

126/24

Question Booklet Alpha Code

A

Question Booklet Sl. No.

A

Total Number of Questions : 100

Time : 90 Minutes

Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. **A, B, C & D.**
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.
6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

A

126/24

1. Select the crop suitable for ratoon cropping.
 A) Banana B) Groundnut C) Coconut D) Tapioca
2. Pick out bulky organic manure from the following :
 A) Bone meal B) Vermicompost
 C) Groundnut cake D) None of the above
3. Acidic soils can be reclaimed by using
 i. Ground limestone ii. Burnt lime
 iii. Gypsum iv. Hydrated lime
 A) i, ii and iv B) i, ii and iii C) ii, iii and iv D) i, iii and iv
4. Which of the following soil is an alkaline soil found in Chittur areas of Palakkad district ?
 A) Red loam B) Black cotton soil
 C) Laterite D) Brown hydromorphic soil
5. Calculate the quantity of urea required for 100 numbers of 25 years old coconut palms under average management.
 A) 64 kg B) 84 kg C) 94 kg D) 74 kg
6. Pick out the symbiotic bacteria used as biofertilizer in leguminous plants.
 A) Azotobacter B) Azospirillum C) Azolla D) Rhizobium
7. Which of the following is a primary tillage implement ?
 A) Disc harrow B) Wooden plough
 C) Cultivator D) None of the above
8. Which of the following are agronomic measures of water conservation ?
 i. Mixed cropping ii. Contour bunding
 iii. Bench terracing iv. Cover cropping
 A) i and iii B) ii and iv C) i and iv D) i, ii and iv
9. Any permeable textile material that is used with soil, rock or earth to increase stability and decrease wind and water erosion is called
 A) Gabions B) Check dams
 C) Geotextiles D) None of the above

126/24

10. Growing different types of crops with different spatial orientation and height on same piece of land at same time is known as
 - A) Intercropping
 - B) Strip cropping
 - C) Contour farming
 - D) None of the above
11. Which of the following statements is/are correct about agricultural seasons of Kerala ?
 - i. There are three main agricultural seasons in Kerala.
 - ii. Virippu is the first crop season and is from April-May to September-October.
 - iii. Mundakan season is from December-January to March-April.
 - iv. Punja season coincides with South West Monsoon.
 - A) Only i and iii
 - B) Only i and iv
 - C) Only i and ii
 - D) All the above
12. What is the approximate concentration of Carbon dioxide in the Earth's atmosphere expressed in ppm ?
 - A) 200-250 ppm
 - B) 350-450 ppm
 - C) 450-500 ppm
 - D) 550-600 ppm
13. Which of the gases has the highest Global Warming Potential (GWP) over a hundred year time frame ?
 - A) Carbon dioxide (CO_2)
 - B) Nitrous Oxide (NO_2)
 - C) Methane (CH_4)
 - D) Sulphur Hexafluoride (SF_6)
14. What is the name of the International agreement aimed at limiting Global Warming to a well below 2°C above pre-industrial level and pursuing efforts to limit it to 1.5°C ?
 - A) Kyoto protocol
 - B) Paris agreement
 - C) Copenhagen accord
 - D) Lima declaration
15. Which is the instrument used to measure the amount of solar energy received by the Earth's surface ?
 - A) Ceilometer
 - B) Pyranometer
 - C) Luxmeter
 - D) Radiosonde

16. Which of the following statements is correct regarding the Kissan Credit Card (KCC) scheme implemented by NABARD ?

 - i. Collateral free credit up to 5 lakh.
 - ii. Interest rate 4% per annum.
 - iii. Repayment period of 5 years.
 - iv. Regional Rural Banks are also involved in implementing KCC schemes.

A) Only i and iii B) Only ii and iv
C) Only i and ii D) Only iii and iv
17. What is the primary objective of the AGMARK certification mark in India ?

A) To promote the export of agricultural products
B) To ensure the quality of agricultural products
C) To regulate the price of agricultural products
D) All the above
18. Which of the following statements about State Warehousing Corporation is/are correct ?

 - i. Only agricultural commodities notified by the Government are accepted for storage in a warehouse.
 - ii. The warehousing scheme enables the agriculturists to get a better price for their produce.
 - iii. The idea behind the whole warehousing scheme is to give scientific storage to the agricultural produce.
 - iv. A warehouse receipt incorporating the quality, market value and particulars of insurance will be issued to the depositors.

A) Only iii and iv are correct B) Only i and ii are correct
C) Only ii, iii and iv are correct D) All statements are correct
19. Which is the lead agency for implementing e NAM (National Agricultural Market) under the aegis of Ministry of Agriculture and Farmers Welfare, Govt. of India ?

A) Food Corporation of India (FCI)
B) Small Farmers Agri Business Consortium (SFAC)
C) Commission for Agriculture Costs and Prices (CACP)
D) National Agricultural Cooperative Marketing Federation (NAFED)

126/24

20. What is the term used for the decrease in the purchasing power of money due to an increase in the general price level of goods and services in an economy ?
A) Inflation
B) Deflation
C) Stagflation
D) Hyperinflation
21. Hydrosphere accounts for _____ percent of the earth's mass.
A) 6.91
B) 71.3
C) 15.2
D) 25.8
22. Most abundant mineral in the earth's crust
A) Malachite
B) Tourmaline
C) Feldspar
D) Pyrite
23. Which of the following is correct about universal soil loss equation $A = RKLSCP$?
i. A = Soil loss per unit area
R = Rainfall factor
ii. A = Soil loss per unit area
K = Soil erodibility factor
iii. L = Slope length factor
C = Clay factor
A) Only i and ii
B) Only i and iii
C) Only ii and iii
D) All of the above (i, ii and iii)
24. Kerala is divided into _____ agroecological zones.
A) 3
B) 5
C) 7
D) 10
25. Neutralising value of CaCO_3 is
A) 179
B) 197
C) 100
D) 136
26. Which of the following is correctly matched ?
i. Sandstone-Quartzite
ii. Shale-slate
iii. Limestone-Marble
iv. Granite-Gneiss
A) i only
B) i and ii
C) i and iii
D) All the above
27. Biofertilizer recommended for wetland rice cultivation.
A) Rhizobium
B) Azolla
C) VAM
D) Azotobacter

28. Who is known as Father of Soil Science ?
 A) Dokuchev B) Joffy C) Hillgard D) Liebig
29. Which of the following is an agronomic measures of soil and water conservation ?
 A) Basin listing B) Subsoiling
 C) Zero tillage D) Contour bunding
30. Name the application software developed by Kerala Agricultural University for the easy calculation of the fertilizers
 A) KAU FERTULATOR B) FERTILISER CALCULATOR
 C) NPK FERTILISER CALCULATOR D) FERTISOLVER
31. The amount of lime required for cultivating rice in an area of 1 acre
 A) 250 kg B) 240 kg C) 300 kg D) 700 kg
32. IPDM (Integrated Pest and Disease Management) includes
 A) Chemical methods B) Physical methods
 C) Biological methods D) All the above
33. Which of the following is an ideal cowpea variety which can be grown as a companion crop with Tapioca ?
 A) PTB – 1 B) New Era C) V – 26 D) Pournami
34. Red rot disease in Sugarcane is mainly transmitted through
 A) Infected setts B) Flowing water
 C) Both infected setts and flowing water D) Soil
35. Which of the following is not a biopesticide developed from Tapioca ?
 A) Bhagya B) Nanma C) Menma D) Shreya
36. To break the seed dormancy in Subabul which of the following treatment is practised ?
 A) Dipping in con. HCl followed by hot water treatment
 B) Dipping in con. H_2SO_4 followed by hot water treatment
 C) Dipping in hot water
 D) Dipping in con. HCl

126/24

37. The nursery area required for producing minisetts for planting one hectare area of Tapioca
A) one acre B) 220 m² C) 500 m² D) 400 m²
38. If the recommended N : P₂O₅ : K₂O dosage for sweet potato is 75 : 50 : 50 kg/Ha, then how many kilograms of urea is required for cultivating one hectare of sweet potato ?
A) 163 kg B) 200 kg C) 204 kg D) 150 kg
39. Name the system of Rice cultivation where a mixture of seeds of non photosensitive and photosensitive variety of rice in 70 : 30 proportion is sown during virippu season.
A) Pokkali B) Onattukara
C) Kaipad D) Kuttumundakan
40. Which of the following statement is not correct about Hybrid Napier grass ?
A) Also known as elephant grass
B) It grows throughout the year in tropics
C) It can be intercropped with legumes
D) Also known as buffalo grass
41. The recommended seed rate for Tomato
A) 450 gha B) 500 gha C) 400 gha D) 350 gha
42. Apricot is a variety of
A) Vanilla B) Marigold C) Carrot D) Garlic
43. For inducement of uniform flowering in pineapple the required concentration of ethephon used to prepare aqueous solution
A) 2.5 ppm B) 0.25 ppm C) 250 ppm D) 25 ppm
44. Commonly used surface disinfectant for explants in tissue culture
A) Sodium hydrochlorite B) Potassium hypochlorite
C) Magnesium hypochlorite D) Calcium hypochlorite
45. The tolerable level of light in the tropical region for the better growth of Anthurium
A) 10% – 20% B) 30% – 40%
C) 40% – 50% D) 20% – 30%

46. Oozing out of a viscus brown fluid extrusion of chewed up fibrous matter through the holes in coconut trees is characteristic symptom of
A) Coreid bug
B) Rhinoceros beetle
C) Red Palm Weevil
D) Cockchafer beetle
47. The general recommendation of nutrient dosage for pepper
A) 50 : 50 : 150 N : P₂O₅ : K₂O g/vine/year
B) 50 : 150 : 150 N : P₂O₅ : K₂O g/vine/year
C) 50 : 50 : 50 N : P₂O₅ : K₂O g/vine/year
D) 150 : 150 : 150 N : P₂O₅ : K₂O g/vine/year
48. The recommend spacing for cucumber
A) 2m × 2m
B) 2m × 1.5m
C) 1.5m × 2m
D) 1.5m × 1.5m
49. The most common method of propagation in Guava
A) Simple Layering
B) Trench Layering
C) Compound Layering
D) Air Layering
50. Queen of Spices
A) Pepper
B) Clove
C) Cardamom
D) Cinnamon
51. The process of breaking, scratching altering or softening the seed covering to make it permeable to water and grasses
A) Scarification
B) Stratification
C) Dormancy
D) Imbibition
52. Yield potential of Bittergourd
A) 50-100 q/hac
B) 100-140 q/hac
C) 150-200 q/hac
D) 200-250 q/hac
53. CTC in Tea refers to
A) Cut Tear and Curl
B) Cut Tear and Crush
C) Curl Tear and Crush
D) Crush Tear and Curl
54. Mohitnagar is variety of
A) Coconut
B) Arecanut
C) Oil Palm
D) Cocoa
55. The rain shelter variety of Tomato
A) Akshaya
B) Adithya
C) Ananya
D) Anjana

56. Which of the following statements is/are not true about C_4 plants ?

- i. They are more efficient in photosynthesis.
- ii. The leaves of such plants have Kranz anatomy.
- iii. Oats and Rye are examples for plants having C_4 pathway.

A) Only i and ii

B) Only iii

C) Only i and iii

D) Only ii

57. Which of the following statements is/are true about Ethylene ?

- i. It induces cell elongation.
- ii. It is used for synchronising fruit set in pineapple.
- iii. It is highly effective in hastening fruit ripening.

A) Only i and ii

B) Only ii and iii

C) Only i and iii

D) All are correct

58. Which of the following statements is/are false ?

A) Pollen release and stigma receptivity are synchronized in some plants to encourage cross pollination

B) Maize is monoecious

C) Continued self pollination may result in Inbreeding Depression

D) Dioecy prevents both Autogamy and Geitonogamy

59. Which of the following statements is/are true about Artificial Hybridisation ?

- i. It is one of the major approaches of crop improvement program.
- ii. If the female parent produces bisexual flowers emasculation is not needed.
- iii. Emasculation and bagging help to protect from pollen contamination.

A) Only i and ii

B) Only ii and iii

C) Only i and iii

D) All are correct

60. Which novel strategy was adopted to prevent the infestation of Nematode, *Meloidogyne incognita* on the roots of tobacco plants ?

A) Recombinant DNA technology

B) RNA interference (RNAi)

C) Artificial Hybridisation

D) Polymerase Chain Reaction (PCR)

61. Which of the following statements is/are true about Human Genome Project (HGP) ?
- i. It was a 13 year long project, started in 1990.
 - ii. A major goal of the project was to identify all the approximately 20000-25000 genes in human DNA.
 - iii. Bioinformatics was extensively used in this project.
- A) Only i and ii B) Only i
C) Only ii and iii D) All the above
62. Poor availability of _____ and accumulation of high concentration of _____ around the roots can be a possible reason of flood injury in plants.
- A) O₂, CO₂ B) CO₂, O₂
C) CO₂, N D) Cl, CO₂
63. Which of the following statements is/are true about NBPGR ?
- i. It is the nodal organization in India for management of plant genetic resources.
 - ii. NBPGR is the abbreviation of National Board for Plant Genetic Resources.
 - iii. It has a regional station at Thrissur, Kerala.
- A) Only i and ii B) Only ii and iii
C) Only i and iii D) All are correct
64. Part of soil water that is held very tightly and is not available to the plant roots is called
- A) Gravitational water B) Capillary water
C) Hygroscopic water D) None of the above
65. Loss or exudation of water as liquid droplets from leaves or other uninjured parts of a plant is called
- A) Evaporation B) Transpiration C) Osmosis D) Guttation
66. Which of the following is an example of Insecticide ?
- A) Acephate B) Benomyl
C) Carbendazim D) Mancozeb
67. Bio-agent for controlling *Parthenium hysterophorus*
- A) *Bactra verutana* B) *Zygogramma bicolorata*
C) *Chrysolira* D) Flea beetle

126/24

68. Silver shoot is caused by
A) Gall midge
B) Gundhi bug
C) Thrips
D) Aphid
69. Roundup herbicide is the trade name of
A) Butachlor
B) Oxyfluorfen
C) 2, 4-D
D) Glyphosate
70. A perennial weed that produces underground rhizomes
A) *Lantana camera*
B) *Cynodon dactylon*
C) *Mikania micrantha*
D) *Echinochloa colona*
71. A mycoherbicide is
A) Bt
B) Collego
C) NPV
D) Zygomorpha
72. Khaira disease of paddy is due to the deficiency of
A) Boron deficiency
B) Zinc deficiency
C) Calcium deficiency
D) Magnesium deficiency
73. Which among the following is not an edible mushroom ?
A) *Pleurotus* sps.
B) *Volvariella* sps.
C) *Calocybe* sps.
D) *Amanita* sps.
74. Which one among the following does not fix Nitrogen ?
A) *Rhizobium*
B) *Trichoderma*
C) *Acetobacter*
D) *Azospirillum*
75. Black heart is a physiological disorder of
A) Tomato
B) Chilli
C) Potato
D) Cabbage
76. *Striga* is included in
A) Fungi
B) Mycoplasma like organisms
C) Phanerogamic plant parasite
D) Bacteria
77. Muscardine disease of silkworm is caused by
A) *Bombyx mori* Densonucleosis
B) *Bacillus thuringiensis*
C) *Beauveria bassiana*
D) None of these
78. A Copper based fungicide is
A) Fytolan 50W
B) Zineb 75
C) Dithane M-45
D) Captan 75% WP

79. Forewings of bugs is called
 A) Elytra
 B) Membraneous
 C) Halteres
 D) Hemelytra
80. The lowest population density that will cause economic damage is known as
 A) GEP
 B) ETL
 C) DB
 D) EIL
81. Only larva can cause damage in the case of
 A) Red flour beetle
 B) Rice weevil
 C) Khapra beetle
 D) Rice moth
82. Which of the following is used as Rodenticide ?
 A) Zinc Chloride
 B) Zinc Sulphide
 C) Zinc Phosphide
 D) Zinc Bromide
83. The parasitoid that successfully suppressed the Papaya Mealy bug population in Kerala
 A) Acerophagus sps.
 B) Trichopoda sps.
 C) Trichogramma sps.
 D) Anagyrus sps.
84. Which among the following is/are functions of Cultivators ?
 i. Stirring and Pulverizing soil.
 ii. Aerating and Loosening soil.
 iii. Remove Weeds.
 A) Only i and ii
 B) Only iii
 C) All of the above (i, ii and iii)
 D) Only ii
85. Identify the correct statement with regard to Disc Plough.
 i. It cuts a 'V' Shaped furrow and opens the soil but there is no inversion.
 ii. It turns furrow slice to one side with a scooping action.
 iii. Breaking hard pans in soil with less disturbance to the top layers.
 A) Only i
 B) Only ii
 C) Only iii
 D) All of the above (i, ii and iii)
86. Any sprayer which is carried on the back of the operator is called
 A) Rocker sprayer
 B) Power sprayer
 C) Knapsack sprayer
 D) Hand sprayer

126/24

87. A hydrothermal treatment to unhulled rice to obtain gelatinized rice.
- A) Parboiling
 - B) Milling
 - C) Cleaning and Hulling
 - D) Polishing
88. Which of the following are green house gases causing Global Warming ?
- i. Carbon dioxide
 - ii. Methane
 - iii. Nitrous Oxide
- A) Only i
 - B) Only i and ii
 - C) Only i and iii
 - D) All of the above (i, ii and iii)
89. Which Internal combustion engine uses spark ignition ?
- i. Petrol Engine
 - ii. Diesel Engine
- A) Only i
 - B) Only ii
 - C) All of the above (i and ii)
 - D) None of the above
90. The Photo Voltaic Cell (PV Cell) is used for converting.
- A) Solar energy to electrical energy
 - B) Solar energy to chemical energy
 - C) Chemical energy to electrical energy
 - D) Electrical energy to light
91. Which among the following is not an advantage of drip irrigation system ?
- A) Suitable for irrigating crops where plant population per unit area is very high
 - B) Less weed growth
 - C) Loss of water through evaporation and seepage is reduced
 - D) Suitable for areas where water is scarce
92. Application of pesticides through irrigation water
- A) Fertigation
 - B) Chemigation
 - C) Irrigation
 - D) All of the above
93. Critical stages for irrigation of Rice
- A) Preflowering stage
 - B) Boot stage and dough stage
 - C) Initial tillering and flowering
 - D) Grain formation

94. Communication through TV is an example for
A) Interpersonal Communication B) Mass Communication
C) Group Communication D) Intrapersonal Communication
95. Approaches used for transfer of technology
i. Consultancy
ii. Promotional
iii. Participative
A) Only i and ii B) Only ii and iii
C) Only i and iii D) All of the above (i, ii and iii)
96. The flow of information initiates from the top level to the bottom in the organization is
A) Vertical communication B) Upward communication
C) Star communication D) Horizontal communication
97. In agricultural extension, farm and home visit is an example for
A) Individual contact method B) Group contact method
C) Mass contact method D) None of the above
98. E-extension in agriculture use
A) Internet B) Multimedia Learning system
C) Computer based training system D) All of the above
99. Identify incorrect statement regarding agricultural extension.
A) Extending scientific knowledge of agriculture to farming community
B) Increase efficiency in agricultural production
C) It is a formal education system
D) Promote community development and rural area development
100. Which among the following is a limitation of Audio Visual aid ?
A) Reduce verbalism B) Overcome language barrier
C) Speed up the process of learning D) Reduce teacher involvement

Space for Rough Work

