

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

COMBINED COMPETITIVE (PRELIMINARY) EXAMINATION, 2011

Serial No.

000076

AGRICULTURE

Code No. 01

D

Time Allowed : Two Hours

Maximum Marks : 300

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC., IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET OF THE SAME SERIES.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES A, B, C OR D AS THE CASE MAY BE IN THE APPROPRIATE PLACE IN THE RESPONSE SHEET.
3. You, have to enter your Roll Number on this Test Booklet in the Box provided alongside.

Your Roll No. _____

Do NOT write anything else on the Test Booklet.
4. This Booklet contains 120 items (questions). Each item comprises *four* responses (answers). You will select *one* response which you want to mark on the Response Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. In case you find any discrepancy in this test booklet in any question(s) or the Responses, a written representation explaining the details of such alleged discrepancy, be submitted within three days, indicating the Question No(s) and the Test Booklet Series, in which the discrepancy is alleged. Representation not received within time shall not be entertained at all. The Commission shall take appropriate decision on the representations received in accordance with the Rules which shall be final.
6. You have to mark all your responses **ONLY** on the separate Response Sheet provided. *See directions in the Response Sheet.*
7. All items carry equal marks. Attempt **ALL** items. Your total marks will depend only on the number of correct responses marked by you in the Response Sheet.
8. Before you proceed to mark in the Response Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Response Sheet as per instructions sent to you with your Admit Card and Instructions.
9. While writing Centre, Subject and Roll No. on the top of the Response Sheet in appropriate boxes use **"ONLY BALL POINT PEN"**.
10. After you have completed filling in all your responses on the Response Sheet and the examination has concluded, you should hand over to the Invigilator only the Response Sheet. You are permitted to take away with you the Test Booklet.

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SEAL

1. Substitution haploids are referred to as :
(A) $n + 1$ (B) $n - 1$
(C) $n - 1 + 1$ (D) $n + 2$
2. A cross of F_1 with its homozygous recessive parent is known as :
(A) Back cross (B) Reciprocal cross
(C) Test cross (D) Top cross
3. When value is expressed in terms of money, it is called :
(A) Price (B) Cost
(C) Service (D) Goods
4. The difference between the price paid by the consumer and the price received by the producer is known as :
(A) Marketing efficiency (B) Price -spread
(C) Marketing cost (D) Marketing integration
5. A bale of cotton weighs :
(A) 70 kg (B) 100 kg
(C) 170 kg (D) 190 kg
6. The Chromosome theory of inheritance was first postulated by :
(A) Avery, McCarty and Mcleod (B) Morgan and Sturtevant
(C) Sutton and Boveri (D) Frederick Griffith
7. Treatment of fruits and vegetables with hot water for a short period of time prior to canning is known as :
(A) Breathing (B) Hot peeling
(C) Bleaching (D) Blanching
8. Which one of the following phytohormones control the apical dominance in plants ?
(A) Auxin (B) Cytokinin
(C) Ethylene (D) Gibberellin
9. Kharif, Rabi and Ziad words belong to :
(A) Urdu (B) Persian
(C) Arabic (D) French

10. Bee keeping and rearing for honey production is known as :
 (A) Sericulture (B) Apiculture
 (C) Silviculture (D) Olericulture
11. Which is the growth regulator which promotes fruit ripening ?
 (A) GA_3 (B) Ethylene
 (C) Auxin (D) Cytokinin
12. Fruit drop is controlled by :
 (A) IBA (B) NAA
 (C) IAA (D) GA_3
13. It is an important variety of cluster bean :
 (A) Pusa Falguni (B) Pusa Basmati
 (C) Pusa Nasdar (D) Pusa Navbahar
14. Synthetic variety is developed by :
 (A) Crossing inbred lines tested for GCA (B) Mixing seeds of inbred lines
 (C) Crossing inbred lines tested for SCA (D) Mixing seeds of open pollinated cultivars
15. Which one of the following processes is most adversely affected by the deficiency of magnesium in plants ?
 (A) Defoliation (B) Upward translocation of nutrients
 (C) Downward movement of nutrients (D) Photosynthesis and carbohydrate metabolism
16. Development of fruit without fertilization is known as :
 (A) Polyembryony (B) Parthenogenesis
 (C) Apomixis (D) Sporogenesis
17. The Mexican wheat varieties introduced in India in 1963 were :
 (A) Kalyan Sona and Sonalika (B) S 308 and K 68
 (C) Lerma Rojo and Sonera 64 (D) HD 1982 and HD 2122
18. Initial seed of an improved variety is called :
 (A) Nucleus seed (B) Foundation seed
 (C) Breeder seed (D) Certified seed

19. Who developed world's first cotton hybrid ?
 (A) NGP Rao (B) B.P. Paul
 (C) C.T. Patel (D) D.S. Athwal
20. The molecular model of DNA was proposed by :
 (A) Miescher (B) Punnet and Square
 (C) Chargaff (D) Watson and Crick
21. Powdery mildew disease is caused by :
 (A) Bacteria (B) Virus
 (C) Fungus (D) Nematode
22. Solar energy treatment of wheat seed is recommended for the control of :
 (A) Loose smut (B) Hill bunt
 (C) Black rust (D) Karnal bunt
23. Lime is used for reclamation of :
 (A) Acidic soil (B) Alkaline soil
 (C) Calcareous soil (D) None of these
24. Tomato and cotton plants are :
 (A) Short day plants (B) Day neutral plants
 (C) Long day plants (D) None of the above
25. Transpiration will be maximum when soil is :
 (A) Wet and atmosphere is dry (B) Dry and atmosphere is humid
 (C) Wet and atmosphere is humid (D) Dry and atmosphere is dry
26. Which of the following is a unitless measure of dispersion ?
 (A) Standard deviation (B) Coefficient of variation
 (C) Mean deviation (D) Range
27. Which of the following is not related to Extension education ?
 (A) Heterogenous learners (B) Vertical teaching
 (C) Horizontal teaching (D) Voluntary participation
28. For commercial cultivation of Banana which type of sucker is used ?
 (A) Sward sucker (B) Slips
 (C) Water sucker (D) Crown

29. Replication of DNA occurs during :
 (A) Metaphase (B) Telophase
 (C) Interphase (D) Anaphase
30. PCR refers to :
 (A) Polymerase chain reaction (B) Poly clonal response
 (C) Poly coloured raddish (D) Partially controlled reaction
31. GMO means :
 (A) Genetically mutated oats (B) Genetically modified organism
 (C) General Micro organisms (D) Genetics of micro organisms
32. Centres of origin for different crops were given by :
 (A) Aristotle (B) Darwin
 (C) N.I. Vavilov (D) G.H. Shull
33. Alternative form of a gene is known as :
 (A) Allele (B) Genome
 (C) Pseudo-allele (D) Isoallele
34. Which blood group is considered as Universal receipient ?
 (A) B (B) A
 (C) AB (D) O
35. Who gave the term heterosis ?
 (A) Johnson (B) Mendel
 (C) Davenport (D) Shull
36. Which estimates of heterosis is of commercial or practical value ?
 (A) Average heterosis (B) Heterobeltiosis
 (C) Economic heterosis (D) Luxuriance
37. Jaya and Ratna rice varieties contain the dwarfing genes from :
 (A) Dee-geo-woo-gen (B) Norin 8
 (C) Spontaneous mutation (D) Induced mutation
38. IR 8 variety of Rice was developed at :
 (A) CRRI Cuttack (B) IRRI, Philippines
 (C) Taiwan (D) Japan

39. The term nobilization is related to :
 (A) Wheat (B) Rice
 (C) Sugarcane (D) Soyabean
40. Helminthosporium maydis causes southern leaf blight in :
 (A) Wheat (B) Maize
 (C) Barley (D) Rice
41. Hybrid seed production in Jowar and Bajra is based on :
 (A) A, B and R lines (B) A and B lines
 (C) A and R lines (D) B and R lines
42. General combining ability (GCA) can be estimated from the performance of :
 (A) Parents (B) Back cross
 (C) F_1 s (D) F_2 s
43. The term yellow revolution is related to :
 (A) Maize (B) Fruits
 (C) Oil seeds (D) Vegetables
44. Tag of which colour is used for breeder seed ?
 (A) Yellow/golden (B) White
 (C) Blue (D) Green
45. The maximum heterosis is likely to be manifested in :
 (A) Double cross (B) Single cross
 (C) Three way cross (D) Double top cross
46. Potato, coffee and alfaalfa are :
 (A) Diploids (B) Allopolyploids
 (C) Segmental allopolyploids (D) Auto polyploids
47. Botanical name of apple is :
 (A) Prunus amygdalus (B) Prunus persica
 (C) Malus pumila (D) Malus persica
48. The quickest method for developing an improved variety is :
 (A) Primary introduction (B) mass selection
 (C) Secondary introduction (D) domestication

49. Rice flower has how many stamens ?
 (A) 6 (B) 4
 (C) 3 (D) 8
50. Cleistogamy promotes :
 (A) Cross-pollination (B) Self-pollination
 (C) Geitonogamy (D) All of the above
51. Johannsen developed pureline theory using the seeds of beans variety :
 (A) Prince (B) Princeton
 (C) Century (D) Princess
52. Pusa Baisakhi is a variety of :
 (A) mung bean (B) urd bean
 (C) rice bean (D) cow pea
53. Isogenic lines are easily produced by which breeding method ?
 (A) Bulk (B) SSD
 (C) Back cross (D) Pedigree
54. Leaf rust resistance in wheat (*T. aestivum*) has been transferred from :
 (A) *Triticum monococcum* (B) *Triticum speltoides*
 (C) *Triticum timopheevii* (D) All of the above
55. The Chief weakness of single seed descent scheme is :
 (A) Plant loss (B) Lack of opportunity for selection
 (C) High demand on resources (D) Loss of high yielding segregants
56. Which one of the following is a pest of apple ?
 (A) *Sylepta luna*/is (B) *Eriosoma/anigerum*
 (C) *Cydia hemidoxa* (D) *Nodostoma subscota*/um
57. Simple recurrent selection is the most suited for character with :
 (A) Low heritability (B) Moderate heritability
 (C) High heritability (D) All of the above
58. Reciprocal recurrent selection allows selection for :
 (A) GCA (B) SCA
 (C) Improved population performance (D) All of the above

59. Knight used hybridization to develop popular varieties of :
 (A) Apple (B) Apple, peach and grape
 (C) Apple, peach and strawberry (D) All of the above
60. Selection for simply inherited trait is started from :
 (A) F_2 (B) F_3
 (C) F_4 (D) F_5
61. Who was awarded the Nobel Peace prize in Agriculture ?
 (A) Dr. M.S. Swaminathan (B) Dr. Norman E. Borlaug
 (C) Dr. Amartya Sen (D) Dr. V. Kurien
62. The Union Minister of Agriculture in India is :
 (A) Balram Jakhar (B) R.S. Paroda
 (C) Sharad Pawar (D) None of the above
63. Lab to Land programme has been launched in India to transfer :
 (A) Ag. Technology to farmers fields (B) Ag. Methodology to farmers fields
 (C) Ag. Philosophy to farmers fields (D) Ag. Policy to farmers fields
64. Opaque-2 gene increases lysine and tryptophan content and the protein quality in :
 (A) Rice (B) Maize
 (C) Wheat (D) Pearl millet
65. K.V.K. means :
 (A) Kisan Vigyan Kendra (B) Krishi Vikas Kendra
 (C) Krishi Vigyan Kendra (D) Kisan Vikas Kendra
66. Who is the Chairman of the Planning Commission ?
 (A) President (B) Vice-President
 (C) Prime Minister (D) Home Minister
67. The highest share of agricultural commodity in export of India is that of :
 (A) Rice (B) Cashew
 (C) Sugarcane (D) Fruits

68. Practicing agriculture without the use of Chemicals and Fertilizers is known as :

- (A) Extensive farming
- (B) Intensive farming
- (C) Inorganic farming
- (D) Organic farming

69. NABARD was established in the year :

- (A) 1980
- (B) 1981
- (C) 1982
- (D) 1983

70. A short duration crop in between two main crops is termed as :

- (A) Catch crop
- (B) Cash crop
- (C) Commercial crop
- (D) Companion crop

71. Maize surpasses all cereal crops in terms of :

- (A) Area
- (B) Production
- (C) Yield
- (D) Consumption

72. In India, share of agriculture in National Income is approximately :

- (A) 45%
- (B) 25%
- (C) 35%
- (D) 42%

73. The arrangement of soil particles in certain definite pattern is known as :

- (A) Soil texture
- (B) Soil structure
- (C) Soil aggregates
- (D) Soil parameter

74. Which of the fly is pest of cotton ?

- (A) Fruit fly
- (B) Stem fly
- (C) Saw fly
- (D) White fly

75. Directorate of Plant protection, quarantine and storage is located at :

- (A) Moradabad
- (B) Ahmedabad
- (C) Faridabad
- (D) Allahabad

76. A pH value of 6.0 indicates that soil reaction is :

- (A) Acidic
- (B) Alkaline
- (C) Neutral
- (D) Highly alkaline

77. Oxygen is required by the plants for :

- (A) Respiration
- (B) Transpiration
- (C) Photosynthesis
- (D) Guttation

78. Which of the following is considered as bio-fertilizer ?

- (A) Farm yard manure (FYM)
- (B) Compost
- (C) Green manure
- (D) Blue green algae

79. Apple belongs to family :

- (A) Leguminosae
- (B) Rosaceae
- (C) Cruciferae
- (D) Liliaceae

80. The building block of cellulose is :

- (A) Maltose
- (B) Glucose
- (C) Fructose
- (D) Glucose + Fructose

81. The best soil amendment under alkaline condition is application of :

- (A) Calcium
- (B) Phosphorus
- (C) Gypsum
- (D) None

82. Which is the most appropriate cause of seedlessness in Banana ?

- (A) Triploidy
- (B) Parthenocarpy
- (C) Monoecious condition
- (D) Lack of pollination

83. The theory of acquired characters was proposed by :

- (A) Darwin
- (B) Lamarck
- (C) Weismann
- (D) Mendel

84. Which one of the following properties does not change by cropping and cultivation ?

- (A) Bulk density
- (B) Particle density
- (C) Permeability
- (D) Porosity

85. Which part of the walnut fruit is stony and woody ?

- (A) Epicarp
- (B) Endocarp
- (C) Mesocarp
- (D) None of the above

86. Soil erosion increases with :
 (A) No tillage (B) Ideal tillage
 (C) Mulching (D) Excessive tillage
87. Pomegranate has been placed in which of the salt tolerant fruit trees ?
 (A) High (B) Medium
 (C) Low (D) Very high
88. The science which deals with rearing of silkworm is known as :
 (A) Apiculture (B) Vermiculture
 (C) Sericulture (D) Agriculture
89. Principles of experimental design were given by :
 (A) Wilcox (B) R.A. Fisher
 (C) W.C. Cochran (D) Cox and Cochran
90. The bulk density of soil is always _____ than particle density.
 (A) Higher (B) Lower
 (C) Equal (D) Very High
91. Which one of the following is not an aldose ?
 (A) Glucose (B) Galactose
 (C) Mannose (D) Fructose
92. Little leaf disease of Brinjal is caused by :
 (A) Viroid (B) Virus
 (C) Phytoplasma (D) Spiroplasma
93. A chromosome with median position of centromere is known as :
 (A) Telocentric (B) Acentric
 (C) Metacentric (D) Paracentric
94. The value of coefficient of correlation varies from :
 (A) 0.0 to 1.0 (B) -1.0 to 1.0
 (C) 1.0 to 10.0 (D) 10.0 to 100

95. The negative logarithm of H^+ ion is known as :
 (A) pH (B) Salinity
 (C) Solocity (D) Acidity
96. Technical name of Furadan 3 G is :
 (A) Carbosufan (B) Carbofuran
 (C) Phorate (D) Sebufos
97. Sugarcane is _____ plant.
 (A) C_3 (B) C_4
 (C) CAM (D) None of the above
98. Nitrogen is taken by the plants in form of :
 (A) Nitrate (B) Element nitrogen
 (C) Nitrite (D) Nitric acid
99. Allahabad Safeda is a variety of :
 (A) Mango (B) Guava
 (C) Fig (D) Orange
100. Which chemical is used in preparation of Insect Killing jar ?
 (A) NaCl (B) H_2SO_4
 (C) CO_2 (D) KCN
101. Tetrasomic is represented as :
 (A) $2n$ (B) $4n$
 (C) $2n+1$ (D) $2n+2$
102. Splitting of H_2O in the presence of light is termed as :
 (A) Photosynthesis (B) Photophasis
 (C) Photolysis (D) Photoperiodism
103. Mite possesses how many pair(s) of legs ?
 (A) One (B) Two
 (C) Six (D) Four

104. The fertility restorer parent is represented as :

- (A) R line
- (B) A line
- (C) B line
- (D) Pure line

105. Thompson Seedless is a popular variety of :

- (A) Water melon
- (B) Grape
- (C) Guava
- (D) Banana

106. The plants which respond least to changed day length are known as :

- (A) Day Neutral
- (B) Long day
- (C) Short day
- (D) None of these

107. The accumulation of soluble salts in the soil is known as :

- (A) Alkalinization
- (B) Salinization
- (C) Calcification
- (D) Acidification

108. Haploids plants can be obtained through :

- (A) Shoot tip culture
- (B) Protoplast culture
- (C) Somatic hybridization
- (D) Anther culture

109. Genetic purity of seeds can be tested by :

- (A) Germination test
- (B) Tetrazolium test
- (C) Acetocarmine test
- (D) Grow out test

110. Which of the following pulses has the highest protein content ?

- (A) Pigeon pea
- (B) Green gram
- (C) Soyabean
- (D) Black gram

111. Edible part of banana fruit is :

- (A) Endosperm
- (B) Meso and Endocarp
- (C) Endocarp only
- (D) Mesocarp only

112. The basic chromosome number of apple is :

- (A) 34
- (B) 68
- (C) 17
- (D) 51

113. The Science dealing with genesis, survey and classification of soils is known as :

- (A) Taxonomy
- (B) Soil Science
- (C) Phenology
- (D) Pedology

114. Which of the following crops require water logging condition ?

- (A) Sugarcane
- (B) Cotton
- (C) Paddy
- (D) Maize

115. At what stem length the rose flowers must be cut at tight bud stage for export ?

- (A) 60
- (B) 20
- (C) 80
- (D) 40

116. Which type of herbicide 2, 4-D is ?

- (A) Non-selective
- (B) Selective
- (C) Toxic
- (D) Non-toxic

117. The main site of respiration in plants cells is :

- (A) Chloroplasts
- (B) Mitochondria
- (C) Lysosomes
- (D) Ribosomes

118. Meiosis is also referred to as :

- (A) Equational division
- (B) Reduction division
- (C) Homotypic division
- (D) Assymetric division

119. B-Chromosomes are also known as :

- (A) Accessory chromosomes
- (B) Extra Chromosomes
- (C) Supernumerary chromosomes
- (D) All of the above

120. Brassica juncea is an amphidiploid between :

- (A) B.campestris × B. nigra
- (B) B. campestris × B. oleracea
- (C) B. nigra × B. oleracea
- (D) B. oleracea × B. nigra