

104/2022

Maximum : 100 marks

Time : 1 hour and 30 minutes

1. Father of White Revolution in India :
(A) Gopal Chandra De (B) Dr. Varghese Kurien
(C) M.S. Swaminathan (D) B.D. Singh
2. Sugarcane breeding station in Coimbatore established in the year :
(A) 1903 (B) 1930
(C) 1912 (D) 1842
3. Blue revolution is associated with :
(A) Milk (B) Crops
(C) Oil seeds (D) Fishes
4. Word "Agriculture" is derived from
(A) Sanskrit (B) Greek
(C) Arabic (D) Latin
5. International research and training centre for below sea level farming, Kuttanad was established in :
(A) 2015 (B) 2017
(C) 2007 (D) 2010
6. Mandate of Kerala Agricultural university include :
(A) Research and teaching only (B) Extension and teaching only
(C) Teaching and research only (D) None
7. Production of coconut in Kerala during 2019-20 :
(A) 4481 MT (B) 4148 MT
(C) 4814 MT (D) 4841 MT
8. Farming system research station and Cropping system research station under Kerala agricultural university are located at:
(A) Sadanandapuram and Kumarakom respectively
(B) Mancompu and Sadanandapuram respectively
(C) Sadanandapuram and Karamana respectively
(D) Karamana and Balaramapuram respectively

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[P.T.O.]

9. Study and management of insects that attack and cause significant damage to crops is called :
- (A) Agricultural Entomology
 (B) Agricultural Pathology
 (C) Agricultural Meteorology
 (D) Soil science and Agricultural Chemistry
10. Silviculture deals with :
- (A) Crops (B) Grasses
 (C) Grapes (D) Trees
11. Pomology and Olericulture are the branches of :
- (A) Agronomy (B) Forestry
 (C) Horticulture (D) Pathology
12. Which among the following is a bast fibre crop?
- (A) Agave (B) Jute
 (C) Cotton (D) Silk
13. Barseem is a :
- (A) Forage crop (B) Plantation crop
 (C) Green manure crop (D) Beverage crop
14. Second crop season of Kerala :
- (A) Puncha (B) Nancha
 (C) Virippu (D) Mundakan
15. Stevenson's screen installed at a height of _____ from the ground level.
- (A) 5 Feet (B) 5.5 Feet
 (C) 4 Feet (D) 4.5 feet
16. Radiosonde is used for :
- (A) GIS mapping (B) Weather forecasting
 (C) Measure soil moisture tension (D) Find out bulk density of soil
17. Pyranometer is used to measure :
- (A) Humidity of air (B) Wind direction and velocity
 (C) Evaporation (D) Solar radiation
18. Medium range forecasting is valid for :
- (A) Few hours (B) 3-10 hours
 (C) 3-10 days (D) >10 days

19. Major wheat growing season in India :
(A) Kharif (B) Rabi
(C) Zaid (D) All of above
20. Pick sub-tropical crop from the following :
(A) Apple (B) Cashew
(C) Peach (D) Citrus
21. Which among the following is **not** a weather element?
(A) Gas concentration (B) Atmospheric humidity
(C) Atmospheric temperature (D) Precipitation
22. State of atmosphere at a particular place at a particular time is called :
(A) Meteorology (B) Climate
(C) Weather (D) None
23. Alcoholic thermometer used inside the Stevenson's screen is :
(A) Wet bulb thermometer
(B) Maximum thermometer
(C) Dry bulb thermometer
(D) Minimum thermometer
24. The finest soil Particle having a diameter less than 0.002 mm is called :
(A) Sand (B) Clay
(C) Silt (D) Gravel
25. The type of soil formed in areas receiving high rainfall with altering wet and dry spells :
(A) Laterite soil (B) Black soil
(C) Red soil (D) Alluvial soil
26. The mineral that is found in toxic level in acid soil :
(A) Iron (B) Aluminium
(C) Manganese (D) All of these
27. Which material is used for reclamation of alkali soil?
(A) Lime (B) FYM
(C) Gypsum (D) Dolomite
28. The vertical section of soil from surface to bedrock showing the various layers :
(A) Horizon (B) Soil Structure
(C) Soil Profile (D) Soil texture

29. The amount of water held in soil after the removal of gravitational water :
- (A) Hygroscopic water
 - (B) Field capacity
 - (C) Permanent wilting point
 - (D) Maximum water holding capacity
30. The sequence of water erosion is :
- (A) Splash, Sheet, Rill, Gully
 - (B) Sheet, Gully, Rill
 - (C) Rill, Splash, Sheet
 - (D) Gully, Splash, Sheet, Rill
31. The type of wind erosion in which soil particles ranging from 0.05 to 0.5mm in diameter move by a series of short bounces along the surface of ground :
- (A) Surface creep
 - (B) Suspension
 - (C) Saltation
 - (D) Leaching
32. Which among the following is an Agronomic measure of controlling soil erosion?
- (A) Contour farming
 - (B) Basin listing
 - (C) Subsoiling
 - (D) Bench terracing
33. Who is considered as Father of tillage?
- (A) Robert Hook
 - (B) Norman Borlaug
 - (C) John Dalton
 - (D) Jethro Tull
34. Which among the following is a Primary Tillage Implement?
- (A) Plank
 - (B) Cultivator
 - (C) Harrow
 - (D) Disc plough
35. Which among the following is a Primary Macro nutrient?
- (A) Boron
 - (B) Magnesium
 - (C) Potassium
 - (D) Calcium
36. Purple colouration of older leaves especially on the underside is the deficiency symptom of which mineral nutrient :
- (A) Phosphorus
 - (B) Manganese
 - (C) Zinc
 - (D) Nitrogen
37. Which Nutrient is a structural component of chlorophyll molecule?
- (A) Sodium
 - (B) Zinc
 - (C) Molybdenum
 - (D) Magnesium

38. Which of the following statements is/are correct?

An element can be called as an essential element if it meets the following criteria

- (i) A plant must be unable to complete its life cycle in the absence of that element
 - (ii) The function of that element can be replaced by another element
 - (iii) The element must be directly involved in plant metabolism
- (A) only (i) and (ii) (B) only (ii) and (iii)
(C) All of the above (D) only (i) and (iii)

39. An application software developed by Center for E Learning (CEL), Kerala Agriculture University for the farmers in Kerala for the calculation of fertilizers :

- (A) KAU E Crop doctor (B) KAU Fertulator
(C) Smart Kisan (D) Ferticalc

40. The African earthworm Identified as the most ideal species suitable for vermicomposting under Kerala conditions :

- (A) *Eisenia fetida* (B) *Eudrilus eugeniae*
(C) *Perionyx excavatus* (D) *Lumbricus rubellus*

41. An example for in situ green manure crop :

- (A) Dhaincha (B) Glyricidia
(C) Neem (D) Subabul

42. The first fully organic state in India is :

- (A) Gujarat (B) Kerala
(C) Sikkim (D) Uttarakhand

43. Which of the following is a straight fertilizer?

- (A) Diammonium phosphate (B) Urea
(C) Factomphos (D) Rubber mixture

44. Which of the following is a Free Living Nitrogen fixing bacteria used in paddy fields?

- (A) *Rhizobium* (B) *Salvinia*
(C) *Azolla* (D) *Azospirillum*

45. Percentage of P_2O_5 in single superphosphate (SSP) is :

- (A) 18 (B) 35
(C) 46 (D) 60

46. Pop up Sprinkler is used in :

- (A) Cotton (B) Lawn
(C) Tree Fruits (D) Orchard

47. Heart of Irrigation System is :
 (A) Filter (B) Tank
 (C) Nozzle (D) Riser
48. Venturi Injector for fertigation works on the principle of :
 (A) Capillary rise
 (B) Surface Tension
 (C) Viscosity
 (D) Bernoulli's Theorem
49. Father of Modern Drip Irrigation :
 (A) Frank Zybach (B) Simcha Blass
 (C) Kanuri lakshmana Rao (D) Norman E Borlaug
50. Which of the following is Considered as Most Efficient Irrigation method in Water scarce area?
 (A) Furrow Irrigation (B) Sprinkler Irrigation
 (C) Drip Irrigation (D) Flood Irrigation
51. Name a secondary Filter used in Sprinkler Irrigation systems :
 (A) Gravel Filter (B) Sand Filter
 (C) Hydrocyclon Filter (D) Disc filter
52. Optimum PH of Nutrient Solution in Hydroponics is with in the Range of :
 (A) 4 – 4.5 (B) 5 – 5.5
 (C) 6 – 6.5 (D) 7 – 7.5
53. Ratoon Cropping is Practiced in :
 (A) Rice (B) Curry Leaf
 (C) Colacassia (D) Banana
54. An Example for Multistoried Cropping:
 (A) Banana-Papaya-Pineapple-Groundnut
 (B) Nutmeg-Cinnamon-Clove-Pepper
 (C) Rice-Cowpea-Cucurbit-Amaranthes
 (D) Coconut-Pepper-Cocoa-Pineapple
55. A common pest Widely seen green House Cultivation :
 (A) Rhinoceros Beetle (B) White fly
 (C) Yellow stem borer (D) Leaf Folder

56. Application of Correct Quantity of inputs like water, Fertilizer, Nutrient and pesticide at Correct time and correct Method to Maximise Yield :
- (A) Integrated Farming
 (B) Organic Farming
 (C) Green house cultivation
 (D) Precision Farming
57. Which of the following statement about Seed propagation is correct?
1. Seedlings are long lived and hardy
 2. New Varieties can be produced
 3. Progenies are true to type
 4. Cheapest and easiest method for producing large number of plants
- (A) 1, 2, 3 (B) 2, 3, 4
 (C) 1, 2, 4 (D) All
58. Plant propagation by Rhizome Practiced in :
- (A) Potato (B) Amorphophalus
 (C) Onion (D) Ginger
59. Marcottage a method of Vegetative Propagation Employed in :
- (A) Jack (B) Mango
 (C) Guava (D) Sapota
60. In Epicotyl Grafting the age of Rootstock Plant :
- (A) 2-4 Days (B) 7-10 Days
 (C) 25-30 Days (D) 40-50 Days
61. Tag colour of Foundation Seed :
- (A) Golden Yellow (B) Azure Blue
 (C) Purple (D) White
62. In Terazolium Chloride Test a quickest method to find viability of Seeds, the colourless 2,3,5 Triphenyl Tetrazolium Chloride is reduced to Formazan imparts Which Colour to Living Tissues :
- (A) Red (B) Blue
 (C) Yellow (D) Black
63. Maximum permissible Moisture Level in Cowpea seeds :
- (A) 13% (B) 9%
 (C) 7% (D) 5%

64. The Browning of Tissue culture medium is due to the Secretion of a compound by the Explant which is actually :
- (A) Phenolic Compound (B) Glycosides
(C) Pyruvic acid (D) Xanthophyll
65. Vegetable grafting Employed in Solanacious Vegetables mainly for protecting the plant from :
- (A) Leaf spot (B) Fruit and Shoot Borer
(C) Mosaic (D) Bacterial Wilt
66. Papaya is Propagated by :
- (A) Simple Layering (B) Stool Layering
(C) Trunch Layering (D) Air Layering
67. Match The following :
- | | |
|--|--|
| <p>A</p> <ol style="list-style-type: none"> 1. T Budding 2. Patch Budding 3. Root Cutting 4. Tissue Culture <p>(A) 1(a), 2(b), 3(c), 4(d)
(C) 1(b), 2(c), 3(d), 4(a)</p> | <p>B</p> <ol style="list-style-type: none"> (a) Banana (b) Rose (c) Rubber (d) Curry leaf <p>(B) 1(b), 2(d), 3(a), 4(c)
(D) 1(c), 2(a), 3(d), 4(b)</p> |
|--|--|
68. A Rice Variety :
- (A) Kiran (B) Annapoorna
(C) Priyanka (D) Saras
69. Which pest attack in rice Characterised by 'White ear Head' symptom?
- (A) BPH (B) Leaf folder
(C) Rice stem borer (D) Gall Midge
70. Kerasoubagya is a Hybrid variety of coconut is a product of the cross between :
- (A) WCTXGB (B) WCTXMYD
(C) LOXCOD (D) WCTXSSA
71. Approximate number of plants/hactre possible in Triangular system of coconut planting at a spacing of 7.6×7.6 m :
- (A) 260 (B) 248
(C) 198 (D) 160
72. A Culinary type Variety of Banana :
- (A) Nedunendran (B) Poovan
(C) Monthan (D) Dwarf Cavandish

73. Kokkan Disease of Banana Caused By :
- (A) Fungus (B) Bacteria
(C) Virus (D) Phytoplasma
74. Rooting hormone used in propagation of pepper by Stem cutting for short duration treatment of 45 Seconds :
- (A) IBA 200 ppm (B) IBA 500 ppm
(C) IBA 1000 ppm (D) IBA 2000 ppm
75. Mischie Gollidge Knife is associated with the Harvesting of :
- (A) Rice (B) Mango
(C) Coconut (D) Rubber
76. Seed rate of Chilli :
- (A) 1 Kg (B) 400 gram
(C) 750 gram (D) 200 gram
77. Name a High yielding variety of Pumpkin released from KAU :
- (A) Ambili (B) Indu
(C) Kaumudy (D) Baby
78. Khus Khus oil an essential oil extracted from Vetiver :
- (A) Leaves (B) Rhizome
(C) Roots (D) Bark
79. The causal organism of the disease Blister Blight of Tea :
- (A) *Macrophoma theicola* (B) *Exobasidium vexans*
(C) *Marasmius crinisequi* (D) *Rosellina arculata*
80. Which of the following is not true about rice blast disease?
- (A) The perfect stage of the pathogen is *Magnaporthe grisea*
(B) The main source of primary inoculum is schlerotia
(C) *Leersia hexandra* act as a collateral host
(D) Fungi can hibernate in seeds
81. Among the given statements identify which is / are true about Black rot in crucifers :
- (i) It is caused by nutrient deficiency
(ii) It can be corrected by adding Calcium
(iii) It is characterized by discolouration of vascular tissues
(iv) It is a fungal disease.
- (A) (i) only (B) (ii) only
(C) (iii) only (D) (iii) and (iv)

82. Which among the following pathogens is associated with wilt disease in Brinjal?
 (A) *Macrophomina phaseolina* (B) *Fusarium solani*
 (C) *Burkholderia solanacearum* (D) All of the above
83. Which of the following statements is true regarding the incidence of bud rot in coconut?
 (i) With onset of dry weather incidence become very severe
 (ii) Lightning act as an initiating cause for the disease
 (A) Only (i) is correct (B) Only (ii) is correct
 (C) Both (i) and (ii) are correct (D) Neither (i) and (ii) are correct
84. Which of the following is a serious pest in Sunhemp?
 (A) *Utethesia pulchella* (B) *Athalia proxima*
 (C) *Dichocrocis punctiferalis* (D) *Metanastria hyrtaca*
85. *Cosmopolites sordidus* is a pest of which crop:
 (A) Mango (B) Banana
 (C) Guava (D) Sapota
86. A small weevil which causes serious damage in sweet potato :
 (A) *Cylas formicarius*
 (B) *Phthorimaea operculella*
 (C) *Herse convolvuli*
 (D) *Euchromia polymena*
87. Which among the following is / are not correct match?
 (i) Abnormal leaf fall-*Phytophthora palmivora*
 (ii) Pink disease-*Phellinus noxius*
 (iii) Secondary leaf fall-*Colletotrichum gloeosporioides*
 (iv) Brown root rot-*Fusarium oxysporum*
 (A) Only (i) and (ii) (B) Only (ii) and (iii)
 (C) Only (ii) and (iv) (D) Only (i) and (iv)
88. *Udaspes folus* is a pest of which of the following crops :
 (i) Ginger
 (ii) Turmeric
 (iii) Coffee
 (iv) Cocoa
 (A) (i) and (ii) (B) (iii) and (iv)
 (C) All of the above (D) None of the above

89. Which among the following is not a pest of Rose?
- (A) *Aspidiotus aurantii*
 (B) *Oxyctonia versicolor*
 (C) *Achae janata*
 (D) *Ephestia cautella*
90. Which of the following statement is true about systemic fungicides?
- (i) The uptake and translocation is affected by the method of application.
 (ii) They can lead to the development of resistant strains of fungi.
 (iii) One application can give continuous protection to the whole plant.
- (A) (i) Only (B) (ii) Only
 (C) Both (i) and (ii) (D) All of the above
91. The plant protection chemical known by the name Kittleson's Killer :
- (A) Folpet (B) Imidacloprid
 (C) Captan (D) Dimethoate
92. Which among the following is considered as the best example for biological control of weeds in India?
- (A) Control of Lantana
 (B) Control of Prickly pear
 (C) Control of johnson grass
 (D) Control of Water hyacinth
93. Hypertrophy and Hyperplasia are observed in infections caused by which of the following plant pathogens :
- (A) Rhizoctonia (B) Cladosporium
 (C) Fusarium (D) Agrobacterium
94. Which among the following is a completely dependent root parasite of plants?
- (A) *Cascuta* (B) *Loranthus*
 (C) *Orobanche* (D) *Striga*
95. A disease is said to be sporadic when :
- (i) The disease occurs at periodic intervals in a given locality
 (ii) The disease affects a large population in field.
 (iii) The disease affects only a few plants in field
 (iv) Disease occurs infrequently and irregularly
- (A) (i) only (B) (ii) only
 (C) (i) and (ii) (D) (iii) and (iv)

96. In India domestic quarantine is effected against which among the following?
- (i) Golden nematode of Potato
 - (ii) San Jose Scale
 - (iii) Banana Mosaic
 - (iv) Potato Wart
- (A) (i) and (ii) (B) (i) and (iii)
(C) (iii) and (iv) (D) All of the above
97. Which of the following are characteristics of organisms belonging to the order Thysanoptera?
- (i) Chewing and biting mouth parts
 - (ii) Lacerating and sucking mouth parts
 - (iii) Wings with marginal fringes
 - (iv) Membraneous wings with cross veins
- (A) (i) and (ii) (B) (ii) and (iii)
(C) (iii) and (iv) (D) (i) and (iv)
98. Choose the option with the correct match of pairs :
- (A) Ocellus-feeding Stylet-Vision
 - (B) Halteres-balancing Haustellum-feeding
 - (C) Feelers-Sensation Spiracles-Locomotion
 - (D) Ommatidia-Respiration Ovipositor-Protection
99. A pesticide formulation banned for use in India :
- (i) Endosulphan
 - (ii) Carbofuran
 - (iii) Heptachlor
 - (iv) Chlordane
- (A) (i) and (ii) (B) (iii) and (iv)
(C) (i), (ii) and (iii) (D) All of the above
100. In Luthras method of seed treatment which physical agent is used for disinfection of seeds:
- (A) Hot water
 - (B) Hot air
 - (C) Steam
 - (D) Solar energy
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SPACE FOR ROUGH WORK

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