

AFO EXAM ANALYSIS 2024

Q1. Which type of organism thrives in high organic substrate conditions?

- (a) Autotrophs
- (b) Heterotrophs
- (c) Biotroph
- (d) Aerobic
- (e) Autochthonous

Q2. What is the typical oestrous cycle duration for ewes?

- (a) 20 (18-24 days)
- (b) 21 (20-22 days)
- (c) 15 (14-16 days)
- (d) 10 (6-14 days)
- (e) 16 (14-18 days)

Q3. What period of the year is most suitable for lambing?

- (a) 10
- (b) 20
- (c) 15
- (d) 25
- (e) 30

Q4. What is the most suitable soil for growing cotton?

- (a) Equal parts of sand, silt, and clay
- (b) Equal parts of sand, silt, and clay
- (c) Equal parts of sand, silt, and clay
- (d) No relation to soil texture
- (e) Dominant sand and clay

Q5. Where is the largest cotton textile mill located?

- (a) Ranchi
- (b) Kolkata
- (c) Kanpur
- (d) Hyderabad
- (e) Bhopal

Q6. For determining water requirements, the drum head culture technique is used for which crop?

- (a) Wheat
- (b) Rice
- (c) Potato
- (d) Jute/Maize
- (e) Rapeseed

Q7. Which microorganism or biopesticide causes symptoms similar to caterpillar wilt on plants?

- (a) *Bacillus thuringiensis*
- (b) Nuclear Polyhedrosis Virus
- (c) *Beauveria bassiana*
- (d) *Bacillus sphaericus*
- (e) *Paecilomyces lilacinus*

Q8. Phosphate-solubilizing bacteria (PSB) are used to enhance the availability of which nutrient?

- (a) Nitrogen
- (b) Potassium
- (c) Phosphorus
- (d) Calcium
- (e) Sulphur

Q9. What is the most common type of erosion in the Indian subcontinent?

- (a) Sheet
- (b) Rill
- (c) Ravine
- (d) Riverbank
- (e) Splash erosion

Q10. What is the percentage of expenditure on capital assets above ₹3 lakh and up to ₹10 lakh during FY 2022-23?

- (a) 1.5%
- (b) 4%
- (c) 2%
- (d) 5%
- (e) 3%

Q11. What is the most common type of forest in the Indian subcontinent?

- (a) Mangrove
- (b) Savannah
- (c) Boreal forest
- (d) Cloud forest
- (e) Subtropical Forest

Q12. What is the fat content present in Double Tone Milk?

- (a) 3%
- (b) 2%
- (c) 1.5%
- (d) 2.5%
- (e) 3.5%



Q13. Muga silkworm feeds on which plants?

- (a) *Morus alba*
- (b) *Terminalia arjuna*
- (c) *Machilus bombycina*
- (d) *Bombax ceiba*
- (e) *Ricinus communis*

Q14. Gibberellin was first isolated from which organism?

- (a) Fungus
- (b) Virus
- (c) Bacteria
- (d) Mycoplasma
- (e) BGA

Q15. The Jorhat tea

- (a) Indian State
- (b) American State
- (c) Taylor and Francis
- (d) Oxford Academic
- (e) Organic Chemistry

Q16. What is the efficiency?

- (a) kg/ha/m
- (b) gm/ha/m
- (c) Kg/hac/m
- (d) mm/kg
- (e) kg/ha

Q17. In soil,

- (a) Neutral
- (b) Positive
- (c) Negative
- (d) No
- (e) Optimistic

Q18. Arka Puneet, a variety of mango resistant to spongy tissue and producing oval-shaped fruit, is developed by crossing?

- (a) Dassehari × Neelum
- (b) Alphonso × Banganapalli
- (c) Ratna × Alphonso
- (d) Neelum × Alphonso
- (e) Banganapalli × Alphonso



Q19. Which is a non-protein nitrogen component found in fish?

- (a) TMAO
- (b) Collagen
- (c) Myosin
- (d) Typson
- (e) Acetone

Q20. Which type of soil contains high organic content and humus?

- (a) Peat Soil
- (b) Red Soil
- (c) Laterite
- (d) Arid Soil
- (e) Dessert S

Q21. Leaf an

- (a) Propelle
- (b) Ceptome
- (c) Orifice m
- (d) Lux met
- (e) Air flow

Q22. Lordosis is caused by the deficiency of?

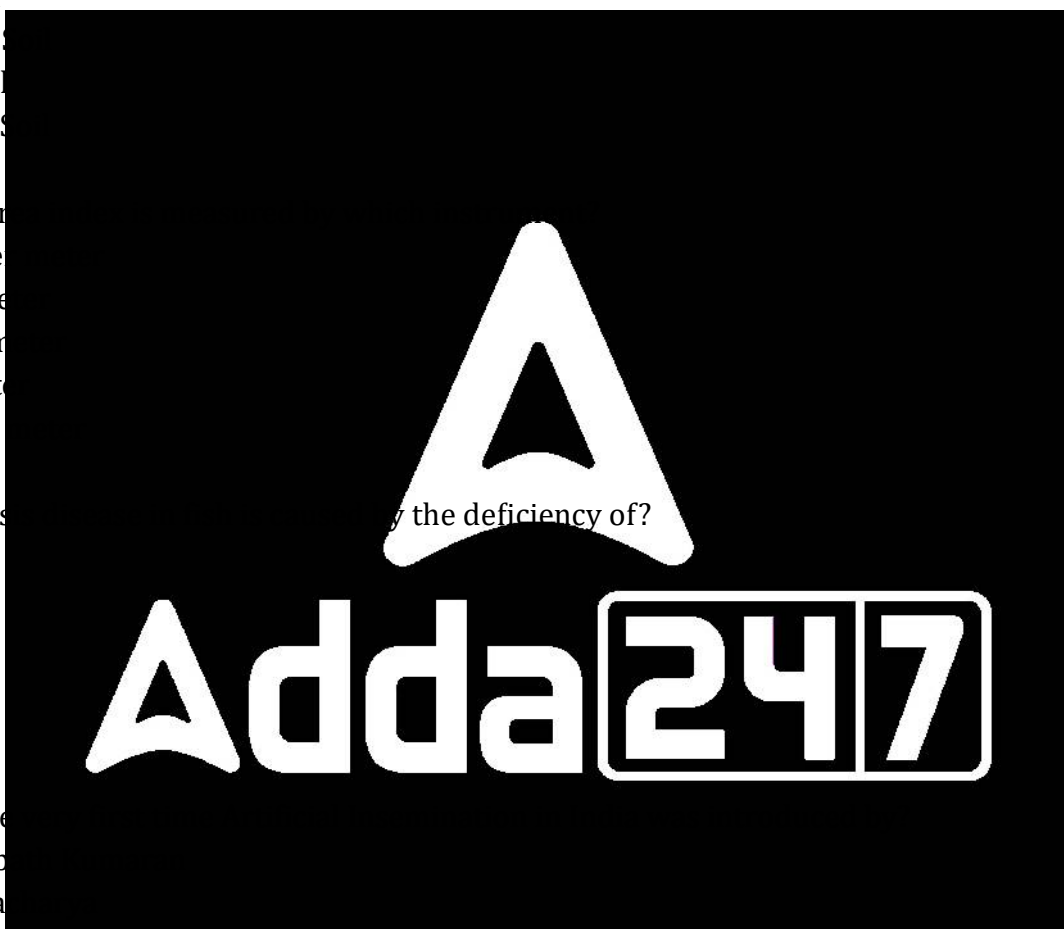
- (a) Vit B12
- (b) Vit C
- (c) Vit B3
- (d) Vit D
- (e) Vit B2

Q23. For the

- (a) Dr. Samp
- (b) P Bhatta
- (c) Dr. G Choudhary
- (d) Elias Ivanoff
- (e) G C Banerjee

Q24. Which of the following is the hybrid variety of apple made by crossing Red Delicious × Ambri, which is colorful and sweet in taste and has good shelf life?

- (a) Sunheri
- (b) Ambroyal
- (c) Lal Ambri
- (d) Ambrich
- (e) Chaubatia Anupam



Q25. Pusa Jai Kisan is a variety of?

- (a) Mustard
- (b) Lentil
- (c) Rice
- (d) Wheat
- (e) Maize

Q26. In which demonstration type is the method of doing something shown to farmers (like broadcasting, sowing, grafting) to explain and motivate them to adopt new techniques?

- (a) Extension education
- (b) Front Line demonstration
- (c) Method of demonstration
- (d) Result demonstration
- (e) Farm and home demonstration

Q27. Which

- (a) Scale of farm income = (Net income + 10% of net income) + 10% of net income
- (b) Scale of farm income = (Net income + 10% of net income) + 10% of net income
- (c) Scale of farm income = (Net income + 10% of net income) + 10% of net income
- (d) Scale of farm income = (Net income + 10% of net income) + 10% of net income
- (e) Scale of farm income = (Net income + 10% of net income) + 10% of net income

Q28. In Minimum Support Price (MSP) system, the government

- (a) Compares the cost of production and the market price
- (b) Interest in the market price
- (c) Future loan because of uncertainties
- (d) Wages to be paid to the farmer's own family members
- (e) Comprehensive

Q29. Vanaraja is a variety of

- (a) CARI, Izzatnagar
- (b) DPR, Hyderabad
- (c) KVAF, Bangalore
- (d) CPBF, Mumbai
- (e) CPBF, Chandigarh

Q30. Laboratory testing under DPPS is approved by which autonomous body under ISO/IEC 17011?

- (a) ICAR
- (b) NABL laboratory certification
- (c) National Horticultural Board
- (d) NCIPM
- (e) National accreditation for testing and calibrating laboratories

Q31. Which of the following inoculum, when cultured in a laboratory, can be used to increase the availability of Phosphorous in the soil?

- (a) Azolla
- (b) Azospirillum
- (c) Azotobacter
- (d) Pseudomonas striata
- (e) Anabaena

Q32. For Egg shell formation, which nutrient is essential?

- (a) Ca
- (b) P
- (c) Mg
- (d) Fe
- (e) K

Q33. What is the recommended range of nitrogen fertilizer application for wheat under normal irrigation practices, which gives the maximum yield?

- (a) 3 to 4
- (b) 0.25-0.5
- (c) 0.5-2
- (d) 0.75-2.2
- (e) 0.10-0.2

Q34. The probability of two heterozygous individuals producing a homozygous dominant offspring is

- (a) Genetic recombination
- (b) Incomplete dominance
- (c) Heritability
- (d) Heredity
- (e) Homozygosity

Q35. Irradiation of potato tubers with gamma rays can reduce solar induced sprouting. The dose required is

- (a) 0.03 kGy
- (b) 0.1 kGy
- (c) 0.01 kGy
- (d) 0.25 kGy
- (e) 0.30 kGy

Q36. What is the germination percentage required for the hybrid seed production of tomato?

- (a) 80%
- (b) 85%
- (c) 70%
- (d) 90%
- (e) 75%



Q37. What is the right time for harvesting Button mushrooms?

- (a) Lower part gets round, and mushroom turns brown
- (b) When the mushroom attains egg size
- (c) When 30-35 cm head with double height of pedicle and twice the height of stem
- (d) Diameter gets bigger 2-3 times than the lower stem
- (e) Harvesting is done at button stage

Q38. GMO food developed using genetic engineering or having microorganisms in it is known as?

- (a) Organic food
- (b) Novel food
- (c) Genetically modified or Engineered food
- (d) Health food
- (e) Conventional food

Q39. For All India Engineering Entrance Examination, which of the following?

- (a) Liquid nitrogen
- (b) Burst ice
- (c) Cold ice
- (d) Helium
- (e) Sodium

Q40. Who has been appointed as the Chairman of the Sub-Committee on the Consultative Committee on Credit?

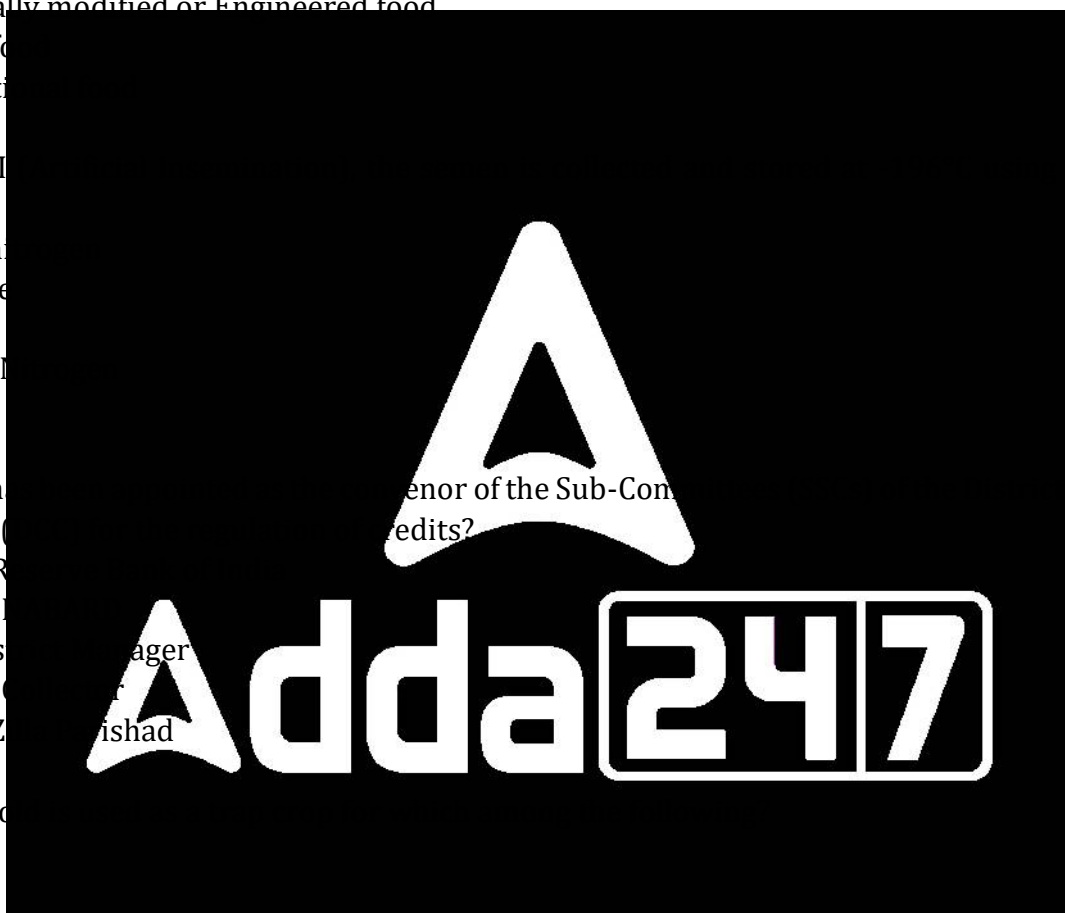
- (a) LDO of R
- (b) DDM of I
- (c) Lead Dis
- (d) District C
- (e) CEO of Z

Q41. Marigold

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

Q42. What is the maximum limit per borrower in the Agriculture sector under priority sector lending by banks, NBFC (other than MFIs)?

- (a) 10 lakhs
- (b) 15 lakhs
- (c) 20 lakhs
- (d) 25 lakhs
- (e) 5 lakhs



- Abortion in late pregnancy
- Abdomen pain and Loss of appetite
- Abortion or delivery of immature baby calf
- Swollen udder and Pain in udder and yield reduction
- Fever, nasal discharge and coughing

(a) Galatopoiesis
(b) Involutio
(c) Galactop
(d) Galectox
(e) Lacteal

- (a) Free Gos
- (b) Marmeic
- (c) HCN
- (d) Aflatoxin
- (e) Phytate

(a) Ratoon
(b) Suru
(c) Eksali
(d) Adsali
(e) Pre Seas

(a) Y trellis
(b) Espalier
(c) Overhead and Kniffin
(d) Telephone and Kniffin
(e) Kniffin and V

(a) 1:5
(b) 1:10
(c) 1:15
(d) 1:20
(e) 10:1

Q49. What is the percentage contribution of the livestock sector to the agriculture GVA in India?

- (a) 30.23 %
- (b) 28.65%
- (c) 33%
- (d) 24%
- (e) 25%

Q50. Which is the branch of meteorology in which forecast is done for crop, tillage, and animal husbandry?

- (a) Synoptic
- (b) Agricultural
- (c) Dynamic
- (d) Statistical
- (e) Physical

Q51. The lipid which is found in the milk of the animal is called?

- (a) Crude fat
- (b) Crude protein
- (c) Prostaglandin
- (d) Tri glyceride
- (e) Glycerol

Q52. When seedlings are grown in rows, which method is used to establish seedlings in puddled soil condition?

- (a) Hand hoe
- (b) Seed Drill
- (c) Transplanter
- (d) Seed cum fertilizer
- (e) Planter

Q53. Modified stems grow horizontally on or below the surface with nodes, internodes, and scars of leaves. This is called?

- (a) Runner
- (b) Offshoot
- (c) Sucker
- (d) Rhizome
- (e) Tuber

Q54. Which selective herbicide is commonly used for pre and post-emergence weed control in grass-like plants such as rice and maize or broadleaf crops?

- (a) 2,4 D
- (b) Glyphosate
- (c) Atrazine
- (d) Butachlor
- (e) Pendimethalin

Q55. Fig is more susceptible to sunscald. It can be managed by?

- (a) Training and girdling
- (b) By some
- (c) Maintaining
- (d) Spray of
- (e) Application

Q56. What is the most important factor in the selection of a plant for tissue culture?

- (a) Energy efficiency
- (b) Regeneration
- (c) Chemical synthesis
- (d) Energy storage
- (e) Enzyme activity

Q57. What is the most important factor in the selection of a plant for tissue culture?

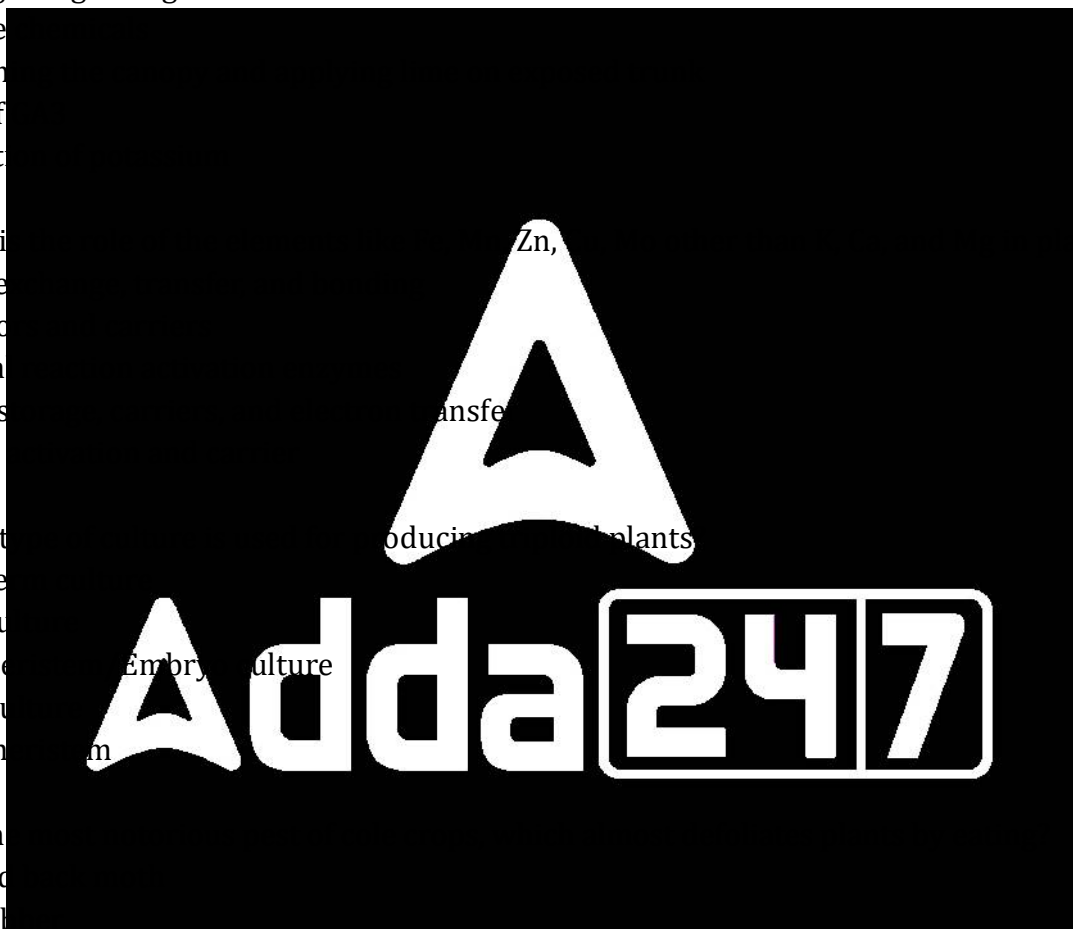
- (a) Endosperm
- (b) Callus culture
- (c) Shoot Meristem
- (d) Pollen culture
- (e) Apical meristem

Q58. It is the

- (a) Diamond
- (b) Leaf Weevil
- (c) Stripped beetle
- (d) Stem borer
- (e) Painted bug

Q59. The amount of water vapor that is present in the environment as opposed to how much water vapor it can hold in terms of percentage is called?

- (a) Relative humidity
- (b) Saturation water vapor pressure
- (c) Vapor pressure deficit
- (d) Dew point



Solutions

S1. Ans.(b)

Sol. Heterotrophs proliferate in high organic substrate conditions because they rely on organic matter as a source of energy and nutrients.

S2. Ans.(e)

Sol. The oestrous cycle of an ewe lasts around 16 days, ranging between 14-19 days. It is the reproductive cycle where the ewe becomes receptive to breeding.

S3. Ans.(a)

Sol. In dioecious species, there are separate male and female individuals, while in hermaphrodites, an individual has both male and female reproductive organs.

S4. Ans.(b)

Sol. Loam soil is the best for agriculture due to its balanced composition of sand, silt, and clay.

S5. Ans.(e)

Sol. The ICAI logo is a stylized 'A' shape, representing the Indian Engineering Accreditation Council.

S6. Ans.(b)

Sol. The drug is specifically used to control the growth of weeds in rice fields, as it helps in the selective killing of weeds without harming the rice plants.

S7. Ans.(b)

Sol. The Nucleopolyhedrovirus (NPV) is a biopesticide that infects caterpillars, causing symptoms similar to viral diseases, ultimately leading to their death.

S8. Ans.(c)

Sol. PSB helps in the growth and development of plants by fixing atmospheric nitrogen in the soil.

S9. Ans.(c)

Sol. The ravine stage of gully erosion is the most advanced, where large amounts of soil are removed and transported, particularly in alluvial soils.

S10. Ans.(d)

Sol. For loans exceeding ₹3 lakh and up to ₹5 lakh, banks are subvented at a uniform rate of 5% per annum to support credit availability at lower interest rates.

S11. Ans.(b)

Sol. Savannah refers to a landscape characterized by widely spaced trees and grasses, typically found in hot climates. It is a common biome in regions like Africa, South America, and Australia.

S12. Ans.(c)

Sol. Double tone milk contains 1.5% fat. It is a low-fat milk option achieved by further processing toned milk to reduce fat content while maintaining nutritional value.

S13. Ans.(c)

Sol. *Machilus bombycina* (commonly called Som) is the primary food plant of the Muga silkworm, which is cultivated primarily in Assam for producing golden-colored silk.

S14. Ans.(a)

Sol. Gibberellin was first isolated from a fungus called *Gibberella fujikuroi*. This plant hormone promotes growth, seed

S15. Ans.(c)

Sol. The Journal of the Royal Society of Medicine is a British medical journal published by the Royal Society of Medicine. It specializes in

S16. Ans.(a)

Sol. Crop weight is measured in terms of kilograms per hectare (kg/ha) or in terms of kilograms per hectare (kilograms per hectare) (in milligrams per hectare).

S17. Ans.(c)

Sol. In soil, clay particles (like clay and humus) are negatively charged and generally carry a negative charge. They tend to attract and hold

S18. Ans.(c)

Sol. Arka Pusa 24 is a mango variety developed through a cross between Rajmango and Arka Pusa. It is known for its resistance to sprangly virus and produces high-quality, oval-shaped fruits.

S19. Ans.(a)

Sol. TMAO (Trimethylamine oxide) is a natural compound found in fish. It helps protect fish

S20. Ans.(a)

Sol. Peat soil contains a high amount of organic matter and humus. It forms in waterlogged conditions where decomposition is slow, leading to the accumulation of organic material.

S21. Ans.(b)

Sol. Leaf Area Index (LAI) is a measure of the leaf surface area per unit ground area. A Ceptometer is specifically used to measure the Leaf Area Index (LAI) by assessing the amount of light intercepted by plant canopies.

It works on the principle of measuring photosynthetically active radiation (PAR) under the canopy and in open space to estimate the leaf area and its density. Ceptometers are widely used in agricultural and ecological research to evaluate plant growth, productivity, and canopy structure.

S22. Ans.(b)

Sol. Lordosis in fish is caused due to a deficiency of Vitamin C. Vitamin C plays a critical role in collagen synthesis, and its deficiency leads to skeletal deformities like Lordosis.

S23. Ans.(a)

Sol. Artificial Insemination (AI) in India was first introduced by Dr. Sampath Kumaran. AI has significantly contributed to genetic improvement in cattle and enhanced milk productivity.

S24. Ans.(c)

Sol. Lal Ambaji is a small town in Maharashtra known for its vibrant colors and scenic views.

S25. Ans.(a)

Sol. Pusa Jai Kisan is a dwarfing variety of sugarcane. It has high productivity and improves disease resistance.

S26. Ans.(c)

Sol. In a Member State of doing business to farmers, such as grafting to help understand.

S27. Ans.(e)

Sol. The corporation's taxable income is the net income of the corporation less the following items:

S28. Ans.(d)

Sol. In MSP, the farmer's own labor for the

S29. Ans.(b)

Sol. Vanaraja chicken was developed by the Directorate of Poultry Research (DPR), Hyderabad. It is a dual-purpose bird suitable for both meat and egg production in rural areas.

S30. Ans.(b)

Sol. NABL (National Accreditation Board for Testing and Calibration Laboratories) provides accreditation for laboratory testing under the DPPS. NABL operates as per ISO/IEC 17011 standards for evaluating competence in laboratories.

S31. Ans.(d)

Sol. *Pseudomonas striata* is a phosphate-solubilizing bacteria (PSB) that enhances the availability of phosphorus in the soil by breaking down insoluble phosphates into absorbable forms for plants.

S32. Ans.(a)

Sol. Calcium (Ca) is essential for eggshell formation. It is required in large quantities as eggshells are composed of calcium carbonate, providing strength and structure to the shell.

S33. Ans.(c)

Sol. The optimal electrical conductivity (EC) of soil ranges between 0.5-2 ds/m. Soils with EC within this range support plant growth.

S34. Ans.(b)

Sol. Incomplete dominance is a genetic trait where the heterozygote has an intermediate phenotype that is distinct from both parents.

S35. Ans.(b)

Sol. 0.1 kGy is a dose used for food irradiation to inhibit sprouting and reduce microbial growth, but it does not eliminate solanine accumulation in potatoes.

S36. Ans.(d)

Sol. The requirement for high-quality seed is crucial for ensuring high yields and disease resistance in crops.

S37. Ans.(e)

Sol. Button mushrooms are harvested at the button stage, when they are small, before the caps have opened their gills. This stage ensures the best quality and market value.

S38. Ans.(c)

Sol. Genetic engineering techniques, such as CRISPR-Cas9, are used to introduce new traits, such as pest resistance or increased nutrition, into crops.

S39. Ans.(a)

Sol. Liquid nitrogen is used to store semen for Artificial Insemination (AI) at ultra-low temperatures of -196°C, ensuring the preservation of sperm viability for extended periods.

S40. Ans.(c)

Sol. The Lead District Manager (LDM) is appointed as the convenor of the Sub-Committees (SSCs) of the District Consultative Committee (DCC) for regulating credits. The LDM plays a crucial role in ensuring smooth credit flow and implementing various government-sponsored schemes in coordination with banks.

S41. Ans.(c)

Sol. Marigold is widely used as a trap crop for nematodes. Its roots release certain chemicals that attract nematodes, which helps in controlling their population in agricultural fields.

S42. Ans.(a)

Sol. Under priority sector lending norms, the maximum limit per borrower in the Agriculture sector is set at ₹10 lakhs for loans provided by banks and NBFCs (other than Microfinance Institutions).

S43. Ans.(a)

Sol. Brucella is a bacterium characterized by infection in domestic animals. It is a bacterial infection caused by *Brucella* species, leading to various health issues in animals and humans.

S44. Ans.(b)

Sol. Involuntary lactation refers to the production of milk without the normal hormonal control, often occurring after lactation ends or in non-lactating animals.

S45. Ans.(a)

Sol. Cotton is a major cash crop in India, a top commodity for export. It is consumed in various forms, including raw cotton, cotton yarn, and cotton fabric.

S46. Ans.(b)

Sol. The Sudeki River originates in the Western Ghats near Karnataka and flows into the Arabian Sea during October, contributing to the region's water resources.

S47. Ans.(e)

Sol. The Knifed V system is used for training seedling grapes, involving the use of a bower system while training the vines to support the fruiting canes.

S48. Ans.(c)

Sol. For Integrated Pest Management (IPM), the ratio of Wolf spider (predator) is 1:15, which helps control the pest population effectively.

S49. Ans.(a)

Sol. The livestock sector contributes approximately 30.23% to the Gross Value Added (GVA) in Indian agriculture. It is a significant contributor to rural incomes and food security.

S50. Ans.(b)

Sol. Agricultural meteorology, or agrometeorology, focuses on weather and climate forecasts for agriculture, including crop growth, soil moisture, irrigation, and animal husbandry. It helps farmers make informed decisions related to farming practices.

S51. Ans.(a)

Sol. Crude fibre is the indigestible portion of plant material, mainly composed of lignin, cellulose, and hemicellulose. It provides roughage in animal feed, aiding digestion and bowel movement.

S52. Ans.(c)

Sol. A transplanter is a mechanical device used to transplant rice seedlings from nurseries to puddled fields. It improves efficiency and reduces labor compared to manual transplantation.

S53. Ans.(d)

Sol. Rhizomes are underground horizontal stems that store nutrients and allow vegetative propagation. Examples include ginger, turmeric, and sugarcane.

S54. Ans.(d)

Sol. Butachlor is a herbicide used to control broadleaf weeds in crops like rice and sugarcane.

S55. Ans.(c)

Sol. Sunscald is a condition caused by intense sunlight, leading to the death of plant tissues. Applying lime to the exposed surface can help reduce the damage.

S56. Ans.(c)

Sol. Elements like Molybdenum (Mo) act as micronutrients, functioning as cofactors for various enzymes involved in plant metabolism.

S57. Ans.(a)

Sol. Endospermic culture involves culturing ripened endosperm tissues to produce seedlings. These are often sterile and used for seedless fruit production.

S58. Ans.(a)

Sol. The disease caused by the bacterium *Erwinia carotovora* is soft rot, which affects vegetables like cabbage and cauliflower.

S59. Ans.(a)

Sol. Relative humidity is the ratio of the current water vapor amount in the air to the maximum water vapor the air can hold at a given temperature, expressed as a percentage.