

**COMBINED TECHNICAL SERVICES EXAMINATION
(NON-INTERVIEW POSTS)
COMPUTER BASED TEST
PAPER – II – AGRICULTURE
(DEGREE STANDARD) (CODE: 284)**

1. Central Social Welfare Board (CSWB) was setup in
(A) 1952 (B) 1953
(C) 2001 (D) 2006
(E) Answer not known

2. Unit of two or more people in reciprocal communication and interaction with each other
(A) Family (B) Group
(C) Society (D) Community
(E) Answer not known

3. This type of evaluation is carried out by the agency responsible for the planning and implementation of the programme
(A) External evaluation (B) Ex-post facto evaluation
(C) Internal evaluation (D) Self evaluation
(E) Answer not known

4. It is the process of involving local people in the analysis and interpretation of a rural situation
(A) Communication process (B) Innovation decision process
(C) Participatory rural appraisal (D) None of the above
(E) Answer not known

5. The individual responsible for economic conference of Mysore was
(A) Sir Daniel Hamilton (B) Mr. F.L. Brayne
(C) Mahatma Gandhi (D) Dr. M. Visvesvaraya
(E) Answer not known

6. Expand 'HYVP'
- (A) High Yielding Varieties Programme
 - (B) Hybrids Yielding Varietal Programme
 - (C) High Yielding Venture Project
 - (D) Hybrid Yielding Venture Plan
 - (E) Answer not known
7. ORP stands for
- (A) Online Research Project
 - (B) Operational Research Project
 - (C) Online Research Programme
 - (D) Offline Research Programme
 - (E) Answer not known
8. ATIC stands for
- (A) Agricultural Technology Information Council
 - (B) Agricultural Technology Information Committee
 - (C) Agricultural Technology Information Centre
 - (D) Agro Technology Informative Council
 - (E) Answer not known
9. The relative speed with which an innovation is adopted by members of a social system is
- (A) Rate of adoption
 - (B) Degree of motivation
 - (C) Rate of Diffusion
 - (D) Speed of Diffusion
 - (E) Answer not known

10. Qualities, Characteristic of traits possessed by an object called
- (A) Innovation (B) Adoption
(C) Diffusion (D) Attributes
(E) Answer not known
11. The adopter category who are referred as 'Skeptical'
- (A) Early adopters (B) Early majority
(C) Late majority (D) Laggards
(E) Answer not known
12. Communicate between two people through computer
- (A) Electronic mail (B) Video text
(C) Computer conferencing (D) None of the above
(E) Answer not known
13. Meeting the information needs of the farmers by providing daily prices of agricultural commodities in various mandis (market) for helping the farmer to decide where the sell his produce
- (A) AGROMET (B) AGMARNET
(C) NBSSLUP (D) None of the above
(E) Answer not known
14. Which of the following is a traditional and simple aid of communication?
- (A) Model (B) Puppet show
(C) Radio (D) TV
(E) Answer not known

15. It is a system of signals for communication
- (A) Encoder (B) Code
(C) Decoder (D) Message
(E) Answer not known
16. These are visual symbols for summarising, comparing, contrasting or performing other services in explaining subject matter
- (A) Bulletin board (B) Charts
(C) Make-up (D) Specimens
(E) Answer not known
17. These are in the shape of circles and used to show how several parts make up the whole
- (A) pie charts (B) overlay charts
(C) flip chart (D) tree chart
(E) Answer not known
18. Out of school system of education for adults and youths
- (A) extension
(B) open and distance education
(C) adult education
(D) none of the above
(E) Answer not known
19. _____ identified three types of basic motivating needs – need for power, need for affiliation and need for achievement.
- (A) Wilson and Gallup (B) McClelland
(C) Kootz and Others (D) Knowles
(E) Answer not known

20. It is a way of showing people the value or worth of an improved practice who's success has already been established in the research station
- (A) Method demonstration (B) Result demonstration
(C) Minikit trials (D) None of the above
(E) Answer not known
21. Which one does not fall under 5'c's of credit?
- (A) Character (B) Capacity
(C) Condition (D) Coordination
(E) Answer not known
22. Even when each year of loan repayment period passes by, the principal component remains constant in the case
- (A) Partial repayment plan
(B) Balloon repayment plan
(C) Amortized decreasing repayment plan
(D) Amortized even repayment plan
(E) Answer not known
23. The co-operative credit societies in India were organised based on the model of
- (A) Single window (B) Raiffeisen
(C) Mehta (D) Acharya
(E) Answer not known

24. What is CRR?
- (A) Cash Reserve Ratio (B) Current Ratio Rate
(C) Cash Review Report (D) Credit Rating Record
(E) Answer not known
25. Differential Interest Rate scheme (DIR) was implemented by the commercial banks from
- (A) 1950 (B) 1969
(C) 1975 (D) 1982
(E) Answer not known
26. The first co-operative societies act was passed in
- (A) 1894 (B) 1904
(C) 1924 (D) 1948
(E) Answer not known
27. Expand SFDA
- (A) Swedish Federation of Development Assistance
(B) Small Farmers Development Agency
(C) Small Farmers Development Authority
(D) Small Fishermen Development Agency
(E) Answer not known
28. The Reserve Bank of India was established in the year
- (A) 1925 (B) 1930
(C) 1935 (D) 1940
(E) Answer not known

29. This method of computation of depreciation is used for livestock asset
- (A) Straight-line Method
 - (B) Diminishing Balance Method
 - (C) Sum of years digit Method
 - (D) Annual Revaluation Method
 - (E) Answer not known
30. The demand for environmental quality is
- (A) Income-elastic
 - (B) Income-inelastic
 - (C) Price-elastic
 - (D) Price-inelastic
 - (E) Answer not known
31. Which of the following types of budgeting is used to analyse the expected change in profit for a proposed minor modification in the existing organization of farm business
- (A) Enterprise budget
 - (B) Capital budget
 - (C) Partial budget
 - (D) Complete budget
 - (E) Answer not known
32. The additional income received from using an additional unit of input is
- (A) Gross income
 - (B) Profit
 - (C) Marginal value of product
 - (D) Average revenue
 - (E) Answer not known

33. The inflection point is point at which
- (A) APP is maximum (B) TPP is maximum
 (C) MPP is maximum (D) EPP is maximum
 (E) Answer not known
34. Given the regression model $Y_i = \beta + \beta_2 x_{2i} + \beta_3 x_{3i} + u_i$, how would you state the null hypothesis to test that X_2 has no influence on Y with X_3 held constant
- (A) $H_0 : \beta_1 = 0$ (B) $H_0 : \beta_2 = 0$
 (C) $H_0 : \beta_3 = 0$ (D) $H_0 : \beta_2 = 0$ given $\beta_3 = 0$
 (E) Answer not known
35. Which of the following is the ratio worked out to analyse the financial safety of a farm business over a long period of time?
- (A) Capital turnover ratio (B) Net capital ratio
 (C) Working ratio (D) Current ratio
 (E) Answer not known
36. What happens to AVC, when AFC decreases
- (A) AVC first decreases and then increases
 (B) AVC first increases and then decreases
 (C) AVC cuts Mc at lower point
 (D) AVC cuts Mc at highest point
 (E) Answer not known

37. The Elasticity of production is zero when
- (A) APP is maximum (B) MPP is maximum
(C) APP = MPP (D) MPP is zero
(E) Answer not known
38. Which of the following is included in computing cost A_2 ?
- (A) Depreciation
(B) Rental value of owned land
(C) Rental value of leased in land
(D) Imputed value of family labour
(E) Answer not known
39. The demand for farm machines is a
- (A) Direct demand (B) Kinked demand
(C) Consumer demand (D) Derived demand
(E) Answer not known
40. The following one is included in the administrative management decisions
- (A) What to produce (B) Accounting and supervision
(C) How to produce (D) How much to produce
(E) Answer not known
41. Under seed village concept, the farmers are eligible to produce the following kinds of seeds
- (A) Foundation seed (B) Certified seed
(C) Hybrid seed (D) Above all
(E) Answer not known

42. The physical or chemical method of softening the hard seed coat to make it more permeable to water is called as
- (A) Stratification (B) Scarification
(C) Vernalization (D) Fortification
(E) Answer not known
43. The movement of colloidal particles through a fluid under the action of an electric field is called
- (A) Osmosis (B) Hydrolysis
(C) Electrophoresis (D) Polymerase chain Reaction
(E) Answer not known
44. The minimum weights submitted samples for determination of genuineness of varieties through grow out test of Bajra and Jute species of all other genera is
- (A) 25 gms (B) 200 gms
(C) 100 gms (D) 50 gms
(E) Answer not known
45. As per the ISTA, a minimum number of seeds to be tested for germination is
- (A) 100 (B) 200
(C) 400 (D) 50
(E) Answer not known

46. As per the ISTA, additional recommendation for breaking dormancy of tomato in seed testing is
- (A) HNO_3 (B) KNO_3
(C) GA_3 (D) Pre-chill
(E) Answer not known
47. Hard Seeds are normally found in which of the following crops Seed on germination test
- (A) Paddy (B) Blackgram
(C) Sunflower (D) Ragi
(E) Answer not known
48. State Seed Testing laboratory is notified under _____ of the Indian Seeds Act, 1966
- (A) Sub Section 2 of Section 4 (B) Sub Section 3 of Section 8
(C) Sub Section 2 of Section 12 (D) Sub Section 2 of Section 13
(E) Answer not known
49. Minimum germination requirement prescribed for certified seed of pearl millet is _____%
- (A) 75% (B) 65%
(C) 85% (D) 90%
(E) Answer not known

50. Which of the following machine is not used in pre-conditioning and pre-cleaning operations in seed processing?
- (A) Scalpers (B) Maize shellers
(C) Decorticators (D) Debearders
(E) Answer not known
51. In three line hybrid seed production system, _____ line is referred as pollinator
- (A) A Line (B) B Line
(C) R-Line (D) CMS line
(E) Answer not known
52. Plants of cultivated crops found in the seed field and whose seeds are so similar to the crop seed that it is difficult to separate them economically by mechanical means are termed as
- (A) Objectionable weed plants
(B) Pollen shedders
(C) Designated diseased plants
(D) Inseparable other crop plants
(E) Answer not known
53. Nucleus seed of inbred lines are maintained by _____ method
- (A) Cagging (B) Crossing
(C) Selfing and Sibling (D) Top cross
(E) Answer not known

54. A layer of nutritional tissue of diploid maternal origin arisen from the nucellus is referred as
- (A) Endosperm (B) Perisperm
(C) Scutellum (D) Cotyledon
(E) Answer not known
55. Which of the following is designated disease of Bajra?
- (A) Loose smut (B) Green ear
(C) Alternaria blight (D) Anthracnose
(E) Answer not known
56. Moisture content of seeds higher than recommended level leads to
- (A) Loss in seed inability
(B) Growth of microorganisms
(C) Attack by storage insect pests
(D) All the above
(E) Answer not known
57. Number of plants to be observed for completing one field count in respect of sesame seed crop during field inspection is
- (A) 1000 plants (B) 500 plants
(C) 100 plants (D) 200 plants
(E) Answer not known

58. Minimum seed certification standard prescribed for germination percentage of Blackgram certified seed is
- (A) 75% (B) 85%
(C) 60% (D) 90%
(E) Answer not known
59. Maximum ODV no./kg of seed prescribed for soybean certified seed is
- (A) 10 no./kg of seed (B) 20 no./kg of seed
(C) 50 no./kg of seed (D) 40 no./kg of seed
(E) Answer not known
60. The seed control order was passed in the year
- (A) 1966 (B) 1983
(C) 1989 (D) 2001
(E) Answer not known
61. Podsolization process usually occurs in
- (i) Humid climate
(ii) Acid soil
(iii) High rainfall areas
(iv) Alkaline soils
- (A) Statement (i) and (ii) are correct
(B) Statement (i), (ii) and (iii) are correct
(C) Statement (i), (ii) and (iv) are correct
(D) All are correct
(E) Answer not known

62. At what tension capillary water is held by soil particles?
- (A) < 0.1 bar (B) 0.1 – 31 bars
(C) 31 – 10,000 bars (D) –15 bars
(E) Answer not known
63. Apatite is a group of minerals which mainly contains
- (A) Sulphur (B) Titanium
(C) Zinc (D) Phosphate
(E) Answer not known
64. A non-heme iron-sulphur protein occurs in the chloroplast is
- (A) Sulpho-lipid (B) Biotin
(C) Ferredoxin (D) Hematin
(E) Answer not known
65. Universal Soil Loss Equation (USLE) is used to compute
- (A) Soil conservation (B) Soil porosity
(C) Soil erodibility (D) Soil roughness
(E) Answer not known
66. Soil compaction increases the _____ of soil.
- (A) Soil consistency (B) Soil texture
(C) Bulk density (D) Soil porosity
(E) Answer not known

67. As per ISSS system of soil particle classification, the size of silt particle is _____ mm.
- (A) 2.0 – 0.2 (B) 0.2 – 0.02
(C) 0.02 – 0.002 (D) < 0.002
(E) Answer not known
68. Land use planning can be achieved through
- (A) Land evaluation
(B) Soil resource inventory
(C) Data on land characters and qualities
(D) All of them
(E) Answer not known
69. _____ is a ferromagnesian silicate mineral having a single chain of tetrahedron.
- (A) Amphiboles (B) Olivine
(C) Quartz (D) Pyroxenes
(E) Answer not known
70. The most suitable analytical method for estimating available phosphorus in acid soil is _____ method.
- (A) Olsen's (B) Bray and Kurtz
(C) Mehlich (D) Lindsay and Norwell
(E) Answer not known

71. The electrical conductivity of soil is measured in
(A) ms/100g (B) dSm⁻¹
(C) g/cc (D) ohms/m
(E) Answer not known
72. Breakdown of Indole Acetic Acid (IAA) is favoured by the excess concentration of
(A) Manganese (B) Iron
(C) Boron (D) Potassium
(E) Answer not known
73. The method of assessing 'Gypsum requirement' to reclaim sodic soil was proposed by
(A) Schoonover (B) Shoemaker
(C) Lindsay (D) Bray and Kurtz
(E) Answer not known
74. The lowest category in the land capability classification system is
(A) Capability unit (B) Capability sub class
(C) Capability class (D) None of these
(E) Answer not known
75. The growth expression equation of $Y = M(1 - R^x)$ is given by
(A) Mitscherlich (B) Gapon
(C) Liebig (D) Spillman
(E) Answer not known

76. In soil fertility evaluation, Aspergillus niger method is used for which nutrient?
- (A) Phosphorus (B) Sulphur
 (C) Nitrogen (D) Iron
 (E) Answer not known
77. The relationship between osmotic pressure (OP) and Electrical Conductivity (EC) for salt mixtures in saline soils is given by the relation
- (A) OP (atmospheres/bars) = $0.36 \times EC$ (dSm⁻¹)
 (B) OP (atmospheres/bars) = $64 \times EC$ (dSm⁻¹)
 (C) OP (atmospheres/bars) = $\frac{EC}{0.36}$ (dSm⁻¹)
 (D) OP (atmospheres/bars) = $\frac{EC}{64}$ (dSm⁻¹)
 (E) Answer not known
78. The sodium hazard of irrigation water is calculated by
- (A) SAR (B) ESP
 (C) RSC (D) RSBC
 (E) Answer not known
79. The ratio of the electrical conductivity of applied water and drainage water is known as
- (A) Lime requirement (B) Leaching requirement
 (C) Gypsum requirement (D) (A) and (B)
 (E) Answer not known

80. Bench terracing is usually practiced on slope ranging from
- (A) 1 – 2% (B) 3 – 10%
(C) 16 – 33% (D) 11 – 15%
(E) Answer not known
81. The nursery area required to raise seedlings for planting one hectare of cumbu is _____ cents
- (A) 20 (B) 10
(C) 7.5 (D) 12
(E) Answer not known
82. The relation of Agricultural crops and physical environment is called
- (A) Meteorology (B) Agroclimatology
(C) Agrometeorology (D) Agroecology
(E) Answer not known
83. The important field operation in sesame crop cultivation for inducing basal branches is
- (A) Early Weeding
(B) Organic manure application
(C) Top dressing
(D) Nipping
(E) Answer not known

84. If maize crop is planted with a spacing of 60×30 cm, the plant population for 1 hectare is
- (A) 55,555 (B) 76,666
(C) 83,333 (D) 86,666
(E) Answer not known
85. The Recommended spacing for bengal gram in Tamilnadu is
- (A) $30 \text{ cm} \times 10 \text{ cm}$ (B) $30 \text{ cm} \times 15 \text{ cm}$
(C) $30 \text{ cm} \times 5 \text{ cm}$ (D) $30 \text{ cm} \times 30 \text{ cm}$
(E) Answer not known
86. The recommended pre emergence herbicide for irrigated Ragi is _____ kg ai/ha.
- (A) Oxyfluorfen @ 0.05 kg ai/ha
(B) Oxyfluorfen @ 0.5 kg ai/ha
(C) Atrazine @ 0.5 kg ai/ha
(D) Atrazine @ 1.0 kg ai/ha
(E) Answer not known
87. Application of Calcium Sulphate @ _____ kg/ha is recommended for groundnut crop in Tamilnadu.
- (A) 200 (B) 80
(C) 400 (D) 100
(E) Answer not known

88. The recommended dose of fertilizers for hybrid cumbu is _____ kg N P₂O₅ K₂O/ha
- (A) 70 : 35 : 35 (B) 80 : 40 : 40
(C) 90 : 45 : 45 (D) 120 : 60 : 60
(E) Answer not known
89. The seed requirement of Green manure crop in Rice cum Green manure seeder is _____ kg/ha.
- (A) 60 (B) 40
(C) 30 (D) 20
(E) Answer not known
90. The recommended dose of fertilizers for hybrid maize is _____ kg N, P₂O₅ and K₂O /ha
- (A) 250 : 75 : 75 (B) 100 : 75 : 75
(C) 150 : 50 : 50 (D) 200 : 75 : 75
(E) Answer not known
91. The ideal sowing time for wheat in Tamil Nadu is
- (A) 15th October to First week of November
(B) 15th September to 15th October
(C) 15th December to 15th January
(D) 15th February to 15th March
(E) Answer not known

92. The process of separating lint from seed cotton is called
- (A) Linting (B) Ginning
(C) Delinting (D) None of the above
(E) Answer not known
93. In India the most commonly grown maize type is
- (A) Sweet Corn (B) Flint Corn
(C) Dent Corn (D) Waxy Corn
(E) Answer not known
94. India is divided into 15 Agroclimatic zones based on
- (A) Climate and rainfall
(B) Climate
(C) Rainfall
(D) Physiography and Climate
(E) Answer not known
95. The short range weather forecast is for a period of
- (A) 1-2 days (B) 3-4 days
(C) 5-6 days (D) More than a week
(E) Answer not known

96. The condition of the atmosphere at a given time and place with reference to temperature, pressure, moisture, wind speed and direction is

- (A) Meteorology (B) Climatology
(C) Weather (D) Hydrology
(E) Answer not known

97. The lower layer of atmosphere is referred to as

- (A) Stratosphere (B) Ionosphere
(C) Exosphere (D) Troposphere
(E) Answer not known

98. Soil mulching reduces

- (A) Reduces evaporation (B) Deep cracking
(C) Improves moisture storage (D) All the above
(E) Answer not known

99. _____ refers to the growing of a crop with the least possible soil disturbance during tillage operation.

- (A) Zero tillage (B) Minimum tillage
(C) Wet tillage (D) Conventional tillage
(E) Answer not known

100. The prediction and forecasting monsoon rainfall development a few hours to 48 hours is
- (A) Short range forecast (B) Middle range forecast
(C) Long range forecast (D) None
(E) Answer not known
101. The share of agriculture and allied sectors to total outlay in XI Five Year Plan is
- (A) 18.5 (B) 19.5
(C) 17.5 (D) 20.5
(E) Answer not known
102. Doctrine of Comparative Cost Advantage was given by
- (A) Adam Smith (B) Alfred Marshall
(C) David Ricardo (D) Paul Krugman
(E) Answer not known
103. Expand CAC
- (A) Codex Alimentarius Commission
(B) Credit Audit Commission
(C) Credit Accounting Control
(D) Central Administrative Commission
(E) Answer not known

104. The following one is not a blue box measure in WTO

- (A) Decoupled income supports
- (B) Payments not linked to production
- (C) Tariff
- (D) Income safety net programmes
- (E) Answer not known

105. Minimum support price for farm commodities are recommended by

- (A) FCI
- (B) STC
- (C) CACP
- (D) NAFED
- (E) Answer not known

106. _____ is the price at which essential commodities are made available to the consumers at fair price shops.

- (A) Minimum support price
- (B) Procurement price
- (C) Support price
- (D) Issue price / Fair price
- (E) Answer not known

107. Break-even Point (BEP) is calculated as follows.

- (A) $\frac{\text{Fixed cost}}{\text{Sales projected} - \text{Variable cost}} + 100$
- (B) $\frac{\text{Fixed cost}}{\text{Sales projected} - \text{Variable cost}} \times 100$
- (C) $\frac{\text{Fixed cost}}{\text{Sales projected} - \text{Variable cost}} - 100$
- (D) $\frac{\text{Fixed cost}}{\text{Sales projected} - \text{Variable cost}} \div 100$
- (E) Answer not known

108. Which is not an advantage of a cooperative form of business?

- (A) Easy formation
- (B) Limited liability
- (C) Lack of secrecy
- (D) State Assistance
- (E) Answer not known

109. Expand NWR

- (A) National Warehouse Receipt
- (B) National Warehouse Rate
- (C) Negotiable Warehouse Receipt
- (D) Negotiable Warehouse Rate
- (E) Answer not known

110. The loans that help the farmers to overcome distress sales are

- (A) Production loans
- (B) Marketing loans
- (C) Consumer loan
- (D) Jewel loan
- (E) Answer not known

111. KHAI is an example for _____ storage structure.

- (A) Mud pots
- (B) Metal drum
- (C) Gunny bag
- (D) Under ground
- (E) Answer not known

112. _____ grading means sorting out of goods according to the size, quality and other characteristics which are of fixed standards.
- (A) Permissive
 - (B) Centralised
 - (C) Decentralised
 - (D) Mandatory
 - (E) Answer not known
113. Total marketing cost incurred by all those intermediaries involved is Rs.300/tonnes and value added measured in terms of difference in the consumer's price and price received by the farmer is Rs.600/tonne. The marketing efficiency is
- (A) 300
 - (C) 200
 - (B) 600
 - (D) 400
 - (E) Answer not known
114. Transportation adds
- (A) Form utility
 - (C) Time utility
 - (E) Answer not known
 - (B) Place utility
 - (D) Possession utility
115. The curve representing all combinations of X_1 and X_2 that produce the same level of output is referred to as
- (A) Indifference curve
 - (C) Iso-cost line
 - (E) Answer not known
 - (B) Iso-quant
 - (D) Iso-Revenue line

116. _____ take the ownership of the commodities through purchasing activity and attempt to make profit from the future price movements.

- (A) Processing agent
- (B) Merchant middlemen
- (C) Agent middlemen
- (D) Speculative middlemen
- (E) Answer not known

117. _____ refers to purchase or sale of a commodity in a futures market accompanied by sale or a purchase in the cash market.

- (A) Hedging
- (B) Speculation
- (C) Contract
- (D) Insurance
- (E) Answer not known

118. When a large number of sellers deal in heterogeneous and differentiated form of a commodity, the situation is called as

- (A) Oligopoly
- (B) Monopolistic competition
- (C) Duopoly
- (D) Monopoly
- (E) Answer not known

119. Time utility is provided by

- (A) Transport function
- (C) Storage function
- (B) Processing function
- (D) Selling function
- (E) Answer not known

120. When a firm or agency gains control of other firms or agencies performing similar marketing functions at the same level in the marketing sequence is termed as
- (A) Vertical Integration (B) Horizontal Integration
(C) Conglomeration (D) Forward Integration
(E) Answer not known
121. Which of the following is an introduced pest?
- (A) Spiralling Whitefly (B) American Boll worm
(C) Cabbage-semi looper (D) Fruit fly in guava
(E) Answer not known
122. The study of circadian rhythm in insect is called
- (A) Neurobiology (B) Chronobiology
(C) Chemobiology (D) Mechnobiology
(E) Answer not known
123. Ecology is defined as the study of organisms at home is given by
- (A) Eugene P. Odum (B) Andrewartha
(C) Ernst Haeckel (D) H. Painter
(E) Answer not known
124. "White tip" disease of rice is caused by which of the following nematode?
- (A) Ditylenchus angustus (B) Aphelenchoides besseyi
(C) Hoplolaimus sp. (D) Belonolaimus sp.
(E) Answer not known

125. The insect pest whose adults are carrying notching of leaf edges and the young ones feeding on the roots of the plants is
- (A) Rice Weevil (B) Ash Weevil
(C) Red Palm Weevil (D) Stem Weevil
(E) Answer not known
126. In paddy, _____ is modified into gall like structure known as "silver shoot"
- (A) leaf sheath (B) stem
(C) leaf blade (D) Inflorescence
(E) Answer not known
127. Oozing out of brown resinous fluid from the fruits of cucurbits is due to the attack of
- (A) Stem Fly (B) Shoot Fly
(C) Gall Fly (D) Fruit Fly
(E) Answer not known
128. What is the mode of action of Spiromesifen?
- (A) Moulting disrupter (B) Inhibitors of ATP synthase
(C) Inhibitors of Chitin synthesis (D) Inhibitors of lipid synthesis
(E) Answer not known
129. Which one of the following insecticides is likely to cause Phytotoxicity on onion?
- (A) Monocrotophose (B) Imidacloprid
(C) Dimethoate (D) Profenophos
(E) Answer not known

130. The ETL for leaf infesting mite in cotton is
- (A) 5 per cm² (B) 10 per cm²
(C) 15 per cm² (D) 20 per cm²
(E) Answer not known
131. In Rice Tungro virus endemic areas, the ETL for rice green leaf hopper is
- (A) 5 / hill (B) 5 / hiller
(C) 2 / hill (D) 2 / hiller
(E) Answer not known
132. Which one of the following insecticide is more safe to honey bees?
- (A) Diflubenzuron (B) Chlorpyrifos
(C) Cypermethrin (D) Imidacloprid
(E) Answer not known
133. To prevent the spread of _____ pest in Tamil Nadu, quarantine stations were started at Mettupalayam, Gudalur and Shenbaganur during 1943.
- (A) Eriosoma lanigerum on apple
(B) Phthorimaea opérculella on potato
(C) Icerya purchasi on wattle
(D) Coccus vividis on coffee
(E) Answer not known

134. Leaf rust disease of coffee was introduced into India from
- (A) North America (B) South America
(C) Europe (D) Srilanka
(E) Answer not known
135. Effectiveness of the Bacillus thuringiensis toxin will be more in _____ pH
- (A) Alkali (B) Acidity
(C) Neutral (D) No relation
(E) Answer not known
136. Bioherbicide from Phytophthora palmivora fungus is
- (A) Devine (B) Collego
(C) Biomal (D) Atrazine
(E) Answer not known
137. Choose the very effective egg parasitoid against many lepidopteran pests.
- (A) Chelonus sp. (B) Trichogramma sp.
(C) Bracon sp. (D) Trichospilus sp.
(E) Answer not known
138. A weed that depends partly or fully on its host plant for growth is termed as
- (A) Objectionable weed (B) Associated weed
(C) Satellite weed (D) Parasitic weed
(E) Answer not known

139. The formula for Weed Control Efficiency (WCE) is

Note :

[WPC : Weed Population in Control Plot

WPT : Weed Population in Treated Plot]

(A) $\frac{WPC - WPT}{WPT} \times 100$

(B) $\frac{WPT - WPC}{WPT} \times 100$

(C) $\frac{WPT - WPC}{WPC} \times 100$

(D) $\frac{WPC - WPT}{WPC} \times 100$

(E) Answer not known

140. Which of the parasitic weed is serious in Sugarcane crop?

(A) Cuscuta

(B) Orobanche

(C) Striga

(D) Lovanthus

(E) Answer not known

141. A _____ variety is a variety that has been traditionally cultivated and evolved by farmers.

(A) Breeder's

(B) Farmer's

(C) Obsolete

(D) Extant

(E) Answer not known

142. When selection favours the intermediate phenotype and acts against the extreme phenotypes, it is termed as _____.

(A) Directional Selection

(B) Stabilising Selection

(C) Disruptive Selection

(D) Progergy Selection

(E) Answer not known

143. _____ are primitive varieties which has evolved over centuries or even millenia through naturally selected and adopted as man made, but without a systematic breeding effort.
- (A) Obsolete varieties (B) Breeding lines
(C) Varieties in cultivations (D) Land races
(E) Answer not known
144. The temperature for cryopreservation of germplasm using liquid Nitrogen is
- (A) -20°C (B) -70°C
(C) -176°C (D) -196°C
(E) Answer not known
145. Totipotency of plant cells was predicted by _____ in 1902.
- (A) Cocking (B) Haberlandt
(C) Hanning (D) Braun
(E) Answer not known
146. Which one of the following is not a PCR-based molecular marker?
- (A) RAPD (B) SSR
(C) RFLP (D) SCAR
(E) Answer not known
147. Protoplast fusion is commonly induced by _____
- (A) Calcium phosphate (B) Polyethylene glycol
(C) Naphthoxy acetic acid (D) Benzyl aminopurine
(E) Answer not known

148. _____ is an attribute responsible for drought escape.

- (A) reduced transpiration (B) earliness
(C) leaf rolling (D) deep root system
(E) Answer not known

149. Which one of the following wheat variety is a secondary introduction in India?

- (A) Sonora 64 (B) Lerma Rojo
(C) Kalyansona (D) NP4
(E) Answer not known

150. A white seeded sesame variety released by TNAU

- (A) VRI, SV.2
(B) VRI.3
(C) TMV.7
(D) CO-1
(E) Answer not known

151. A method of evaluation of inbreds _____

- (A) Top cross test (B) Back cross method
(C) Bulk method (D) Pedigree method
(E) Answer not known

152. _____ is a source of male sterile cytoplasm in cotton.

- (A) Gossypium thurberi (B) Gossypium trilobum
(C) Gossypium harknessii (D) Gossypium tomentosum
(E) Answer not known

153. Which of the following is not relates to hybrid rice seed production?
- (A) Male sterile line (B) Gynoecious line
 (C) Maintainer line (D) Restorer line
 (E) Answer not known
154. The difference in planting time for nicking in hybrid seed production is known as
- (A) Synchronization (B) Staggering
 (C) Roguing (D) Supplementary pollination
 (E) Answer not known
155. When two species, say A and C, cannot be crossed directly, a third species, eg. B., which is used to make compatible crosses is called as
- (A) Bridge species (B) Bridge cross
 (C) Wild species (D) Wide cross
 (E) Answer not known
156. 'Rangpur lime' root stock of citrus is used for development of _____ tolerant plants
- (A) Drought (B) Salinity
 (C) Insect (D) Disease
 (E) Answer not known
157. In _____ method, F_2 and the subsequent generations, are harvested in mass or as bulks to raise next generation
- (A) Pedigree method (B) Bulk method
 (C) Single-Seed Descent method (D) Pureline method
 (E) Answer not known

158. Seedless watermelon is produced by crossing

- (A) Diploid \times Haploid (B) Triploid \times Hexaploid
(C) Tetraploid \times Diploid (D) Hexaploid \times Diploid
(E) Answer not known

159. Sunflower belongs to the family

- (A) Pedaliaceae (B) Compositae
(C) Graminae (D) Leguminosae
(E) Answer not known

160. Geitonogamy results when pollen from a flower of one plant falls on

- (A) Stigma of the same flower
(B) Stigma of flowers of another plant
(C) The pollen becomes sterile
(D) Stigma of other flowers of same plant
(E) Answer not known

161. An intercultural implement for wide row crops like sugarcane, cotton etc. is

- (A) Mould board plough (B) Junior hoe
(C) Country plough (D) Disc plough
(E) Answer not known

162. In artificial bee hives 'Bee space' (or) "Bee Passage" was discovered by

- (A) Beeson (B) L.L. Langstroth
(C) Newton (D) Abbe Warre
(E) Answer not known

163. Thai sac Brood virus specifically attacks

- (A) Apis Mellifera (B) Apis Florea
(C) Apis Cerana indica (D) Apis Dorsata
(E) Answer not known

164. Methods of irrigation include,

- (i) Flooding
(ii) Furrow irrigation
(iii) Sub surface irrigation
(iv) Sprinkling and Drip
- (A) (i) and (ii) (B) (i) and (iv)
(C) (i), (ii) and (iv) (D) (i), (ii), (iii) and (iv)
(E) Answer not known

165. One cubic metre tank stores _____ litres of water.

- (A) 100 (B) 10
(C) 1000 (D) 10,000
(E) Answer not known

166. The Quantity of irrigation water to be applied for a sunflower crop is 8 cm. $\frac{IW}{CPE}$ ratio of 0.9 is recommended for irrigation. Work out the cumulative pan evaporation.

- (A) 0.8 cm (B) 8.0 cm
(C) 8.88 cm (D) 88.8 cm
(E) Answer not known

167. The major/common nutrient deficiency symptoms in crop plants include

- (A) Chlorosis (B) Necrosis
(C) Stunting (D) All the above
(E) Answer not known

168. Which of the following Rhizobium Sp. fixes nitrogen in Alfalfa?

- (A) Rhizobium meliloti (B) Rhizobium phaseoli
(C) Rhizobium trifolii (D) Rhizobium lupini
(E) Answer not known

169. The potassium solubilizing bacteria is

- (A) Pseudomonas striata (B) Bacillus polymyxa
(C) Bacillus mucilaginosus (D) Aspergillus awamori
(E) Answer not known

170. The pathogen which restricts the growth of Azotobacter is

- (A) Cephalosporium (B) Alternaria
(C) Fusarium (D) Helminthosporium
(E) Answer not known

171. One of following is reduced by nitrogenase during biological nitrogen fixation

- (A) N_2 (B) $N \equiv N$
(C) NO (D) N_2O
(E) Answer not known

172. Organic N content of soil increases steadily with the application of

- (A) Urea (B) DAP
(C) Ammonium Chloride (D) Ammonium Sulphate
(E) Answer not known

173. Azorhizobium Caulinodans causes root and stem nodules in the plant :

- (A) Sesbania rostrata (B) Sesbania aculeata
(C) Sesbania speciosa (D) Sesbania grandiflora
(E) Answer not known

174. The fresh poultry manure droppings contain

- (A) 50% moisture, 1.0% N, 0.5% P₂O₅ and 0.2% K₂O
(B) 60% moisture, 1.0% N, 0.75% P₂O₅ and 0.3% K₂O
(C) 75% moisture, 1.5% N, 1.2% P₂O₅ and 0.5% K₂O
(D) 90% moisture, 2.5% N, 2.0% P₂O₅ and 1.0% K₂O
(E) Answer not known

175. Which of the following is not a method of nutrient absorption by the crop plants?

- (A) Mass flow (B) Diffusin
(C) Root interception (D) Nutrient exchange
(E) Answer not known

176. Algalization of rice crops has been found to supplement nitrogenous fertilizers to the extent of

- (A) 10-20 kg N / ha / season (B) 20-30 kg N / ha / season
(C) 30-40 kg N / ha / season (D) 40-50 kg N / ha / season
(E) Answer not known

177. Bangalore method of composting was developed by

- (A) Acharya and Subramanian
(B) Howard and Wad
(C) Pandhari pande
(D) Wiley
(E) Answer not known

178. Direct or indirect harmful effect that one plant has on another plant through release of chemical substances, the phenomena known as

- (A) Annidation (B) Allelopathy
(C) Complementary (D) Companion
(E) Answer not known

179. What is the LER (Land equivalent ratio) of the given cotton based cropping system?

Sole cotton yield – 15 q

Intercrop cotton yield – 12 q

Sole Blackgram yield – 5 q

Intercrop Blackgram yield – 3 q

- (A) 1.0 (B) 1.2
(C) 1.4 (D) 1.6
(E) Answer not known

180. Pressmud is used as a manure

- (A) In acid soils
- (B) In alkaline and saline soils
- (C) In acid and neutral soils
- (D) In water logged soils
- (E) Answer not known

181. The unique institution under ICAR to conduct Research Training in Agricultural Management is

- (A) IARI
- (B) CRI
- (C) NAARM
- (D) IVRI
- (E) Answer not known

182. National commission on farmer was headed by

- (A) Dr. Manmohan Singh
- (B) Dr. M.S. Swaminathan
- (C) Dr. Abijit Sen
- (D) Dr. S.S. Acharya
- (E) Answer not known

183. The areas which enjoy special privileges as compared with other areas of the country are called

- (A) Special Economic Zones (SEZs)
- (B) Export Processing Zones (EPZs)
- (C) Free Trade and Warehousing Zone (FTWZs)
- (D) None of the above
- (E) Answer not known

184. National Seeds Corporation (NSC) Ltd was primarily established to fulfill the needs of ———— seed production.

- (A) Hybrid Redgram (B) Hybrid Maize
(C) Hybrid Rice (D) Hybrid Wheat
(E) Answer not known

185. Food grain production in India during 2014-2015 was

- (A) 212 Million tonnes (B) 252 Million tonnes
(C) 312 Million tonnes (D) 342 Million tonnes
(E) Answer not known

186. At present India supports ———— % of Global land and 17% of world population.

- (A) 5.0% (B) 2.3%
(C) 6.5% (D) 10.0%
(E) Answer not known

187. Match the states which leads in productivity of certain crops :

States	Crops
(a) Andhra Pradesh	1. Groundnut
(b) Maharashtra	2. Maize
(c) Punjab	3. Rice
(d) Tamil Nadu	4. Sugarcane

- | | (a) | (b) | (c) | (d) |
|--------------------------------------|------------------|-----|-----|-----|
| (A) | 1 | 3 | 2 | 4 |
| (B) | 4 | 1 | 3 | 2 |
| (C) | 3 | 2 | 4 | 1 |
| <input checked="" type="radio"/> (D) | 2 | 4 | 3 | 1 |
| (E) | Answer not known | | | |

188. Not an economic factor affecting the cropping pattern in India.

- (A) Price and Income maximization
- (B) Availability of Inputs
- (C) Tenure
- (D) Irrigation
- (E) Answer not known

189. Total geographical area of Tamil Nadu is

- (A) 15.32 mha
- (B) 13.06 mha
- (C) 10.46 mha
- (D) 11.34 mha
- (E) Answer not known

190. The state having the highest cropping intensity.

- (A) Haryana (B) Punjab
(C) Andhra Pradesh (D) Tamil Nadu
(E) Answer not known

191. Quinquennial Review Team is constituted for _____ yearly review of performance of every Institute.

- (A) 3 (B) 6
(C) 5 (D) 10
(E) Answer not known

192. Based on the recommendations of the Royal Commission Report of _____, the Imperial Council of Agricultural Research was established on 16, July 1929 and after Independence it was renamed as ICAR.

- (A) 1908 (B) 1918
(C) 1928 (D) 1913
(E) Answer not known

193. Agricultural Research Institute at Pusa, Bihar, created in _____ was shifted to Delhi in 1936 after a devastating earthquake and is being called the Indian Agricultural Research Institute but still popularly known as Pusa Institute.

- (A) 1805 (B) 1815
(C) 1905 (D) 1915
(E) Answer not known

194. The Planning Commission constituted a Task Group on Revamping and Refocusing of NARS in October, 2004 for the promotion of basic and strategic researches in Agriculture under whose chairmanship?
- (A) Dr. M.S. Swaminathan (B) Dr. G.V.K. Rao
(C) Dr. R.A. Mashelkar (D) Dr. Gajendragadkar
(E) Answer not known
195. The _____ sector has the highest share of Net State Domestic product of Tamil Nadu.
- (A) Agriculture (B) Industry
(C) Services sector (D) Manufacturing
(E) Answer not known
196. After independence, the Government of India appointed the National Income Committee in the year _____ to compile authoritative estimates of National income.
- (A) 1948 (B) 1952
(C) 1949 (D) 1954
(E) Answer not known
197. The first five year plan was formulated and implemented for the period
- (A) 1956-61 (B) 1951-1956
(C) 1952-1957 (D) 1950-1954
(E) Answer not known

198. The Gangetic plains region prone to frequent flooding is

- (A) Upper gangetic plains region
- (B) Middle gangetic plains region
- (C) Lower gangetic plains region
- (D) Trans-Gangetic plains region
- (E) Answer not known

199. In five year plans which year of five year plan is incorrect?

- (A) First five year plan 1951-56.
- (B) Second five year plan 1956-61
- (C) Third five year plan 1961-66
- (D) Fourth five year plan 1980-1985
- (E) Answer not known

200. The second five year plan laid emphasis on

- (A) Diversified agriculture
- (B) Development of livestock
- (C) Intensive Farming Practices
- (D) (A) and (B)
- (E) Answer not known