and inputs, with the pond size being suitable for a balance between extensive and intensive farming practices. This size allows for a more controlled environment compared to extensive ponds, facilitating the application of supplementary feeding and management practices to enhance fish production. The specific pond size may vary based on local conditions, species cultured, and management strategies, but a size of 1 hectare is commonly used in semi-intensive aquaculture.

S55. Ans.(b)

Sol. The interest subvention amounts payable by the Government of India for short-term crop loans up to one year, for timely repayment of loans, is typically 5%. This means that farmers who repay their short-term crop loans on time can avail a subsidy of 5% on the interest charged by the lending institutions. The aim of the interest subvention scheme is to provide financial relief to farmers and promote timely repayment of agricultural loans, ensuring that farmers have access to credit at a lower effective interest rate.

S56. Ans.(b)

Sol. Under the National Horticulture Mission (NHM), the minimum amount of assistance for the adoption of organic farming is Rs 10,000 per hectare. This financial support is provided to encourage farmers to adopt organic farming practices, which focus on sustainable and environmentally friendly agricultural methods without the use of synthetic chemicals. The objective is to promote organic cultivation in horticultural crops and enhance the quality of produce while minimizing the environmental impact.

S57. Ans.(a)

Sol. In the brooder-cum-grower house with a deep litter system for poultry layers, the recommended floor space per bird is 1.0 square foot. Providing adequate floor space is crucial for the well-being and productivity of the layers, and it helps in preventing overcrowding and stress among the birds. The deep litter system involves providing a layer of bedding material on the floor, which helps in managing waste and maintaining a healthy environment for the poultry.

S58. Ans.(d)

Sol. Liming is done to increase the pH value of pond water and soil. **The recommended dose of lime for pond bottom soil is generally around 500 kg/ha when the pH is less than 6.5.** Liming helps in maintaining the proper pH level for the growth of aquatic organisms in intensive fish culture. It is an essential practice to create a favorable environment for fish and other aquatic species in the pond.

S59. Ans.(c)

Sol. Mizoram has the maximum forest area out of the total geographical area of the state/union territory. The state is known for its dense and extensive forest cover, contributing significantly to its total geographical area. Forests play a crucial role in maintaining ecological balance and supporting biodiversity in the region.

S60. Ans.(b)

Sol. The optimum temperature for the growth of wheat in India is around 25 °C. Wheat is a cool-season crop, and it thrives best in moderate temperatures. Temperature plays a crucial role in the growth and development of wheat plants, and a range of approximately 20-25 °C is considered favorable for its cultivation. Extreme temperatures, whether too high or too low, can adversely affect wheat growth and yield.