

025/2016

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. The branch of science which deals with principles and practices of soil, water and crop management :
(A) Agriculture (B) Agro forestry
(C) Agronomy (D) Soil Science
2. The author of the book 'Horse Hoeing Husbandry' :
(A) Helmont (B) Jethro Tull
(C) John Bennet Lawes (D) Norman
3. The densest part of the atmosphere which contains 85% of the atmosphere's mass :
(A) Troposphere (B) Stratosphere
(C) Mesosphere (D) Thermosphere
4. A product of decomposition of plant and animal residues which is fairly stable, amorphous and brown to black in colour :
(A) Humus (B) Colloids
(C) Clay (D) Carbon
5. A mineral element that functions in plant metabolism whether or not its action is specific is known as :
(A) Essential nutrient (B) Macro nutrient
(C) Functional nutrient (D) Secondary nutrient
6. N recovery in wet land rice production system rarely exceeds :
(A) 50 - 60% (B) 30 - 40%
(C) 60 - 70% (D) 20 - 30%
7. Cropping intensity of Kerala :
(A) 100% (B) 134%
(C) 180% (D) 129%

8. The Pancha season of Kuttanad :
- (A) May to August-September
 - (B) September-October to February-March
 - (C) January to May
 - (D) June-July to October-November
9. Chemical ploughing means :
- (A) Zero Tillage
 - (B) Minimum Tillage
 - (C) Once over Tillage
 - (D) Blind Tillage
10. A short duration crop in between two main seasonal crops is known as :
- (A) Cash crop
 - (B) Inter crop
 - (C) Comparison crop
 - (D) Catch crop
11. The practice of growing different intercrops of varying height, rooting depth and duration :
- (A) Alley cropping
 - (B) Multi storied cropping
 - (C) Mixed cropping
 - (D) Inter cropping
12. The term 'Evergreen revolution' has been given by :
- (A) A.S. Faroda
 - (B) Dr. M.S. Swaminathan
 - (C) Dr. V.L. Chopra
 - (D) Dr. R.S. Paroda
13. Any seed which is produced on government multiplication farm is usually called as :
- (A) Breeder seed
 - (B) Foundation seed
 - (C) Registered seed
 - (D) Certified seed
14. Seed that are capable of germination under favourable conditions just after ripening become incapable of germination when they are stored under unfavourable condition for a few days is due to :
- (A) Primary dormancy
 - (B) Natural dormancy
 - (C) Innate dormancy
 - (D) Induced dormancy
15. The ability of the soil to produce crop per unit area under specified system management :
- (A) Soil fertility
 - (B) Soil productivity
 - (C) Soil texture
 - (D) Soil structure

16. A form of agriculture aimed at meeting the needs of the present generation without endangering the resource base of the future generations :
- (A) Organic agriculture (B) Precision farming
(C) Sustainable agriculture (D) Modern agriculture
17. Maturation of ovule leads to the formation of :
- (A) Fruit (B) Embryo
(C) Endosperm (D) Seed
18. The last phase of seed development is :
- (A) Fertilisation (B) Dehydration
(C) Dessication (D) Pollination
19. The scar on the ovule made when the funicle detaches at maturity is known as :
- (A) Raphae (B) Chalaza
(C) Hilum (D) Strophiole
20. The germination process in which the cotyledons appear above the soil surface is :
- (A) Epistasis (B) Epicotyl
(C) Hypogeal (D) Epigeal
21. The biochemical test employed to assess seed viability is :
- (A) Formaldehyde test (B) Tetrazolium test
(C) Ferric chloride test (D) Levene's test
22. The external factor that affects seed longevity includes :
- (A) Wind velocity (B) Soil moisture
(C) Relative humidity (D) Seed size
23. The growth regulator required to initiate seed germination is :
- (A) Gibberellic acid (B) Absicic acid
(C) Cytokinnin (D) Ethrel

24. Deterioration of genetic purity occurs due to :
- (A) Admixture (B) Developmental variations
(C) Isolation (D) Both (A) and (B) but not (C)
25. _____ is heterozygous, but a homogenous population.
- (A) Pure line (B) Hybrid variety
(C) Open pollinated variety (D) Synthetic variety
26. Multiple effects of a single gene is known as :
- (A) Polyploidy (B) Heteroploidy
(C) Pleiotropy (D) None of these
27. Centre of diversity is the area where cultivated plant species and or their wild relatives show :
- (A) High ecosystem diversity
(B) Low competition with unrelated species
(C) Highest variation
(D) Highest related species
28. Triticale is a :
- (A) Inter-specific cross (B) Inter-varietal cross
(C) Intra-generic cross (D) Inter-generic cross
29. Polyploidy is induced through :
- (A) X rays (B) Colchicine
(C) EMS (D) Ethylene
30. _____ is the quickest method of Plant breeding.
- (A) Hybridization (B) Introduction
(C) Mutation (D) Domestication
31. Basic activity in plant breeding is :
- (A) Introduction (B) Selection
(C) Domestication (D) Apomixis

32. Somatic hybridization is achieved through :
- (A) Grafting (B) Protoplast fusion
(C) rDNA technology (D) Budding
33. The rocks formed by the solidification of molten magma :
- (A) Sedimentary rocks (B) Marble
(C) Igneous rock (D) Metamorphic rock
34. The concentration of _____ gas is higher in soil air compared to atmospheric air.
- (A) Argon (B) Nitrogen
(C) Carbondioxide (D) Oxygen
35. Stoke's law is the principle behind _____ analysis.
- (A) Particle size (B) Particle density
(C) Cation exchange capacity (D) None of the above
36. The mobilization and translocation of soil materials from a horizon in solution or suspension by percolating water :
- (A) Illuviation (B) Eluviation
(C) Humification (D) None of the above
37. The most abundant element in earth's crust is :
- (A) Magnesium (B) Iron
(C) Silicon (D) Oxygen
38. In Kerala, the major soil type is
- (A) Red soil (B) Black soil
(C) Alluvial soil (D) Laterite soil
39. The downward entry of water into the soil :
- (A) Percolation (B) Infiltration
(C) Permeability (D) Hydraulic conductivity
40. The mineral that is most resistant to weathering :
- (A) Quartz (B) Feldspar
(C) Pyroxene (D) Mica

41. Soil water held between maximum water holding capacity and field capacity :
(A) Available water (B) Capillary water
(C) Gravitational water (D) Hygroscopic water
42. The number of soil orders in Soil Taxonomy :
(A) 10 (B) 11
(C) 15 (D) 12
43. Soil moisture can be determined by :
(A) Tensiometer method (B) Neutron scattering method
(C) Gravimetric method (D) All of the above
44. Active soil forming factor is :
(A) Time (B) Climate
(C) Parent material (D) Relief
45. _____ horizon is also referred as sub soil.
(A) O (B) A
(C) B (D) C
46. Potential due to the interaction of solutes and water in the soil is :
(A) Matric potential (B) Osmotic potential
(C) Pressure potential (D) Gravitational potential
47. Acid sulphate soils occur in Kerala in _____ region.
(A) Onattukkara (B) Pokkali
(C) Kuttanad (D) Kaipad
48. Black soils found in India are :
(A) Swell-shrink soils (B) Sandy soils
(C) Loamy soils (D) None of the above

49. An important tool in IPM used for management soil borne nursery disease :

- (A) Foliar spraying of fungicides/ insecticides
- (B) Soil solarisation followed by drenching with bioagents
- (C) Foliar spraying of biotic agents.
- (D) Soil amendment with neemcake

50. Systemic fungicide compatible with *Trichoderma* spp :

- (A) Copper hydroxide
- (B) Carbendazim
- (C) Potassium phosphonate
- (D) Tridemorph

51. Transmission of yellow vein mosaic of Bhindi :

- (A) Seed
- (B) Insect
- (C) Soil
- (D) Plant sap

52. Systemic fungicide which is not at all effective against Oomycete fungi :

- (A) Carbendazim
- (B) Copper oxychloride
- (C) Mancozeb
- (D) Potassium phosphonate

53. A fungicidal group which has bactericidal property :

- (A) Triazoles
- (B) Dithiocarbamates
- (C) Benzimidazoles
- (D) Copper fungicides

54. 'Kresek' is a symptom of _____ of rice.

- (A) Fungal disease
- (B) Deficiency disease
- (C) Bacterial disease
- (D) Viral disease

55. Viroid disease of Coconut :

- (A) Cadang cadang
- (B) Yellowing disease
- (C) Stem bleeding disease
- (D) Viral disease

56. Arecanut disease which is caused by a mushroom fungus :

- (A) Mahali
- (B) Stem bleeding
- (C) Basal stem rot
- (D) Inflorescence dieback and button shedding

57. A fungal disease which is closely associated with root wilt of Coconut :
- (A) Leaf rot (B) Bud rot
(C) Yellowing (D) Basal stem rot
58. Fungal biocontrol agent effective against Phytophthora rot of black pepper :
- (A) *Beauveria bassiana* (B) *Pseudomonas fluorescens*
(C) *Trichoderma viride* (D) *Metarrhizium anisoplaea*
59. Chilly variety resistant to bacterial wilt disease :
- (A) Anagha (B) Ujwala
(C) Swetha (D) Pant samrat
60. Panama wilt of banana is caused by :
- (A) *Ralstonia solanacearum* (B) *Fusarium oxysporum*
(C) *Verticillium sp* (D) *Erwinia sp*
61. Insect associated with inflorescence blight of cashew :
- (A) Stem borer (B) Leaf webber
(C) Leaf hopper (D) Tea Mosquito
62. Most favourable temperature for phytophthora infection in crop plants :
- (A) 30°C – 32°C (B) 22°C – 25°C
(C) 10°C – 15°C (D) Above 35°C
63. Bacterial biocontrol agent used for control of insect pests :
- (A) *Bacillus thuringiensis* (B) *Pseudomonas solanacearum*
(C) *Beauveria bassiana* (D) *Verticillium sp*
64. White ear head symptom in rice is due to :
- (A) BPH (B) Stem borer
(C) Gall fly (D) Leaf hopper
65. A high yielding clone of rubber popular in Kerala :
- (A) Tijir 1 (B) GI-1
(C) RRIM 600 (D) RR II 105

66. Leading turmeric producing state in India :
- (A) Orissa (B) Tamil Nadu
(C) Andhra Pradesh (D) West Bengal
67. The lightest pruning method followed in tea :
- (A) Collar pruning (B) Centering
(C) Skiffing (D) Top pruning
68. A hybrid variety of cocoa :
- (A) Criollo (B) Forastero
(C) Trinitario (D) None of these
69. _____ is a hybrid pepper variety.
- (A) Panniyoor 1 (B) Karimunda
(C) Kalluvally (D) Narayakkodi
70. Select the odd one :
- (A) Tea (B) Cardamom
(C) Coffee (D) Cocoa
71. Commercial vegetative propagation method in Cashew :
- (A) Air layering (B) Top working
(C) Patch budding (D) Soft wood grafting
72. Tea mosquito is a major pest of :
- (A) Coffee (B) Tea
(C) Cashew (D) Cocoa
73. A growth regulator used for yield stimulation in rubber :
- (A) Ethephon (B) Seradix
(C) Planofix (D) Atonik
74. Thick shelled variety of oil palm :
- (A) Dura (B) Tenera
(C) Pisifera (D) Deli palm

75. Chandralaksha is a hybrid _____ variety.
- (A) Arecanut (B) Coconut
(C) Cocoa (D) Coffee
76. The per ha planting density for tapping rubber is :
- (A) 410 (B) 445
(C) 310 (D) 400
77. Economic life span of true cardamom is
- (A) 7-10 years (B) 5-6 years
(C) 20-25 years (D) 30-35 years
78. Coffee species preferring higher altitude :
- (A) *Coffea canephora* (B) *C. arabica*
(C) *C. liberica* (D) *C. congensis*
79. The part which is used as spice in clove is :
- (A) Fruits (B) Seeds
(C) Mature flower buds (D) Leaves
80. The scientific name of cinnamon is :
- (A) *Cinnamomum camphora* (B) *C. zeylanicum*
(C) *C. malabaricum* (D) *C. tamala*
81. Who proposed the preamble of Indian constitution before the drafting committee?
- (A) B.R. Ambedkar (B) Jawaharlal Nehru
(C) B.N. Rao (D) K.M. Munshi
82. The government abolished the practice of untouchability under the provisions of which article of Indian constitution :
- (A) Article 29 (B) Article 18
(C) Article 17 (D) Article 20
83. The President can proclaim national emergency only on the written advice of :
- (A) The Chief Justice of India (B) The Speaker of Lok Sabha
(C) The Union Cabinet (D) The Prime Minister

84. The joint session of the Parliament is presided over by :
- (A) The President (B) The speaker of Loksabha
(C) Prime Minister (D) Chief Justice of India
85. 'Thudikkunna Thalukal' is the autobiography of :
- (A) Changampuzha Krishnapillai (B) S.K. Pottekkad
(C) Kesavadev (D) Ponkunnam Varkey
86. In which year Thakazhi Sivasankarapillai won the Jnanapit award?
- (A) 1965 (B) 1980
(C) 1982 (D) 1984
87. The first woman director of Defence Research and Development Organisation (DRDO) :
- (A) Arundhathi Bhattacharya (B) J. Manjula
(C) Tessy Thomas (D) Indra Nooyi
88. Who won the World Food Prize 2015?
- (A) Vijay Sharma (B) K.V. Chaudhari
(C) Ajal Kumar Jyothi (D) Faizal Hussan Abed
89. Who wrote the book 'Half Girlfriend'?
- (A) Chetan Bhagat (B) Anita Nair
(C) Jayasree Mishra (D) Jhumpa Lahiri
90. 'Vallathol Puraskaram' for the year 2015 was awarded to :
- (A) M.T. Vasudevan Nair (B) T. Padmanabhan
(C) Subhash Chandran (D) Anand
91. The Newspaper 'Mitavadi' was started in the year :
- (A) 1906 (B) 1907
(C) 1908 (D) 1912
92. Who was the founder of the 'Vaala Samudeya Parishkarani Sabha'?
- (A) Pandit K.P. Karuppan (B) Velukutty Arayan
(C) Ayyathan Gopalan (D) Pampadi John Joseph

93. In 1933, who started a newspaper called 'Velakkaran' for the labourers?
 (A) Dr. Palpu (B) Sahodaran Ayyappan
 (C) Moorkooth Kumaran (D) A.K. Gopalan
94. "As long as caste disabilities existed there could be no Swaraj". Who said this?
 (A) K. Kelappan (B) C. Kesavan
 (C) T.K. Madhavan (D) Mannath Padmanabhan
95. The Mughal ruler who introduced the 'Chain of Justice' for the smooth conduct of administration :
 (A) Humayun (B) Akbar
 (C) Jahangir (D) Aurangzeb
96. The first Malayalee Woman Chief Justice of Kerala High Court :
 (A) Sujata Manohar (B) Anna Chandi
 (C) Omana Kunjamma (D) K.K. Usha
97. Who started a Malayalam monthly called 'Adhakrithan' ?
 (A) Sahodaran Ayyappan (B) K.P. Vellon
 (C) Poikayil Yohannan (D) C. Kesavan
98. Who founded 'Atmavidhya Sangham' ?
 (A) Vaghabhatananda (B) Brahmananda Sivayogi
 (C) Thycand Ayya (D) Chattampi Swamikal
99. The Nobel Prize for Economics was instituted in the year :
 (A) 1901 (B) 1946
 (C) 1963 (D) 1967
100. The Delhi Sultan who set up a separate department for the maintenance of slaves was :
 (A) Qutb-ud-din-Aibek (B) Balban
 (C) Firoz Shah Thuglaq (D) Sikander Lodi