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

Test Booklet No. : 00073

Series A

TEST BOOKLET

HORTICULTURE

Time Allowed : 2 Hours **Full Marks : 200**

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

1. The name of the Subject, Roll Number as mentioned in the Admission Certificate, Test Booklet No. and Series are to be written legibly and correctly in the space provided on the Answer-Sheet with Black/Blue ballpoint pen.
2. **Answer-Sheet without marking Series as mentioned above in the space provided for in the Answer-Sheet shall not be evaluated.**
3. All questions carry equal marks.

   The Answer-Sheet should be submitted to the Invigilator.

   Directions for giving the answers : Directions for answering questions have already been issued to the respective candidates in the 'Instructions for marking in the OMR Answer-Sheet' along with the Admit Card and Specimen Copy of the OMR Answer-Sheet.

   Example :

   Suppose the following question is asked :

   The capital of Bangladesh is
   (A) Chennai
   (B) London
   (C) Dhaka
   (D) Dhubri

   You will have four alternatives in the Answer-Sheet for your response corresponding to each question of the Test Booklet as below :

   Ⓐ Ⓑ Ⓒ Ⓓ

   In the above illustration, if your chosen response is alternative (C), i.e., Dhaka, then the same should be marked on the Answer-Sheet by blackening the relevant circle with a Black/Blue ballpoint pen only as below :

   Ⓐ Ⓑ ● Ⓓ

   The example shown above is the only correct method of answering.
4. Use of eraser, blade, chemical whitener fluid to rectify any response is prohibited.
5. Please ensure that the Test Booklet has the required number of pages (16) and 100 questions immediately after opening the Booklet. In case of any discrepancy, please report the same to the Invigilator.
6. No candidate shall be admitted to the Examination Hall/Room 20 minutes after the commencement of the examination.
7. No candidate shall leave the Examination Hall/Room without prior permission of the Supervisor/Invigilator. No candidate shall be permitted to hand over his/her Answer-Sheet and leave the Examination Hall/Room before expiry of the full time allotted for each paper.
8. No Mobile Phone, Electronic Communication Device, etc., are allowed to be carried inside the Examination Hall/Room by the candidates. Any Mobile Phone, Electronic Communication Device, etc., found in possession of the candidate inside the Examination Hall/Room, even if on off mode, shall be liable for confiscation.
9. No candidate shall have in his/her possession inside the Examination Hall/Room any book, notebook or loose paper, except his/her Admission Certificate and other connected papers permitted by the Commission.
10. Complete silence must be observed in the Examination Hall/Room. No candidate shall copy from the paper of any other candidate, or permit his/her own paper to be copied, or give, or attempt to give, or obtain, or attempt to obtain irregular assistance of any kind.
11. This Test Booklet can be carried with you after answering the questions in the prescribed Answer-Sheet.
12. Noncompliance with any of the above instructions will render a candidate liable to penalty as may be deemed fit.
13. No rough work is to be done on the OMR Answer-Sheet. You can do the rough work on the space provided in the Test Booklet.

N.B. : There will be negative marking @ 0·25 per 1 (one) mark against each wrong answer.

SEAL

1. The Orchid Research and Development Centre (ORDC) is situated at

(A) Gangtok

(B) Pune

(C) Darjeeling

(D) Bhalukpong

2. Methionine is the precursor of which of the following plant growth regulators?

(A) Ethylene

(B) Cytokinin

(C) Abscisic acid

(D) Auxin

3. Deficiency of which nutrient is visible in old leaves?

(A) Fe

(B) N

(C) Mn

(D) Cu

4. The unit for measurement of light is

(A) joule

(B) volt

(C) lux

(D) watt

5. The hydroponic system of growing plants in container where roots are suspended and sprayed with nutrient mist is called

(A) nutrient film technique (NFT)

(B) aeroponics

(C) gravel culture

(D) drip culture

6. Find out the odd one based on botanical form of fruit.

(A) Mangosteen

(B) Karonda

(C) Papaya

(D) Jackfruit

7. Which of the following fruit plants is the oldest fruit plant known to mankind and also eulogized as 'head in fire and foot in water crop'?

(A) Banana

(B) Coconut

(C) Date palm

(D) Peach palm

8. Which of the following cultural practices are followed in banana?

1. Mattocking
2. Propping
3. Desuckering

Select the correct answer using the codes given below :

(A) 1 and 2 only

(B) 1 and 3 only

(C) 1, 2 and 3

(D) 2 and 3 only

9. Vegetable cultivation which is generally carried out in periphery of 10–20 kilometres from cities is termed as

(A) urban gardening

(B) market gardening

(C) truck gardening

(D) forcing gardening

10. Which hormone promotes abscission and senescence in leaves and flowers?

(A) Auxin

(B) Ethylene

(C) Gibberellin

(D) Cytokinin

11. Mother plants should be

(A) tall in nature

(B) high-yielding

(C) low-maintenance

(D) old in age

12. *Hibiscus rosa-sinensis* is commonly propagated by

(A) seed

(B) layering

(C) cutting

(D) suckers

13. Which among the following crops is a good indicator of boron and molybdenum deficiency?

(A) Cauliflower

(B) Brinjal

(C) Tomato

(D) Cucumber

14. Which among the following organic manures has the highest concentration of nitrogen?

(A) Mustard cake

(B) Groundnut cake

(C) Linseed cake

(D) Coconut cake

15. Which among the following is ***not*** a straight fertilizer?

(A) Urea

(B) Single super phosphate

(C) Muriate of potash

(D) Diammonium phosphate

16. Which among the following spices belongs to the family Orchidaceae?

(A) Saffron

(B) Fenugreek

(C) Vanilla

(D) Bay leaf

17. Cultivation of two or more crops simultaneously without definite row pattern is termed as

(A) intercropping

(B) mixed cropping

(C) relay cropping

(D) None of the above

18. Which of the given varieties of mango is highly susceptible to spongy tissue disorder?

(A) Arka Aruna

(B) Arka Puneet

(C) Arka Anmol

(D) Alphonso

19. Whiptail, a disorder in cauliflower, is due to the deficiency of

(A) molybdenum

(B) boron

(C) calcium

(D) sulphur

20. Calyx splitting is a disorder of

(A) orchid

(B) rose

(C) carnation

(D) gerbera

21. The isolation distance for production of certified seed of pea is

(A) 5 m

(B) 10 m

(C) 50 m

(D) 100 m

22. The tag colour of foundation seed is

(A) golden yellow

(B) white

(C) azure blue

(D) opal green

23. Potato is stored in cold storage at a temperature range of

(A) 6–8 °C

(B) 8–10 °C

(C) 2–4 °C

(D) 10–12 °C

24. Which of the following is a climacteric fruit?

(A) Kinnow

(B) Grape

(C) Pomegranate

(D) Apple

25. In which of the following crops, citric acid is ***not*** present?

(A) Citrus

(B) Plum

(C) Pineapple

(D) Guava

26. _____ is used for inducing flowering in pineapple.

(A) Auxin

(B) Gibberellic acid

(C) Cytokinin

(D) Ethrel

27. Which Bahar treatment gives excellent quality fruits in guava?

(A) Ambe Bahar

(B) Mrig Bahar

(C) Hasth Bahar

(D) All of the above

28. The science of wine making is known as

(A) viticulture

(B) brewing

(C) enology

(D) palynology

29. A toxic glycoalkaloid found in potato especially concentrated in green part is

(A) dioscorine

(B) serotonin

(C) solanine

(D) oxalic acid

30. Which among the following is the richest source of lycopene?

(A) Tomato

(B) Carrot

(C) Bell pepper

(D) Asparagus

31. Pungency in chilli is measured by

(A) Brix

(B) Scoville Heat Unit (SHU)

(C) TSS

(D) Hedonic scale

32. The edible part of knol khol is known as

(A) Head

(B) Curd

(C) Knob

(D) None of the above

33. Which of the following cucurbits have white-coloured flower?

1. Bottle gourd
2. Ridge gourd
3. Pointed gourd
4. Sponge gourd

Select the correct answer using the codes given below :

(A) 1 and 2 only

(B) 1 and 3 only

(C) 1 and 4 only

(D) 2 and 3 only

34. The leading State in onion area and production is

(A) Maharashtra

(B) Madhya Pradesh

(C) Andhra Pradesh

(D) Karnataka

35. _____ is an orange-fleshed sweet potato variety.

(A) Bhu Krishna

(B) Bhu Sona

(C) Varsha

(D) Sree Nandini

36. 'Gajendra' is a variety of

(A) Taro

(B) Elephant Foot Yam

(C) Amaranthus

(D) Pumpkin

37. Which of the following leafy vegetables is most suitable for hydroponic cultivation?

(A) Lettuce

(B) Spinach

(C) Chinese cabbage

(D) Amaranthus

38. Proper drainage in nursery bed should be provided to avoid

(A) bacteria

(B) virus

(C) damping-off

(D) termites

39. Low-growing perennial plants grown on the border of plots or beds is known as

(A) hedge

(B) herbaceous border

(C) edge

(D) screen

40. Tuberose is propagated by

(A) corm

(B) tuber

(C) bulb

(D) seed

41. Which among the following flowers is cultivated for both loose and cut flowers?

(A) Marigold

(B) Jasmine

(C) Crossandra

(D) Chrysanthemum

42. Which among the following is a semi-terrestrial plant?

(A) Anthurium

(B) Orchid

(C) Gerbera

(D) Lilium

43. Dr. B. P. Pal was a prominent flower breeder known for his breeding achievements in which of the following flowers?

(A) Bougainvillea

(B) Gladiolus

(C) Hibiscus

(D) Rose

44. The indigenous coconut variety of Assam is

(A) Kamrupa

(B) East Coast Tall

(C) West Coast Tall

(D) Kahikuchi Local

45. Harvesting of litchi is done in the month of

(A) August–September

(B) May–June

(C) January–February

(D) October–November

46. The short-term pre-shipment or pre-storage treatment given in solution with sucrose as its main component is called

(A) holding solution

(B) impregnation

(C) pulsing

(D) bud opening solution

47. Name the State where Agri Export Zone (AEZ) for fresh and processed ginger exists.

(A) Tripura

(B) Sikkim

(C) Assam

(D) Mizoram

48. Suvarnarekha is a double-type variety of

(A) gladiolus

(B) banana

(C) tuberose

(D) okra

49. The commercial preparation of orchid is

(A) division

(B) seed

(C) cutting

(D) tissue culture

50. Patchouli is a/an

(A) vegetable crop

(B) aromatic crop

(C) fruit crop

(D) root crop

51. Name the biofertilizer from the following options.

(A) Azolla

(B) Basic slag

(C) Anhydrous ammonia

(D) CAN

52. *Bacillus thuringiensis*, a natural enemy used for pest control in vegetable production, is a

(A) fungus

(B) virus

(C) protozoan

(D) bacterium

53. Pungency in black pepper is due to the presence of

(A) curcumin

(B) piperine

(C) eugenol compound

(D) isoflavones

54. The green manuring crop that can be used in organic cultivation is

(A) green gram

(B) black gram

(C) dhaincha

(D) cynodon

55. The seed which represents the final product of a seed production programme is

(A) certified seed

(B) registered seed

(C) foundation seed

(D) breeder seed

56. Brinjal is classified based on photoperiodic requirement as

(A) day-neutral plant

(B) short-day plant

(C) long-day plant

(D) mid-day plant

57. The direct or indirect chemical effect of one plant on the germination, growth and development of neighbouring plant is called

(A) allopatry

(B) allogamy

(C) allelopathy

(D) cleistogamy

58. 'Jivamrut' used in natural farming is termed as

(A) bioenhancer

(B) PGR

(C) pesticide

(D) compost

59. Sib mating is popularly done in

(A) papaya

(B) mango

(C) citrus

(D) coconut

60. In brinjal, cross-pollination occurs due to

(A) heterostyly

(B) dioecy

(C) self-incompatibility

(D) heterokaryon

61. The optimum spacing for coconut in square system under agro-climatic conditions of Assam is

(A) 7·0 m × 7·0 m

(B) 7·25 m × 7·25 m

(C) 7·5 m × 7·5 m

(D) 8·0 m × 8·0 m

62. Panama wilt is a serious disease of

(A) Jahaji banana

(B) Malbhog banana

(C) Nendran banana

(D) Hill banana

63. In orchard, growing of two or more crops simultaneously along with the main crop on the same piece of land in distinct rows is termed as

(A) multiple cropping

(B) mixed cropping

(C) relay cropping

(D) intercropping

64. Maturation of male and female flowers at different time is called

(A) dichogamy

(B) unisexuality

(C) cleistogamy

(D) chasmogamy

65. Topple disorder of gladiolus is due to the deficiency of

(A) boron

(B) nitrogen

(C) potassium

(D) calcium

66. A suitable land management system which combines production of horticultural crops along with forest crop is termed as

(A) agro-forestry

(B) horti-silvicultural system

(C) horti-pastoral system

(D) mixed cropping

67. Which of the following systems of planting accommodates 15% more plants than square system of planting?

(A) Cluster system

(B) Triangular system

(C) Equilateral triangle system

(D) Rectangular system

68. Which is ***not*** structure specialized for vegetative propagation?

(A) Tuber

(B) Runner

(C) Bulb

(D) Fruit

69. Vapour heat treatment (VHT) is given to mangoes for export to Japanese and Korean markets for which of the following reasons?

(A) Spongy tissue

(B) Stone weevil

(C) Anthracnose

(D) Powdery mildew

70. A farmer observed the yellowing of lower leaves including leaf blades and petioles and hanging of leaves around pseudostem along with drying of leaves in banana cv. Malbhog. What would be your diagnosis?

(A) Sigatoka disease

(B) Kokkan disease

(C) Panama wilt disease

(D) Pseudostem borer

71. Fertigation schedule based on _____ ensures optimal nutrient availability and prevents salt buildup.

(A) electrical conductivity (EC)

(B) pH

(C) cation exchange capacity (CEC)

(D) All of the above

72. Pollination agent of litchi is

(A) honeybee

(B) housefly

(C) wind

(D) water

73. The water content of watermelon fruit is

(A) 82%

(B) 85%

(C) 87%

(D) 93%

74. Sauerkraut is a fermented product of

(A) radish

(B) cabbage

(C) cucumber

(D) lettuce

75. Which of the following is ***not*** a physical method of food preservation?

(A) Refrigeration

(B) Freezing

(C) Sugar

(D) Irradiation

76. Exudation of liquid from prepared jelly is termed as

(A) failure to set

(B) foggy jelly

(C) syneresis

(D) fermented jelly

77. The total soluble solids (TSS) content of jam should be

(A) 45%

(B) 68%

(C) 55%

(D) 80%

78. The process of breaking or softening the seed coat to make it permeable to water and gases is called

(A) scarification

(B) stratification

(C) priming

(D) imbibition

79. The process of removal of circular ring of bark measuring about 3 cm is called

(A) heading back

(B) thinning out

(C) girdling

(D) notching

80. Which of the following is ***not*** a grade of carnation?

(A) Fancy

(B) Standard

(C) Short

(D) Utility

81. *Moringa oleifera* is referred to

(A) drumstick

(B) white yam

(C) muskmelon

(D) radish

82. Multistoried cropping system is popular in the orchard of

(A) banana

(B) palm

(C) coconut

(D) lemon

83. The flower which is ***not*** used for oil extraction is

(A) Rose

(B) China rose

(C) Tuberose

(D) Jasmine

84. Strike out the odd one from the following crop varieties.

(A) Nadia

(B) Moran

(C) Tall clone

(D) Rio de Janeiro

85. Strike out the odd one from the following fruits considering their ripening behaviour.

(A) Banana

(B) Litchi

(C) Grape

(D) Pineapple

86. The plant hormone which stimulates cell division, cell enlargement and cell elongation is

(A) gibberellin

(B) abscisic acid

(C) auxin

(D) ethylene

87. The quickest method of lawn establishment is

(A) seeding

(B) dibbling

(C) turfing

(D) turf plastering

88. Pollu beetle is a major pest of

(A) black pepper

(B) turmeric

(C) ginger

(D) mint

89. National Research Centre for Orchids is located at

(A) Meghalaya

(B) Sikkim

(C) Arunachal Pradesh

(D) Nagaland

90. The storage temperature for banana is

(A) 10–11 °C

(B) 11–20 °C

(C) 11–13 °C

(D) 12–13 °C

91. PGR in case of cucurbits is applied at

(A) 2–4 leaf stage

(B) 4–6 leaf stage

(C) flowering stage

(D) fruiting stage

92. Which of the following is ***not*** true?

(A) Mango–Drupe

(B) Guava–Berry

(C) Banana–Berry

(D) Mandarin–Pome

93. Which one of the following is a seed spice?

(A) Garlic

(B) Onion

(C) Bay leaf

(D) Cumin

94. The genomic constituent of banana cv. Jahaji is

(A) AAA

(B) AAB

(C) ABB

(D) AB

95. CIMAP is located at

(A) Lucknow

(B) Guwahati

(C) New Delhi

(D) Kohima

96. Orchid seeds are devoid of

(A) cotyledon

(B) embryo

(C) endosperm

(D) seed coat

97. The art of training plants into different shapes is known as

(A) edge

(B) hedge

(C) topiary

(D) parabola

98. Which of the following is a GI product of Assam?

(A) Assam lemon

(B) Elephant apple

(C) Abhayapuri lime

(D) Pummelo

99. Clove is a spice taken from which part of the plant?

(A) Flower

(B) Leaf

(C) Stem

(D) Root

100. Tapioca cv. Sree Jaya was developed through

(A) pure-line selection

(B) clonal selection

(C) mutation breeding

(D) heterosis breeding

SPACE FOR ROUGH WORK