

Q1. What is the Botanical name of the pomegranate?

- (a) *Punica granatum*
- (b) *Citrus reticulata*
- (c) *Prunus domestica*
- (d) *Vitis vinifera*
- (e) *Persea americana*

Q2. What is the Average Gestation period of buffalo?

- (a) 270 ± 1 days
- (b) 310 ± 1 days
- (c) 150 ± 1 days
- (d) 114 ± 1 days
- (e) 120 ± 1 days

Q3. In which state of India has the highest forest area (year 2020)?

- (a) Madhya Pradesh
- (b) Maharashtra
- (c) Rajasthan
- (d) Punjab
- (e) Odisha

Q4. Which is the Propagation method used for the propagation of bananas?

- (a) Sword suckers
- (b) Veneer grafting
- (c) Air layering
- (d) Seed
- (e) T Budding

Q5. A female pig that does not give birth to individuals is called?

- (a) Boar
- (b) Sow
- (c) Gilt
- (d) Dew
- (e) Ewe

Q6. Mating in sheep is called?

- (a) Serving
- (b) Topping
- (c) Coupling
- (d) Lambing
- (e) Calving

Q7. What is isolation required for foundation seed production of okra?

- (a) 50 m
- (b) 100 m
- (c) 800 m
- (d) 400 m
- (e) 1000 m

Q8. Vertisol is the highest found in which state?

- (a) Madhya Pradesh
- (b) Maharashtra
- (c) Rajasthan
- (d) Punjab
- (e) Odisha

Q9. Landholding of small-scale farmers is?

- (a) 1-2 ha
- (b) 2-4 ha
- (c) 4-10 ha
- (d) >10 ha
- (e) >5 ha

Q10. Bt cotton protects the cotton crop from which insect?

- (a) Aphid
- (b) Jassids
- (c) Whitefly
- (d) Thrips
- (e) Bollworm

Q11. The illuviation process is related to which horizon?

- (a) A Horizon
- (b) B Horizon
- (c) C Horizon
- (d) O Horizon
- (e) E Horizon

Q12. Choose the macronutrients among the following?

- (a) Cu
- (b) Mo
- (c) K
- (d) Zn
- (e) B

Q13. The new leaf of the plant shows yellow symptoms and the veins remain green caused by the deficiency of which nutrient?

(a) Fe (b) Mn (c) N (d) S (e) Ca

Q14. The golden revolution is related to?

- (a) Cereals
- (b) Fruits
- (c) Onion
- (d) Fertilizer
- (e) Pulses

Q15. The blue tag is related to which seed class?

- (a) Nucleus Seed
- (b) Breeder seed
- (c) Foundation seed
- (d) Registered seed
- (e) Certified seed

Q16. Symbiotic nitrogen fixation is related to which organism?

- (a) Rhizobium
- (b) Azatobacter
- (c) Azospirillum
- (d) Acetobacter
- (e) Azolla

Q17. Germination percentage of wheat?

- (a) 85%
- (b) 70%
- (c) 75%
- (d) 90%
- (e) 95%

Q18. The study of gardening Trees to make shade and shape is called?

- (a) Landscape horticulture
- (b) Viticulture
- (c) Lawn making
- (d) Arboriculture
- (e) None of these

Q19. What is the Feed Conversion Ratio (FCR) of standard broiler chicken reared in an enclosed house?

- (a) 1 - 1.4
- (b) 1.4 - 1.9
- (c) 2 - 2.5
- (d) 2.4 - 2.83
- (e) 3 - 3.5

Q20. Soil strength is measured by which instrument?

- (a) Penetrometer
- (b) Dynamometer
- (c) Hydrometer
- (d) All of these
- (e) None of these

Q21. The hormone is responsible for the milk letdown?

- (a) Oxytocin
- (b) Estrogen
- (c) Progesterone
- (d) Endrogen
- (e) None of these

Q22. The technique which reduces soil erosion, evaporation, and kinetic energy impact of raindrops is known as?

- (a) Mulching
- (b) Multiple cropping
- (c) Strip cropping
- (d) Crop rotation
- (e) Parallel cropping

Q23. Ley farming is referred to?

- (a) Grow of grass
- (b) Grow of Cereals
- (c) Grow of Fruits
- (d) Grow of Vegetables
- (e) Grow of Flowers

Q24. Vaccine for Ranikhet disease in poultry?

- (a) RDV vaccine
- (b) Pigeon vaccine
- (c) ADL vaccine
- (d) Lasota
- (e) None of these

Q25. Which is not a bacterial disease?

- (a) Coccidiosis
- (b) Bacillus
- (c) Anthrax
- (d) Septicemia
- (e) None of these

Q26. Online Electronic trading of agricultural commodities is done through which platform?

- (a) E-NAM
- (b) PKVY
- (c) PMFBY
- (d) ISS
- (e) RWBCIS

Q27. Which oil cake is used in a fish pond to kill predatory insects?

- (a) Mahua
- (b) Cotton
- (c) Castor
- (d) Groundnut
- (e) Mustard

Q28. Vaccination for Foot & mouth disease in sheep is given in an interval of?

- (a) 6 months
- (b) 12 months
- (c) 10 months
- (d) 8 months
- (e) 1 month

Q29. Aphid is a vector for which disease of tobacco?

- (a) Leaf curl
- (b) Rosette
- (c) Root burn
- (d) Brown spot
- (e) Cucumber Mosaic Virus

Q30. Removal of male flowers in banana after completion of the female phase?

- (a) Denavelling
- (b) Desuckering
- (c) Detopping
- (d) Detrashing
- (e) Spadix

Q31. Which are the diagnostic symptoms of sorghum shoot fly?

- (a) Adult feed on nymphs, shooty appearance
- (b) Grain yield reduction
- (c) Larvae cut growing points and cause dead heart
- (d) All of these
- (e) None of these

Q32. Crown cleaning is related to?

- (a) Mango
- (b) Coconut
- (c) Papaya
- (d) Ber
- (e) Tea

Q33. What is pulsing?

- (a) Pulse storage
- (b) Apple storage relates
- (c) Post harvesting
- (d) Fruit production
- (e) Onion storage

Q34. Grape training system where they are connected with each other?

- (a) Skipping
- (b) Bower
- (c) Telephone
- (d) Kniffin
- (e) None of these

Q35. Highest lactation period of which breed of goat?

- (a) Jamunapari
- (b) Beetle
- (c) Barbari
- (d) Malabari
- (e) Sirchi

Q36. The regrowth of crops from stubble is known as?

- (a) Ratooning
- (b) Cutting
- (c) Mutation
- (d) Cloning
- (e) Stunning

Q37. White Muscardine Disease is related to?

- (a) Cattle
- (b) Sheep & Goat
- (c) Poultry
- (d) Silkworm
- (e) Pig

Q38. Finger-like Structure is formed in which erosion?

- (a) Sheet Erosion
- (b) Rill Erosion
- (c) Gully Erosion
- (d) Splash Erosion
- (e) None of these

Q39. Which of the following sentence is wrong about honeybees?

- (a) Swarming is their natural method of propagation
- (b) Unfertilized eggs develop into worker bees

- (c) Caterpillar of wax moth feed only on honeycombs does not feed on bees
- (d) Superseder queen bees can be developed from worker bees during unfavourable conditions
- (e) All of these

Q40. Which sex trap is used to trap male insects?

- (a) Water pan traps
- (b) Pheromone Trap
- (c) Water trap
- (d) Electric grid traps
- (e) Minnow trap

Q41. Which sheep breed in northwest India is known for the best quality white wool?

- (a) Gaddin
- (b) Magra
- (c) Gurej
- (d) Chant hangi
- (e) Lohi

Q42. Soil moisture decreased to wilting point water held tightly by soil particles condition is called?

- (a) Hygroscopic coefficient
- (b) Wilting point
- (c) Permanent wilting point
- (d) Saturation point
- (e) None of these

Q43. Guava pests deposit eggs on the soft skin of ripening fruit, on hatching Maggots, bore into fruit, and feed on the soft pulp, the infested show depressions with a dark green puncture and when cut open the maggots are visible and finally fruit rot and fall?

- (a) Fruit fly
- (b) Mealybug
- (c) White aphid
- (d) Whiteflies
- (e) Thrips

Q44. Which medicinal plant is known as a laxative medicinal plant?

- (a) Isabgol
- (b) ashwagandha
- (c) henbane
- (d) guggal
- (e) None of these

Q45. In which planting system 4 plants are planted in a square in which plant to plant and row-to-row distance is same and plants are planted to a right angle to each other?

- (a) Square
- (b) Rectangle
- (c) Hexagonal
- (d) Triangular
- (e) None

Q46. Which of the following disease of rose greyish-white powdery patches are seen on the tender leaves and flower buds, mature leaves get malformed and flower bud fails to open and the plant presents a wilted appearance?

- (a) Powdery mildew
- (b) Downy mildew
- (c) Black spot
- (d) Rust
- (e) Crown gall

Q47. A zone within the earth that restricts the flow of groundwater from one aquifer to another?

- (a) Perch aquiter
- (b) Aquafeed
- (c) Aquifers
- (d) Aquifer
- (e) Aisles

Q48. Which fungus role is the biological control agent in cotton bollworm?

- (a) Verticillium
- (b) Helicoverpa armigera
- (c) Spodoptera Lutens
- (d) Beauveria bassiana
- (e) None of these

Q49. Lay farming is related to the?

- (a) Layering in horticulture
- (b) More layer birds in limited space
- (c) Rearing of poultry animals
- (d) Leguminous pasture with grain crops
- (e) All of these

Q50. The vaccine is given to sheep at an interval of?

- (a) 3 months
- (b) 6 months
- (c) 9 months
- (d) 10 months
- (e) 12 months

Q51. Sodium deficiency in animal/cow symptoms and causes what?

- (a) Appetite losses
- (b) Milk reduction
- (c) Dehydration and fluid reduction
- (d) patient paresis
- (e) suddenly milk stop

Q52. In which grafting rootstock debarred 45 cm from ground level two slopes cut given and the wedge is made tongue shape scion inserted? (a) Veneer grafting (b) Wedge grafting (c) Inside (d) Budding (e) Air layering

Q53. Mating a Wider degree range of relationships not close to one another and result in uniformity is?

- (a) Outbreeding
- (b) Test crossing
- (c) Inbreeding
- (d) Line breeding
- (e) None of these

Q54. Which institution is established to provide vocational training to farmers and field-level extension workers?

- (a) KVK
- (b) NABARD
- (c) ATMA
- (d) IFFCO
- (e) None

Q55. Milk is which type of emulsion?

- (a) Oil in water
- (b) Water in oil
- (c) Oil in oil
- (d) Water in water
- (e) Fog in Water

Q56. Which is an irregular variety of mango?

- (a) Amrapali
- (b) Kesar
- (c) Neelam
- (d) lotapan
- (e) Himsagar

Q57. NRLM scheme Now Known as the?

- (a) DAY-NRLM
- (b) SGSY
- (c) PM-KISAN
- (d) KISAN-NRLM
- (e) None of these

Q58. Type of silkworm that breeds only once time a year?

- (a) Univolatine strain
- (b) Volatile strain
- (c) Mono strain
- (d) Mono viticulture
- (e) All of these

Q59. Which is Tropical fruit?

- (a) Papaya
- (b) Apple
- (c) Pineapple
- (d) Allobukhara
- (e) Pear

Q60. What is that place used for feeding lamb, calves, and piglets but not used for adults is known as?

- (a) Cattle shed
- (b) Conventional dairy bam
- (c) Losing house system
- (d) Cowshed
- (e) Creep

Solutions

S1. Ans.(a)

Sol. Botanical name of pomegranate is *Punica granatum*.

S2. Ans.(b)

Sol. The average gestation period of buffaloes is (b) 310 ± 1 days. This refers to the typical duration of pregnancy in buffaloes, and the ± 1 days indicates a slight variation that can occur.

S3. Ans.(a)

Sol. Madhya Pradesh is known for its rich biodiversity and extensive forest cover, contributing significantly to the country's total forested area. The state's commitment to conservation efforts and sustainable forest management has helped maintain its position as a leader in terms of forest resources in India.

S4. Ans.(a)

Sol. Sword suckers are the offshoots or shoots that emerge from the base of the banana plant. These suckers, also known as "swords," are cut and replanted to generate new banana plants. This method is commonly employed in banana cultivation as it allows for the efficient and rapid reproduction of banana plants with characteristics similar to the parent plant.

S5. Ans.(c)

Sol. A gilt is a female pig that has not yet given birth to piglets. Once a gilt has produced offspring, it is referred to as a sow.

S6. Ans.(b) Sol. Topping is the term used to describe the breeding or mating process in sheep, where a ram mates with ewes during the breeding season.

S7. Ans.(d)

Sol. Isolation requirements for foundation seed production of okra dictate a distance of (d) 400 meters. This separation helps prevent cross-pollination with other varieties, maintaining the genetic purity of the foundation seed.

S8. Ans.(b)

Sol. Vertisol, a soil order characterized by high clay content and significant shrink-swell properties, is most extensively found in the state of (b) Maharashtra. Vertisols are known for their ability to undergo volume changes, expanding when wet and shrinking when dry.

S9. Ans.(a)

Sol. The landholding of small-scale farmers is typically in the range of (a) 1-2 hectares. Small-scale farmers often operate on smaller plots of land, and this range reflects the modest size of their agricultural holdings.

S10. Ans.(e)

Sol. Bt cotton protects the cotton crop from the (e) Bollworm. Bt cotton is genetically modified to express a toxin called *Bacillus thuringiensis* (Bt), which is toxic to bollworms. The Bt toxin specifically targets and kills bollworm larvae, offering effective protection against this destructive insect pest.

S11. Ans.(b)

Sol. Illuviation involves the movement of dissolved minerals and organic material from upper horizons (such as the A Horizon) to lower horizons, which is typically the B Horizon. This process contributes to the accumulation of nutrients and organic matter in the subsurface layers, influencing the soil's fertility and structure.

S12. Ans.(c)

Sol. Macronutrients are essential elements required by plants in relatively large quantities for their growth and development. Potassium (K) is one of these macronutrients, playing a crucial role in various physiological processes, including photosynthesis, enzyme activation, and osmoregulation.

S13. Ans.(b)

Sol. The yellowing of new leaves with green veins, a condition known as interveinal chlorosis, is indicative of a manganese (Mn) deficiency in plants. Manganese is an essential micronutrient for plants, and its deficiency can lead to impaired photosynthesis and chlorophyll synthesis.

S14. Ans.(b)

Sol. The Golden Revolution is related to (b) Fruits. It signifies a period of significant growth and advancement in fruit production and horticulture in India.

S15. Ans.(e)

Sol. Certified seed is the progeny of foundation seed produced by registered seed growers under supervision of seed certification agencies to maintain the seed quality as per minimum seed certification standards. A blue colour certificate is issued by seed certification agency for this category of seed.

S16. Ans.(a) Sol. Rhizobium is a genus of soil bacteria that forms a symbiotic relationship with leguminous plants. These bacteria infect the root nodules of the host plants and, in turn, help convert atmospheric nitrogen into a form that the plants can utilize for their growth. This process is essential for enriching the soil with nitrogen, benefiting both the bacteria and the associated leguminous plants in a mutually beneficial symbiotic association.

S17. Ans.(a)

Sol. A high percentage of germination is necessary to obtain a good crop stand with the minimum amount of seed. The minimum germination percentage of wheat is 85%.

S18. Ans.(d)

Sol. Arboriculture focuses on the cultivation and management of trees, encompassing practices such as planting, pruning, and shaping to enhance their aesthetic appeal, provide shade, and ensure their overall health. This discipline is essential for urban planning, landscaping, and the maintenance of green spaces where trees play a crucial role in contributing to the environment and enhancing the visual appeal of outdoor areas.

S19. Ans.(b)

Sol. A standard broiler chicken reared in an enclosed house will have an FCR between 1.4 to 1.9.

S20. Ans.(a)

Sol. Soil strength is measured by the instrument called a Penetrometer. A penetrometer is a device designed to assess the resistance of soil to penetration or the force required to penetrate the soil at a given rate. It is particularly useful in geotechnical and agricultural applications to evaluate soil compaction, texture, and other properties.

S21. Ans.(a)

Sol. Oxytocin is produced by the pituitary gland and plays a crucial role in the ejection or release of milk from the mammary glands during breastfeeding.

S22. Ans.(a)

Sol. Mulching involves covering the soil with a layer of organic or inorganic materials such as straw, leaves, plastic, or other substances. This protective layer helps to retain soil moisture, minimize evaporation, and prevent the direct impact of raindrops, thus reducing soil erosion. Mulching is an effective and sustainable practice in agriculture to promote soil conservation and improve overall crop health.

S23. Ans.(a)

Sol. Ley farming is specifically associated with the cultivation of grasses. Therefore, the correct answer is (a) Grow of grass. In ley farming, farmers alternate the cultivation of grass with other crops to allow the land to rejuvenate, prevent soil erosion, and maintain fertility.

S24. Ans.(d)

Sol. Lasota is a widely used live attenuated vaccine that provides protection against Ranikhet disease, also known as Newcastle disease. This vaccination helps prevent the highly contagious viral infection, ensuring the health and well-being of poultry flocks.

S25. Ans.(a) Sol. Coccidiosis is not a bacterial disease; it is caused by protozoan parasites of the genus *Eimeria*. Bacillus, Anthrax, and Septicemia are bacterial diseases. Bacillus is a bacterial genus, Anthrax is caused by the bacterium *Bacillus anthracis*, and Septicemia is a condition where bacteria enter the bloodstream, often causing a systemic infection.

S26. Ans.(a)

Sol. E-NAM is an initiative by the Government of India to create a unified national market for agricultural produce, enabling farmers to sell their products online and access a wider market. Through the E-NAM platform, farmers can showcase and sell their commodities to buyers across the country, fostering transparency and efficiency in agricultural trade.

S27. Ans.(a)

Sol. Mahua oil cake is used in fish ponds to control predatory insects. Mahua oil cake contains natural compounds that act as an insecticide, helping to manage and eliminate predatory insects in fish ponds.

S28. Ans.(a)

Sol. A two-dose primary course is generally recommended for FMD vaccines, typically given 1 month apart followed by boosters every 4–6 months.

S29. Ans.(e)

Sol. Aphids serve as vectors for the transmission of various plant viruses, and one of the diseases they transmit to tobacco plants is the Cucumber Mosaic Virus (CMV). Aphids acquire the virus while feeding on infected plants and subsequently transmit it to healthy tobacco plants during feeding.

S30. Ans.(a)

Sol. Denavelling refers to the removal of male flowers in banana plants after the completion of the female phase. This practice is employed to enhance fruit development and quality. By eliminating the male flowers, the plant's energy is directed towards the maturation of the fruit, promoting better yield and overall crop management.

S31. Ans.(c)

Sol. Sorghum shoot fly (*Atherigona soccata*) is a significant pest that infests sorghum crops. The correct diagnostic symptom associated with sorghum shoot fly is that the larvae cut the growing points of the plant, leading to a condition known as "dead heart." This occurs when the central shoot is damaged or killed by the feeding activity of the larvae, resulting in the withering of the affected shoot, resembling a dead heart.

S32. Ans.(b)

Sol. Crown cleaning is a cultural practice related to coconut cultivation. In coconut farming, crown cleaning involves the removal of dead or damaged leaves and debris from the crown or top part of the coconut tree. This practice is essential for maintaining the health and vigor of the coconut palms.

S33. Ans.(c)

Sol. Pulsing, in the context of agriculture, specifically relates to a post-harvest treatment. It involves the application of a preservative solution to cut flowers or freshly harvested produce to extend their vase life or shelf life. This process is commonly used in the floriculture industry and for certain fruits and vegetables.

S34. Ans.(c) Sol. In grape cultivation, the "Telephone" training system refers to a method where grapevines are connected with each other. This system is designed to create an overhead trellis or canopy by interconnecting vines, providing support and facilitating better exposure to sunlight for grape clusters.

S35. Ans.(a)

Sol. Jamunapari is known for having the highest lactation period. Lactation period refers to the duration during which a female goat (doe) produces milk after giving birth. Jamunapari goats are recognized for their high milk yield, and they are often valued for their performance in dairy production.

S36. Ans.(a)

Sol. The regrowth of crops from the remaining stubble or base of the plant after harvesting is known as ratooning. This agricultural practice is commonly observed in crops like sugarcane and certain grasses. Ratooning allows for additional harvests or cuttings from the same plant, promoting sustainability and efficient use of resources.

S37. Ans.(d)

Sol. White Muscardine Disease is related to silkworms. It is a fungal disease caused by the fungus *Beauveria bassiana*, which affects silkworms (larvae) and often leads to their death. Infected silkworms display a characteristic white powdery appearance due to the growth of the fungus on their bodies.

S38. Ans.(b)

Sol. A finger-like structure is formed in rill erosion. Rill erosion occurs when water concentrates into small channels or rivulets, creating finger-like structures called rills on the soil surface. These rills are typically shallow and smaller than gullies but can lead to further soil erosion if not addressed.

S39. Ans.(a)

Sol. Swarming is not the primary or "natural" method of propagation for honeybees. While swarming is a natural behavior observed in honeybee colonies, it is not the primary means of reproduction. The main method of propagation for honeybees is through the process of colony division or swarming, where a new queen bee and a portion of the worker bees leave the colony to form a new one. However, this is not the typical or "natural" way honeybees reproduce; it is a response to certain conditions in the colony.

S40. Ans.(b)

Sol. Pheromone traps are used to trap male insects. Pheromones are chemical substances released by insects to communicate with others of the same species. In the case of pheromone traps, synthetic versions of these insect sex pheromones are used to attract and trap male insects. The traps are designed to mimic the scent of female insects, thereby luring male insects into the trap. This method is particularly useful in monitoring and controlling insect pests in agriculture. By using pheromone traps, it is possible to detect the presence of specific insect pests, monitor their population levels, and potentially disrupt their mating patterns, leading to more targeted and environmentally friendly pest control measures.

S41. Ans.(b)

Sol. Magra sheep is a breed found in northwest India, particularly in the arid and semi-arid regions of Rajasthan. This breed is known for producing the best quality white wool. The wool from Magra sheep is valued for its fine texture and quality, making it suitable for various textile applications.

S42. Ans.(a) Sol. Hygroscopic coefficient refers to the condition where soil moisture decreases to the wilting point, and water is held tightly by soil particles. At this point, the soil moisture is so low that it is no longer available to plants, leading to wilting. The hygroscopic coefficient represents the soil's ability to retain water against the force of plant roots, making it unavailable for plant uptake.

S43. Ans.(a)

Sol. Fruit fly is the pest that deposits eggs on the soft skin of ripening guava fruit. Upon hatching, the maggots bore into the fruit and feed on the soft pulp. The infested fruits show depressions with a dark green puncture mark. When the fruit is cut open, the maggots are visible, and eventually, the fruit may rot and fall due to the damage caused by the larvae.

S44. Ans.(a)

Sol. Isabgol, also known as Psyllium husk, is a medicinal plant known for its laxative properties. It is derived from the seeds of the *Plantago ovata* plant. Isabgol contains soluble fiber, and when it comes into contact with water, it swells to form a gel-like substance. This gel helps in promoting bowel regularity and is often used as a natural remedy for constipation.

S45. Ans.(a)

Sol. In the square planting system, four plants are arranged in a square pattern, where the distance between each plant and between rows is the same. The plants are typically arranged at right angles to each other, forming a square configuration. This planting arrangement allows for efficient use of space and facilitates ease of cultivation, irrigation, and harvesting.

S46. Ans.(a)

Sol. Powdery mildew is a disease of roses characterized by the presence of greyish-white powdery patches on the tender leaves and flower buds. As the disease progresses, mature leaves may become malformed, and flower buds may fail to open. The affected plant often exhibits a wilted appearance.

S47. Ans.(c)

Sol. Aquicludes refer to zones within the Earth that restrict the flow of groundwater from one aquifer to another. Unlike aquifers, which are permeable layers enabling water movement, aquicludes have low permeability, acting as barriers that impede the flow of groundwater between aquifers.

S48. Ans.(d)

Sol. *Beauveria bassiana* is a fungus that serves as a biological control agent in managing the cotton bollworm (*Helicoverpa armigera*). This fungus is used as a biopesticide to control the population of bollworms, which are destructive pests of cotton crops. *Beauveria bassiana* infects and kills the bollworm larvae, providing a natural and environmentally friendly approach to pest control.

S49. Ans.(d)

Sol. Lay farming refers to a system of agricultural management that involves the combination of leguminous pasture with grain crops. In this approach, leguminous pasture is grown alongside grain crops, providing a sustainable and integrated method of farming. The leguminous pasture helps in improving soil fertility by fixing nitrogen, and the combination of crops contributes to a balanced and efficient use of resources.

S50. Ans.(b) Sol. Vaccines for sheep are usually administered at a 6-month interval. This schedule is designed to maintain immunity against specific diseases and follows recommended vaccination protocols to safeguard the health of the sheep flock.

S51. Ans.(c)

Sol. Sodium deficiency in animals, particularly cows, can lead to symptoms such as dehydration and fluid reduction. Sodium is an essential electrolyte that plays a crucial role in maintaining the balance of fluids in the body. When there is a deficiency of sodium, it can result in dehydration, causing a reduction in the overall fluid levels.

S52. Ans.(b)

Sol. Wedge grafting involves debarring the rootstock at a height of 45 cm from the ground level. Two slopes are cut on the rootstock, creating a wedge or tongue shape. A matching wedge is prepared on the scion, and the scion is inserted into the corresponding wedge on the rootstock, facilitating a secure and proper grafting process.

S53. Ans.(a)

Sol. Outbreeding involves mating individuals that are not closely related, encompassing a wider range of genetic relationships. The goal is to introduce genetic diversity, leading to increased heterozygosity. Outbreeding can result in hybrid vigor, enhancing the traits of the offspring through the combination of diverse genetic material.

S54. Ans.(a)

Sol. Krishi Vigyan Kendra (KVK) is an institution dedicated to providing vocational training to farmers and field-level extension workers. As part of the agricultural extension system in India, KVKs serve as knowledge and resource centers, disseminating information, conducting training programs, and offering on-farm demonstrations to enhance the skills and knowledge of the farming community.

S55. Ans.(a)

Sol. Milk is considered an oil-in-water emulsion, where small droplets of fat (oil) are dispersed within a continuous phase of water. The presence of proteins and phospholipids helps stabilize the emulsion, preventing the fat from separating and giving milk its characteristic appearance and texture.

S56. Ans.(b)

Sol. Kesar is considered an irregular variety of mango, known for variations in size, shape, and color. It is particularly renowned for its distinctive flavor, aroma, and vibrant saffron-colored pulp. Kesar mangoes are primarily cultivated in the state of Gujarat, India.

S57. Ans.(a)

Sol. The NRLM scheme is now known as DAY-NRLM, standing for Deendayal Antyodaya Yojana - National Rural Livelihoods Mission. This initiative is designed to uplift rural households by promoting sustainable livelihoods and self-employment, with a focus on poverty alleviation. The renaming is in honor of Pandit Deendayal Upadhyaya, a prominent philosopher and political leader.

S58. Ans.(a) Sol. The term "Univoltine strain" refers to a type of silkworm that undergoes a single breeding cycle per year. This characteristic is significant in the context of silk production, as silkworms play a crucial role in the silk industry for the production of silk threads and fabrics.

S59. Ans.(a)

Sol. Papaya is categorized as a tropical fruit, originating from the tropical regions of the Americas. Widely cultivated in warm climates, papayas are known for their sweet and vibrant orange-colored flesh.

S60. Ans.(e)

Sol. A "creep" is a designated feeding space used for young animals, including lambs, calves, and piglets. This area is designed to allow the smaller, younger animals access to feed while preventing larger adults from entering. Creep feeding facilitates controlled nutrition for the young animals.