

Question Booklet No. :

HLOR/2021

Register  
Number

--	--	--	--	--	--	--	--	--	--

2021  
HORTICULTURE  
(Degree Standard)

Duration : Three Hours]

[Total Marks : 300

Read the following instructions carefully before you begin to answer the questions.

IMPORTANT INSTRUCTIONS

1. You will be supplied with this question booklet 15 minutes prior to the commencement of the examination.
2. This question booklet contains **200** questions. Before answering the questions, you are requested to check whether all the questions are printed serially and ensure that there are no blank pages in the question booklet. **If any defect is noticed in the question booklet, it shall be reported to the invigilator within the first 10 minutes and get it replaced with a complete question booklet. If the defect is reported after the commencement of the examination, it will not be replaced.**
3. Answer **all** the questions. All the questions carry equal marks.
4. You must write your register number in the space provided on the top right side of this page. Do not write anything else on the question booklet.
5. An answer sheet will be supplied to you separately by the room invigilator to shade the answers. Instructions regarding filling of answers etc., which are to be followed mandatorily, are provided in the answer sheet and in the memorandum of admission (Hall Ticket).
6. You shall write and shade your question booklet number in the space provided on page one of the answer sheet with **BLACK INK BALL POINT PEN**. If you do not shade correctly or fail to shade the question booklet number, your answer sheet will be invalidated.
7. Each question comprises of five responses (answers) : i.e. (A), (B), (C), (D) and (E). You have to select **ONLY ONE** correct answer from (A) or (B) or (C) or (D) and shade the same in your answer sheet. If you feel that there are more than one correct answer, shade the one which you consider the best. **If you do not know the answer, you have to mandatorily shade (E).** In any case, choose **ONLY ONE** answer for each question. If you shade more than one answer for a question, it will be treated as a wrong answer even if one of the given answers happens to be correct.
8. You should not remove or tear off any sheet from this question booklet. You are not allowed to take this question booklet and the answer sheet out of the examination room during the time of the examination. After the examination, you must hand over your answer sheet to the invigilator. You are allowed to take the question booklet with you only after the examination is over.
9. **You should not make any marking in the question booklet except in the sheets before the last page of the question booklet, which can be used for rough work. This should be strictly adhered to.**
10. Failure to comply with any of the above instructions will render you liable for such action as the Commission may decide at their discretion.

SPACE FOR ROUGH WORK

200570

1. Stylar extension in tomato is due to  
 (A) High temperature (B) Low temperature  
(C) High wind velocity (D) Low wind velocity  
(E) Answer not known
2. The pea variety introduced from USA and belongs to mid season & late group is  
 (A) Bonneville (B) JP - 19  
(C) Arkel (D) Ageta - 6  
(E) Answer not known
3. The following are the perennial vegetables
1. Chow-chow
  2. Coccinea
  3. Drumstick
  4. Spinach
- (A) 2, 4, 1  
(B) 3, 2, 4  
(C) 4, 3, 2  
 (D) 1, 2, 3  
(E) Answer not known
4. Sauer kraut is a fermented pickle prepared from  
(A) Cauliflower  (B) Cabbage  
(C) Sprouting broccoli (D) Brussels sprout  
(E) Answer not known
5. \_\_\_\_\_ coloured brinjal is useful for diabetic patients.  
 (A) Green  
 (B) White  
(C) Purple  
(D) Purple with stripes  
(E) Answer not known

6. Roses are commercially propagated by  
 (A) 'T'-budding (B) Cutting  
(C) Layering (D) Seed  
(E) Answer not known
7. The percentage of concrete recovery is high in which of the following species?  
 (A) Jasminum auriculatum  
(B) Jasminum grandiflorum  
(C) Jasminum sambac  
(D) Jasminum multiflorum  
(E) Answer not known
8. Among the following jasmine species produces pink flower?  
 (A) Jasminum polyanthum  
(B) Jasminum humile  
(C) Jasminum mudiflorum  
(D) Jasminum multiflorum  
(E) Answer not known
9. National Botanical Research Institute is located at  
 (A) Lucknow, U.P.  
(B) Bangalore, Karnataka  
(C) Thrissur, Kerala  
(D) Kolkatta, West Bengal  
(E) Answer not known
10. Chrysanthemums are classified as  
 (A) Short day  
(B) Long day  
(C) Day neutral  
(D) None of the above  
(E) Answer not known

11. In square system of arecanut planting the north south line should be deflected at an angle
- (A) 10° degree towards west
  - (B) 20° degree towards west
  - (C) 35° towards west
  - (D) 50° degree towards west
  - (E) Answer not known
12. The ideal month and spacing for rubber planting in hilly areas are
- (A) June – July 6.7 m × 3.4 m
  - (B) April – May 4.9 m × 4.9 m
  - (C) December – January 6.7 m × 3.4 m
  - (D) June – July 4.9 m × 3.4 m
  - (E) Answer not known
13. Young fruits of cocoa are called as
- (A) Jorquetee
  - (B) Choupon
  - (C) Cherelle
  - (D) Drupe
  - (E) Answer not known
14. Central Coffee Research Institute is located at
- (A) Ajmer, Rajasthan
  - (B) Myladumpara, Kerala
  - (C) Calicut, Kerala
  - (D) Chikmagaluru, Karnataka
  - (E) Answer not known
15. What is the chromosome number of coffee?
- (A)  $2n = 22$
  - (B)  $2n = 30$
  - (C)  $2n = 32$
  - (D)  $2n = 40$
  - (E) Answer not known

16. The vetiver grass is native to
- (A) India
  - (B) Burma
  - (C) Srilanka
  - (D) Afganisthan
  - (E) Answer not known
17. The origin of Isabgol
- (A) Mexico
  - (B) Persia
  - (C) Costa Rica
  - (D) Sudan
  - (E) Answer not known
18. The lemon grass comes to harvest \_\_\_\_\_ days after planting
- (A) 60 days
  - (B) 70 days
  - (C) 80 days
  - (D) 90 days
  - (E) Answer not known
19. The Japanese mint varieties
- (A) Gomti, Kalka
  - (B) Kukrail, CIMAP, Madhuras
  - (C) Ganga, Supriya
  - (D) Kiran
  - (E) Answer not known
20. Bergamot mint botanically known as
- (A) Mentha piperita
  - (B) Mentha Spicata
  - (C) Mentha Citrata
  - (D) Mentha arvensis
  - (E) Answer not known

21. Osmotic membrane coatings are practiced in

- (A) Cut pieces of fruit (B) Whole fruit  
(C) Whole vegetable (D) Cut vegetable  
(E) Answer not known

22. The term 'nib' is related to

- (A) Coffee  (B) Cocoa  
(C) Chincona (D) Cinnamon  
(E) Answer not known

23. Match the following

- |              |                    |
|--------------|--------------------|
| (a) Ginger   | 1. ETEZ            |
| (b) Turmeric | 2. CGEB            |
| (c) Cardamom | 3. NUGK            |
| (d) Nutmeg   | 4. Rajapore finger |

- |   | (a) | (b) | (c) | (d) |
|---|-----|-----|-----|-----|
| (A)                                     | 3   | 2   | 4   | 1   |
| <input checked="" type="checkbox"/> (B) | 3   | 4   | 2   | 1   |
| (C)                                     | 3   | 1   | 2   | 4   |
| (D)                                     | 3   | 1   | 4   | 2   |

(E) Answer not known

24. Post harvest disorder of apple known as superficial scald can be controlled by post harvest dip in fungicide

- (A) Diphenylamine (B) Mancozeb  
(C) Copper oxy chloride (D) Wettable sulphur  
(E) Answer not known

25. Firmness of fruits can be tested by using \_\_\_\_\_ tester

- (A) Hand Refractometer  (B) Penetrometer  
(C) Moisture meter (D) Thermometer  
(E) Answer not known

26. This is not a method of soil less culture

- (A) Water culture
- (B) Gravel culture
- (C) Drip culture
- (D) Tissue culture
- (E) Answer not known

27. Oxisols are highly weathered mineral soils rich in \_\_\_\_\_ well suited for fruit crop cultivation in Tamil Nadu

- (A) Sesquioxides
- (B) Nitrogen peroxides
- (C) Hydrogen peroxide
- (D) Organic matter
- (E) Answer not known

28. Match List I with List II :

List I		List II	
(a)	Schizocarpic	1.	Pomegranate
(b)	Balusta	2.	Coriander
(c)	Sorosis	3.	Fig
(d)	Syconus	4.	Pineapple

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



29. The sprouting of potato during storage can be reduced by
- (A) Pre harvest spraying of Mallic hydrazide 2000 ppm
  - (B) Pre harvest dipping of Mallic hydrazide 1000 ppm
  - (C) Pre harvest spraying of 2,4-D-100 ppm
  - (D) Post harvest dipping in 2,4- D-50 ppm
  - (E) Answer not known
30. Stenospermocarpy is the biological mechanism that produces parthenocarpy (Seedlessness) in some fruits especially
- (A) Orange
  - (B) Dates
  - (C) Grapes
  - (D) Jack
  - (E) Answer not known
31. Plant growth regulators are produced with in the plant is through
- (A) Glands
  - (B) Receptors
  - (C) Effectors
  - (D) Phytohormones
  - (E) Answer not known
32. The pistal ripens before the stamen in which crop
- (A) Sapota
  - (B) Amla
  - (C) Ber
  - (D) Phalsa
  - (E) Answer not known

33. Which of the following is not the root stock of Mango?
- (A) Kurukkan
  - (B) Olour
  - (C) St. George
  - (D) Vellai Kollumban
  - (E) Answer not known
34. A plant is composed of a mixture of tissues with different geno types
- (A) Clone
  - (B) Monoclone
  - (C) Chimera
  - (D) Polyclone
  - (E) Answer not known
35. Mallet is a type of \_\_\_\_\_ cutting.
- (A) Hardwood cutting
  - (B) Semi hardwood cutting
  - (C) Herbaceous cutting
  - (D) Root cutting
  - (E) Answer not known
36. Date palm is commercially propagated by
- (A) Offshoot
  - (B) Sucker
  - (C) Runner
  - (D) Crown
  - (E) Answer not known
37. Intergeneric grafting is practiced in \_\_\_\_\_ crop.
- (A) Mango
  - (B) Cashew
  - (C) Sapota
  - (D) Avocado
  - (E) Answer not known

38. System of training the plants in grapes in which two trellis of wire are string supported by vertical posts is referred as
- (A) Kniffin system (B) Telephone system  
(C) Takura Trellis system (D) Espalier system  
(E) Answer not known
39. The critical period for irrigating citrus crops are
- (A) Flowering (B) Fruit setting  
 (C) Flowering and fruit setting (D) None of these  
(E) Answer not known
40. Name the metabolic inhibitor used as an antitranspirant to reduce the stomatal opening and increase the leaf resistance to water vapour diffusion.
- (A) ABA (B) Waxol  
(C) Kaolin (D) Vermiculite  
(E) Answer not known
41. Identity the correct statement
- (A) At stick point, soil sticks to an object  
(B) Capillary water is held between 31 to 10000 atm  
 (C) At field capacity water is held at a force of 1/3 atm  
(D) Available water lies between wilting and hygroscopic coefficients  
(E) Answer not known
42. Read the following statements and answer
- I. Nitrate, sulphate, Borate, Chlorine are highly mobile in soil and not absorbed by clay
- II. Ammonia, potassium, calcium, copper, magnesium are soluble, but are absorbed on clay complex
- III. Phosphorus and zinc are immobile in soil
- (A) I and II are correct  
 (B) I, II and III are correct  
(C) II and III are correct  
(D) I and III are correct  
(E) Answer not known

43. Bitter pit is a physiological disorder noticed in apple due to deficiency of
- (A) Potassium  (B)  Calcium  
 (C) Boron  (D) Zinc   
 (E) Answer not known
44. How much quantity of NPK (Kg/Na/day) should be applied to grapes after forward pruning from 1 to 40 days
- (A) 12 : 8 : 8  (B) 12 : 6 : 6   
 (C) 12 : 8 : 6  (D)  16 : 8 : 8  
 (E) Answer not known
45. How much spacing is recommended for one Mandlin orange plant in Tamil Nadu
- (A) 16 sqmt  (B)  36 sqmt  
 (C) 25 sqmt  (D) 30 sqmt   
 (E) Answer not known
46. Cyphomandra betacea belongs to
- (A) Moraceae  (B)  Solanaceae  
 (C) Malvaceae  (D) Lauraceae   
 (E) Answer not known
47. Which of the following grapes variety is suitable for raisin making?
- (A) Bangalore Blue  (B) Arab-e-Shahi   
 (C) Thompson Seedless  (D) Muscat   
 (E) Answer not known
48. The optimal climatic condition for Litchi is
- (A) Warm subtropical  (B) Warm and humid tropical  
 (C) Cool temperate  (D) Arid and semi arid  
 (E) Answer not known
49. The edible portion of jack fruit
- (A) Pericarp  (B)  Perianth  
 (C) Endocarp  (D) Fleshy style   
 (E) Answer not known

50. Maturity indices for marketable green pea pods is
- (A) Drying of pods
  - (B) Change of pod colour from dark green to light green
  - (C) Shrivelling of pods
  - (D) Cracking of pods
  - (E) Answer not known
51. Chow Chow is requires \_\_\_\_\_ climatic condition for better growth.
- (A) Tropical
  - (B) Subtropical
  - (C) Temperate
  - (D) Arid zone
  - (E) Answer not known
52. The production of vegetables in off season under protected condition is called as
- (A) Market Garden
  - (B) Truck Garden
  - (C) Vegetable forcing
  - (D) Growing for vegetable processing
  - (E) Answer not known
53. Browning disorder in Cauliflower is due to
- (A) Iron
  - (B) Calcium
  - (C) Boron
  - (D) Magnesium
  - (E) Answer not known
54. The important disease that occurs in brinjal nursery is
- (A) Phomopsis blight
  - (B) Leaf spot
  - (C) Wilt
  - (D) Damping off
  - (E) Answer not known

55. Lal bagh garden is located at
- (A) Delhi (B) Kashmir  
(C)  Bangalore (D) Pune  
(E) Answer not known
56. Find out the bulbous crop among the following
- (A) Cannas (B)  Dahlia  
(C) Red hot poker (D)  Sweet flag  
(E) Answer not known
57. Botanical name for copper shield tree is
- (A) Spathodea companulata  
(B)  Peltophorum ferrugineum  
(C) Jacaranda Mimosaefolia  
(D) Michelia champaca  
(E) Answer not known
58. Which of the following lawn grass is not suitable for open sunny situation
- (A) Cynodon dactylon  
(B)  Stenotaphrum secundatum  
(C) Zoisia Japonica  
(D) Sporobolus tremulus  
(E) Answer not known
59. Parkia biglandulosa is commonly known as
- (A)  Badminton ball tree  
(B) Indian tulip tree  
(C) Bottle brush tree  
(D) Gul Mohar / May flower  
(E) Answer not known

60. Curry leaf belongs to the family
- (A) Caesalpiniaceae (B) Gultiferae  
 (C) Rutaceae (D) Umbelliferae  
(E) Answer not known
61. The following statement about CNSL is incorrect?
- (A) CNSL is a phenolic compound  
(B) CNSL contains anacardic acid  
 (C) CNSL is a white viscous fluid  
(D) CNSL is obtained from cashew shell  
(E) Answer not known
62. From the coarser canes of cinnamon, the bark is scrapped off instead of peeling and this grade is known as
- (A) Featherings (B) Unscraped chip  
 (C) Scraped chips (D) Cinnamon powder  
(E) Answer not known
63. The common physiological problems was found in garlic
- (A) Drying of leaves  
 (B) Sprouting of bulbs in the field  
(C) Small size of bulbs  
(D) More number of bulbs  
(E) Answer not known
64. Black pepper is commercially propagated by cuttings taken from \_\_\_\_\_ shoots of high yielding, healthy vine.
- (A) Geotropic shoots  
(B) Plagiotropic shoots  
(C) Orthotropic shoots  
 (D) Runner shoots  
(E) Answer not known

65. National Research centre for cashew is located at
- (A) Tamil Nadu
  - (B) Andhra Pradesh
  - (C) Kerala
  - (D) Karnataka
  - (E) Answer not known
66. CIMAP is located at
- (A) Delhi
  - (B) Lucknow
  - (C) Varanasi
  - (D) Pune
  - (E) Answer not known
67. Largest producer of clove is
- (A) Guatewala
  - (B) Indonesia
  - (C) India
  - (D) China
  - (E) Answer not known
68. The major alkaloid content in glorylilly is
- (A) Colchicine
  - (B) Forskolin
  - (C) Phyllanthin
  - (D) Solasodine
  - (E) Answer not known
69. The Vinblastine extracted from periwinkle is used to cure
- (A) Leukaemia
  - (B) Hodgkins disease
  - (C) Alzimer
  - (D) Beri beri
  - (E) Answer not known



70. How many medicinal plant species in India is threatened with extinction?
- (A) 300 Plant species
  - (B) 400 Plant species
  - (C) 660 Plant species
  - (D) 744 Plant species
  - (E) Answer not known
71. Which medicinal tree considered to shelter for Lord Shiva (God of health) in India
- (A) Bael : *Aegle Marmdin*
  - (B) *Terminalia arjuna*
  - (C) *Neolamarckia cadamba*
  - (D) *Commiphora molmol*
  - (E) Answer not known
72. Glory lilly is native of
- (A) Asia and Africa
  - (B) Europe
  - (C) North America
  - (D) South America
  - (E) Answer not known
73. Alcoholic Fermentation preservation technology in vegetable involve
- (A) Yeast
  - (B) Acetobactor
  - (C) Lactobacillus
  - (D) Coccus lactis
  - (E) Answer not known
74. A product which contains about \_\_\_\_\_% salt makes it most unfavorable for the growth and multiplication of microorganisms
- (A) 15
  - (B) 25
  - (C) 10
  - (D) 5
  - (E) Answer not known

75. Artificial colouration of flowers is called
- (A) Painting
  - (B) Tinting
  - (C) Colouring
  - (D) Dipping
  - (E) Answer not known
76. Solvent waxes composed of 70 to 80% aliphatic hydrocarbons and about 25% aromatic hydrocarbons and solvents are used in \_\_\_\_\_ crop
- (A) Mango
  - (B) Banana
  - (C) Grapes
  - (D) Citrus
  - (E) Answer not known
77. Rootes of higher plants in associated with fungi is indicated by the term \_\_\_\_\_
- (A) Lichen
  - (B) Mycorrhize
  - (C) Helotism
  - (D) Mutualism
  - (E) Answer not known
78. The most popular method of planting system followed in hills
- (A) Quincunx system
  - (B) Triangle system
  - (C) Cluster system
  - (D) Contour system
  - (E) Answer not known

79. An example for deciduous temperature fruit
- (A) Litchi (B) Sapota  
(C) Apple (D) Guava  
(E) Answer not known
80. Centre of excellence for cut flowers, a joint venture of GOI and Govt of Israel is being operated by Department of horticulture and plantation crops at \_\_\_\_\_
- (A) Thally, Krishnagiri District Arur  
(B) Arur, Dharmapuri District  
(C) Thenkani kottai, Krishnagiri District  
(D) Pappiredipatti, Dharmapuri District  
(E) Answer not known
81. Aeroponics is the process of growing plants in \_\_\_\_\_ (or) \_\_\_\_\_ without soil or an aggregate medium in small spaces.
- (A) Air or mist environment  
(B) Water or soil environment  
(C) Water (or) nutrient environment  
(D) Soil (or) water environment  
(E) Answer not known
82. The primary horticulture co-operative society under TN co-operative societies act 1982 was established in Tamil nadu is called as
- (A) TAN HOPE Ltd., (B) TAN HODA  
(C) TNHDA (D) TBM  
(E) Answer not known
83. The maximum area under hydroponics is in \_\_\_\_\_ country.
- (A) Netherlands  
(B) Israel  
(C) Egypt  
(D) Italy  
(E) Answer not known

84. The vernalization involves the formation of a floral hormone is called as  
(A) Florigan (B) Auxin  
 (C) Vernalin (D) Abscisic acid  
(E) Answer not known
85. In which fruit crop the fruit develops even without the stimulus from pollination  
 (A) Japanese Persimmon  
(B) Passion fruit  
(C) Grapes  
(D) Dragon fruit  
(E) Answer not known
86. The concrete recovery from Jasmine grandiflorum is  
(A) 0.33 per cent  (B) 0.27 per cent  
(C) 0.19 per cent (D) 0.50 per cent  
(E) Answer not known
87. The phenomenon in which more embryos are present within a single seed is called  
(A) Parthenocarpy  
 (B) Polyembryony  
(C) Pollination  
(D) Propagation  
(E) Answer not known
88. Why seedless triploid guava not popularized for commercial cultivation  
 (A) Due to irregular-fruit shape  
(B) Due to less number of fruits per tree  
(C) Due to poor quality of fruits  
(D) Due to poor adaptability  
(E) Answer not known

89. The chance of transmission of virus can be reduced by
- (A) Seed propagation (B) Clonal propagation  
(C) Asexual propagation (D) Through plant parts  
(E) Answer not known
90. \_\_\_\_\_ varieties can be propagated by seed.
- (A) Mono embryonic (B) Embryonic  
 (C) Poly embryonic varieties (D) Dioecious  
(E) Answer not known
91. The seeds can be safely dried to low moisture content and the storability of such seed improve with the lowering of seed moisture is called
- (A) Wet seeds (B)  Orthodox  
(C) Dry seeds (D) Recalcitrant  
(E) Answer not known
92. Facultative apomicts can be defined as
1. The embryo is produced from vegetative cells
  2. The embryo is produced from sexual cells
  3. The embryo is produced by both vegetative and sexual cells
- (A) Both (1) and (2) is correct  
(B) Both (2) and (3) is correct  
(C) Only (1) is correct  
 (D) Only (3) is correct  
(E) Answer not known
93. Which of the following plant expresses double dormancy?
- (A) Psidium guajava  
(B) Delonize regia  
 (C) Cercis occidentals  
(D) Pinus sp  
(E) Answer not known

94. Match the following :

List I

- (a) Compost
- (b) Green manure
- (c) Green leaf manure
- (d) Vermicompost

List II

- 1. Daincha
- 2. Synthetic farmyard manure
- 3. Eudrilus enginial
- 4. Pingamiapinnate

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

95. Match the following :

List I

- (a) Biofertilizer
- (b) Rhizobium
- (c) Phosphobacteria
- (d) VAM

List II

- 1. Uptake of water
- 2. Phosphorus
- 3. Microbial inoculant
- 4. Nitrogen fixation

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

96. Nutrients required by plants in small quantities for their growth and development

- (A) Cu, Bo, Mo
- (B) Ca, Mg, S
- (C) N, P, K
- (D) C, H, O
- (E) Answer not known

97. Iron deficiency in young leaves of Banana exhibit

- (A) Interveinal chlorosis
- (B) Bunching of leaves
- (C) Buckling of leaf blade along midrib
- (D) Die back of twigs
- (E) Answer not known



104. In cucumber, high temperature promotes \_\_\_\_\_ flowers.
- (A) Male (B) Female  
(C) Bisexual (D) Gynomonoecious  
(E) Answer not known
105. Which of the following nutrient is deficient in acidic soils where cabbage and cauliflower are grown?
- (A) K (B) P  
 (C) MO (D) S  
(E) Answer not known
106. Black heart in potato is due to lack of
- (A) Oxygen  
(B) Carbon dioxide  
(C) Sulphur dioxide  
(D) Carbon mono oxide  
(E) Answer not known
107. Seed plot technique is followed in
- (A) Cucurbits (B) Colocasia  
 (C) Potato (D) Sweet potato  
(E) Answer not known
108. Ploidy level of bhendi is
- (A) Triploid  
(B) Tetraploid  
(C) Diploid  
 (D) Amphidiploid  
(E) Answer not known



109. The botanical name of umbrella plant grown in water garden is
- (A) Cyperus alternifolius (B) Sagittaria Sagittal folia  
(C) Acorus calamus (D) Calla palustris  
(E) Answer not known
110. Flowering time of antigonon leptopus is
- (A) July – October  
(B) January – February  
(C) March – April  
(D) Round the year  
(E) Answer not known
111. Which of the following is a non plant component in a garden?
- (A) Topiary (B) Trophy  
(C) Rockery  (D) Fountain  
(E) Answer not known
112. The divisions of Horticulture which impact the environment aesthetically or functionally are
- (A) Ornamental Horticulture landscape architecture  
(B) Ornamental Horticulture fruits  
(C) Landscape architecture, vegetables  
(D) Fruits and vegetables  
(E) Answer not known
113. Damping off disease is common in
- (A) Tube rose (B) Rose  
 (C) Marigold (D) Gladiolus  
(E) Answer not known

114. Write the turmeric species contain mango flavour and taste in the rhizome
- (A) Cucurcuma aromatica
  - (B) Curcuma angustifolia
  - (C) Curcuma amada
  - (D) Curcuma zedoaria
  - (E) Answer not known
115. Viswashree is the variety of
- (A) Cardomom
  - (B) Cinnamon
  - (C) Clove
  - (D) Nutmeg
  - (E) Answer not known
116. Cinnamomum aromaticum is commonly grown in
- (A) China
  - (B) Java, Sumatra
  - (C) Vietnam
  - (D) Tropical and subtropical Himalayas
  - (E) Answer not known
117. In coffee, the removal of small sprouts arising from the axis of the leaves which otherwise grows towards inner side and cause shade is known as
- (A) Centering
  - (B) De-Suckering
  - (C) Handling
  - (D) Nipping
  - (E) Answer not known

118. National Research centre on medicinal and aromatic crop is located at
- (A) Bangaluru – Karnataka
  - (B) Anand – Gujarat
  - (C) Kolkatta – West Bengal
  - (D) Hyderabad – Andhra Pradesh
  - (E) Answer not known
119. What is the oil recovery percent from lemon grass
- (A) 1 – 2%
  - (B) 0.3 to 0.5%
  - (C) 3 – 5%
  - (D) 5 – 8%
  - (E) Answer not known
120. Kodaikanal-1 Geranium gives \_\_\_\_\_ tonnes of herbage and \_\_\_\_\_ kg of oil per hectare
- (A) 40.5 to and 50.5 kg
  - (B) 25.5 to and 30.0 kg
  - (C) 50.3 to and 60.0kg
  - (D) 45.2 tonnes and 54.0 kg
  - (E) Answer not known
121. Trishna is a variety of
- (A) Vettiver
  - (B) Palmarosa
  - (C) Geranium
  - (D) Mint
  - (E) Answer not known
122. The flower colour of Vinca rosea var ocillates is
- (A) White
  - (B) Yellow with purple spot in the centre
  - (C) Yellow
  - (D) White with rose-purple spot in the centre
  - (E) Answer not known

123. National plant quarantine centre location of
- (A) New Delhi
  - (B) Gujarath
  - (C) Mumbai
  - (D) Vishakapattinam
  - (E) Answer not known
124. Which of the following is incorrectly matched?
- (A) Sweet potato – Lye peeling
  - (B) Carrot – Scrapping
  - (C) Beans – Snipping
  - (D) Tomato – Flame peeling
  - (E) Answer not known
125. The finished jam should contain \_\_\_\_\_% of invest sugar (or) glucose to avoid crystallization of cane sugar during storage
- (A) 10 – 20%
  - (B) 30 – 50%
  - (C) 20 – 30%
  - (D) 50 – 60%
  - (E) Answer not known
126. Modified Atmosphere packaging, during respiration process increases the
- (A) Carbon dioxide content
  - (B) Oxygen content
  - (C) Sulphur dioxide content
  - (D) Nitrogen content
  - (E) Answer not known

127. The fruit crop most suitable for growing in polyhouse is

- (A) Mango
- (B) Hill Banana
- (C) Papaya
- (D) Strawberry
- (E) Answer not known

128. The weather parameter highly required for improved fruit set in custard apple is

- (A) High atmospheric humidity
- (B) High temperature
- (C) Low temperature
- (D) High wind velocity
- (E) Answer not known

129. Major importer of floriculture

- (A) USA
- (B) UAE
- (C) Russia
- (D) China
- (E) Answer not known

130. The major importer of spices from India

- (A) UAE
- (B) USA
- (C) Russia
- (D) UK
- (E) Answer not known

131. The World largest producer of Coconut

- (A) Indonesia
- (B) India
- (C) Malaysia
- (D) Brazil
- (E) Answer not known

132. Ber, Pomegranate, Aonla Date palm, wood apple, coriander cumin, and fennel are largely grown in \_\_\_\_\_ zone.

- (A) Southern hilly
- (B) North Eastern Subtropical humid
- (C) North Western arid
- (D) South Central Tropical
- (E) Answer not known

133. The seedlessness in guava variety is due to
- (A) Triploidness
  - (B) Parthenocarpy
  - (C) Apomixis
  - (D) Self incompatibility
  - (E) Answer not known
134. The primitive growth phase representing in growth curve is
- (A) Formative phase
  - (B) Cell enlargement phase
  - (C) Maturation phase
  - (D) Stationary phase
  - (E) Answer not known
135. Fruit buds always borne adventitiously in old trunk or shoots in
- (A) Brinjal
  - (B) Mango
  - (C) Cocoa
  - (D) Grapes
  - (E) Answer not known
136. Which is the woody temperate deciduous, drupe type fruits
- (A) Avocado
  - (B) Apricot
  - (C) Mango
  - (D) Logan
  - (E) Answer not known
137. \_\_\_\_\_ is a short day plant
- (A) Onion
  - (B) Sweet Potato
  - (C) Carrot
  - (D) Cassava
  - (E) Answer not known

138. \_\_\_\_\_ is a form of controlled seed hydration that can improve the germination properties of a seed lot, particularly germination rate uniformly and viability of seeds
- (A) Seed pelleting
  - (B) Seed priming
  - (C) Seed coating
  - (D) Seed Stratification
  - (E) Answer not known
139. The medium for filling proteyrs will have 3:1:1 ratio of
- (A) Vermiculite- Perlite -Cocopeat
  - (B) Perlite-Cocopeat-Sphagnum
  - (C) Cocopeat-Vermiculite, Perlite
  - (D) Leafmould, Cocopeat-Perlite
  - (E) Answer not known
140. Formaldehyde sold for horticultural use is a solution containing 37.5 to 40.5 percent formaldehyde gas and is usually referred to as \_\_\_\_\_ commercial formaldehyde.
- (A) 40%
  - (B) 48%
  - (C) 30%
  - (D) 25%
  - (E) Answer not known
141. This is not suitable for growing in poly houses
- (A) Tomato
  - (B) Cucumber
  - (C) Brinjal
  - (D) Capsicum
  - (E) Answer not known



142. Match the column A with, its respective PF of values in Column B

Column A	Column B (PF values)
(a) Saturated soil	1. 4.18
(b) Field capacity	2. 0.0
(c) Wilting point	3. 4.50
(d) Hygroscopic point	4. 2.53

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

143. Ascertain (A) : Gypsum is not recommended for acid soil reclamation.

Reason (R) : Gypsum on dissociation give sulphate anion which produces mineral acid  $H_2SO_4$  and increases soil acidity further.

- (A) (A) is true (R) is false  
(B) Both (A) and (R) is false  
 (C) (A) is true and (R) is the correct explanation of (A)  
(D) (A) is true and but (R) is not correct explanation  
(E) Answer not known

144. Characteristic deficiency symptom of phosphorus in plant is

- (A) Chlorosis along the leaf margins followed by scorching  
(B) Death of growing points viz, but blossoms and root tips  
 (C) Purple leaf coloration  
(D) Interveinal chlorosis of young leaves  
(E) Answer not known

145. The extend of phosphorus use efficiency of added fertilizer is

- (A) 40%       (B) 20%  
(C) 60%      (D) 10%  
(E) Answer not known

146. What is chilling hours required for cultivation of apple ( $<7^{\circ}\text{C}$ )
- (A) 800–1000 hrs (B) 900–1000 hrs  
 (C) 1000–1500 hrs (D) 1500–2000 hrs  
(E) Answer not known
147. The banana fruit is \_\_\_\_\_ type.
- (A) Pome (B) Drupe  
(C) Hesperidium  (D) Berry  
(E) Answer not known
148. The taxonomic score of Dwarf Cavendish variety of Banana is
- (A) 46-48 (B) 26-46  
 (C) 15-21 (D) 63-69  
(E) Answer not known
149. The following banana variety has one female phase
- (A) Rasthali  (B) Moongil  
(C) Nendran (D) Anaikomban  
(E) Answer not known
150. Peach originated from which country?
- (A) Persia (B) Peru  
(C) Brazil (D) Europe  
(E) Answer not known
151. Banana is a rich source of
- (A) Protein  (B) Energy  
(C) Calcium (D) Vitamin E.  
(E) Answer not known

152. True potato seed is produced to control which disease
- (A) Early blight (B) Late blight  
 (C) Viral infection (D) Bacterial blight  
(E) Answer not known
153. Gynoecious lines are commercially utilised for hybrid seed production in
- (A) Cabbage (B) Cauliflower  
 (C) Cucumber (D) Coccinea  
(E) Answer not known
154. Amaranthus pollination is
- (A) Entomophilous (B)  Anemophilous  
(C) Heterophyllous (D) Cleistogamous  
(E) Answer not known
155. Round seeded varieties of pea are \_\_\_\_\_ then the Wrinkled seeded.
- (A) More tolerant to higher temperature  
(B) Less tolerant to higher temperature  
(C) More tolerant to low temperature  
(D) Less tolerant to low temperature  
(E) Answer not known
156. Which of the following pair is matched?
- a. Potato - Bulb  
b. Sweet potato - Tuber  
c. Tapioca - Rhizome  
d. Colocasia - Cutting
- (A) a  
 (B) b  
(C) c  
(D) d  
(E) Answer not known

157. Pruning is an important practice for flower production in

- (A) Gladiolus
- (B) Gerbera
- (C) Orchids
- (D) Jasmine
- (E) Answer not known

158. Interveinal chlorosis on older leaves of gerbera is due to deficiency of

- (A) Nitrogen
- (B) Magnesium
- (C) Calcium
- (D) Phosphorus
- (E) Answer not known

159. Match the following

- |                   |                    |
|-------------------|--------------------|
| (a) Paphiopedilum | 1. Dancing lady    |
| (b) Oncidium      | 2. Spider orchid   |
| (c) Phalaenopsis  | 3. Slipper orchids |
| (d) Vanda         | 4. Moth orchid     |

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

160. The gall mite resistant variety of mullai is

- (A) CO<sub>1</sub>
- (B) CO<sub>2</sub>
- (C) Arka Surabhi
- (D) Parimullai
- (E) Answer not known

161. The jasminum species producing yellow coloured flowers is

- (A) Jasminum auriculatum
- (B) Jasminum grandiflorum
- (C) Jasminum humile
- (D) Jasminum nitidum
- (E) Answer not known

162. Hardy tea clone, resistant to drought and wind, suitable for high elevation.
- (A) Sundaram (B) Golconda  
(C) Jeyaram  (D) Pandian  
(E) Answer not known
163. In rubber, 200% intensity of tapping is achieved through which one of the following system?
- (A)  $S_2d_1$  (B)  $S_2d_2$   
(C)  $S_2d_3$  (D)  $S_2d_4$   
(E) Answer not known
164. Intensive tapping prior to felling in rubber old trees is called as
- (A) Heavy tapping  
(B) Over tapping  
(C) Final tapping  
 (D) Slaughter tapping  
(E) Answer not known
165. Under close planting system, coffee is planted at a spacing of
- (A) 1 – 1.5 m × 1 – 1.5 m  
(B) 0.5 – 1.0 m × 0.5 – 1.0 m  
(C) 1.5 – 2.0 m × 1.5 – 2.0 m  
(D) 2.0 m – 2.5 m × 2.0 m – 2.5 m  
(E) Answer not known
166. The method of tapping in young female inflorescence of palmyrah is known as
- (A) Thattupalai  
(B) Aripantai  
(C) Kaivetty  
(D) Vallupantai  
(E) Answer not known

167. One hectare of citronella yield how much quantity of essential oil during third year of eroppurg
- (A) 100 – 150 kg/ha
  - (B) 250 – 300 kg/ha
  - (C) 400 – 500 kg/ha
  - (D) 600 – 750 kg/ha
  - (E) Answer not known
168. The phyllanthus crop is ready for harvest after \_\_\_\_\_ months.
- (A) 1 month
  - (B) 2 month
  - (C) 3 month
  - (D) 5 month
  - (E) Answer not known
169. The crop duration of Isabgol is \_\_\_\_\_ days
- (A) 90 – 100 days
  - (B) 110 – 130 days
  - (C) 150 – 175 days
  - (D) 180 – 200 days
  - (E) Answer not known
170. What is the native of geranium?
- (A) Nigeria
  - (B) Kenya
  - (C) South Africa
  - (D) Angola
  - (E) Answer not known
171. The medicinal property of Aswagandha
- (A) Immuno-modulator
  - (B) Aphrodisiac
  - (C) Oral contraceptive
  - (D) Anti-diarrhoea
  - (E) Answer not known

172. Recommended and ideal storage temperature for tomato firm ripe
- (A) 13 – 15°C
  - (B) 0 – 5°C
  - (C) 7 – 9°C
  - (D) 16 – 18°C
  - (E) Answer not known
173. The correct order of decreasing ethylene production is
- (A) Avocado → Sapota → Pineapple → Mango
  - (B) Sapota → Pineapple → Mango → Avocado
  - (C) Sapota → Avocado → Mango → Pineapple
  - (D) Pineapple → Avocado → Sapota → Mango
  - (E) Answer not known
174. The level of O<sub>2</sub> and CO<sub>2</sub> is controlled atmospheric storage to slow down the respiration rate in fruits and vegetables is
- (A) Reduced level of O<sub>2</sub> and Increased level of CO<sub>2</sub>
  - (B) Reduced level of O<sub>2</sub> and CO<sub>2</sub>
  - (C) Increased level of O<sub>2</sub> and CO<sub>2</sub>
  - (D) Increased level of O<sub>2</sub> and reduced level of CO<sub>2</sub>
  - (E) Answer not known
175. Biocide used for pulsing gladiolus flowers is
- (A) 8 – hydroxyquinoline sulphate
  - (B) Silver thiosulphate
  - (C) Silver nitrate
  - (D) S- hydroxyquinoline citrate
  - (E) Answer not known
176. The visual maturity index for grapes is
- (A) Colour break 25 percent
  - (B) Pink colour
  - (C) Bloom on surface
  - (D) Dark bluish green
  - (E) Answer not known

177. Among the following, which fruit belongs to the fruit type 'Psorosis'

- (A) Fig
- (B) Jack fruit
- (C) Quince
- (D) Loquat
- (E) Answer not known

178. Sphagnum moss is a soil less media, able to absorb \_\_\_\_\_ time its weight of water.

- (A) 5-10
- (B) 10-20
- (C) 20-30
- (D) 1-10
- (E) Answer not known

179. Identify the short day plant

- (A) Strawberry
- (B) Mango
- (C) Tomato
- (D) Bhendi
- (E) Answer not known



180. Gibberellin was discovered by \_\_\_\_\_ a Japanese Scientist in 1926.
- (A) Charles Darwin
  - (B) Kurusava
  - (C) Liu
  - (D) Carns
  - (E) Answer not known
181. Vivipary germination of a seed while it is still attached to the mother plant is seen in
- (A) Chow-Chow
  - (B) Tomato
  - (C) Bhendi
  - (D) Brinjal
  - (E) Answer not known
182. The biological process in which flower primordia are induced by exposure to a chilling period is known as
- (A) Irradiation
  - (B) Vernalization
  - (C) Sterilization
  - (D) Cryopreservation
  - (E) Answer not known
183. In Guava, parthenocarpic fruits were obtained by using \_\_\_\_\_ at 1000 to 8000 ppm concentration.
- (A) Auxin
  - (B) Gibberellic Acid
  - (C) Ethylene
  - (D) Cytokinin
  - (E) Answer not known
184. Vivipary is found in
- (A) Tomato
  - (B) Cabbage
  - (C) Beans
  - (D) Chow Chow
  - (E) Answer not known

185. In plants \_\_\_\_\_ is a condition in which the flowers are either staminate or Pistillate.
- (A) Bisexual flower
  - (B) Perfect flower
  - (C) Cleistogamy
  - (D) Dicliny
  - (E) Answer not known
186. The growth regulator is used for sub culturing in Tissue culture is
- (A) NAA
  - (B) IBA
  - (C) Cycocel
  - (D) 2, 4-D
  - (E) Answer not known
187. The most commonly used medium for plant tissue culture is
- (A) Knudson solution-C medium
  - (B) Vail and Vent medium
  - (C) Murashige and Skoog medium
  - (D) Woody plant medium
  - (E) Answer not known
188. \_\_\_\_\_ is a specialized stem that develops from the axil of a leaf at the grown of a plant, grows horizontally along the ground, and forms a new plant at one of the nodes
- (A) Stolons
  - (B) Runners
  - (C) Offset
  - (D) Suckers
  - (E) Answer not known
189. Whip and tonque method of grafting is followed in
- (A) Mango
  - (B) Sapota
  - (C) Cashew
  - (D) Apple
  - (E) Answer not known

190. "i flora "

- (A) Indian Flowers and Ornamental plants Welfare Association
- (B) Indian Flora
- (C) Indian flowers and ornamental plants Academy
- (D) International flowers research academy
- (E) Answer not known

191. \_\_\_\_\_ structure is used for rooting of cuttings.

- (A) Net house
- (B)  Mist Chamber
- (C) Poly houses
- (D) Hot beds
- (E) Answer not known

192. Which of the following crop can be grown successfully as an intercrop in 10 years old mango orchard?

- (A)  Wheat
- (B) Maize
- (C)  Turmeric
- (D) Sugarcane
- (E) Answer not known

193. \_\_\_\_\_ is the most widely followed method of irrigating vegetable crops.

- (A) Check
- (B) Flooding
- (C) Bed
- (D)  Furrow
- (E) Answer not known

194. Identify the wrong statement is Multiple cropping system of vegetable cultivation

- (A) Efficient-fertilizer management with better residual, direct and cumulative effect
- (B) Improved nitrogen economy when leguminous vegetables are included
- (C) Higher nutritional potential
- (D)  Highly risky, when crop failure occurs
- (E) Answer not known

195. The process of harvesting more number of crops from the same piece of land during a specified period of time is known as

- (A) Mono-cropping
- (B)  Multiple- cropping
- (C) Relay cropping
- (D) Inter cropping
- (E) Answer not known

196. Identify the correct statement

- (A) Soil colour determined on dry surfaces of freshly broken soil
- (B) Coarse textured soils are darker in colour
- (C) Black colour of soils are due to presence of iron oxides
- (D) Black colour of soils are due to the presence of organic matter
- (E) Answer not known

197. Identify the incorrect statement

- (A) Humus compounds are formed by decomposition and synthesis
- (B) Humus is less significant to soils and plant
- (C) Plant residues are broken down by soil microbes including lignin
- (D) Humus is a complex and rather resistant mixture
- (E) Answer not known

198. The system of combination of agricultural crops along with fruit trees is known as

- (A) Horti-Silvi cultural system
- (B) Agri-Horti system
- (C) Horti-pastoral system
- (D) Agri-pastoral system
- (E) Answer not known

199. In pineapple which of the following planting materials bear fruits early

- (A) Slips
- (B) Suckers
- (C) Seeds
- (D) Crowns
- (E) Answer not known

200. \_\_\_\_\_ element is highly required by banana as compared to other nutrient elements

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

**SPACE FOR ROUGH WORK**

**SPACE FOR ROUGH WORK**

**SPACE FOR ROUGH WORK**

SPACE FOR ROUGH WORK

SEAL