

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

Test Booklet Series

T. B. C. : AHO – 2021

A

TEST BOOKLET
ASSISTANT HORTICULTURE OFFICER

2185
Sl. No.

Time Allowed : 3 Hours

Maximum Marks : 200

: INSTRUCTIONS TO CANDIDATES :

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET OF THE SAME SERIES ISSUED TO YOU.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES **A, B, C OR D**, AS THE CASE MAY BE, IN THE APPROPRIATE PLACE IN THE ANSWER SHEET USING BALL POINT PEN (BLUE OR BLACK).
3. You have to enter your **Roll No.** on the Test Booklet in the Box provided alongside. **DO NOT** write *anything else* on the Test Booklet.
4. **YOU ARE REQUIRED TO FILL UP & DARKEN ROLL NO., TEST BOOKLET / QUESTION BOOKLET SERIES IN THE ANSWER SHEET AS WELL AS FILL UP TEST BOOKLET / QUESTION BOOKLET SERIES AND SERIAL NO. AND ANSWER SHEET SERIAL NO. IN THE ATTENDANCE SHEET CAREFULLY. WRONGLY FILLED UP ANSWER SHEETS ARE LIABLE FOR REJECTION AT THE RISK OF THE CANDIDATE.**
5. This Test Booklet contains **200** items (questions). Each item (question) comprises four responses (answers). You have to select the correct response (answer) which you want to mark (darken) on the Answer Sheet. In case, you feel that there is more than one correct response (answer), you should mark (darken) the response (answer) which you consider the best. In any case, choose **ONLY ONE** response (answer) for each item (question).
6. You have to mark (darken) all your responses (answers) **ONLY** on the **separate Answer Sheet** provided, by using **BALL POINT PEN (BLUE OR BLACK)**. See instructions in the Answer Sheet.
7. All items (questions) carry equal marks. All items (questions) are compulsory. Your total marks will depend only on the number of correct responses (answers) marked by you in the Answer Sheet. **There shall be negative marking for wrong answers with a deduction of 0.25 marks for every wrong answer.**
8. Before you proceed to mark (darken) in the Answer Sheet the responses (answers) to various items (questions) in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per the instructions sent to you with your **Admission Certificate**.
9. After you have completed filling in all your responses (answers) on the Answer Sheet and after conclusion of the examination, you should hand over to the Invigilator the *Answer Sheet* issued to you. You are allowed to take with you the candidate's copy / second page of the Answer Sheet along with the **Test Booklet**, after completion of the examination, for your reference.
10. Sheets for rough work are appended in the Test Booklet at the end.

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1. Sexual Propagation is through : (B) Pink
 (A) Seeds (C) Green
 (B) Layering (D) Violet
 (C) Grafting
 (D) Cuttings
2. Megasporogenesis is process of development of :
 (A) Seeds
 (B) Embryo
 (C) Ovule
 (D) Pollen
3. Microsporogenesis is process of development of :
 (A) Seeds
 (B) Embryo
 (C) Ovule
 (D) Pollen
4. Albuminous seeds are having high amounts of :
 (A) Endosperm
 (B) Perisperm
 (C) Embryo
 (D) Litchi
5. A viable seed takes _____ colour during tetrazolium test.
 (A) Blue
6. Assertion : A : Apomicts (Apomixis) are true to type in nature.
 Reason : R : Apomicts are formed through vegetative means.
 (A) A and R are true, R is correct explanation of "A"
 (B) A and R are true, R is not correct explanation of "A"
 (C) A and R are false, R is correct explanation of "A"
 (D) A and R are false, R is not correct explanation of "A"
7. Polyembryony is due to :
 (A) Nucellar embryony
 (B) Development of more than one nucleus within the embryo sac
 (C) Both (A) and (B)
 (D) None of these

8. Papaya is propagated through :

- (A) Stem cuttings
- (B) Leaf cuttings
- (C) Air-layering
- (D) Seeds

9. Which is the correct order in respect of seed germination ?

- (I) Increase in cell metabolism
- (II) Embryo resumes active growth
- (III) Rupturing of seed coat
- (IV) Seedling emergence

- (A) (I), (II), (III), (IV)
- (B) (I), (III), (II), (IV)
- (C) (II), (III), (I), (IV)
- (D) (III), (II), (I), (IV)

10. Bryophyllum and Sanseveria are propagated by :

- (A) Leaf cuttings
- (B) Root cuttings
- (C) Slips
- (D) Herbaceous cuttings

11. The healing of graft union takes place in which of the following order :

- (I) Production of callus
- (II) Intermingling and interlocking of parenchyma cells of both graft components
- (III) Differentiation of certain parenchyma cells of callus into new cambium cells
- (IV) Production of new vascular tissues

- (A) (I), (II), (III), (IV)
- (B) (I), (III), (II), (IV)
- (C) (II), (III), (I), (IV)
- (D) (III), (II), (I), (IV)

12. The age of rootstock in epicotyl grafting is :

- (A) 3 months
- (B) 6 months
- (C) 2 months
- (D) 15 days

13. Green budding is commercially practiced in :
- (A) Mango
(B) Rubber
(C) Guava
(D) Sapota
14. (a) Tunicate bulb (i) Sweet potato
(b) Non-tunicate bulb (ii) Onion
(c) Stem tuber (iii) Lily
(d) Root tuber (iv) Potato
- (a) (b) (c) (d)
(A) (iv) (ii) (iii) (i)
(B) (ii) (iii) (iv) (i)
(C) (i) (ii) (iii) (iv)
(D) (iv) (iii) (ii) (i)
15. In which of the underground stem structure, the main axis of the plant grows horizontally ?
- (A) Tuber
(B) Corm
(C) Rhizome
(D) Bulb
16. Cryopreservation is done with the use of :
- (A) N_2 gas at $196^\circ C$
(B) N_2 gas at $196^\circ C$
(C) H_2 gas at $-196^\circ C$
(D) H_2 gas at $-196^\circ C$
17. The energy (carbon) source in micro propagation media :
- (A) Agar-agar
(B) Sucrose
(C) Citric acid
(D) Charcoal
18. Pineapple can be propagated by :
- (A) Suckers
(B) Slips
(C) Crown
(D) All of these
19. Dogridge is the rootstock of :
- (A) Grape vine
(B) Mango
(C) Sapota
(D) Mandarin orange
20. Virus free planting materials can be produced through :
- (A) Anther culture
(B) Meristem culture
(C) Ovule culture
(D) Axillary bud culture

21. Sponge tissue disorder is serious in following variety :

- (A) Neelum
- (B) Bangalora
- (C) Alphonsa
- (D) Banganapalli

22. For uniform flowering NAA application is followed when the crop attains :

- (A) 30-35 leaf stage
- (B) 35-40 leaf stage
- (C) 40-45 leaf stage
- (D) 45-50 leaf stage

23. Which among the following are gynodioecious variety in papaya ?

- (A) CO 2
- (B) CO 4
- (C) CO 3
- (D) CO 5

24. Commercial method of propagation in Bread fruit is by :

- (A) Stem cutting
- (B) Grafting

(C) Budding

(D) Root cutting

25. In Ber, the fruit buds are borne in :

- (A) Current season shoot in Terminal
- (B) Current season shoot in Leaf axil
- (C) Past season shoot in Terminal
- (D) Past season shoot in Leaf axil

26. Which one is correctly matched ?

- (A) Apple – Die back
- (B) Mango – Cracking
- (C) Pomegranate – Bitter pit
- (D) Banana – Lumpness

27. Match the following :

- | | |
|-----------------|------------------|
| (a) Guava | (i) Bhaguva |
| (b) Pomegranate | (ii) Arka Amulya |
| (c) Ber | (iii) Abacus |
| (d) Pineapple | (iv) Umran |
- (a) (b) (c) (d)

(A) (ii) (i) (iv) (iii)

(B) (iii) (i) (iv) (ii)

(C) (iii) (ii) (i) (iv)

(D) (ii) (iii) (iv) (i)

28. Pineapple is the variety of :
- (A) Mango
 - (B) Sweet orange
 - (C) Pineapple
 - (D) Mandarin orange
29. Bitterpit of apple is due to :
- (A) Calcium deficiency
 - (B) Zinc deficiency
 - (C) Iron deficiency
 - (D) Molybdenum deficiency
30. _____ is the rootstock used for grafting in Sapota.
- (A) Vellaicolumban
 - (B) 13-1
 - (C) Ramsay
 - (D) Pala
31. Bearing habit of jackfruit :
- (A) Terminal
 - (B) Cauliflorous
 - (C) Lateral
 - (D) Both terminal and lateral on leaf axis
32. Pollarding / dehorning is practiced in :
- (A) Mango
 - (B) Citrus
 - (C) Guava
 - (D) Amla
33. Arka Sahan is the variety of :
- (A) Custard apple
 - (B) Grapes
 - (C) Papaya
 - (D) Mango
34. The ultra dwarf root stock of apple is :
- (A) MM 111
 - (B) MM 109
 - (C) M 27
 - (D) MM 16
35. Litchi is commercially propagated through :
- (A) Grafting
 - (B) Air-layering
 - (C) Chip budding
 - (D) Root cutting

36. The genome of Nendran banana :
- (A) AAB
 - (B) AAA
 - (C) AA
 - (D) AAAA
37. Fruit drop in mango minimized by :
- (A) Zeatin
 - (B) GA_3
 - (C) Ethrel
 - (D) NAA
38. Success of High Density Planting relies on :
- (A) Use of dwarf varieties
 - (B) Use of dwarf root stocks
 - (C) Use of growth retardants
 - (D) All of these
39. _____ is used to induce off-season flowering in mango.
- (A) Kinetin
 - (B) GA_3
 - (C) Paclobutrazol
 - (D) NAA
40. Pant Shivani is the variety of :
- (A) Carambola
 - (B) Mangosteen
 - (C) Bael
 - (D) Litchi
41. Arecanut is propagated by :
- (A) Seeds
 - (B) Approach grafting
 - (C) Root cuttings
 - (D) Leaf cutting
42. CPCRI is located at :
- (A) New Delhi
 - (B) Calicut
 - (C) Kasaragod
 - (D) Bengaluru
43. The highly adapted type of cocoa to Indian conditions is :
- (A) Forestero
 - (B) Criollo
 - (C) Trinitario
 - (D) Amelanado

44. In coconut, the mother palm should have a yield of _____ nuts / year.
- (A) 50
(B) 120
(C) 200
(D) 300
45. In Arecanut for processing of Kalipak, nuts are harvested when they are :
- (A) 4-5 months old
(B) 6-7 months old
(C) 8-9 months old
(D) 11-12 months old
46. _____ is the leading state in cashew nut production in India.
- (A) Maharashtra
(B) Tamil Nadu
(C) Odisha
(D) Kerala
47. _____ is the variety of palmyrah.
- (A) KKM – 1
(B) PKM 1
(C) SVPR – 1
(D) CO – 1
48. Kahikuchi is the Arecanut variety popular in :
- (A) Karnataka
(B) Tamil Nadu
(C) West Bengal
(D) Assam
49. The quality seedling in coconut is selected based on :
- (A) Early and vigorousness
(B) Maximum girth at base
(C) Early splitting of leaves
(D) All of these
50. The correct sequence of cashew processing is :
- (A) Roasting, Shelling, Peeling, Grading
(B) Roasting, Peeling, Shelling, Grading
(C) Shelling, Peeling, Roasting, Grading
(D) Shelling, Roasting, Peeling, Grading

51. Match the following :

Crop	Origin
(a) Tea	(i) South America
(b) Cocoa	(ii) Brazil
(c) Coffee	(iii) China
(d) Cashew	(iv) Ethiopia

(a) (b) (c) (d)

(A) (i) (ii) (iii) (iv)

(B) (iii) (ii) (iv) (i)

(C) (iv) (iii) (ii) (i)

(D) (iii) (iv) (i) (ii)

52. The period of blossom shower (rain) for coffee in South India is :

(A) March – April

(B) June – July

(C) October – November

(D) December – January

53. Chandragiri is the variety of :

(A) Cocoa

(B) Cardamom

(C) Coffee

(D) Tea

54. In tea, harvesting (plucking) refers to :

(A) Removal of 2-3 leaves

(B) Removal of 2-3 leaves and a bud

(C) Removal of 4-5 leaves

(D) Removal of 4-5 leaves and a bud

55. Which is correctly matched (Spacing for tea) ?

(A) Up and down : 1.5m × 1.5 m

(B) Contour-single

hedge : 1.2 m × 1.2 m

(C) Contour-double

hedge : 1.35 m × 0.75 m × 0.75 m

(D) Contour-double

hedge : 1.2 m × 0.75 m × 0.75 m

56. Which is not a cover crop for rubber ?

(A) *Sesbania grandiflora*

(B) *Pueraria phaseoloides*

(C) *Calapagonium muconoides*

(D) *Centrosema pubescens*

57. The highest tapping intensity system in rubber is :
- (A) S_2d_2
 (B) S_2d_3
 (C) S_2d_1
 (D) S_2d_4
58. The annual NPK requirement of cocoa is (gram / tree) :
- (A) 100 : 75 : 175
 (B) 100 : 40 : 140
 (C) 150 : 50 : 200
 (D) 150 : 40 : 200
59. _____ is a dioecious palm.
- (A) Palmyrah
 (B) Coconut
 (C) Arecanut
 (D) Oilpalm
60. _____ part of oilpalm tree gives maximum oil recovery.
- (A) Exocarp
 (B) Mesocarp
 (C) Kernel
 (D) Petiole
61. Which of the following is the cause for bitterness in wild forms of bottle gourd ?
- (A) Solanin
 (B) Curcumin
 (C) Cucurbitacin
 (D) Tomatin
62. Pusa chikni is a variety of :
- (A) Sponge gourd
 (B) Ridge gourd
 (C) Bottle gourd
 (D) Snake gourd
63. Which is the following type of vegetable gardening is followed in Dal lake of Kashmir valley ?
- (A) Kitchen garden
 (B) Floating garden
 (C) Hydroponics
 (D) Aeroponics
64. Varsha Upahar is a variety of :
- (A) Chilli
 (B) Cabbage
 (C) Okra
 (D) Onion

65. Contender is a variety of :
- (A) Peas
 - (B) Knol Khol
 - (C) French beans
 - (D) Chow-chow
66. Guar gum is extracted from :
- (A) French bean
 - (B) Lima bean
 - (C) Cowpea
 - (D) Cluster bean
67. Which of the following is an often cross pollinated crop ?
- (A) Eggplant
 - (B) Tomato
 - (C) Pea
 - (D) French beans
68. Triploid watermelon variety is :
- (A) Charleston Grey
 - (B) Pusa Bedana
 - (C) Arka Manik
 - (D) Sugar Baby
69. Whiptail in cauliflower is caused by deficiency of :
- (A) Boron
 - (B) Zinc
 - (C) Iron
 - (D) Molybdenum
70. Cracking of tomato fruit is brought about by :
- (A) Restricted watering
 - (B) A period of drought followed by sudden heavy watering
 - (C) Over watering
 - (D) Salt injury
71. Which of the following flower style, brinjal have ?
- (A) Long style
 - (B) Medium style
 - (C) Pseudo short style
 - (D) All of these
72. Knob is the economic part of :
- (A) Knol-khol
 - (B) Cabbage
 - (C) Cauliflower
 - (D) Brussels sprout

73. Cytoplasmic male sterility is used for hybrid seed production in :
- (A) Okra
 - (B) Tomato
 - (C) Onion
 - (D) Potato
74. Yellow Vein Mosaic of Okra is transmitted by :
- (A) Aphids
 - (B) Red mites
 - (C) Thrips
 - (D) White flies
75. Sweet potato is propagated by :
- (A) Runners
 - (B) Tubers
 - (C) Vine cuttings
 - (D) Seeds
76. Pusa Manjari is a hybrid of :
- (A) Bottle gourd
 - (B) Tomato
 - (C) Baby corn
 - (D) Cowpea
77. Which of the following disorder is not due to boron deficiency ?
- (A) Black heart of celery
 - (B) Splitting of carrot
 - (C) Browning of cauliflower
 - (D) Cracked stem of celery
78. The tomato variety that sets fruit in under hot temperature is :
- (A) Pusa Early Dwarf
 - (B) Pusa Hybrid 1
 - (C) Pusa Uphar
 - (D) Pusa Sheetal
79. Which of the following is / are necessary for successful vegetable production ?
- (A) Quality seed
 - (B) Improved cultural practices
 - (C) Proper plant protection
 - (D) All of these
80. Which among the following is perennial vegetable crop ?
- (A) Tomato
 - (B) Brinjal
 - (C) Coccinea
 - (D) Bhendi

81. The propagation of bush pepper is done by :
- (A) Runners
 - (B) Fruiting shoots
 - (C) Hanging shoots
 - (D) Top shoots
82. Which crop has hermaphrodite flower but act as unisexual flower ?
- (A) Black pepper
 - (B) Nutmeg
 - (C) Clove
 - (D) All spice
83. Vanilla is propagated by :
- (A) Stem cuttings
 - (B) Seeds
 - (C) Buddings
 - (D) Suckers
84. The seed rate of cardamom / ha :
- (A) 500 g
 - (B) 5 kg
 - (C) 2 kg
 - (D) 10 kg
85. Assertion : A: Cardamom fruits have to be harvested at full ripe stage.
Reason : R : Fruits fully ripe has tendency to split on drying.
- (A) A and R are true, R is correct explanation of "A"
 - (B) A and R are true, R is not correct explanation of "A"
 - (C) A and R are false, R is not correct explanation of "A"
 - (D) A and R are false, R is not correct explanation of "A"
86. The orchid grown as spice is :
- (A) Dill
 - (B) Vanilla
 - (C) Ajowan
 - (D) Aniseed
87. The seed rate of turmeric is _____ kg of rhizomes per hectare.
- (A) 1000
 - (B) 500
 - (C) 2500
 - (D) 1500

88. _____ is the ginger variety developed by High Altitude Research Station, Pottangi, Odisha.

- (A) Himagiri
- (B) Suruchi
- (C) Athira
- (D) Karthika

89. The duration of coriander is :

- (A) 30 days
- (B) 60 days
- (C) 100 days
- (D) 150 days

90. _____ seed spice is tolerant to frost an freezing weather.

- (A) Coriander
- (B) Fennel
- (C) Cumin
- (D) Fenugreek

91. Alternate bearing is associated with :

- (A) Clove
- (B) Nutmeg
- (C) Cinnamon
- (D) Curry leaf

92. Seedling progenies of nutmeg segregates into male and female in the ratio of :

- (A) 1 : 1
- (B) 1 : 5
- (C) 5 : 1
- (D) 1 : 3

93. Quills, Featherings and Chips are the grades in :

- (A) Clove
- (B) Nutmeg
- (C) Cinnamon
- (D) All Spice

94. Direct sowing of periwinkle requires seed rate of :

- (A) 30 kg
- (B) 10 kg
- (C) 15 kg
- (D) 2.5 kg

95. Match of the following :

Crop	Crop longevity
(a) Digitalis	(i) Herbaceous annual
(b) Isubgol	(ii) Perennial
(c) Rauvolfia	(iii) Biennial
(d) Coleus	(iv) Stemless annual

(a) (b) (c) (d)

- (A) (iii) (ii) (iv) (i)
(B) (iii) (iv) (ii) (i)
(C) (iv) (iii) (i) (ii)
(D) (iv) (iii) (ii) (i)

96. The sennoside content in Alexandrian senna is :

- (A) 2 – 2.5%
(B) 3 – 3.5%
(C) 4 – 4.5%
(D) 5 – 5.5%

97. Lemon grass oil is obtained from :

- (A) *Cymbopogon flexuosus*
(B) *Pogestemon patchouli*

(C) *Vetiveria zizanoides*

(D) *Pelargonium graveolens*

98. Geranium is propagated through :

- (A) Suckers
(B) Slips
(C) Crown
(D) Terminal cuttings

99. Which is correctly matched :

- (A) *Mentha arvensis* – Spear mint
(B) *Mentha piperata* – Japanese mint
(C) *Mentha spicata* – Pepper mint
(D) *Mentha citrata* – Bergamont mint

100. CIM Kanchan is the variety of :

- (A) *Ocimum sanctum*
(B) *Pogestemon patchouli*
(C) *Vetiveria zizanoides*
(D) *Pelargonium graveolens*

101. The species of jasmine, highly suitable for concrete extraction is :
- (A) **Jasminum sambac**
 - (B) **J. grandiflorum**
 - (C) **J. auriculatum**
 - (D) **J. humile**
102. The flower colour of CO-2 chrysanthemum is :
- (A) Yellow
 - (B) White
 - (C) Purple
 - (D) Variegated
103. Seed rate per ha of marigold is :
- (A) 0.5 kg
 - (B) 5.0 kg
 - (C) 10 kg
 - (D) 1.5 kg
104. Tuberose belongs to the family :
- (A) Rosaceae
 - (B) Oleaceae
 - (C) Amaryllidaceae
 - (D) Araceae
105. Keikis is the propagation material of :
- (A) Orchids
 - (B) Carnation
 - (C) Gerbera
 - (D) Gladiolus
106. The flower colour of **Cassia fistula** is :
- (A) Pink
 - (B) White
 - (C) Yellow
 - (D) Orange
107. The botanical name of Bottle Brush Tree is :
- (A) **Araucaria excelsa**
 - (B) **Terminalia arjuna**
 - (C) **Calestamen lanceolatus**
 - (D) **Grevillea robusta**
108. Which is a climber ?
- (A) **Bigonia venusta**
 - (B) **Graptophyllum hortense**
 - (C) **Tabernaemontana coronaria**
 - (D) **Bauhinia tomentosa**

109. Which is a flowering annual ?

- (A) **Cosmos sp.**
- (B) **Petunia sp.**
- (C) **Celosia argentea**
- (D) All of these

110. Which is living component of a garden ?

- (A) Topiary
- (B) Rockery
- (C) Fountain
- (D) Arches

111. The ploidy level of Delhi crossandra :

- (A) Diploid
- (B) Triploid
- (C) Tetraploid
- (D) Hexaploid

112. Bull head is disorder of :

- (A) Carnation
- (B) Gerbera
- (C) Rose
- (D) Anthurium

113. Gladiolus is propagated by :

- (A) Cuttings
- (B) Tubers
- (C) Suckers
- (D) Corms

114. Pinching is a common practice in :

- (A) Chrysanthemum
- (B) Marigold
- (C) Carnation
- (D) All of these

115. Essential oil yielding flower crop is :

- (A) Tuberose
- (B) Crossandra
- (C) Carnation
- (D) Chrysanthemum

116. The lawn grass suitable for shade situations :

- (A) **Cynodan intermedius**
- (B) **Sporobolus tremulus**
- (C) **Poa annua**
- (D) **Stenotaphrum secundatum**

117. Desert rose is :

- (A) **Agave americana**
- (B) **Adenium obesum**
- (C) **Sansveria zeylanica**
- (D) **Furcareia watsoniana**

118. Calyx splitting is the disorder associated with :

- (A) Carnation
- (B) Orchids
- (C) Chrysanthemum
- (D) Tuberose

119. Ika-bana is a type of flower arrangement practised in :

- (A) China
- (B) British world
- (C) Japan
- (D) India

120. **Vanams** and **Ashsrams** are key components of :

- (A) Moghul garden
- (B) Japanese garden

(C) Hindu garden

(D) British garden

121. The minimum germination percentage required for certified class of seed of tomato is :

- (A) 70%
- (B) 75%
- (C) 80%
- (D) 60%

122. The minimum isolation distance being maintained for Foundation class of seed in cucurbits is :

- (A) 50 m
- (B) 200 m
- (C) 1000 m
- (D) 1600 m

123. Firmness – a degree of softness or crispness of fruits is measured by using instrument :

- (A) Penetrometer
- (B) Spectrophotometer
- (C) Colorimeter
- (D) Refractometer

124. Coatings are applied to foods :

- (A) To improve appearance
- (B) To provide barrier to movement of moisture
- (C) To add value to the basic products
- (D) All of these

125. Sago is an important product prepared from :

- (A) Cabbage
- (B) Cassava
- (C) Tomato
- (D) Rose

126. What is pot pouri ?

- (A) Fresh flower arrangement
- (B) Style of gardening
- (C) Bonsai making
- (D) Dry flower arrangement

127. The substrate for ethylene production in plants :

- (A) Lysine

(B) Glutamic acid

(C) Methionine

(D) Tryptophane

128. The deciduous fruit trees undergo dormancy during :

- (A) Winter
- (B) Spring
- (C) Summer
- (D) Autumn

129. According to ICMR, the per capita vegetable requirement is :

- (A) 100 g
- (B) 300 g
- (C) 400 g
- (D) 500 g

130. Growing of trees for aesthetic or scientific or education purpose is known as :

- (A) Social forestry
- (B) Agroforestry
- (C) Silviculture
- (D) Arboriculture

131. _____ type of soil is suitable for horticultural crop production.

- (A) Sandy soil
- (B) Loamy soil
- (C) Clay soil
- (D) Calcareous soil

132. The irreversible increase in size and weight of the plant is known as :

- (A) Development
- (B) Senescence
- (C) Growth
- (D) Aging

133. The time interval between floral primordia emergence and spathe opening in coconut is :

- (A) 12 months
- (B) 24 months
- (C) 32 months
- (D) 48 months

134. Hexagonal system of planting accommodates _____ % more trees than square system.

- (A) 11
- (B) 15
- (C) 22
- (D) 33

135. The commonly employed planting system in undulating sloppy hills is :

- (A) Contour
- (B) Quincunx
- (C) Hexagonal
- (D) Square

136. Consider the following statements in respect of advantages of green house cultivation :

- (I) Minimum water requirement
- (II) Easy to protect from pest and diseases
- (III) Plants can be grown only in specific season in a year

Which statement(s) is true ?

- (A) (I), (II)
- (B) (I), (II), (III)
- (C) (II), (III)
- (D) (I), (III)

137. Hydroponics was first developed

by :

- (A) A. H. Wilson
- (B) W. F. Greicke
- (C) J. S. Watson
- (D) Z. Griffith

138. The permanent cover of grass in fruit

orchard is :

- (A) Mulching
- (B) Cover cropping
- (C) Sod mulch
- (D) Sod

139. The crop occupying first tier in

multitier cropping system is :

- (A) Cocoa
- (B) Ginger
- (C) Arecanut
- (D) Pineapple

140. A fruit tree with _____ number of scaffold branches is considered as strong one.

- (A) 5 – 8

(B) 1 – 2

(C) 12 – 15

(D) 10 – 12

141. The common system of training practiced in grapes and cucurbits is :

- (A) Kniffin
- (B) Bower
- (C) Espalier
- (D) Telephone

142. Notching is practiced in :

- (A) Mango
- (B) Mandarin orange
- (C) Fig
- (D) Guava

143. Gladiolus is propagated by :

- (A) Cuttings
- (B) Tubers
- (C) Suckers
- (D) Corms

144. The practice of removing the growing point in shade trees is :

- (A) Coppicing
- (B) Lopping
- (C) Pinching
- (D) Pollarding

145. The reason for requiring cross pollination in horticultural crops :

- (A) Dioecy
- (B) Dichogamy
- (C) Self-incompatibility
- (D) All of these

146. Steno-spermarpy is associated with :

- (A) Thompson seedless
- (B) Black corinth
- (C) Banana
- (D) Guava

147. Rooting hormone is :

- (A) Kinetin
- (B) IBA
- (C) Gibberellic acid
- (D) Ethylene

148. _____ is used to induce more female flowers in cucurbits.

- (A) Zeatin
- (B) NAA
- (C) Gibberellic acid
- (D) Etherel

149. Fruit size of grapes is enhanced by :

- (A) 50 ppm GA_3
- (B) 5 ppm GA_3
- (C) 500 ppm GA_3
- (D) 250 ppm GA_3

150. The brine solution contains _____ % of salt.

- (A) 5
- (B) 15
- (C) 25
- (D) 2

151. The average height of troposphere layer of the atmosphere is _____ km above the mean sea level.

- (A) 25
- (B) 75
- (C) 14
- (D) 60

152. The value of solar constant is :

- (A) $2 \text{ cal/cm}^2/\text{minute}$
- (B) $10 \text{ cal/cm}^2/\text{minute}$
- (C) $25 \text{ cal/cm}^2/\text{minute}$
- (D) $12 \text{ cal/cm}^2/\text{minute}$

(C) Dehradun

(D) Pune

153. The aggregation of minute drops of water suspended in the air at higher altitudes is called as :

- (A) Rain
- (B) Cloud
- (C) Snow
- (D) Dew

156. Which of the following statement(s) is/are correct ?

- (I) Sandy soils are coarse textured
- (II) They have large pore spaces
- (III) They have high water holding and nutrient retaining capacity

154. _____ are the lines connecting various locations, having an equal amount of precipitation.

- (A) Isotherm
- (B) Isohaline
- (C) Isohume
- (D) Isohyets

(A) (I), (II)

(B) (I), (II), (III)

(C) (II), (III)

(D) (I), (III)

155. Where is Indian Institute of Remote Sensing located ?

- (A) Chennai
- (B) Bangalore

157. The nutrient deficit in alkali soil, but is unavailable in acidic soil is :

- (A) Zinc
- (B) Boron
- (C) Iron
- (D) Manganese

158. The particle size of silt is :

- (A) 0.02 to 0.2
- (B) 0.2 and above
- (C) 0.002 to 0.02
- (D) 0.002 and below

159. The nitrogen content of urea is :

- (A) 25.6%
- (B) 20.6%
- (C) 46.0%
- (D) 33.0%

160. The nutrient required for vegetative growth of vegetable crops is :

- (A) Potassium
- (B) Phosphorus
- (C) Calcium
- (D) Nitrogen

161. Application of fertilizers through irrigation is known as _____

- (A) Fertigation
- (B) Fumigation
- (C) Chemigation
- (D) Herbigation

162. Flooding is followed for _____

- (A) Mango
- (B) Banana
- (C) Pineapple
- (D) Papaya

163. Which of the following statement(s) is/are correct ?

The advantages of drip irrigation are :

- (I) Water saving
- (II) Labour saving
- (III) Increased plant vigour and yield
- (IV) Increased weed growth

- (A) (I), (II), (III)
- (B) (I), (II), (III), (IV)
- (C) (II), (III), (IV)
- (D) (I), (III), (IV)

164. The irrigation frequency is determined by :

- (A) Nature of soil
- (B) Rate of absorption by plants
- (C) Root system of the crop
- (D) All of these

165. The quantity of water that should be supplied to crops is not influenced

by :

- (A) Annual precipitation
- (B) Stage of the crop
- (C) Nutrient use efficiency
- (D) Water use efficiency

166. The weeds such as *Chenopodium* sp and *Portulaca* sp are having more affinity to _____.

- (A) Nitrogen
- (B) Phosphorus
- (C) Potassium
- (D) Sulphur

167. Which among the following is not a principle in weed control ?

- (A) Prevention
- (B) Introduction
- (C) Eradication
- (D) Management

168. _____ are chemicals capable of killing or inhibiting the growth of weed plants.

- (A) Pesticides
- (B) Nematicides
- (C) Insecticides
- (D) Herbicides

169. *Cyperus rotundus* is biologically controlled by :

- (A) *Bactra verutana*
- (B) *Coctoblastis cactorum*
- (C) *Crociosema lantana*
- (D) *Melanagromyza cuscutae*

170. Which is a post-emergence herbicide ?

- (A) Atrazine
- (B) Pendimethalin
- (C) Butachlor
- (D) Glyphosate

171. Central Research Institute for Dryland Agriculture is located at :

- (A) Hyderabad
- (B) New Delhi
- (C) Pune
- (D) Jaipur

172. Dry farming is practised in areas where the annual rainfall is :

- (A) More than 1250 mm
- (B) Less than 1000-1250 mm
- (C) Less than 750 mm
- (D) 750-1000 mm

173. The characteristic of dry land zone :

- (A) Prolonged dry spells during the crop period
- (B) Adequate and even distribution of rainfall
- (C) High moisture retention capacity of soil
- (D) Fertility of soils is high

174. Phenyl Mercuric Acetate (PMA) is _____ type of anti-transpirant.

- (A) Stomatal Closing
- (B) Film forming
- (C) Reflective
- (D) Growth retardant

175. Application of _____ enhances the water uptake as well as the water relations in the plant tissues by osmoregulation processes.

- (A) Nitrogen

(B) Potassium

(C) Sulphur

(D) Iron

176. Integrated Farming System emphasizes on :

- (I) Introduces a change in the farming techniques for maximum production in the cropping pattern and takes care of optimal utilization of resources.
- (II) The farm wastes are better recycled for productive purposes in the integrated system.
- (III) A judicious mix of agricultural enterprises like dairy, poultry, piggery, fishery, sericulture etc. suited to the given agro-climatic conditions and socio-economic status of the farmers would bring prosperity in the farming.

Among the above statements, which are correct ?

- (A) (I), (II)
- (B) (I), (II), (III)
- (C) (II), (III)
- (D) (I), (III)

177. Which is a component of integrated Farming System ?

- (A) Crops
- (B) Livestock
- (C) Birds
- (D) All of these

178. Which Indian state has the highest fertilizer consumption (kg/ha) ?

- (A) West Bengal
- (B) Maharashtra
- (C) Punjab
- (D) Tamil Nadu

179. Farming System is a :

- (A) Atomistic approach
- (B) Individual approach
- (C) Holistic approach
- (D) Both (B) and (C)

180. Diversified Farming System is otherwise known as :

- (A) Integrated Farming System
- (B) Specialized Farming

- (C) Organic Farming
- (D) Ranching Farming

181. For tomato hybrid seed production the ratio of female to male lines is :

- (A) 10 : 1
- (B) 4 : 1
- (C) 1 : 1
- (D) 15 : 1

182. Seed control order was established in :

- (A) 1966
- (B) 2001
- (C) 1983
- (D) 2002

183. For seed production, the seed rate / ha for Bellary onion is :

- (A) 5 kg
- (B) 8 kg
- (C) 1 kg
- (D) 15 kg

184. The isolation distance for certified class of seed production in amaranthus is _____.

- (A) 100 m
- (B) 200 m
- (C) 500 m
- (D) 1000 m

185. _____ is a designated disease in beans seed production.

- (A) Bacterial blight
- (B) Anthracnose
- (C) Bean mosaic
- (D) All of these

186. Average Physical Product (A. P. P.) will be equal to ($Y = \text{output}$, $X = \text{input}$):

- (A) X/Y
- (B) $X/Y \times 100$
- (C) Y/X
- (D) $Y/X \times 100$

187. Which among the following is overhead cost?

- (A) Fixed cost

- (B) Variable cost
- (C) Total cost
- (D) Marginal cost

188. Symbol used to ensure quality of agricultural produce in India is :

- (A) ISI
- (B) AGMARK
- (C) BIS
- (D) Hallmarks

189. Income tax is a :

- (A) Direct tax
- (B) Indirect tax
- (C) Value Added Tax
- (D) Advalorem tax

190. Opportunity cost is :

- (A) Cost of supplementary enterprise alternative foregone
- (B) Cost of next best
- (C) Cost of cultivation
- (D) Cost of production

191. The co-efficient of correlation ranges

from :

- (A) - 1 to + 1
- (B) 0 to 1
- (C) - 1 to + 1
- (D) 1 to 2

192. The design experiment suitable for lab experiment is :

- (A) Split Plot Design
- (B) Completely Randomized Design (CRD)
- (C) Randomized Block Design (RBD)
- (D) Factorial RBD

193. A bell shaped curve is a common type of distribution for a variable, is known as _____

- (A) Correlation
- (B) Regression
- (C) Normal distribution
- (D) Poisson distribution

194. The formula for error degrees of freedom in Randomized Block Design with 't' treatments and 'r' replications is :

- (A) $rt - 1$
- (B) $(t - 1)(r - 1)$
- (C) $(t - 1)(r + 1)$
- (D) $(t + 1)(r + 1)$

195. Which is not a measure of dispersion ?

- (A) Range
- (B) Variance
- (C) Standard Deviation
- (D) Median

196. The trap crop for diamond back moth of cabbage is :

- (A) Maize
- (B) Mustard
- (C) Marigold
- (D) Knol-khol

197. Bio-control agent is :

- (A) **Phytophthora palmivora**
- (B) **Fusarium oxysporum**
- (C) **Bacillus thuringiensis**
- (D) **Alternaria solani**

198. Sucking pest is :

- (A) Thrips
- (B) Beetles
- (C) Weevils
- (D) Borers

199. The spray volume required per hectare in power sprayer is :

- (A) 100 – 120 lit.

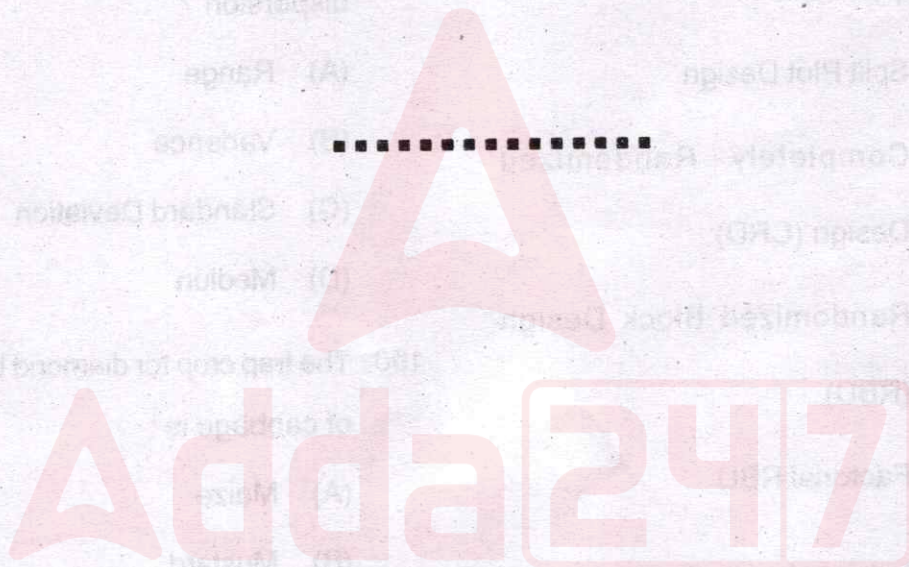
(B) 300 – 350 lit.

(C) 600 – 650 lit.

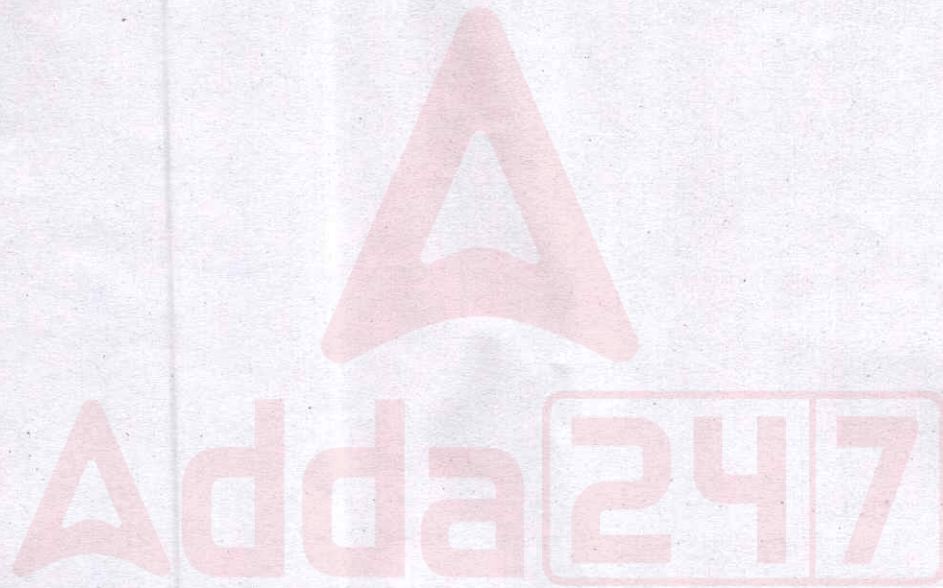
(D) 450 – 500 lit.

200. Nematode repellent crop is :

- (A) Tomato
- (B) Brinjal
- (C) Sunhemp
- (D) Carrot



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