

SEAL

DO NOT OPEN THE SEAL UNTIL INSTRUCTED TO DO SO

Invigilator's signature

Question Booklet No. 970001

2018

TGT—PAPER—I : HORTICULTURE

Time : 2 Hours

Maximum Marks : 100

ROLL NO.

INSTRUCTIONS FOR CANDIDATES

1. This Question Booklet contains 50 optional questions. Each question comprises four responses (answers). You will select ONLY ONE response which you consider the best and darken the bubble on the OMR RESPONSE SHEET.
2. DO NOT write your Name or anything else except Roll No. and the actual answers to the question, anywhere on the OMR RESPONSE SHEET.
3. DO NOT handle your OMR RESPONSE SHEET in such a manner as to mutilate, fold, etc.
4. No candidate shall be admitted to the Examination Hall 20 minutes after commencement of distribution of the Test Booklet. The invigilator of the Examination Hall will be the time-keeper and his decision in this regard is final.
5. No candidate shall have in his/her possession inside the Examination Hall any book, notebook or loose paper, calculator, mobile phone, etc., except his/her admit card and other things / paper permitted by the Commission.
6. Immediately after the final bell indicating the closure of the examination, stop bubbling. Be seated till the OMR RESPONSE SHEET is collected by the invigilator, thereafter you may leave the Examination Hall.
7. Violation of any of the above rules will render the candidate liable to expulsion from the examination and disqualification from the examination, and according to the nature and gravity of his/her offence, he/she may be debarred from future examinations and interviews to be conducted by the Commission and other such organizations (i.e., UPSC, SSC and SPSCs).

NB : CANDIDATES ARE ALLOWED TO TAKE THIS QUESTION BOOKLET ONLY AFTER COMPLETION OF 2 (TWO) HOURS OF EXAMINATION TIME.

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1. Horticulture includes the science of cultivating
 - (A) vegetable crops
 - (B) fruit crops
 - (C) flower crops
 - (D) All of the above
2. The recommended dietary allowance for a healthy person includes
 - (A) 150 g vegetables and 50 g fruits
 - (B) 200 g vegetables and 100 g fruits
 - (C) 300 g vegetables and 100 g fruits
 - (D) 150 g vegetables and 300 g fruits
3. The area under fruit crops in India is in the sequence of
 - (A) banana > mango > citrus > pineapple
 - (B) pineapple > mango > banana > citrus
 - (C) mango > banana > citrus > pineapple
 - (D) None of the above
4. Alphonso is a high quality export variety of
 - (A) guava
 - (B) banana
 - (C) mango
 - (D) grape
5. Polyembryony is a common feature in
 - (A) jackfruit
 - (B) mandarin
 - (C) pineapple
 - (D) papaya
6. Kinnow mandarin orchards with high production and productivity are found in
 - (A) Karnataka
 - (B) Punjab
 - (C) Maharashtra
 - (D) Andhra Pradesh
7. In order to obtain virus-free true-to-type saplings of citrus the method adopted is
 - (A) air layering
 - (B) T-budding
 - (C) micro-grafting
 - (D) None of the above
8. Viticulture is the science of
 - (A) production of vegetable crops
 - (B) cultivation of grapes
 - (C) study of vine growing
 - (D) soil-less vegetable production
9. Crossing between male and female progenies from the same parent is referred to as
 - (A) sibmating
 - (B) vivipary
 - (C) parthenocarpy
 - (D) None of the above
10. Which of the following are good quality root stocks for oranges?
 - (A) Pummelo, Rough lemon, Sweet orange, Trifoliate orange
 - (B) Rough lemon, Volkamer lemon, Trifoliate orange, Rangpur lime
 - (C) Assam lemon, Sweet orange, Grape fruit, Sour orange
 - (D) Rough lemon, Mandarin orange, Troyer citrange, Pummelo

11. Choose the appropriate matches for the following :

a. Papaya	i. Hesperidium
b. Jamun	ii. Berry
c. Apple	iii. Drupe
d. Mandarin	iv. Pome

- (A) a – iv, b – i, c – ii, d – iii
 (B) a – ii, b – iii, c – iv, d – i
 (C) a – ii, b – iv, c – i, d – iii
 (D) a – iii, b – i, c – iv, d – ii
12. How many pineapple plants can be accommodated in 4000 sq m area when planted at a spacing of 30 cm × 45 cm × 90 cm?
- (A) 15777
 (B) 19753
 (C) 21555
 (D) 24625
13. Choose the appropriate combination from the following matches :

a. Banana	i. Greening
b. Citrus	ii. Soft nose
c. Guava	iii. Panama wilt
d. Mango	iv. Wilt

- (A) a – iv, b – i, c – ii, d – iii
 (B) a – ii, b – iii, c – iv, d – i
 (C) a – iii, b – i, c – iv, d – ii
 (D) a – iv, b – ii, c – i, d – iii
14. The causal organism for damping-off disease in nursery is
- (A) *Pythium*
 (B) *Phytophthora*
 (C) *Rhizoctonia*
 (D) All of the above

15. Mango variety Amrapali, suitable for high density planting, has been developed by crossing

- (A) Neelum × Mulgoa
 (B) Dashehari × Neelum
 (C) Alphonso × Neelum
 (D) Ratna × Alphonso
16. *Manilkara hexandra* is a popular rootstock for grafting
- (A) *Achras sapota*
 (B) *Persea americana*
 (C) *Mangifera indica*
 (D) *Carica papaya*
17. The phenomenon of bitter pollen fertilizing a non-bitter ovule is known as
- (A) riceyness
 (B) parthenocarpy
 (C) metaxenia
 (D) None of the above
18. The presence of which of the following phenomena leads to cross pollination?
- (A) Male sterility
 (B) Heterostyly
 (C) Self-incompatibility
 (D) All of the above
19. Racemose type of inflorescence is found in
- (A) okra
 (B) cucumber
 (C) tomato
 (D) cauliflower
20. Bacterial wilt in solanaceous vegetable crops is
- (A) spread by whitefly
 (B) caused by soil-borne pathogen
 (C) nutritional deficiency disorder
 (D) None of the above

21. Level of inbreeding depression, the loss of vigour due to selfing, is found in vegetables in which of the following orders?
- (A) Carrot > Onion > Cabbage > Tomato
 (B) Tomato > Cabbage > Onion > Carrot
 (C) Onion > Tomato > Carrot > Cabbage
 (D) Cabbage > Onion > Tomato > Carrot
22. The pungent principle present in chillies is
- (A) capsaicin
 (B) capsanthin
 (C) oleoresin
 (D) None of the above
23. *Trichosanthes dioica*, originated in Assam-Bengal plains, is commonly known as
- (A) bitter gourd
 (B) snake gourd
 (C) pointed gourd
 (D) Ash gourd
24. Yellow vein mosaic disease in okra can be managed by
- (A) planting resistant varieties
 (B) planting in early season
 (C) controlling the insect vector
 (D) All of the above
25. The right sequence of respiratory activity level of the vegetable is
- (A) onion < cabbage < tomato < broccoli
 (B) cabbage < onion < broccoli < tomato
 (C) broccoli < tomato < onion < cabbage
 (D) tomato < broccoli < cabbage < onion
26. French bean, a commonly grown Rabi season vegetable, is also known as
- (A) snap bean
 (B) navy bean
 (C) kidney bean
 (D) All of the above
27. Lasalgaon, in Maharashtra, is the biggest market in India for which of the following commodities?
- (A) Potato
 (B) Onion
 (C) Chillies
 (D) None of the above
28. Chiasmata become visible during the _____ stage of meiosis.
- (A) leptotene
 (B) pachytene
 (C) diplotene
 (D) zygotene
29. The genetic purity of a seed lot during production is maintained by
- (A) planting in proper isolation distance
 (B) roguing of off-types
 (C) avoiding mechanical admixture
 (D) All of the above
30. Kufri Jyoti, Kufri Chandramukhi, Kufri Megha varieties have been released by
- (A) IIVR, Varanasi
 (B) IARI, New Delhi
 (C) CPRI, Shimla
 (D) CPCRI, Kasaragod
31. Blossom End Rot (BER), a calcium related disorder, is encountered in
- (A) *Solanum lycopersicum*
 (B) *Allium cepa*
 (C) *Beta vulgaris*
 (D) *Basella rubra*

32. Which of the following crops are very much suited for protected cultivation in NE India?
- (A) Cucumber, Capsicum, Cabbage, Cauliflower
 (B) Capsicum, Tomato, Pointed gourd, Brinjal
 (C) Tomato, Cucumber, Capsicum, Palak
 (D) Colocasia, French bean, Chayote, Musk melon
33. The vegetable rich in multivitamin and multiminerals is
- (A) globe artichoke
 (B) chekkurmanis
 (C) asparagus
 (D) spinach
34. The gynoecious lines in cucumber are maintained by
- (A) artificial selfing
 (B) application of growth regulators
 (C) bud pollination
 (D) None of the above
35. The art of giving training plants into different shapes like animals, birds etc. is known as
- (A) bonsai
 (B) hedging
 (C) edging
 (D) topiary
36. Which of the the following is *not* a feature of Mughal Garden?
- (A) Rockery
 (B) Running water
 (C) Terrace
 (D) Baradari
37. Madurai Jasmine is famous in the world floriculture market for its
- (A) fragrance
 (B) colour
 (C) shelf life
 (D) None of the above
38. Which of the following is *not* a type of Ikebana?
- (A) Morimono
 (B) Moribana
 (C) Satsuma
 (D) Jiyubana
39. Pinching and disbudding is not practiced in
- (A) chrysanthemum
 (B) dahlia
 (C) tuberose
 (D) rose
40. Which of the following cannot be classified as loose flower?
- (A) Tuberose
 (B) Crossandra
 (C) Marigold
 (D) Carnation
41. Dr. R. L. Misra is a famous breeder of
- (A) rose
 (B) marigold
 (C) gladiolus
 (D) gerbera
42. Lal Bagh Garden is situated in
- (A) Mysore
 (B) Ooty
 (C) Bangalore
 (D) Chandigarh

43. Which one of the following is *not* a constituent of floral preservative solution?
- (A) Sucrose
 - (B) Silver nitrate
 - (C) Ethylene
 - (D) Citric acid
44. Baby plantlets of orchids are known as
- (A) Tsen-Ren-Tsukuri
 - (B) Keikis
 - (C) Moribana
 - (D) Hira-Niwa
45. Stimulative effect of tea is specifically brought about by
- (A) caffeine
 - (B) tannins
 - (C) catechins
 - (D) theaflavins
46. Immature nut fall, a common disorder in coconut, is caused by
- (A) improper pollination
 - (B) moisture stress
 - (C) boron deficiency
 - (D) All of the above
47. Kahikuchi, Mangala, Sumangala are the popular commercial varieties of
- (A) cashew nut
 - (B) coconut
 - (C) arecanut
 - (D) walnut
48. Which of the following plants produces two different important commercial spices?
- (A) Cinnamon
 - (B) Nutmeg
 - (C) Fennel
 - (D) Cardamom
49. Mixed flavor of clove, nutmeg and cinnamon can be obtained from
- (A) saffron
 - (B) long pepper
 - (C) paprika
 - (D) all spice
50. CIMAP, established in 1959, is located in
- (A) Lucknow
 - (B) Bhopal
 - (C) Shimla
 - (D) Patna