

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