

Question Booklet No. :

ADOH/2021

Register
Number

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2021

HORTICULTURE
(P.G. 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

ENCLOSURE

1. Isabgol variety released from CIMAP, Lucknow is
- (A) Niharika (B) Jawahar Isabgol-4
(C) HI-5 (D) GI-2
(E) Answer not known
2. The variety 'Cin-Kanchan' belongs to
- (A) Ocimum sanctum (B) Ocimum basclicum
(C) Ocimum canum (D) Ocimum americanum
(E) Answer not known
3. Andrographis Paniculata belongs to the family
- (A) Vitaceae (B) Rutaceae
 (C) Acanthaceae (D) Labiatae
(E) Answer not known
4. Who was Director of DMAP, during 2013?
- (A) Dr. Jai Gopal (B) Dr. Satyabrata Maiti
(C) Dr. Saroj, P.L. (D) Dr. R.K. Pal
(E) Answer not known
5. What is the role of "global gap" in medicinal plant production?
- (A) Certification (B) Technical Advisory Service
(C) Imports produce (D) Provides farm inputs
(E) Answer not known

6. Albinism is a physiological disorder in the crop
 (A) Strawberry (B) Apple
(C) Watermelon (D) Capsicum
(E) Answer not known
7. How are flavor volatiles in tomatoes derived
(A) Catabolism of starch
(B) Catabolism of amino acids
(C) Catabolism of fatty acids
 (D) Catabolism of fatty acids and amino acids
(E) Answer not known
8. Storage of seeds/vegetative organs at an ultra low temperature (ie) in liquid nitrogen at -196°C is known as
(A) Ultra preservation (B) Subnormal preservation
 (C) Cryo preservation (D) Ice preservation
(E) Answer not known
9. Degreening is the process of decomposing green pigments in fruits by applying _____ to give a characteristic colour
(A) Chlorin (B) Nitrogen
 (C) Ethylene (D) Oxygen
(E) Answer not known
10. The flower bud dormancy in coffee is due _____ factors.
(A) Due to unfavourable temperature
 (B) Due to the presence of inhibitors in bud
(C) Due to shade effect
(D) Due to high C:N ratio
(E) Answer not known

11. Default unit of CAD is in
- (A) Foot (B) Centimeter
 (C) Inches (D) Milimeter
(E) Answer not known
12. Synthetic lawn is known as
- (A) Astro Turf (B) Mulch
(C) Blue Turf (D) Arches
(E) Answer not known
13. What is the optimum temperature range required for indoor plants?
- (A) 21 – 32° C (B) 10 – 12° C
(C) 10 – 14° C (D) 5 – 10° C
(E) Answer not known
14. Which of the following is not the basic line of Ikebana?
- (A) Man (B) Earth
(C) Heaven (D) Filler
(E) Answer not known
15. To provide a complementary colour effect in a pergola, pick the correct combination of ornamental climber,
- Beaumontia grandiflora and Hiptage madablota
 - Lonicera Japonica and Jacquemontia pentantha
 - Tristellateia australis and Combretum Comosum
 - Thunbergia fragrans and Vallaris hyenei
- (A) 1 (B) 2
 (C) 3 (D) 4
(E) Answer not known

16. In India, Post-harvest loss in vegetable range from _____%.

- (A) 10 - 25%
- (B) 25 - 50%
- (C) 40 - 55%
- (D) 50 - 60%
- (E) Answer not known

17. Fruits Product Order (FPO) is effected in the year

- (A) 1954
- (B) 1955
- (C) 1965
- (D) 1968
- (E) Answer not known

18. The Indian Spices board is located in

- (A) Cochin, Kerala
- (B) Trichy, T.N
- (C) Pune, Maharastra
- (D) Hyderabad, Telungana
- (E) Answer not known

19. Organic sources of Potassium are

- (A) Phosphobacteria
- (B) Sea weed
- (C) Sulphate of Potash
- (D) Azospirillum
- (E) Answer not known

20. _____ developed the progeny test and used successfully in improvement of Sugarbeets.

- (A) Mendel (1900)
- (B) Knight (1759-1835)
- (C) Johannsen (1903)
- (D) Vilmorin (1856)
- (E) Answer not known

21. Choose the correct statement

- (A) The variation within a pureline is environmental and heritable
- (B) The variation within a pureline is genetic and non heritable
- (C) The variation within a pureline is genetic and heritable
- (D) The variation within a pureline is environmental and non-heritable
- (E) Answer not known

22. In bulk method of breeding, the single plant selection is carried out in _____ generation

- (A) F₁
- (B) F₂
- (C) F₆
- (E) Answer not known

23. Resistance source of Tobacco Mosaic Virus (TM-1) in Tomato

- (A) Solanum hirsutum
- (B) Solanum pimpinellisolum
- (C) Solanum chilense
- (D) Solanum pennellii
- (E) Answer not known

24. The tappable stage of rubber when raised through budded plants
- (A) 55 cm girth at a height of 50 cm from the ground
 - (B) 50 cm girth at a height of 125 – 150 cm from the ground
 - (C) 40 cm girth at a height of 50 cm from the ground
 - (D) 70 cm girth at a height of 50 cm from the ground
 - (E) Answer not known
25. The chemical which is used for removal of mucilage in coffee pulp for preparation of parchment coffee
- (A) Sodium hydroxide
 - (B) Hydro chloric acid
 - (C) Nitric acid
 - (D) Sulphuric acid
 - (E) Answer not known
26. Selective picking of ripe berries in coffee is termed as
- (A) Fly picking
 - (B) Main picking
 - (C) Stripping
 - (D) Clean picking
 - (E) Answer not known
27. Hisar Sawrup is the variety of _____ crop.
- (A) Cumin
 - (B) Fenugreek
 - (C) Fennel
 - (D) Coriander
 - (E) Answer not known

28. Choose the incorrect statement

Fruits and Vegetables

- (A) Supply minerals and vitamins
- (B) Contain variety of polyphenols
- (C) Serve as good laxatives
- (D) The bioavailability is poor when compared to other source
- (E) Answer not known

29. The term Horticulture first appeared in written language in the

- (A) 16th Century
- (B) 15th Century
- (C) 17th Century
- (D) 13th Century
- (E) Answer not known

30. Aromatic plants are defined as

- (A) Those plants, the parts of which yield essential oil on steam distillation or solvent extrating
- (B) These plants, the products of which are made use of food adjuncts.
- (C) The plants yielding glycosides, alkaloids and steroid principles, which are having curative properties.
- (D) These crops, which are grown in large contiguous area on extensive scale
- (E) Answer not known

31. 'Gold Finger' banana variety developed by FHIA belongs to which subgroup
- (A) Cavendish subgroup (B) Mysore subgroup
(C) Pome subgroup (D) Silk subgroup
(E) Answer not known
32. The carambola variety is
- (A) Golden star (B) Sharbati
(C) Singree (D) Surkha
(E) Answer not known
33. Choose the gynodioecious papaya variety among the following
- (A) Co-5 (B) Co-6
(C) Co-7 (D) Co-8
(E) Answer not known
34. Hartley Walnut cultivar is selection from
- (A) Chile (B) French
(C) California (D) Mexico
(E) Answer not known
35. "Phylloxera" resistant root-stocks of grapes is
- (A) Riparia ceorie (B) Salt creek
(C) Solanis 1616 (D) Dogridge
(E) Answer not known
36. Which state is called as Apple Bowl of India?
- (A) Punjab (B) Himachal Pradesh
(C) Jammu and Kashmir (D) Uttar Pradesh
(E) Answer not known

37. Lemon grass variety resistant to frost
- (A) Nima (B) Chirharit
(C) GRL-1 (D) CKP-25
(E) Answer not known
38. Gujarat Isabgol (GI-2) is derived by
- (A) Selection (B) Mutation
(C) Hybridization (D) Introduction
(E) Answer not known
39. In opium poppy, the variety "Trishina" was released from
- (A) NBPGR, New Delhi (B) CIMAP, Lucknow
(C) JNKVV, Mandasaur (D) AICRP, Faizabad
(E) Answer not known
40. The Palmarosa grass variety released from the CIMAP, Lucknow
- (A) Tripta (B) Kalam
(C) CKP-25 (D) BIO-23
(E) Answer not known
41. Identify the crop which "Rothschildiana" species is present
- (A) Psyllium (B) Opium
(C) Kalmegh (D) Glory lily
(E) Answer not known

42. Choose the correct statement :
- (A) The development of embryo from integument cells without fertilization called non recurrent apomixis
- (B) The development of embryo directly from the haploid egg cell called non-recurrent apomixis.
- (C) The development of embryo from the cells of funiculus called non-recurrent apomixis.
- (D) The development of embryo from pollen tubecells called non-recurrent apomixis.
- (E) Answer not known
43. A process of development of diploid embryos without fertilization is
- (A) Allomixis (B) Autogamy
- (C) Apomixis (D) Allogamy
- (E) Answer not known
44. In citrus, the process of degreening must takes place under _____ and _____ Condition
- (A) High RH (90-95%) and air tight
- (B) High RH (90-95%) and good air exchange
- (C) Low RH (<90%) and Air tight
- (D) Low RH (<90%) and good air flow
- (E) Answer not known
45. The fruit which ponderously low is hydrolytic activity is
- (A) Banana (B) Jack
- (C) Mango (D) Oranges
- (E) Answer not known
46. Grape fruit are exposed to _____ for 12 h to 3 days at 20-29°C to induce destruction of chlorophyll in the peel
- (A) 1-5 μ l/l ethylene (B) 6-10 μ l/l ethylene
- (C) 11-15 μ l/l ethylene (D) 16-20 μ l/l ethylene
- (E) Answer not known

47. Brinjal, based on flower style, they are divided into how many types?
- (A) Six (B) ~~Four~~
- (C) Two (D) Seven
- (E) Answer not known
48. Choose the correct statement
- (A) In knol khol, purple varieties often bolt more rapidly than white varieties
- (B) White varieties often bolt more rapidly than purple varieties
- (C) Both varieties are not prone to bolting
- (D) Both varieties are often shows bolting
- (E) Answer not known
49. In India, the first F_1 hybrid of tomato was made available for commercial cultivation only in the year
- (A) 1970 (B) 1971
- (C) 1972 (D) 1973
- (E) Answer not known
50. Monordica cochinchinensis is commonly called as
- (A) kartoli (B) bitter gourd
- (C) sweet gourd (D) musk melon
- (E) Answer not known
51. Central Potato Research Institute, Simla was established during the year
- (A) 1945 (B) 1947
- (C) 1949 (D) 1950
- (E) Answer not known

57. Pura Ruby developed by crossing of the _____ parents
- (A) Improved Meeruthi × Red Cloud
 - (B) Sioux × Improved Meeruthi
 - (C) Improved Meeruthi × Sioux
 - (D) Red Cloud × Improved Meeruthi
 - (E) Answer not known
58. Spontaneous mutations occur at a rate of
- (A) 10^{-1} to 10^{-2}
 - (C) 10^{-5} to 10^{-6}
 - (B) 10^{-3} to 10^{-4}
 - (D) 10^{-7} to 10^{-8}
 - (E) Answer not known
59. The resistant source of YVMV in Bhendi is
- (A) Abelmoschus esculentus
 - (B) Abelmoschus manihotvar tetraphyllus
 - (C) Abelmoschus moschatus
 - (D) Abelmoschus ficulneus
 - (E) Answer not known
60. The species producing monoecious flowers is
- (A) Trichosauthes raponiea
 - (B) Trichosauthes anguina
 - (C) Trichosanthes palmata
 - (D) Trichosanthes cucumeroides
 - (E) Answer not known
61. Single Seed Descent (SSD) was originally suggested by
- (A) Cockerham and Matzinger (1985)
 - (B) Goulden, 1939
 - (C) Jinks and Pooni, 1976
 - (D) Boerma and Cooper, 1975
 - (E) Answer not known

67. Permanent grass is used as mulch without no fillage is called as
- (A) Sod mulch (B) Sod
- (C) Clean culture (D) Cover Cropping
- (E) Answer not known
68. Acid lime planted with a spacing of 5×5 m in Hexagonal planting system the number of plants/ ha is
- (A) 400 (B) 461
- (C) 537 (D) 248
- (E) Answer not known
69. In apple, UltraHDP system accommodates _____ plants/ha.
- (A) <250 (B) 250 – 500
- (C) 500 – 1250 (D) >1250
- (E) Answer not known
70. The new Growth of flush and flowers occurs in fruit crops during
- (A) Winter (B) Spring
- (C) Summer (D) Autumn
- (E) Answer not known
71. The potential evapotranspiration rate in arid and semiarid zone is
- (A) 8 mm/day (B) 3 mm/day
- (C) 4 mm/day (D) 6 mm/day
- (E) Answer not known

72. The number of plants that can be accommodated in acre by hexagonal system for a crop normally planted at 5 m × 5 m spacing is
- (A) 125 (B) 184
 (C) 204 (D) 320
 (E) Answer not known
73. Which of the plant belongs to Rosaceae performs well under subtropical conditions.
- (A) Loquat (B) Apple
 (C) Peach (D) Plum
 (E) Answer not known
74. Grass Mulch or sod culture reduce the soil temperature and incidence of _____ in mango ripe fruits.
- (A) Spongy tissue (B) Root rot
 (C) Golden nematode (D) Stem bores
 (E) Answer not known
75. Arka Sahan is a progeny of
- (A) Washington × Cherimola (B) Balanagar × APK-1
 (C) Mammoth × Balanagar (D) Island Gem × Mammoth
 (E) Answer not known
76. Among the following almond varieties, the shelling percentage is high compared to others in
- (A) California Paper Shell (B) I × L
 (C) Makhdoom (D) Non Pareil
 (E) Answer not known
77. In which variety of Ber, the fruits are round and similar to crab apple
- (A) Kaithli (B) Seb
 (C) Umran (D) Seo
 (E) Answer not known

83. Which one of the following statement is "not true" while considering growing media for raising nursery plants
- (A) It should denature upon pasteurization
 - (B) It should preferably neutral in reaction
 - (C) It should free from contamination
 - (D) It should be retentive of enough moisture
 - (E) Answer not known
84. The ratio of 4:3:2:2:1:1 of Leaf mould, sand, loam, horse manure, brick pieces and lime rubbish respectively is required for preparing pot mixture to grow
- (A) Cacti and Succulents
 - (B) Bulbous plants
 - (C) Palms
 - (D) Ferns
 - (E) Answer not known
85. Propagation by apomictic seedlings are common in
- (A) Sapota
 - (B) Citrus
 - (C) Grapes
 - (D) Guava
 - (E) Answer not known
86. The longevity of cocoa seeds is
- (A) 7 days
 - (B) 1 year
 - (C) 60 days
 - (D) 4 months
 - (E) Answer not known
87. Which of the following statement is not true with respect to the process of radicle protrusion in seed occurs due to
- (A) Negative osmotic potential
 - (B) Expansion of cells surrounding radicle
 - (C) Division of cells surrounding radicle
 - (D) Flexibility of cellwall in radicle
 - (E) Answer not known

88. Low temperature favours more amount of _____ conversion in potato.

- (A) Starch (B) Cellulose
(C) Hemi cellulose (D) Sugar
(E) Answer not known

89. The perennial type of morniga are propagated through

- (A) Root cuttings (B) Air layers
(C) Seeds (D) Stem cuttings
(E) Answer not known

90. Seedless triploid water melon variety is

- (A) Aska manik (B) Durgapura Meetha
 (C) Pusa Bedana (D) Sugar Baby
(E) Answer not known

91. The variety of potato resistant to wart disease

- (A) Kufri sutlej (B) Kufri jawahar
(C) Kufri pukhraj (D) Kufri jyoti
(E) Answer not known

92. White Vienna is a variety of

- (A) Sprouting Broccoli (B) Broccoli
 (C) Knol khol (D) Brussels sprouts
(E) Answer not known

93. Chilling sensitive flowers should be stored at temperatures above
- (A) Above $0^{\circ} - 5^{\circ}\text{C}$
 - (B) Above 10°C
 - (C) Above -5°C
 - (D) Above -5 to 0°C
 - (E) Answer not known
94. Waxing of fruit and vegetables can help in
- (A) Increasing the TSS content
 - (B) Increasing the respiratory rate
 - (C) Reducing the water loss during handling
 - (D) Reducing the TSS content during storage
 - (E) Answer not known
95. The cultivar of onion is reported to have more sprouting problem of bulbs
- (A) Pink
 - (B) Purple
 - (C) Rose
 - (D) White
 - (E) Answer not known
96. The dry ginger recovery obtained from green ginger during processing is
- (A) 12 – 16 percent
 - (B) 25 – 30 percent
 - (C) 30 – 35 percent
 - (D) 16 – 25 percent
 - (E) Answer not known
97. The superficial spotting of lenticels occurs in apple at high temperature is called as
- (A) Sunburn scald
 - (B) Jonathan spot
 - (C) Senescent blotch
 - (D) Skin necrosis
 - (E) Answer not known

98. In heavy metal contaminated soils, heavy metals affects the
 (A) Cell wall (B) Chlorophyll
 (C) Mitochondria (D) Nucleus
 (E) Answer not known
99. The shifting of reproductive phase from vegetative phase in respect of light duration is
 (A) Photo respiration (B) Critical period
 (C) Vernalizations (D) Photo periodism
 (E) Answer not known
100. In Heat Stress condition, photosynthetic rate is _____ in plants
 (A) reduced more than respiration rate
 (B) reduced less than respiration rate
 (C) reduced equally with respiration rate
 (D) more than respiration rate
 (E) Answer not known
101. Ancestor for watermelon is
 (A) Praecitrullus fistulosus (B) Citrullus
 (C) Citrullus colocynthis (D) Citrullus lanatus
 (E) Answer not known
102. Seedless variety and as well root stock have been derived through aneuploidy in
 (A) Mango (B) Guava
 (C) Sapota (D) Pomegranate
 (E) Answer not known
103. In _____ family acute irradiation with X rays or gamma rays induces a temporary loss of Self Incompatibility.
 (A) Solanaceae (B) Cucurbitaceae
 (C) Brassicaceae (D) Convulvulaceae
 (E) Answer not known

104. "Arka Surabi" is a variety of
- (A) *Jasminum auriculatum* (B) *Jasminum sambac*
(C) *Jasminum officinale* (D) *Jasminum grandiflorum*
(E) Answer not known
105. Which of the following varieties of Tuberose is suitable for cut flower?
- (A) Prajwal (B) Srinagar
(C) Vaibhav (D) Surasini
(E) Answer not known
106. "Drooping florets" of chrysanthemum are classified/grouped under
- (A) Spoon (B) Pompon
(C) Anemones (D) Reflexed
(E) Answer not known
107. The world famous *Lillium mackliniae* (Siroy lily) is native to
- (A) Mizoram (B) Nagaland
(C) Manipur (D) Meghalaya
(E) Answer not known
108. An institute connected with "Chrysanthemum breeding" is
- (A) NBRI, Lucknow (B) NBFGR, Lucknow
(C) CISH, Lucknow (D) IISR, Lucknow
(E) Answer not known

109. _____ Irrigation a relatively new system is designed to reduce energy requirements for widely spaced Horticultural crops
- (A) Drip.Irrigation
 - (B) Canvas Dam
 - (C) Micro Sprinkler
 - (D) Bubbler Irrigation
 - (E) Answer not known
110. In apple, high HDP system accommodates _____ plants/ha.
- (A) <250
 - (B) 250-500
 - (C) 500-1250
 - (D) >1250
 - (E) Answer not known
111. Choose the correct statements
Nurient Film Technique (NFT)
- I. True hydroponic system
 - II. The plant roots are exposed to nutrient solution
 - III. The plants are grown in trough or container, the roots are suspended or sprayed with nutrient mist
 - IV. It is a combined structure of growing fish and plants
- (A) I and III are Correct
 - (B) I and II are Correct
 - (C) II and III are Correct
 - (D) III and IV are Correct
 - (E) Answer not known

112. The vegetable crop that is not very much suitable for growing as an inter crop in banana
- (A) Amaranthes (B) Beans
 (C) Cucurbit (D) Yam
 (E) Answer not known
113. The optimum soil pH and soil type for cultivation of pineapple are
- (A) 4.5 to 5.0 & Clay loam (B) 5.5 to 6.0 & Sandy loam
 (C) 6.5 to 7.0 & loamy laterite (D) 7.0 to 8.0 & Heavy clay
 (E) Answer not known
114. Front set in Adriatic of common fig is due to
- (A) Parthenocarpic (B) Wasp pollination
 (C) Wind Pollination (D) Ant pollination
 (E) Answer not known
115. Under optimal growing conditions of climate and soil, the removal of macro nutrient by banana is in the order of
- (A) $N > P > K$ and K is $> N$ (B) $N > P < K$ and K is $> N$
 (C) $N > P > K$ and K is $< N$ (D) $N < P < K$ and K is $< N$
 (E) Answer not known
116. By adopting 'Ambe banar' technique, pomegranate fruits can be harvested during the months of
- (A) October-December (B) June-July
 (C) September-January (D) January-February
 (E) Answer not known
117. Sun burn of grape berries is often encountered in the training method of
- (A) Kniffin system (B) V system
 (C) Y system (D) Flat roof gable system
 (E) Answer not known
118. The mango (10×10) and phalsa (10×10 M) planted in the Quincun \times System planting in one hectare, what is the total plants in two hectare for both crops?
- (A) 100 Nos. (B) 200 Nos.
 (C) 362 Nos. (D) 189 Nos.
 (E) Answer not known

119. The country which account for half of the world production of clove is
- (A) Srilanka (B) India
 (C) Indonesia (D) Malaysia
(E) Answer not known
120. The spineless mutant of *Solanum Khasianum*
- (A) Arka mahima (B) Glaxo mutant
(C) BARC – 1 mutant (D) 11HRZn – 11
(E) Answer not known
121. What is the chief constituent of *Artemisia* oil?
- (A) Devana furans (B) ISO davanone
 (C) Artemisinin (D) Davanone
(E) Answer not known
122. Choose the special feature of *Solanum Khasianum* variety Arka Sanjeevini
- (A) Suitable for inter cropping (B) Suitable for ratoon cropping
 (C) Spineless variety (D) It is partheno carpy type
(E) Answer not known
123. What is the major alkaloid present in *Sarpagandha*?
- (A) Vin blastine (B) Ajmalicine
(C) Serpantanoid (D) Rauwolfia
(E) Answer not known

124. The rootstock of plum that is resistant to Cold, Collar rot and Nematode is
- (A) St.Julien K. (B) Pixi
 (C) Myrobalan (D) Mariana
(E) Answer not known
125. The treatment of IBA at the rate of 5000 ppm is effective in inducing rooting in the _____ cuttings.
- (A) Semi – Hardwood Cuttings (B) Hardwood – Cuttings
(C) Softwood – Cuttings (D) Root Cuttings
(E) Answer not known
126. The precocity in flowering and bearing is seen in which of the following combination
- (A) Sweet orange on Mandarin
(B) Mandarin on Sweet orange
(C) Roughlemon on Mandarin
 (D) Mandarin on roughlemon
(E) Answer not known
127. The optimum temperature for storage of bundled and packed scion wood for grafting is
- (A) 5-7°C (B) 10-12°C
(C) 14-16°C (D) 18-20°C
(E) Answer not known
128. Which growing media takes long time to decompose and convert into organic manure
- (A) Sphagnum moss
(B) Perlite
 (C) Sawdust
(D) Vermiculite
(E) Answer not known

129. Indian Cassava Mosaic virus (ICMV) is transmitted by
- (A) aphids (B) thrips
(C) leaf hopper (D) white fly
(E) Answer not known
130. Black rot disease in knol khol is caused by
- (A) bacteria (B) fungi
(C) MLO's (D) virus
(E) Answer not known
131. Forking in carrot is due to
- (A) Physiological disorder (B) Sandy soil
 (C) Hard soil (D) Nitrogen deficiency
(E) Answer not known
132. _____ is the enzyme present in cassava that is responsible for HCN production in roots.
- (A) Linamarase (B) Polyphenol oxidase
(C) Acid Invertase (D) Alkali invertase
(E) Answer not known
133. In tomato, high amount of abscisic acid is produced due to
- (A) high temperature (B) low temperature
(C) high rainfall (D) low light
(E) Answer not known

134. The spoilage due to mechanical damage in Banana is

(A) Stem end rot

(B) Crown rot

(C) Green mould

(D) Blue mould

(E) Answer not known

135. Chlorine compounds are added in water used for washing fruits and vegetables to Kill.

(A) Insects

(B) Nematodes

(C) Bacteria

(D) Fruit fly

(E) Answer not known

136. Choose the right specification for hot water treatment in Mango.

(A) 51–55°C for 15 minutes

(B) 51–55°C for 30 minutes

(C) 55–60°C for 15 minutes

(D) 55–60°C for 30 minutes

(E) Answer not known

137. During ripening _____ levels within fruit tend to increase.

(A) protein

(B) sugar

(C) starch

(D) fat

(E) Answer not known

138. Cuttings under etiolation are found to have a higher level of endogenous _____ at the etiolated site
- (A) Auxin (B) Gibberellins
(C) Cytokinins (D) Abscisic acids
(E) Answer not known
139. The Precursor of ethylene productions is
- (A) Ascorbic acid (B) Methionine
(C) Guanine (D) Mevalonic acid
(E) Answer not known
140. _____ is classified as class 1 inhibitor.
- (A) Flourprimidol (B) Paclobutrazol
 (C) Maleic Hydrazide (D) Trinexapac-ethyl
(E) Answer not known
141. Cyclopentano perhydro phenantharene ring structure is associated with one of the plant growth regulators listed
- (A) Cytokinins (B) Gibberellins
 (C) Brassinolide (D) Indole Acetic acid
(E) Answer not known

142. "Slabside" is a physiological disorder of
- (A) Tuberoses (B) Jasmine
(C) Anthurium (D) Carnation
(E) Answer not known
143. Anti petal blackening film is used in polyhouse to overcome the physiological disorder in
- (A) Cutrose (B) Cut chrysanthemum
(C) Carnation (D) Gerbera
(E) Answer not known
144. Storage is not recommended for _____ flower.
- (A) Dahlia (B) Rose
(C) Chrysanthemum (D) Gerbera
(E) Answer not known
145. Assertion (A) : Foliar application of cycocel@1000 ppm increases the production of flowers in Jasminum sp.
Reason (R) : Cycocel application stimulates more number of shoots and induce more flowers in Jasminum sp.
- (A) Both (A) and (R) are true and (R) is the correct explanation of (A)
(B) Both (A) and (R) are true but (R) is not the correct explanation of (A)
(C) (A) is true but (R) is false
(D) (A) is false but (R) is true
(E) Answer not known
146. Calyx splitting in carnation is caused due to the deficiency of
- (A) Calcium (B) Magnesium
(C) Zinc (D) Boron
(E) Answer not known

147. Choose the incorrect statement :

The fertilizer requirement of crop plants can be done by

- (A) Soil analysis
- (B) Nutrient – replete Studies
- (C) Leaf analysis
- (D) STCR approach
- (E) Answer not known

148. Zinc deficiency symptoms occurs in

- (A) Old leaves
- (B) New leaves
- (C) Old and New leaves
- (D) Terminal bud
- (E) Answer not known

149. Bitter pit in apple can be controlled by using

- (A) Sodium Chloride
- (B) Potassium Chloride
- (C) Ammonium Chloride
- (D) Calcium Chloride
- (E) Answer not known

150. Interaction between different genes when an allele at one locus inhibits the expression of non allele at another locus.
- (A) Dominant gene (B) Recessive gene
 (C) Epistasis (D) Inhibitory
(E) Answer not known
151. In breeding programme, after _____ generations of selfing of heterozygous individuals virtually all the plants in the population would be homozygous.
- (A) 2 (B) 4
(C) 6 (D) 10
(E) Answer not known
152. The phenomenon of a single major gene affecting more than one character is known as
- (A) Penetrance (B) Expressivity
(C) Linkage (D) Pleiotropy
(E) Answer not known
153. The Scientists related to Nobilisation of Indian cases are _____ and _____.
- (A) N.E. Borlaug and Vilmorin
(B) Thomas Fairchild and Joseph Koelreuter
(C) Nilsson and Johannsen.
 (D) C.A. Barber and T.S. Venkatraman
(E) Answer not known
154. Sea transport of papaya can be advantageously done in refrigerated containers at temperature and humidity range of
- (A) 8-10° C & 70-80% RH (B) 10°-11° C & 75-85% RH
 (C) 12°-13° C & 85-95% RH (D) 14-15° C & 95-100% RH
(E) Answer not known

155. A coriander variety which is a reselection from Guntur collection with a short duration of 65 – 70 days is
- (A) Suidhu (B) Co(CR) – 4
- (C) RCr – 41 (D) Rajendra swati
- (E) Answer not known
156. A natural green colour seed coat mutant of fenugreek is
- (A) Hissar mukta (B) Hissar madhavi
- (C) Hissar suvarna (D) Hissar sonali
- (E) Answer not known
157. In cashew, vengurla - 5 is a cross between
- (A) Midnapore Red × Vetore 56 (B) Ansur 1 × Vetore 56
- (C) Ansur 1 × Mysore kotekar (D) Ansur Early × Mysore Kotekar
- (E) Answer not known
158. The maturity index of vanilla for harvest indicated by
- (A) when the bean attains light green colour
- (B) when the bean attains dark green colour
- (C) yellowing commences from distal end
- (D) yellowing commences from stalk end
- (E) Answer not known
159. What is the time period from spadix initiation to ripening of nuts in coconut?
- (A) 12 months (B) 22 months
- (C) 32 months (D) 42 months
- (E) Answer not known

160. The method of budding practised extensively in the propagation of sweetoranges, roses, plums, and peaches is
- (A) Patch budding
 - (B) Flap or forket budding
 - (C) 'T' budding
 - (D) Chip budding
 - (E) Answer not known
161. In which type of Cutting, axillary bud gives rise to the shoot while the roots are initiated from the basal end of the stem piece
- (A) Leaf Cutting
 - (B) Leaf bud Cutting
 - (C) Softwood Cutting
 - (D) Herbaceous Cutting
 - (E) Answer not known
162. Myrobalan plum roots tolerate excess
- (A) Ca
 - (B) Bo
 - (C) Mo
 - (D) Mn
 - (E) Answer not known
163. Which of the following seeds of the crop has shortest seed viability
- (A) Cinnamon
 - (B) Jackfruit
 - (C) Cocoa
 - (D) Mango
 - (E) Answer not known

164. For foundation lead production of cauliflower, the isolation distance of _____ m is needed.
- (A) 800 (B) 1000
(C) 1200 (D) 1600
(E) Answer not known
165. Under polyhouse, _____ lamps emit more heat energy than light energy.
- (A) Incandescent (B) Fluorescent
(C) High Intensity Discharge (HID) (D) Light Emitting Diodes (LED)
(E) Answer not known
166. _____ must be harvested before floral buds opening and closing of head.
- (A) Lettuce (B) Brussels sprout
 (C) Broccoli (D) Kale
(E) Answer not known
167. In post harvest handling of vegetables the process in which oxygen is used and carbondioxide is released is
- (A) Ethylene production (B) Transpiration
 (C) Respiration (D) Attack by pathogens
(E) Answer not known
168. To increase the female flower production in Ashgourd, the growth regulator recommended is
- (A) GA – 40 ppm (B) Ethrel – 250 ppm
(C) 24 D – 100 ppm (D) Ethylene
(E) Answer not known

169. Indian Cardamom Research Institute (ICRI) is located at
- (A) Lucknow, Uttar Pradesh (B) Anand, Gujarat
(C) Ajmer, Rajasthan (D) Myladumpara, Kerala
(E) Answer not known
170. Vinegar is used as one of the main preservative for preparation
- (A) Pickles (B) Jam
(C) Jelly (D) Syrups
(E) Answer not known
171. Find out the wrong statement with respect to dehydration of fruits and vegetables.
- (A) Removal of moisture helps in reducing microbial activity
(B) Removal of water reduces enzymatic activity
(C) Removal of moisture increases the sugar concentration
 (D) Removal of water increases the microbial activity
(E) Answer not known
172. _____% of ice, _____% of water and _____% of sodium chloride are used for preparing shrink for Ice cooling.
- (A) 60%, 40% & 0.1% (B) 50%, 50% & 0.1%
(C) 40%, 60% & 0.1% (D) 70%, 30% & 0.1%
(E) Answer not known
173. Dehydration temperature for fruits preservation is _____°C.
- (A) 46 – 51°C (B) 56 – 61°C
 (C) 66 – 71°C (D) 76 – 81°C
(E) Answer not known

174. The plant in which flower opens at night and closes during day.
- (A) Fritillana (B) Xanthium
 (C) Cestrum nocturnum (D) Adenium obesum
(E) Answer not known
175. In chillies sparying of _____ at 60th and 90th day after planting is beneficial for good fruit setting
- (A) IAA @ 10 PPM (B) NAA @ 10 PPM
(C) 2,4 D@ 10 PPM (D) Calcium Nitrate @ 10 PPM
(E) Answer not known
176. The juvenile stems formed brunel sprout upto weeks
- (A) 2 (B) 3
(C) 5 (D) 11
(E) Answer not known
177. The chemical used to induce parthenocarpy in brinjal
- (A) 2, 4-D (B) CPPU
(C) NAA (D) Alar
(E) Answer not known
178. Physiological compound that has wound healing property is _____.
- (A) Absicissic acid (B) Jasmonates
(C) Ethylene (D) Brassinosteriods
(E) Answer not known

179. An ornamental plant suitable for boundary or tall Hedge is
- (A) Barleria sp (B) Lantana Camera
 (C) Tecoma stans (D) Alternanthera
 (E) Answer not known

180. Orange flower producing tree is
- (A) Cassia grandis (B) Spathodia campanulata
 (C) Jacaranda Mimosaefolia (D) Acacia dealbata
 (E) Answer not known

181. Match the following :

	<u>Japanese garden</u>				<u>Japanese name</u>
I.	Passage garden				1. <u>Hira - niwa</u>
II.	Hill garden				2. <u>Tsukiyama - niwa</u>
III.	Tea garden				3. <u>Roji - niwa</u>
IV.	Flat garden				4. <u>Uchi - roji</u>
	I	II	III	IV	
(A)	1	2	3	4	
(B)	4	1	3	2	
<input checked="" type="checkbox"/> (C)	3	2	4	1	
(D)	4	3	2	1	
(E)	Answer not known				

182. In landscape design, appearance of objects and their surface is referred to as
- (A) Scale (B) Texture
 (C) Surface (D) Space
 (E) Answer not known

183. Which of the following flower is stored at 0° to 1° C?
- (A) Gladiolus (B) Cymbidium
 (C) Cattleya (D) Heliconium
 (E) Answer not known

184. Plastic low tunnel technology is a boon for off season vegetable cultivation in

(A) Hilly areas

(B) Hot deserts

(C) Cold deserts

(D) Plains

(E) Answer not known

185. _____ is the instrument used to measure the softening of tissues of fruits as an index of maturity.

(A) Tendrometer

(B) Refractometer

(C) Calorimeter

(D) Penetrometer

(E) Answer not known

186. The most important natural auxin in plants is

(A) IAA

(B) Phenyl acetic acid

(C) P-hydroxyphenyl acetic acid

(D) IBA

(E) Answer not known

187. Monoecy is a term related with the
- (A) Asparagus
 - (B) Spinach
 - (C) Coconut
 - (D) Datepalm
 - (E) Answer not known
188. In often cross pollinated species, the possibility of cross pollination often exceeds _____ percent
- (A) 1 to 4
 - (B) 5 to 30
 - (C) 30 to 40
 - (D) 40 to 50
 - (E) Answer not known
189. CMS may be utilized for producing hybrid seed in plant where,
- (A) Seed is the economic part
 - (B) Necessity in breeding programme to produce seed production of self pollinated crops
 - (C) Vegetative part is of economic value
 - (D) Other than ornamental plants.
 - (E) Answer not known
190. Stamens and pistils of hermaphrodite flowers may mature at different times is known as
- (A) Monoecy
 - (B) Dioecy
 - (C) Dicliny
 - (D) Dichogamy
 - (E) Answer not known

191. In palmyrah, the variety SVPR-1 was released from
- (A) Karnataka (B) Orissa
 (C) Tamil Nadu (D) Andhra pradesh
(E) Answer not known
192. For good growth and production of 'cumin', turmeric crop requires
- (A) Subtropical conditions (B) Rainy and moist conditions
 (C) Cool and dry conditions (D) Warm humid conditions
(E) Answer not known
193. Good mother coconut tree should have _____ fully opened leaves with 12 to 15 bunches.
- (A) 30 - 40 (B) 10 - 20
(C) 20 - 30 (D) 50 - 60
(E) Answer not known
194. The coconut hybrid, VHC - 2 is a cross between
- (A) ECT × Malaysian Dwarf green
(B) Andaman ordinary × Ganga bondam
(C) ECT × Ganga Bondam
 (D) ECT × Malaysian Dwarf yellow
(E) Answer not known
195. The areca nut variety tolerant to burrowing nematode is
- (A) Mangala (B) Sreemangala
(C) PV-1 (D) CCS-1
(E) Answer not known

196. The altitude of more than _____ MSL in the western ghat and Eastern ghat hills are classified under southern hilly zone.
- (A) 600 m (B) 700 m
 (C) 800 m (D) 900 m
(E) Answer not known
197. In TC Lab, the plant cultures are incubated in AC rooms with 16 hour Photoperiod and a light intensity of
- (A) 500 lux (B) 1000 lux
(C) 1500 lux (D) 2000 lux
(E) Answer not known
198. The concentration of myo-Inositol required for culture medium is
- (A) 100 mg/lit (B) 200 mg/lit
(C) 300 mg/lit (D) 400 mg/lit
(E) Answer not known
199. The method that is aimed at changing the established plant, tree, shrub or vine into desirable cultivar is by
- (A) Bridge grafting (B) Top working
(C) Buttress grafting (D) Saddle grafting
(E) Answer not known
200. In pineapple, if suckers are used for planting, the harvesting will be done at
- (A) 15-18 months after planting
(B) 20-22 months after planting
(C) 24-25 months after planting
(D) 25-28 months after planting
(E) Answer not known

SPACE FOR ROUGH WORK

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SEAL