

COMPUTER BASED TEST – 2023
PAPER – I – SUBJECT PAPER
HORTICULTURE
(DEGREE STANDARD)

1. The term hydroponics is nothing but _____.
- (A) growing of aquatic plants
 - (B) growing off floating aquatic plants
 - (C) soilless cultivation of plants
 - (D) Growing of plants inside water
 - (E) Answer not known
2. The size of kitchen garden to meet out the requirements of 5 persons in a family is _____.
- (A) 2 cents
 - (B) 3 cents
 - (C) 5 cents
 - (D) 4 cents
 - (E) Answer not known
3. _____ is the art and science of using essential oils from plant sources for keeping us healthy.
- (A) Aroma Therapy
 - (B) Fruits Therapy
 - (C) Vegetable Therapy
 - (D) Flower Therapy
 - (E) Answer not known
4. About 30% of the cultivated soils of India are
- (A) Acidic
 - (B) Alkaline
 - (C) Saline
 - (D) Saline - Alkali
 - (E) Answer not known

5. The fruit rich in Vitamin A
- (A) Mango
 - (B) Guava
 - (C) Grapes
 - (D) Pomegranate
 - (E) Answer not known
6. Petrophytic refers to
- (A) Plant which grows on stone
 - (B) Plant which grows on another plant
 - (C) Plant which grows on earth
 - (D) Plants able to grow on rocks
 - (E) Answer not known
7. Net assimilation will be _____ at light intensity of 500 ft candles and a minimum of 500 – 1000 ft candles.
- (A) 1
 - (B) 0
 - (C) 3
 - (D) 4
 - (E) Answer not known
8. Organic matter content is more in this type of soil.
- (A) Sandy soil
 - (B) Peat
 - (C) Clay soil
 - (D) None of the above
 - (E) Answer not known

9. The wavelength of photosynthetically active radiation (PAR) in the range of _____ nm is considered to be only useful part.
- (A) 200-300
 (B) 350-400
 (C) 100-200
 (D) 400-700
 (E) Answer not known
10. The alkaline soil are made neutral by applying the required quantum of _____.
- (A) Gypsum
 (B) Fym
 (C) Lime
 (D) Super phosphate
 (E) Answer not known
11. Match the following :
- | List I | | | | List II |
|--|--|--|--|------------------------|
| (a) Vermiculite | | | | 1. Uneven growth |
| (b) Perlite | | | | 2. Heat expanded mica |
| <input checked="" type="checkbox"/> (c) Height control | | | | 3. Light rock material |
| (d) Pillowing | | | | 4. Cycocel |
-
- | | (a) | (b) | (c) | (d) |
|---|------------------|-----|-----|-----|
| (A) | 4 | 3 | 2 | 1 |
| (B) | 2 | 3 | 1 | 4 |
| <input checked="" type="checkbox"/> (C) | 2 | 3 | 4 | 1 |
| (D) | 1 | 2 | 4 | 3 |
| (E) | Answer not known | | | |

12. An example for evergreen subtropical fruits borne on woody plants
- (A) Mangosteen
 - (B) Mango
 - (C) Peach
 - (D) Plum
 - (E) Answer not known
13. During 2019-20 in T.N. _____ and _____ programme is being implemented.
- (A) CMRVPP Chief Ministers Rural Vegetable Production Programme
 - (B) National Horticultural Mission
 - (C) IAMWARM
 - (D) Integrated Horticulture Development Scheme
 - (E) Answer not known
14. T.N. occupies second place in the productivity of _____ and _____ fruit crop at National level.
- (A) Amla and Pine apple
 - (B) Citrus and Guava
 - (C) Mango and Banana
 - (D) Sapota and Grapes
 - (E) Answer not known
15. Government of T.N. has established Centre of Excellence for Vegetables at _____.
- (A) Reddiyarchatram in Dindigul District
 - (B) Thally in Krishnagiri District
 - (C) Palladam in Tiruppur District
 - (D) Ottanchatram of Dindigul District
 - (E) Answer not known

16. Iron rich vegetables are _____.
- (A) Tomato and Brinjal
 - (B) Agathi and Drumstick
 - (C) Cabbage and Cauliflower
 - (D) Potato and Sweet potato
 - (E) Answer not known
17. Among the following fruits, which one is rich in Fat?
- (A) Mango
 - (B) Avocado
 - (C) Papaya
 - (D) Grape
 - (E) Answer not known
18. Among the following fruits, which one is fibre rich fruit?
- (A) Papaya
 - (B) Banana
 - (C) Lime
 - (D) Guava
 - (E) Answer not known
19. Silviculture refers to the growing of trees for _____.
- (A) Aesthetic purpose
 - (B) Timber purpose
 - (C) Scientific purpose
 - (D) Education purpose
 - (E) Answer not known

20. Paclobutrazol is a
- (A) Gibberelin inhibitor
 - (B) Ethylene inhibitor
 - (C) ABA inhibitor
 - (D) Maleic hydrazide inhibitor
 - (E) Answer not known
21. The growth regulator used for deblossoming in Guava is _____.
- (A) Ethylene
 - (B) Abscisic Acid
 - (C) Naphthalene Acetamide
 - (D) Gibberellic Acid
 - (E) Answer not known
22. Embryo develops directly from the haploid egg cell or some other haploid cells of the embryo sac leading to production of haploids. This phenomenon is known as
- (A) Recurrent apomixis
 - (B) Non-recurrent apomixis
 - (C) Vegetative apomixis
 - (D) Adventitious embryony
 - (E) Answer not known
23. _____ is the only gaseous plant hormone having chemical structure $\text{CH}_2 = \text{CH}_2$
- (A) Dihydrogen carbon
 - (B) Carbon di hydrogen
 - (C) Ehtylene
 - (D) Carbohydrogen
 - (E) Answer not known

24. The artificial ripening of banana is achieved by treating the bunches with
- (A) Ethylene 1500
 - (B) Ethylene 2000 ppm
 - (C) Ethylene 2500 ppm
 - (D) Ethylene 3000 ppm
 - (E) Answer not known
25. The hormone responsible for root initiation is
- (A) Auxins
 - (B) GA
 - (C) Cytokinins
 - (D) ABA
 - (E) Answer not known
26. Cell division and greening are enhanced by _____.
- (A) Cytokinin
 - (B) Ethylene
 - (C) Auxin
 - (D) Abscisic acid
 - (E) Answer not known
27. A dormancy process in which dormancy is induced, maintained or broken due to a suspension of most physiological activity and growth which can be reactivated is called _____.
- (A) Primary Dormancy
 - (B) Secondary Dormancy
 - (C) Bud Dormancy
 - (D) Exogenous Dormancy
 - (E) Answer not known

28. How many senescence types are found in plants?
- (A) 1 type
 - (B) 2 types
 - (C) 3 types
 - (D) 4 types
 - (E) Answer not known
29. After the attainment of fruit to the maximum size, qualitative changes occur in pigmentation, firmness and chemical constituents. This process is called as _____.
- (A) Fertilization
 - (B) Pollination
 - (C) Ripening
 - (D) Harvesting
 - (E) Answer not known
30. Plants which bloom and are unable to set fruits are said to be _____.
- (A) Fruitful
 - (B) Unfruitful
 - (C) Fertile
 - (D) Self fertile
 - (E) Answer not known
31. Which of the following is correct based on the ripening process?
- (A) Persimmon – Climacteric fruit
 - (B) Fig – Non Climacteric fruit
 - (C) Apple – Non Climacteric fruit
 - (D) Bread fruit – Non climacteric fruit
 - (E) Answer not known

32. The plant can initiate flowers under any day length is called as
- (A) Long day
 - (B) Day neutral
 - (C) Short day
 - (D) Medium day
 - (E) Answer not known
33. Fruit setting can be improved by exogenous application of _____ at the time of flower bud initiation in Mango.
- (A) NAA
 - (B) GA₃
 - (C) Ethylene
 - (D) Kinetin
 - (E) Answer not known
34. Fruits are dropped in citrus due to formation of abscission layers in the young fruit stalk is called
- (A) First drop
 - (B) June drop
 - (C) Pre harvest drop
 - (D) Second drop
 - (E) Answer not known
35. The natural hormone responsible for ripening is
- (A) Auxin
 - (B) Ethylene
 - (C) GA
 - (D) ABA
 - (E) Answer not known

36. Seedlessness due to embryo abortion (Stenospermocarpy) exist in which variety of grapes.
- (A) Flame Seedless
 - (B) Shared Seedless
 - (C) Delight
 - (D) Thompson Seedless
 - (E) Answer not known
37. Fruit buds borne terminally unfolding to produce leafy shoots that terminate in flower clusters is observed in _____ fruit crops.
- (A) Mango
 - (B) Citrus
 - (C) Fig
 - (D) Apple
 - (E) Answer not known
38. Choose the crop which is having prostrate growth habit of herbaceous perennial nature
- (A) Tree Tomato
 - (B) Cran berry
 - (C) Strawberry
 - (D) Dragon fruit
 - (E) Answer not known
39. Pigment phytochrome is involved in
- (A) Phototropism
 - (B) Photoperiodism
 - (C) Photorespiration
 - (D) Vernalization
 - (E) Answer not known

40. The mist chamber has been very effective in propagating difficult to root species of _____.
- (A) Hard wood cuttings
 - (B) Soft wood cuttings
 - (C) Semihard wood cuttings
 - (D) Herbaceous cuttings
 - (E) Answer not known
41. The small piece of plant used to begin a culture is referred as
- (A) Endosperm
 - (B) Explant
 - (C) Embryo
 - (D) Callus
 - (E) Answer not known
42. _____ is a shoot arising from a latent bud of a stem or on the trunk or on main branches.
- (A) Offshoot
 - (B) Water sprout
 - (C) Sucker
 - (D) Crown division
 - (E) Answer not known

43. Match the following :

List I

List II

- | | |
|-------------------|-------------|
| (a) 'T' budding | 1. Citrus |
| (b) Patch budding | 2. Grapes |
| (c) Ring budding | 3. Rose |
| (d) Chip budding | 4. Cinchona |

- | | (a) | (b) | (c) | (d) |
|---|------------------|-----|-----|-----|
| (A) <input checked="" type="checkbox"/> | 3 | 1 | 4 | 2 |
| (B) | 3 | 1 | 2 | 4 |
| (C) | 4 | 1 | 3 | 2 |
| (D) | 2 | 4 | 1 | 3 |
| (E) | Answer not known | | | |

44. Double working in grafting refers to

- (A) Inter stock insertion
- (B) Budding done in two seasons
- (C) Top working
- (D) Combined layering and budding
- (E) Answer not known

45. _____ is the practice of transferring the young seedling to another pan, tray or place from its original site or location.

- (A) Transplanting
- (B) Seeding
- (C) Pricking
- (D) Staking
- (E) Answer not known

46. The propagation procedure that utilizes naturally detachable structures such as bulb and corm is generally called
- (A) Separation
 - (B) Division
 - (C) Cutting
 - (D) Layering
 - (E) Answer not known
47. Seeds of some species exhibit seed coat dormancy and embryo dormancy is
- (A) due to chemical inhibitors.
 - (B) double dormancy
 - (C) due to internal factors
 - (D) due to rudimentary embryos
 - (E) Answer not known
48. Which of the plant that cannot be propagated through leaf cuttings?
- (A) Hibiscus
 - (B) Begonia
 - (C) Bryophyllum
 - (D) Sansiveria
 - (E) Answer not known
49. The flowers open only after pollination is called as
- (A) Cleistogamy
 - (B) Chasmogamy
 - (C) Delayed Pollination
 - (D) Double fertilization
 - (E) Answer not known

50. Which fruit crops each flowers open twice and closed in between in a day and facilitate cross pollination?
- (A) Lime
 - (B) Guava
 - (C) Avocado
 - (D) Persimon
 - (E) Answer not known
51. Resumption of metabolic activity and growth of an embryo is technically known as
- (A) Hydration
 - (B) Inhibition
 - (C) Respiration
 - (D) Germination
 - (E) Answer not known
52. Which fruit crop is seed propagated commercially?
- (A) Guava
 - (B) Papaya
 - (C) Banana
 - (D) Grapes
 - (E) Answer not known
53. The Germination of seeds takes place when it is attached with mother plants (Before sowing) takes place in which horticulture crops
- (A) Sedum educe
 - (B) Allium porrum
 - (C) Lactuca saliva
 - (D) Persea americana
 - (E) Answer not known

54. Commercial rooting hormone

- (A) IBA
- (B) GA
- (C) MH
- (D) TIBA
- (E) Answer not known

55. Parthenocarpic fruits can be produced using _____ in Tomato.

- (A) GA
- (B) Cytokinesis
- (C) Polyamines
- (D) Formaldehyde
- (E) Answer not known

56. _____ is a micaceous mineral used as propagating media.

- (A) Vermiculite
- (B) Pumice
- (C) Perlite
- (D) Sand
- (E) Answer not known

57. _____ method of propagation is used more frequently in the nurseries.

- (A) Sexual
- (B) Budding
- (C) Asexual
- (D) Rooting
- (E) Answer not known

58. A shade net nursery usually has _____ dimensions.
- (A) 20 m × 10 m
 - (B) 10 m × 10 m
 - (C) 15 m × 15 m
 - (D) 5 m × 5 m
 - (E) Answer not known
59. _____ is a fruit develops from two carpels and opens along two sutine lines.
- (A) Achene
 - (B) Caryopsis
 - (C) Capsule
 - (D) Silique
 - (E) Answer not known
60. In acid limes and mandarins, fruit set is increased by the application of _____.
- (A) 2, 4 – D @ 20 ppm
 - (B) 2, 4 – D @ 40 ppm
 - (C) 2, 4 – D @ 60 ppm
 - (D) 2, 4 – D @ 80 ppm
 - (E) Answer not known
61. The training of central leader tree and 20-30 branches radiating from it on all sides at an angle of 45-90° is referred as
- (A) Dwarf pyramid
 - (B) Spindle bush
 - (C) Palmette
 - (D) Head and spread systems
 - (E) Answer not known

62. In grapes, forward-pruning is done to

- (A) Remove dead wood/shoots
- (B) Encourage reproductive growth
- (C) Encourage vegetative growth
- (D) Dwarfen the plant
- (E) Answer not known

63. In multitier cropping system, ground tier is planted with _____ so as to intercept solar energy.

- (A) Pineapple
- (B) Cocoa
- (C) Pepper
- (D) Coconut
- (E) Answer not known

64. Write the chemical name of CCC.

- (A) 2 – chloro ethyl trimethyl ammonium chloride
- (B) 2 – chloro methyl triethyl ammonium nitrate
- (C) 2 – chloro ethyl trimethyl calcium chloride
- (D) 2 – chloro ethyl trimethyl calcium nitrate
- (E) Answer not known

65. Bahar treatment is recommended for _____ crop.
- (A) Sapota
 - (B) Banana
 - (C) Aonla
 - (D) Guava
 - (E) Answer not known
66. The total soluble salts of the solution is obtained by multiplying EC with _____.
- (A) 640
 - (B) 64
 - (C) 6.4
 - (D) 0.64
 - (E) Answer not known
67. In drip irrigation, the component through which water is finally released at a distance of 5 – 25 cm from plant base is called _____.
- (A) head line
 - (B) filters
 - (C) laterals
 - (D) drippers
 - (E) Answer not known

68. Match the following :

| List I | | List II | |
|-----------------------|--|-------------------------------|--|
| (a) Potassium nitrate | | 1. 46% Nitrogen | |
| (b) Ammophos A | | 2. Nitrate form of nitrogen | |
| (c) Calcium Cyanamide | | 3. Ammonical form of nitrogen | |
| (d) Urea | | 4. Amide form of nitrogen | |

- | | (a) | (b) | (c) | (d) |
|---|------------------|-----|-----|-----|
| (A) | 1 | 2 | 3 | 4 |
| (B) | 4 | 3 | 1 | 2 |
| <input checked="" type="checkbox"/> (C) | 2 | 3 | 4 | 1 |
| (D) | 2 | 3 | 1 | 4 |
| (E) | Answer not known | | | |

69. The range of nitrogen content in oil cakes

- (A) 3 – 5%
- (B) 0.3 – 0.5%
- (C) 10 – 15%
- (D) 8 – 10%
- (E) Answer not known

70. Match the discoverer with essential nutrient :

| Discoverer | Essential Nutrient |
|--------------------------|--------------------|
| (a) Theodore de Saussure | 1. K |
| (b) Gris | 2. B |
| (c) Sprengel | 3. Fe |
| (d) Warington | 4. N |

- (a) (b) (c) (d)
(A) 4 3 1 2
(B) 3 4 2 1
(C) 2 1 4 3
(D) 1 4 2 3
(E) Answer not known

71. Find out the wrong statement with respect to acid soil.

1. Iron, aluminium and manganese are deficient
 2. Fungi grow well in acid soil
 3. Nitrogen fixation is unaffected
 4. Molybdenum is abundantly available
- (A) 1, 3 and 4 are wrong
(B) 2, 3 and 4 are wrong
(C) 1, 2 and 3 are wrong
(D) 1, 2 and 4 are wrong
(E) Answer not known

72. Shot berry formation in grapes can be controlled by _____ spray.

- (A) Ethephon @ 25 ppm
(B) NAA @ 25 ppm
(C) GA₃ @ 25 ppm
(D) IAA @ 25 ppm
(E) Answer not known

73. Match the following laws with their concern :

| <u>Laws</u> | <u>Concern</u> |
|------------------|--|
| (a) Poiseuille's | 1. Flux of gas through diffusion |
| (b) Fick's | 2. Flux of water is proportional to hydraulic gradient |
| (c) Darcy's | 3. Describe the flow of a fluid showing viscous properties |
| (d) Fourier's | 4. Heat flow in a soil through conduction |

- | | (a) | (b) | (c) | (d) |
|---|------------------|-----|-----|-----|
| (A) | 4 | 3 | 1 | 2 |
| (B) | 2 | 1 | 4 | 3 |
| <input checked="" type="checkbox"/> (C) | 3 | 1 | 2 | 4 |
| (D) | 1 | 4 | 2 | 3 |
| (E) | Answer not known | | | |

74. Match the following nutrient with its deficiency symptom:

| <u>Nutrient</u> | <u>Deficiency symptom</u> |
|-----------------|--|
| (a) Boron | 1. Whip tail in cauliflower |
| (b) Manganese | 2. Resetting in fruit and citrus trees |
| (c) Molybdenum | 3. Marsh spots of pea |
| (d) Zinc | 4. Corking and pitting of tomato |

- | | (a) | (b) | (c) | (d) |
|---|------------------|-----|-----|-----|
| (A) | 3 | 1 | 2 | 4 |
| <input checked="" type="checkbox"/> (B) | 4 | 3 | 1 | 2 |
| (C) | 2 | 1 | 3 | 4 |
| (D) | 1 | 2 | 3 | 4 |
| (E) | Answer not known | | | |

75. Percent pore space can be found out using the formula

(A) $100 \div \left(1 - \frac{\text{Bulk density}}{\text{Particle density}}\right)$

(B) $100 \times \left(1 - \frac{\text{Bulk density}}{\text{Particle density}}\right)$

(C) $100 + \left(1 - \frac{\text{Bulk density}}{\text{Particle density}}\right)$

(D) $100 - \left(1 - \frac{\text{Bulk density}}{\text{Particle density}}\right)$

(E) Answer not known

76. Choose the incorrect statement

(A) The substance acted upon by a soil enzyme is called substrate

(B) Soil enzyme respond to soil management changes

(C) Phosphatase enzyme involved in nitrogen transformation in soil

(D) Some soil enzyme facilitate brakedown of organic matter

(E) Answer not known

77. Heavy metal contributed through application of single super phosphate is

(A) Iron

(B) Chromium

(C) Cadmium

(D) Manganese

(E) Answer not known

78. The process of accumulation of sodium ions on the exchange complex is called as _____.
- (A) Salinization
 - (B) Calcification
 - (C) Solodization
 - (D) Solonization
 - (E) Answer not known
79. In the hexagonal system of planting, trees are planted in each corner of an equilateral triangle. Find out the correct statement regarding hexagonal system of planting.
- (A) Vertical distance between immediate two trees in the adjacent rows is equal to the product of $1.118 \times$ the distance between two trees.
 - (B) This system can be followed when the distance between the permanent tree is more than 10 m.
 - (C) The perpendicular distance between any two adjacent rows is equal to the product of $0.866 \times$ the distance between any two trees.
 - (D) It is followed on the hills.
 - (E) Answer not known
80. Granulation is a serious disorder in _____.
- (A) Apple
 - (B) Sweet orange
 - (C) Peach
 - (D) Plum
 - (E) Answer not known

81. Which of the following growth regulator used to increase femaleness in dioecious type papaya?
- (A) NAA
 - (B) Cytokinin
 - (C) 2, 4.D
 - (D) Phosphon – D
 - (E) Answer not known
82. Hen and chicken is a physiological disorder in grapes due to _____.
- (A) Boron
 - (B) Calcium
 - (C) Copper
 - (D) Potassium
 - (E) Answer not known
83. The variety which is resistant to Panama disease or Banana wilt is
- (A) Poovan
 - (B) Monthan
 - (C) Rasthali
 - (D) Karpooravalli
 - (E) Answer not known
84. Aril is the edible part of
- (A) Citrus
 - (B) Jack fruit
 - (C) Pomegranate
 - (D) Grapes
 - (E) Answer not known

85. The acid present in Carambola is
- (A) Mallic acid
 - (B) Ascorbic acid
 - (C) Oxalic acid
 - (D) Tartaric acid
 - (E) Answer not known
86. Which of the following is a Cultivar of sweet orange?
- (A) Pineapple
 - (B) Clementine
 - (C) Nagpur Santra
 - (D) Eureka
 - (E) Answer not known
87. The pollination behaviour of dioecious papaya is
- (A) Self pollinated
 - (B) Cross pollinated
 - (C) Often cross pollinated
 - (D) Often self pollinated
 - (E) Answer not known
88. The large scale commercial method of propagation in sapota
- (A) Inarching
 - (B) Softwood shafting
 - (C) Compound layering
 - (D) 't' budding
 - (E) Answer not known

89. Choose the banana variety having 'AB' genome grown in India
- (A) Matti
 - (B) Anaikompan
 - (C) Ney poovan
 - (D) Nivediya kadalli
 - (E) Answer not known
90. The optimum cardinal temperature range for cool season crops is
- (A) 0 – 5° C
 - (B) 5 – 10° C
 - (C) 10 – 15° C
 - (D) 25 – 30° C
 - (E) Answer not known
91. The most popular commercial cultivar of pear throughout the world is
- (A) William Bartlett
 - (B) Jorgonelle
 - (C) Kieffer
 - (D) Anjou
 - (E) Answer not known
92. The most widely used rootstock for plum is
- (A) Myrobalan plum
 - (B) Mariana plum
 - (C) American plum
 - (D) Almond
 - (E) Answer not known

93. _____ variety of papaya is highly suitable for papain extraction.

- (A) Red lady
- (B) Co. 3
- (C) Co. 5
- (D) Co. 7
- (E) Answer not known

94. The term 'arm' used in grapes is the

- (A) Branching Vine from the trunk
- (B) Young growth of current season
- (C) Matured shoot of part season
- (D) Portion of the cane left behind on the vine after pruning
- (E) Answer not known

95. Which is the best root stock for vegetative propagation of pear?

- (A) Quince
- (B) Kieffer
- (C) Le Conte
- (D) Bartlett
- (E) Answer not known

96. Match the hybrids of mango with its parentage:

List I

- (a) Arka Neelkiran
- (b) Arka Aruna
- (c) Arka Puneet
- (d) PKM2

List II

- 1. Neelum × Mulgoa
- 2. Alphonso × Neelum
- 3. Alphonso × Banganapalli
- 4. Banganapalli × Alphonso

- | | (a) | (b) | (c) | (d) |
|---|------------------|-----|-----|-----|
| (A) <input checked="" type="checkbox"/> | 2 | 4 | 3 | 1 |
| (B) <input type="checkbox"/> | 1 | 3 | 4 | 2 |
| (C) <input type="checkbox"/> | 4 | 3 | 2 | 1 |
| (D) <input type="checkbox"/> | 3 | 1 | 4 | 2 |
| (E) <input type="checkbox"/> | Answer not known | | | |

97. Which of the following is incorrectly paired?

- (A) Apricot – Temperate Climate
- (B) Litchi – Tropical Climate
- (C) Jackfruit – Tropical Climate
- (D) Sapota – Arid Climate
- (E) Answer not known

98. Which is the late season mango variety?

- (A) Neelum
- (B) Bangalora
- (C) Langra
- (D) Dashehari
- (E) Answer not known

99. The Vitamin A rich fruits are _____.
- (A) Papaya and Mango
 - (B) Dates and Ber
 - (C) Apple and Avocado
 - (D) Dates and Apple
 - (E) Answer not known
100. The origin of Peach is _____.
- (A) India
 - (B) China
 - (C) South Europe
 - (D) North America
 - (E) Answer not known
101. _____ is a multicutting type of Amaranthus released from Tamil Nadu Agricultural University.
- (A) Co 1
 - (B) Co 2
 - (C) Co 3
 - (D) Co 4
 - (E) Answer not known
102. Which of the following is handy vegetable?
- (A) Garlic
 - (B) Sweet Potato
 - (C) Asparagus
 - (D) Tapioca
 - (E) Answer not known

103. The crop that is commercially grown in polyhouse is _____.
- (A) ✓ Tomato
 - (B) Bhendi
 - (C) Crossandra
 - (D) Cluster bean
 - (E) Answer not known
104. Salt tolerant vegetable
- (A) Sweet potato
 - (B) Beans
 - (C) Celery
 - (D) ✓ Ash gourd
 - (E) Answer not known
105. Nursery raising of direct sown vegetable crop is economical during _____.
- (A) Suitable for small scale cultivation
 - (B) ✓ Adverse weather conditions
 - (C) Large scale cultivation
 - (D) Suitable for hard seeds
 - (E) Answer not known
106. Among the following which type of fruit cracking causes more loss in tomato?
- (A) ✓ Radial cracking
 - (B) Concentric cracking
 - (C) Cuticular cracking
 - (D) Burst cracking
 - (E) Answer not known

107. Blotchy ripening is due to _____ deficiency.

- (A) Boron
- (B) Nitrogen
- (C) Phosphorus
- (D) Potassium
- (E) Answer not known

108. Edible part of knol khol is a modification of _____.

- (A) Tuber
- (B) Rhizoma
- (C) Bulb
- (D) Swollen stem
- (E) Answer not known

109. The watermelon maturity can be judged by

1. Dull sound
 2. Withering of tendril
 3. Ground spot
 4. Full slip stage
- (A) 2, 3, 4
 - (B) 1, 2, 3
 - (C) 1, 2, 4
 - (D) 1, 3, 4
 - (E) Answer not known

110. Which variety of Common Onion produces small size pulbs?

- (A) Pusa White Round
- (B) Agni found Dark Rod
- (C) N 53
- (D) Arka Bindu
- (E) Answer not known

111. Haulm is the above ground portion of

- (A) Tapioca
- (B) Sweet potato
- (C) Potato
- (D) Colocasia
- (E) Answer not known

112. Processing tomatoes are harvested at

- (A) Mature green stage
- (B) Turning stage
- (C) Pink stage
- (D) Ripe stage
- (E) Answer not known

113. Deterioration and death of plant organs such as leaves, stem, flowers and fruits in perennial plants are called as
- (A) Complete senescence
 - (B) Drying of plants
 - (C) Partial senescence
 - (D) End of life cycle
 - (E) Answer not known
114. _____ is used to induce male flowers in gynoecious cucumber.
- (A) Maleic Hydrazide
 - (B) Silver nitrate
 - (C) NAA
 - (D) 2.4 D
 - (E) Answer not known
115. Pusa Early Dwarf is a variety of _____.
- (A) Brinjal
 - (B) Chilli
 - (C) Okra
 - (D) Tomato
 - (E) Answer not known

116. Long exposure of vegetable crops to low temperature causes early bolting and flowering in _____ crops.
- (A) Peas, Beans, Squash
 - (B) Bitter gourd, Pumpkin, Ashgourd
 - (C) Cabbage, Carrot, Knol khol
 - (D) Okra, Muskmelon, Watermelon
 - (E) Answer not known
117. Bush type French bean cultivar which is a induced mutant of Exotic cultivar
- (A) Contender
 - (B) Pusa Himlata
 - (C) Kentuky Wonder
 - (D) Pusa Parvati
 - (E) Answer not known
118. Which of the following is a monocot vegetable?
- (A) Amaranth
 - (B) Carrot
 - (C) Parsley
 - (D) Elephant foot yam
 - (E) Answer not known
119. The red colour of beetroot is due to presence of _____.
- (A) Lycopene
 - (B) Carotene
 - (C) Betaxanthin
 - (D) Betacyanin
 - (E) Answer not known

120. Red Cabbage is a rich source of _____.

- (A) Lycopene
- (B) Anthocyanin
- (C) Xanthophyll
- (D) Carotene
- (E) Answer not known

121. Point out the incorrect statements with regard to Bog garden

- (i) The main criteria of the bog garden is to keep soil moist and swampy all throughout.
 - (ii) A site having subsoil of sticky clay is not suitable.
 - (iii) A bog garden should never exceed a depth of 60 cm.
 - (iv) Water stagnation is not advisable in bog garden.
- (A) (i) and (ii)
 - (B) (ii) alone
 - (C) (i), (ii) and (iii)
 - (D) (ii), (iii) and (iv)
 - (E) Answer not known

122. The chemical used for day flower preservation is _____.

- (A) Benzarkone
- (B) Copper nitrate
- (C) Borax
- (D) Sodium hydroxide
- (E) Answer not known

123. Annuals under dwarf category are
- (A) Below 0.45 m
 - (B) Below 4.5 m
 - (C) Between 0.45 – 0.75 m
 - (D) Above 0.45 m
 - (E) Answer not known
124. Which one of the following is not a summer annual?
- (A) Ageratum
 - (B) Protea
 - (C) Cosmos
 - (D) Dahlia
 - (E) Answer not known
125. Which of the following is incorrectly matched with regard to Chrysanthemum?
- (A) Propagation – Seed
 - (B) Day length – Short day
 - (C) Cultivation – Open field
 - (D) Disbudding – To improve the quality and size of the flower
 - (E) Answer not known
126. Astrophytum Cactus belongs to which one of the following subtribes?
- (A) Echinocactae
 - (B) Echinocereanae
 - (C) Cactanae
 - (D) Cereanae
 - (E) Answer not known

127. Read the following statements and answer :
- I. Permanent cover of grass (sod) is raised in the Orchard to prevent soil erosion in slopy lands.
 - II. Frequently cut material is not allowed to remain on the ground in sod mulch.
- (A) I is correct and II is wrong
- (B) I is wrong and II is correct
- (C) Both are correct
- (D) Both are wrong
- (E) Answer not known
128. _____ is an art of training plants into different shapes i.e., birds, animals, domes.
- (A) Trophy
- (B) Topiary
- (C) Rockery
- (D) Carpet beds
- (E) Answer not known
129. The plants suitable for “Bog garden” should possess which one of the following criteria?
- (A) Tolerate high degree of moisture
- (B) Tolerate high degree of temperature
- (C) Tolerate high percentage of humidity
- (D) Tolerate high degree of chilling
- (E) Answer not known

130. _____ causes stunting and Premature Yellowing of plants in Chrysanthemum.
- (A) Root Knot nematode
 - (B) Potato Rot nematode
 - (C) Leision nematode
 - (D) Thrips
 - (E) Answer not known
131. Dendrobium orchids are propagated through _____
- (A) Suckers
 - (B) Ships
 - (C) Cuttings
 - (D) Keikis
 - (E) Answer not known
132. Bull head in Rose is due to abnormal production of
- (A) Cytokinins and Gibberellins
 - (B) Cytokinins and Absisic acid
 - (C) Cytokinins and Ethylene
 - (D) Ethylene alone
 - (E) Answer not known
133. Dormancy due to rudiment embryo is seen in
- (A) Apple
 - (B) Plum
 - (C) Peach
 - (D) Orchids
 - (E) Answer not known

134. The concrete recovery in Jasminum Auriculatum is _____.
- (A) 0.33%
 - (B) 0.25%
 - (C) 0.27%
 - (D) 0.19%
 - (E) Answer not known
135. Rajat Reka a mutant variety of Luberoze released from _____.
- (A) IARI, New Delhi
 - (B) TNAU, Coimbatore
 - (C) IIHR, Bangalore
 - (D) NBRI, Lucknow
 - (E) Answer not known
136. _____ is a practice followed in Chrysanthemum to remove unwanted flower buds in a cluster.
- (A) Pinching
 - (B) Notching
 - (C) Ringing
 - (D) Disbudding
 - (E) Answer not known
137. The seed rate for Crossandra is _____ kgs/ha.
- (A) 5 Kgs
 - (B) 3 Kgs
 - (C) 7 Kgs
 - (D) 9 Kgs
 - (E) Answer not known

138. Plants of *Crossandra* is
- (A) Tropical evergreen shrub
 - (B) Deciduous shrub
 - (C) Evergreen tree
 - (D) Deciduous tree
 - (E) Answer not known
139. In Potpourri peels of _____ are used.
- (A) Banana
 - (B) Mango
 - (C) Lemon
 - (D) Grapes
 - (E) Answer not known
140. *Jasminum Sambac* is the national flower of _____.
- (A) India
 - (B) Japan
 - (C) Philippines
 - (D) Sri Lanka
 - (E) Answer not known
141. The Black Pepper variety from IISR Calicut with resistance to Nematodes is _____.
- (A) Pournami
 - (B) Panchami
 - (C) Sreekara
 - (D) Subhakara
 - (E) Answer not known

142. _____ disease is common in Coconut and Arecanut.
- (A) Rhizome rot
 - (B) Bud rot
 - (C) Fruit rot
 - (D) Flower rot
 - (E) Answer not known
143. Pollu beetle is the serious pest in _____.
- (A) Cardamom
 - (B) Turmeric
 - (C) Curry leaf
 - (D) Black pepper
 - (E) Answer not known
144. In Vanilla, the Vanillin content yield is obtained under Mexican process _____.
- (A) 4.15 to 4.40 percent
 - (B) 2.50 to 3.50 percent
 - (C) 3.50 to 4.00 percent
 - (D) 4.75 to 5.00 percent
 - (E) Answer not known
145. Tea is commercially propagated through
- (A) Seeds
 - (B) Single noble cuttings
 - (C) Air layering
 - (D) Mount layering
 - (E) Answer not known

146. BSR.2 variety of turmeric is developed through which one of the following method of breeding?
- (A) Clonal selection
 - (B) Introduction
 - (C) Mutation breeding
 - (D) Hybridization
 - (E) Answer not known
147. Curry leaf variety developed through clonal selection
- (A) Co 1
 - (B) PKM 1
 - (C) DWA – 1 (Suvasini)
 - (D) MDV – 1
 - (E) Answer not known
148. In Rubber, triangular system of planting with a spacing of 4.9×4.9 m accommodates _____ number of plants/ha.
- (A) 400
 - (B) 445
 - (C) 420
 - (D) 470
 - (E) Answer not known
149. Cera rubber is
- (A) Manihot glaziovii
 - (B) Ficus elastica
 - (C) Castidla elastica
 - (D) Hevea braziliensis
 - (E) Answer not known

150. The fenugreek is propagated through seeds and the seed rate is _____ kg/ha.
- (A) 8 – 10
 - (B) 10 – 15.0
 - (C) 16.0 – 18.0
 - (D) 20 – 25
 - (E) Answer not known
151. Which one of the following climatic condition prevents pollination in coconut?
- (A) High relative humidity
 - (B) Heavy rainfall
 - (C) Low relative humidity
 - (D) Low rainfall
 - (E) Answer not known
152. The normal season of harvest for clove in Tamil Nadu falls between
- (A) September – October
 - (B) February – May
 - (C) December – January
 - (D) November – January
 - (E) Answer not known
153. Coffea arabica is grown at an elevation of _____.
- (A) 500 – 1000 MSL
 - (B) 1000 – 1500 MSL
 - (C) 1500 – 2000 MSL
 - (D) 2000 – 3000 MSL
 - (E) Answer not known

154. Rapid multiplication technique in pepper is developed by which one of the following institute?
- (A) Indian Institute of Horticulture Research, Bengaluru, Karnataka
 - (B) Tamil Nadu Agricultural University, Thadiyankudirai, TNAU
 - (C) Indian Institute of Spices Research, Calicut
 - (D) Central Plantation Crops Research Institute, Kasaragod
 - (E) Answer not known
155. The changes that takes place due to fermentation of Cocoa beans is
- (A) develops chocolate flavour
 - (B) increase sugar content
 - (C) shrinks the cotyledon
 - (D) increase softness
 - (E) Answer not known
156. The polyembryonic variety of Coconut is _____.
- (A) East Coast Tall
 - (B) Arasikere Tall
 - (C) Andaman Tall
 - (D) Kersree
 - (E) Answer not known
157. What is the spacing adopted for clove?
- (A) 1×1 m
 - (B) $3 \text{ m} \times 3 \text{ m}$
 - (C) $7 \text{ m} \times 7 \text{ m}$
 - (D) $10 \text{ m} \times 10 \text{ m}$
 - (E) Answer not known

158. Among the Coconut growing states which state ranks first in productivity?
- (A) Kerala
 - (B) Tamil Nadu
 - (C) Andhra Pradesh
 - (D) Karnataka
 - (E) Answer not known
159. What is the Scientific name of True Cinnamon?
- (A) Cinnamomum Cassia
 - (B) Cinnamomum Verum
 - (C) Cinnamomum Tamala
 - (D) Cinnamomum Loureirii
 - (E) Answer not known
160. What is the optimum temperature for cultivation of Vanilla?
- (A) 12 – 15°C
 - (B) 15 – 22°C
 - (C) 25 – 32°C
 - (D) 35 – 40°C
 - (E) Answer not known
161. CPCRI is located at _____.
- (A) Trivandrum
 - (B) Kasaragod
 - (C) Sultan patteri
 - (D) Calicut
 - (E) Answer not known

162. The Black Gold of Spices

- (A) Black pepper
- (B) Clove
- (C) Cumin
- (D) Cinnamon
- (E) Answer not known

163. Lancing operation is done usually on _____ hours.

- (A) Early morning
- (B) Late evening
- (C) Bright sunny days between noon and 4 p.m.
- (D) During night
- (E) Answer not known

164. Morphine is extracted from _____.

- (A) Isabgol
- (B) Aswagandha
- (C) Opium poppy
- (D) Geranium
- (E) Answer not known

165. The active principle present in Medicinal Yam is _____.

- (A) Withanine
- (B) Diosgenin
- (C) Vinblastin
- (D) Forskohlii
- (E) Answer not known

166. Palmarosa fields _____ tonnes of purchase per ha with an oil yield of _____ kg per year.

- (A) 15 – 20 and 50 – 60 kg
- (B) 5 – 10 and 25 – 30 kg
- (C) 30 – 35 and 70 – 80 kg
- (D) 25 – 30 and 60 – 70 kg
- (E) Answer not known

167. Which medicinal and aromatic crop thrives best under shade of plantation crops?

- (A) Patchouli
- (B) Geranium
- (C) Vettiver
- (D) Dhavana
- (E) Answer not known

168. Match the following species with its chemical constituent :

List I

List II

- | | |
|------------------------------|--------------------|
| (a) <u>Ocimum Canum</u> | 1. Methyl Chavicol |
| (b) <u>Ocimum Sanctum</u> | 2. Linalool |
| (c) <u>Ocimum Viride</u> | 3. Eugenol |
| (d) <u>Ocimum Americanum</u> | 4. Thymol |

- | | | | | |
|---|------------------|-----|-----|-----|
| | (a) | (b) | (c) | (d) |
| <input checked="" type="checkbox"/> (A) | 2 | 3 | 4 | 1 |
| (B) | 1 | 2 | 3 | 4 |
| (C) | 3 | 4 | 1 | 2 |
| (D) | 4 | 2 | 3 | 1 |
| (E) | Answer not known | | | |

169. How the Periwinkle variety 'Dhawal' was developed?
- (A) Selection from germplasm
 - (B) Selection from Lucknow local
 - (C) Mutant from Nirmal
 - (D) Selection from Nirmal
 - (E) Answer not known
170. The average dry leaves yield of Senna under rainfed condition is _____ kg/ha.
- (A) 500 kg/ha
 - (B) 750 kg/ha
 - (C) 1000 kg/ha
 - (D) 1500 kg/ha
 - (E) Answer not known
171. The botanical name of Kilanelli is _____.
- (A) Bacopa Monnieri
 - (B) Asparagus Recemosa
 - (C) Digitalis Purpurea
 - (D) Phyllanthus Amarus
 - (E) Answer not known
172. Which one of the following sentence is incorrect?
- (A) Senna is very sensitive to water logged conditions
 - (B) Senna is very sensitive to heavy rainfall
 - (C) Senna is very sensitive to low temperature
 - (D) Senna is very sensitive to dry weather
 - (E) Answer not known

173. Choose the origin of Cassia angustifolia

- (A) South Africa
- (B) Nigeria
- (C) Kenya
- (D) Ethiopia
- (E) Answer not known

174. The botanical name of Senna

- (A) Cassia angustifolia
- (B) Cassia auriculata
- (C) Cassia acutifolia
- (D) Cassia alata
- (E) Answer not known

175. Aloe Vera belongs to the family

- (A) Liliaceae
- (B) Apocyanaceae
- (C) Asclepiadaceae
- (D) Scropulariaceae
- (E) Answer not known

176. How many days after planting Coleus Forskohlii can be harvested?

- (A) 90 days
- (B) 120 days
- (C) 180 days
- (D) 210 days
- (E) Answer not known

177. 'Pragathi' is the variety of _____ aromatic grass.
- (A) Lemon grass
 - (B) Vettiver grass
 - (C) Citronella grass
 - (D) Palmorosa grass
 - (E) Answer not known
178. The peppermint varieties are _____.
- (A) Gomti, Kalka
 - (B) Kukrail, CIMAP - Madhuras
 - (C) Ganga, Supriya
 - (D) Kiran
 - (E) Answer not known
179. Which one of the following aromatic crop is native of India?
- (A) Palmarosa
 - (B) Geranium
 - (C) Patchouli
 - (D) Vettiver
 - (E) Answer not known
180. Which country is leading in herbal production?
- (A) Spain
 - (B) Italy
 - (C) UK
 - (D) Netherland
 - (E) Answer not known

181. The economic part of Cassia Angustifolia is
- (A) Root bark
 - (B) Root extract
 - (C) Leaves and pods
 - (D) Roots
 - (E) Answer not known
182. The Directorate of Medicinal and Aromatic Plants Research (DMAPR) is located at
- (A) NMPB, New Delhi
 - (B) Lucknow, U.P.
 - (C) RRL, Jammu
 - (D) Anand, Gujarath
 - (E) Answer not known
183. Irradiation is followed in _____ and _____ to kill the micro – organisms.
- (A) Banana and Papaya
 - (B) Mango and Grapes
 - (C) Potato and Onion
 - (D) Bittergourd and Snakegourd
 - (E) Answer not known
184. Irradiation inhibits _____ in potato crop.
- (A) Germination
 - (B) Sprouting
 - (C) Rooting
 - (D) Bulking
 - (E) Answer not known

185. At _____ concentration sitrar thiosulphate is used as germicide in floral preservatives.
- (A) 5 – 300 ppm
 - (B) 200 – 300 ppm
 - (C) 0.2 – 4 mm
 - (D) 10 – 200 ppm
 - (E) Answer not known
186. The protective period of slow and quick release grape gourd are
- (A) 10 days and 1 day
 - (B) 20 days and 3 days
 - (C) 40 days and 7 days
 - (D) 80 days and 14 days
 - (E) Answer not known
187. The preservation of food in common salt or vinegar is called
- (A) Jam
 - (B) Pickles
 - (C) Jelly
 - (D) Syrups
 - (E) Answer not known
188. A modification in the controlled atmospheric storage which is in sub-atmospheric pressure to store horticultural produce is called _____.
- (A) Refrigerated storage
 - (B) Hypobaric storage
 - (C) Cool storage
 - (D) Air cooled storage
 - (E) Answer not known

189. At 0 – 1.5°C and 85% relative humidity apple Cv. Red Delicious could be stored for _____ months in wooden boxes lined with paper.
- (A) four
 - (B) two
 - (C) three
 - (D) six
 - (E) Answer not known
190. The storability of banana at 13°C with 85% RH is
- (A) Less than a week
 - (B) 2 weeks
 - (C) 3 weeks
 - (D) 6 weeks
 - (E) Answer not known
191. Ethylene absorber used in modified atmospheric storage system is
- (A) Potassium permanganate
 - (B) Ferrous oxide
 - (C) Activated charcoal
 - (D) Hydrated lime
 - (E) Answer not known
192. Maturity indices for Potato harvest is
- (A) Drying of Foliage
 - (B) Size of tuber
 - (C) Root volume
 - (D) Firmness
 - (E) Answer not known

193. The grade for garlic for export are
- (A) Extra special, special, good
 - (B) Large, medium, small
 - (C) Grade A, B, C
 - (D) Extra class, class I, class II
 - (E) Answer not known
194. India accounts for more than _____% of the world production of vegetables.
- (A) 10%
 - (B) 12%
 - (C) 14%
 - (D) 16%
 - (E) Answer not known
195. The Climacteric fruit that ripens only after detachment from plant?
- (A) Apple
 - (B) Avocado
 - (C) Annona
 - (D) Banana
 - (E) Answer not known
196. The popular grade of Cashew Kernel is
- (A) 210
 - (B) 240
 - (C) 280
 - (D) 320
 - (E) Answer not known

197. Which vegetable washing is done after storage?
- (A) Potato
 - (B) Tomato
 - (C) Beans
 - (D) Onion
 - (E) Answer not known
198. Waxing is commonly and commercially done in
- (A) Apple
 - (B) Guava
 - (C) Sapota
 - (D) Lime
 - (E) Answer not known
199. The principal causes of post harvest losses in onion
- (A) Over maturity at harvest
 - (B) Chilling injury
 - (C) Bruising
 - (D) Sprouting and rooting
 - (E) Answer not known
200. The weight of 'A' grade pineapple fruit is
- (A) ≥ 250 gm
 - (B) ≥ 500 gm
 - (C) ≥ 1000 gm
 - (D) ≥ 1500 gm
 - (E) Answer not known

