

Sl. No. : 30000513

AGRD 2012

Register  
Number

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2012  
**AGRICULTURE**  
**(Degree Standard)**

Time Allowed : 3 Hours ]

[ Maximum Marks : 300

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

**IMPORTANT INSTRUCTIONS**

1. This Booklet has a cover (this page) which should not be opened till the invigilator gives signal to open it at the commencement of the examination. As soon as the signal is received you should tear the right side of the booklet cover carefully to open the booklet. Then proceed to answer the questions.
2. This Question Booklet contains 200 questions.
3. Answer all questions.
4. All questions carry equal marks.
5. You must write your Register Number in the space provided on the top right side of this page. Do not write anything else on the Question Booklet.
6. An Answer Sheet will be supplied to you separately by the Invigilator to mark the answers. You must write your Name, Register No., Question Booklet Sl. No. and other particulars with Blue or Black ink Ball point pen on side 2 of the Answer Sheet provided, failing which your Answer Sheet will not be evaluated.
7. You will also encode your Register Number, Subject Code, Question Booklet Sl. No. etc. with Blue or Black ink Ball point pen in the space provided on the side 2 of the Answer Sheet. If you do not encode properly or fail to encode the above information, your Answer Sheet will not be evaluated.
8. Each question comprises *four* responses (A), (B), (C) and (D). You are to select **ONLY ONE** correct response and mark in your Answer Sheet. In case, you feel that there are more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each question. Your total marks will depend on the number of correct responses marked by you in the Answer Sheet.
9. In the Answer Sheet there are **four** brackets [A] [B] [C] and [D] against each question. To answer the questions you are to mark with Ball point pen **ONLY ONE** bracket of your choice for each question. Select one response for each question in the Question Booklet and mark in the Answer Sheet. If you mark more than one answer for one question, the answer will be treated as wrong *e.g.* If for any item, [B] is the correct answer, you have to mark as follows :  
[A]  [C] [D]
10. You should not remove or tear off any sheet from this Question Booklet. You are not allowed to take this Question Booklet and the Answer Sheet out of the Examination Hall during the examination. After the examination is concluded, you must hand over your Answer Sheet to the Invigilator. You are allowed to take the Question Booklet with you only after the Examination is over.
11. Failure to comply with any of the above instructions will render you liable to such action or penalty as the Commission may decide at their discretion.
12. Do not tick-mark or mark the answers in the Question booklet.
13. The last sheet of the Question Booklet can be used for Rough Work.

SEAL



1. Which of the following is a monoecious plant ?  
 (A) Coconut (B) Maize  
 (C) Castor (D) All of the above
2. The suitability of a variety for general cultivation over a wide range of environmental conditions is known as  
 (A) Comparability (B) Compatibility  
 (C) Heritability (D) Stability
3. Wind Pollination is called as  
 (A) Entanophily (B) Zoophily  
 (C) Anemophily (D) Hydrophily
4.  $(A \times B) \times C$  is  
 (A) Single cross (B) Double cross  
 (C) Three way cross (D) Top cross
5. Cotton is a  
 (A) Self pollinated crop (B) Cross pollinated crop  
 (C) Often cross pollinated crop (D) Often self pollinated crop
6. Ranjit is the name of the hybrid variety of  
 (A) Rice (B) Maize  
 (C) Cotton (D) Sugarcane
7. Fertilised matured ovule is  
 (A) Ovary (B) Fruit  
 (C) Seed (D) Seedling
8. A method of breeding most commonly used when the desired variation is required to be induced in a vegetatively propagated crop is  
 (A) Polyploidy  
 (B) Pedigree method of breeding  
 (C) Mutation breeding  
 (D) Back cross method of breeding
9. Plants produced from asexual methods are  
 (A) vigorous (B) true-to-type  
 (C) susceptible to diseases (D) having long juvenile period
10. Genetic male sterility is controlled by  
 (A) Single recessive gene (ms)  
 (B) Multiple genes  
 (C) Single dominant gene (MS)  
 (D) None of the above

11. When a  $F_1$  is crossed with the recessive homozygotic parents, the cross is known as  
(A) Back cross (B) Crossing over  
(C) Test cross (D) All the above
12. The most effective method for the transfer of oligogenic character is  
(A) Pedigree breeding (B) Bulk breeding  
(C) Back cross breeding (D) Disruptive breeding
13. A collection of plasmid clones, or phages lysates containing recombinant DNA is known as  
(A) Gene transfer (B) Genomic library  
(C) Gene Cloning (D) None of the above
14. Cells that acquire the ability to multiply indefinitely in-vitro especially in plant cell tissues is known as  
(A) Cell line (B) Cell fusion  
(C) Chemostat (D) Coagulation
15. Bt cotton tolerates  
(A) Beetles (B) Bugs  
(C) Caterpillars (D) Flies
16. In which of the following crops, transgenic varieties are most popular ?  
i. Brinjal  
ii. Cotton  
iii. Groundnut  
iv. Tomato  
(A) i and ii of the above (B) ii and iii of the above  
(C) ii and iv of the above (D) iii and iv of the above
17. Biological fixation of nitrogen is helped by  
(A) Zinc (B) Copper  
(C) Boron (D) Molybdenum
18. Which one of the following is a C4 Plant ?  
(A) Sunflower (B) Maize  
(C) Rice (D) Pulses
19. Seedlessness in grapes is due to  
(A) Embryo abortion (B) Gibberellins  
(C) Excess nitrogen (D) None of the above
20. Edible banana is  
(A) Diploid (B) Triploid  
(C) Tetraploid (D) None of the above

21. Importance of fruits and vegetables in human diet is primarily because they are good source of  
 (A) Vitamins (B) Proteins  
 (C) Vitamins and minerals (D) None of the above
22. Adjustment of individual to their environment by means of special structures or of function is called as  
 (A) Variation (B) Heredity  
 (C) Adaptation (D) Mutation
23. The amino acid associated with water stress  
 (A) Hydroxy Proline (B) Lysine  
 (C) Proline (D) None of the above
24. Plant growth regulator used for ripening is  
 (A) Gibberellic acid (B) Cytokinin  
 (C) Butyric acid (D) Ethylene
25. Whiptail in cauliflower is due to the deficiency of  
 (A) Manganese (B) Magnesium  
 (C) Molybdenum (D) Sulphur
26. Polyunsaturated fatty acids are rich in  
 (A) Sunflower oil (B) Groundnut oil  
 (C) Coconut oil (D) Castor oil
27. National Seed Corporation of India was established in the year  
 (A) 1961 (B) 1965  
 (C) 1962 (D) 1960
28. Any crop variety to be released in Tamil Nadu has to be approved by  
 (A) Department of Agriculture  
 (B) State Variety Release Committee  
 (C) State Variety Release Corporation  
 (D) Tamil Nadu Agricultural University
29. The process of breaking / softening the seed coat is called  
 (A) Caprification (B) Clarification  
 (C) Scarification (D) Saponification
30. Certification is not required for  
 (A) Breeder Seed (B) Certified Seed  
 (C) Foundation Seed (D) Nucleus Seed
31. Gladiolus is propagated by  
 (A) Corms (B) Bulbs  
 (C) Suckers (D) Buddings

32. In breeding of cross pollinated species leads to increase in  
 (A) Homozygosity (B) Heterozygosity  
 (C) Both of the above (D) None of the above
33. Reflection of Solar radiation is termed as  
 (A) Infrared radiation (B) Solar constant  
 (C) Albedo (D) Net radiation
34. Genetic tool in hybrid seed production of red gram is  
 (A) CGMS (B) GMS  
 (C) Mutation (D) PGMS
35. Tag colour for foundation seeds is  
 (A) green (B) blue  
 (C) white (D) yellow
36. At which humidity percentage should the cereal grains be stored ?  
 (A) 5 - 6 % (B) 7 - 9%  
 (C) 10 - 15 % (D) 8 - 10 %
37. Conversion of organic form of nutrient in to inorganic form  
 (A) Mineralization (B) Immobilization  
 (C) Fixation (D) Stabilization
38. ETL level for Diamond back moth is  
 (A) 10 larvae / 10 plants (B) 20 larvae / 10 plants  
 (C) 25 larvae / 10 plants (D) 5 larvae / 10 plants
39. At harvest, Sugarcane contains maximum amount of  
 (A) Maltose (B) Sucrose  
 (C) Glucose (D) Amylose
40. Papaya mealy bug can be controlled by  
 (A) Acerophagous papaye (B) Pseudomonas fluorescens  
 (C) Trichoderma viridi (D) Trigrogramma spp.
41. The grubs of coconut rhinoceros beetle are found in  
 (A) Fronds (B) Manure pits  
 (C) Soil (D) Stem
42. Biuret content in urea should be less than  
 (A) 2 (B) 1.5  
 (C) 10 (D) 3
43. American bollworm can be controlled by  
 1. Pheromone trap 2. Fish meal trap  
 3. NPV 4. Yellow sticky trap  
 (A) 1 and 2 of the above (B) 3 and 4 of the above  
 (C) 1 and 3 of the above (D) 2 and 4 of the above

44. Match the key pest with the host using the codes given below :

Key Pest	Host
(a) Case worm	(1) Groundnut
(b) Gall fly	(2) Rice
(c) Internode borer	(3) Sorghum
(d) Leaf minor	(4) Sugarcane

Codes :

	(a)	(b)	(c)	(d)
(A)	2	3	1	4
(B)	3	2	4	1
(C)	2	3	4	1
(D)	3	1	2	4

45. White tip disease caused by nematode is found in

- (A) Sorghum (B) Maize  
(C) Rice (D) Pearl millet

46. Leaf blotch of Turmeric is caused by

- (A) Carcospora sp. (B) Fusarium equiseti  
(C) Taphrina maculans (D) Phytophthora colocaseae

47. 'Wilt phase' is common in

- (A) Blast of Paddy  
(B) Bacterial blight of paddy  
(C) White rust of Crucifers  
(D) Red rot of sugarcane

48. 'Green ear' disease of Bajra is caused by

- (A) Erysiphe graminis (B) Albugo candida  
(C) Sclerospora graminicola (D) Rhizopus oryzae

49. Sigatoka is the problem in

- (A) lime (B) guava  
(C) sapota (D) banana

50. An important disease infecting Chilli fruits is

- (A) Anthracnose (B) Blight  
(C) Bud rot (D) Rust

51. The major diseases of sorghum crop are

- (A) Grain mold (B) Rust  
(C) Downy mildew (D) All the above

52. Pungency in Onion is due to

- (A) Anthocyanins (B) Allyl di Sulphide  
(C) Caffeine (D) Colchicine

□

53. Bacterial blight of rice is caused by

- (A) ~~Xanthomonas cajani~~
- (B) ~~Xanthomonas oryzae~~
- (C) Xanthomonas campestris
- (D) None of the above

54. Match the following using the codes :

**List I**

- (a) Citrus canker
- (b) Late blight of Potato
- (c) Bunchy top of banana
- (d) Red rust tea

**List II**

- (1) Virus
- (2) Algae
- (3) Bacteria
- (4) Fungi

**Codes :**

- |     | (a) | (b) | (c) | (d) |
|-----|-----|-----|-----|-----|
| (A) | 3   | 4   | 1   | 2   |
| (B) | 4   | 1   | 3   | 2   |
| (C) | 1   | 2   | 4   | 3   |
| (D) | 2   | 3   | 1   | 4   |

55. In India, potassic fertilizers are manufactured at

- (A) Tamil Nadu
- (B) ~~Karnataka~~
- (C) Andhra Pradesh
- (D) ~~None of the above~~

56. Ooty-1 garlic is resistant to

- (A) Aphid
- (B) ~~Thrips~~
- (C) Jassid
- (D) ~~Mealy bug~~

57. The major approaches in plant disease control are

- (A) Exclusion
- (B) Eradication
- (C) Protection
- (D) ~~All the above~~

58. San Jose Scale is an example of

- (A) Regular Pest
- (B) ~~Exotic Pest~~
- (C) Endemic Pest
- (D) ~~None of the above~~

59. Rice variety resistant to BPH is

- (A) ADT 39
- (B) ~~ADT (R) 45~~
- (C) ADT 38
- (D) ~~IR50~~

60. Storage pests are controlled by

- (A) Termination
- (B) ~~Fumigation~~
- (C) Elimination
- (D) ~~Fertigation~~

61. The most commonly used organic pesticide used to control sucking pests.

- (A) Castor Oil
- (B) ~~Neem Oil~~
- (C) Pungam Oil
- (D) ~~Mahua Oil~~

62. The antagonistic fungus used in crop disease management is  
 (A) Sclerospora (B) Trichoderma  
 (C) Trichogramma (D) Zygommatma
63. An Internal feeder of Legume seed is  
 (A) Red flour beetle (B) Cigarette beetle  
 (C) Pulse beetle (D) Khapra beetle
64. Shortening in bhendi is due to the deficiency of  
 (A) Fe (B) B  
 (C) N (D) P
65. Aphids are the vectors of  
 i. Banana bunchy top  
 ii. Brinjal little leaf  
 iii. Cardamom mosaic  
 iv. Cowpea mosaic  
 (A) i, ii and iii of the above (B) i, ii and iv of the above  
 (C) i, iii and iv of the above (D) All of the above
66. Rice Tungro virus is transmitted by  
 (A) Blue leaf hopper (B) Brown plant hopper  
 (C) Green leaf hopper (D) White leaf hopper
67. Universal antidote is a mixture of  
 (A) Charcoal & Lime  
 (B) MgO & Charcoal  
 (C) Activated Charcoal & talc  
 (D) Activated Charcoal; tannic acid & MgO
68. Which one of the following is the vector of bhendi vein clearing disease ?  
 (A) Aphid (B) Leafhopper  
 (C) Mealy bug (D) Whitefly
69. Central Food Technology Research Institute (CFTRI) is located at  
 (A) New Delhi (B) Bangalore  
 (C) Mysore (D) Mumbai
70. Statement (A) : Synthetic pyrethroids are effective against cotton bollworms.  
 Statement (B) : Synthetic pyrethroids often induce resurgence of white flies.  
 (A) Statement (A) is true but (B) is false.  
 (B) Statement (A) is false but (B) is true.  
 (C) Both Statements (A) and (B) are false.  
 (D) Both statements (A) and (B) are true.



71. Herbicide recommended for Maize + Blackgram intercropping system  
 (A) Pendimethalin (B) Isoproturon  
 (C) Atrazine (D) Butachlor
72. The volume of spray fluid required under high volume spray is  
 (A) 200 – 300 lit/ac (B) 300 – 400 lit/ac  
 (C) 400 – 500 lit/ac (D) 500 – 600 lit/ac
73. Which of the following crops is the maximum consumer of pesticides in Tamilnadu ?  
 (A) Coffee (B) Grapes  
 (C) Paddy (D) Sugarcane
74. Pesticide residues can be measured using  
 (A) GLC (B) Flame photometer  
 (C) Mass spectrometer (D) Colorimeter
75. Flat Fan Nozzles are exclusively used for spraying  
 (A) Insecticides (B) Fungicides  
 (C) Herbicides (D) All the above
76. A herbicide belonging to 'Acetamide' group is  
 (A) Fenuron (B) Butachlor  
 (C) Atrazine (D) Nitrofen
77. A bio-agent used to control Salvinia molesta is  
 (A) Hyacinth moth (B) Flea beetle  
 (C) Curculionid weevil (D) Scale insect
78. Loranthus is a  
 (A) Partial stem parasite (B) Total stem parasite  
 (C) Complete root parasite (D) Complete leaf parasite
79. Herbicide recommended for sugarcane crop is  
 (A) Atrazine (B) Pendimethalin  
 (C) Butachlor (D) Fluchloralin
80. An important pre-emergence herbicide used in rice cultivation is  
 (A) Atrazin (B) Butachlor  
 (C) Paraquat (D) Propanil
81. A common herbicide used in sugarcane cultivation is  
 (A) Atrazine (B) Butachlor  
 (C) Fluchloralin (D) Pendimethalin
82. Enriched FYM contains FYM & SSP in the ratio of  
 (A) 5:2 (B) 5:3  
 (C) 5:1 (D) 4:1

83. The major reason for global warming is the emission of
- Carbon di oxide
  - Chlorofluro carbons
  - Hydrogen
  - Methane
- (A) i, ii and iii of the above      (B) i, ii and iv of the above  
(C) i, iii and iv of the above      (D) i, ii, iii and iv of the above
84. Which one of the following factors is responsible for 'guttation' in the plants ?
- (A) Humidity      (B) Temperature  
(C) Light      (D) Wind
85. Layer of the atmosphere which is subject to changes in temperature is called
- (A) Troposphere      (B) Stratosphere  
(C) Tropopause      (D) None of the above
86. Magnesium is a constituent of
- (A) Xanthophyll      (B) Anthocyanin  
(C) Chlorophyll      (D) Cytokinin
87. Which one of the following instruments is used to measure relative humidity ?
- (A) Anemometer  
(B) Maximum thermometer  
(C) Minimum thermometer  
(D) Wet and dry bulb thermometer
88. Acid soils are characterized by a pH of
- (A) < 6      (B) 7 to 8  
(C) 8 to 10      (D) > 10
89. Which of the following pairs is correctly matched ?
- (A) Red Soil – Calcareous  
(B) Alkali Soil – pH 9  
(C) Black soil – rich in Kaolinite  
(D) Laterite Soil – pH 8
90. Average composition of humus includes
- (A) Carbon      (B) Oxygen  
(C) Nitrogen      (D) All the above
91. Arrangement of soil particles is known as
- (A) Soil texture      (B) Soil structure  
(C) Soil contour      (D) Soil order
92. Absorption of water by roots in saline soils is affected by
- (A) transpiration      (B) transportation  
(C) osmotic effect      (D) shallow depth

93. Which one of the following is a CAM plant ?  
(A) Apple (B) Brinjal  
(C) Cowpea (D) Pineapple
94. Electrical conductivity of Saline water should be less than  
(A)  $4.0 \text{ dSm}^{-1}$  (B)  $5.0 \text{ dSm}^{-1}$   
(C)  $6.0 \text{ dSm}^{-1}$  (D)  $7.0 \text{ dSm}^{-1}$
95. Which type of soil is commonly known as 'hungry and thirsty soil' ?  
(A) Black Soil (B) Alluvial Soil  
(C) Laterite Soil (D) Red Soil
96. Organic matter is abundantly available in  
(A) Sandy loam (B) Clay loam  
(C) Silt (D) None of the above
97. A non expanding type of clay mineral is  
(A) Chlorite (B) Illite  
(C) Kaolinite (D) Montmorillonite
98. Reclamation of sodic soils can be achieved by  
i. Applying gypsum  
ii. Green manuring  
iii. Leaching  
iv. Ponding  
(A) i, ii and iii of the above  
(B) ii, iii and iv of the above  
(C) i, iii and iv of the above  
(D) i, ii, iii and iv of the above
99. Carbon Sequestration is facilitated by  
(A) Alley cropping (B) Agro Forestry  
(C) Monocropping (D) Strip cropping
100. Which of the following is not a bio mass ?  
(A) Bagasse (B) Grass  
(C) Sand (D) Wood
101. Fertilizer Control Order of 1985 implemented by Government of Tamilnadu ensures  
(A) Application (B) Distribution  
(C) Quality (D) Transport
102. The percentage of nitrogen in the atmosphere is  
(A) 21 (B) 50  
(C) 63 (D) 78

103. Conversion of nitrogen to molecular nitrogens is known as  
(A) Denitrification (B) Nitrification  
(C) Nitrogen Fixation (D) Ammonification

104. Symbiotic association of fungal hyphae with plant roots is known as  
(A) Mycorrhiza (B) Mutual infection  
(C) Parasitism (D) Lichen

105. Match List I with List II by using the codes given below :

List I	List II
(a) Calcium	(1) Major nutrient
(b) Molybdenum	(2) Micro element
(c) Phosphorus	(3) Micronutrient
(d) Silicon	(4) Secondary nutrient

Codes :

	(a)	(b)	(c)	(d)
(A)	2	4	1	3
(B)	3	4	1	2
(C)	4	3	1	2
(D)	2	3	1	4

106. An example of concentrated Organic manure is  
(A) FYM (B) Goat manure  
(C) Oil cakes (D) Poultry manure

107. C : N ratio of Farm Yard Manure (FYM) is  
(A) 20 : 1 (B) 40 : 1  
(C) 50 : 1 (D) 80 : 1

108. Paddy takes nitrogen in the form of  
(A)  $\text{NO}_2^-$  (B)  $\text{N}_2$   
(C)  $\text{NH}_4$  (D)  $\text{NO}_3^-$

109. Integrated nutrient management involves  
i. Biofertilizers  
ii. Chemical fertilizers  
iii. Crop residues  
iv. Organic manures  
(A) i, ii and iv of the above  
(B) i, iii and iv of the above  
(C) i, ii and iii of the above  
(D) i, ii, iii and iv of the above

110. The type of demonstration used to impart skill is called  
(A) Frontline Demonstration (B) Method Demonstration  
(C) National Demonstration (D) Result Demonstration



111. Micro-organism responsible for the solubilisation of fixed P is  
 (A) Blue green algae (B) Azolla  
 (C) Azospirillum (D) Phosphobacteria
112. Implement mostly used for inter-cultural operation is  
 (A) Disc plough (B) Mould board plough  
 (C) Junior hot (D) None of the above
113. Chemical precipitation in Irrigation water occurs due to increase in  
 (A) Fe & HCO<sub>3</sub> (B) HCO<sub>3</sub>  
 (C) Ca (D) CO<sub>3</sub>
114. Oil content of sunflower  
 (A) 16 % (B) 26 %  
 (C) 36 % (D) 46 %
115. Which one of the following crops is not commonly transplanted ?  
 (A) Brinjal (B) Bhendi  
 (C) Chillies (D) Tomato
116. Basin irrigation is commonly adopted for  
 (A) Cardamom (B) Cabbage  
 (C) Coconut (D) Coffee
117. Water soluble phosphatic fertilizer is  
 (A) Rock phosphate (B) DAP  
 (C) SSP (D) Orthophosphoric acid
118. Most commonly followed IFS component for wetlands are  
 (A) Rice culture + Fish culture  
 (B) Rice culture + Api culture  
 (C) Rice culture + Seri culture  
 (D) Rice culture + Dairy farming
119. Citrus fruits are commonly propagated by  
 (A) Cutting (B) Layering  
 (C) T-budding (D) Tongue grafting
120. Tillage under saturated condition is termed as  
 (A) Contour tillage (B) Strip tillage  
 (C) Wet tillage (D) Deep tillage
121. Recommended seed rate (two budded) for sugarcane / ha is  
 (A) 75,000 (B) 65,000  
 (C) 55,000 (D) 45,000
122. In dryland farming, drought resistance is imparted by treating the seeds with  
 (A) KCl (B) KH<sub>2</sub>PO<sub>4</sub>  
 (C) K<sub>2</sub>SO<sub>4</sub> (D) KNO<sub>3</sub>

123. Curing is a post harvest management in  
(A) Sugarcane (B) Cotton  
(C) Tobacco (D) Paddy
124. Amount of rainfall received in a rainy day is  
(A) 2.5 mm and above (B) 5.0 mm  
(C) 10.0 mm (D) Less than 2.5 mm
125. Total solar radiation is measured by using  
(A) Lux meter (B) Sunshine recorder  
(C) Pan-evaporimeter (D) Bellani's pyranometer
126. Recommended spacing for Papaya is  
(A)  $1.8 \times 1.8$  m (B)  $2.5 \times 2.5$  m  
(C)  $3.5 \times 3.5$  m (D)  $3.8 \times 3.8$  m
127. A hybrid castor released from TNAU Coimbatore is  
(A) GCH 4 (B) DCH 177  
(C) TMVCH 1 (D) TMVH5
128. Arrowing refers to  
(A) Flower initiation in wheat (B) Flowering of cotton  
(C) Flowering of maize (D) Flowering of sugarcane
129. 'PRA' technique refers to  
(A) Participatory Rural Agriculture  
(B) People Related Agriculture  
(C) Public Related Activity  
(D) Participatory Rural Appraisal
130. In agricultural extension Mass Communication can be done through  
(A) Bulletin (B) Television  
(C) Newspaper (D) All the above
131. Statement (A) : Dibbling is a laborious and time consuming method of sowing in maize, cotton etc.  
Statement (B) : Dibbling method requires more seed than broadcasting method and often results in uneven germination.  
(A) Both statements (A) and (B) are true.  
(B) Both statements (A) and (B) are false  
(C) Statement (A) is true but (B) is false  
(D) Statement (A) is false but (B) is true

132. Which one of the following constitutes the largest area in India ?  
 (A) Alluvial soils (B) Black soils  
 (C) Desert soils (D) Lateritic soils
133. The process of enclosing a seed into a small quantity of inert material as a globular unit is called  
 (A) Drilling (B) Hardening  
 (C) Pelleting (D) Welting
134. Bench terracing enables mainly  
 (A) Rainwater harvesting (B) Soil conservation  
 (C) Soil reclamation (D) Wasteland development
135. The plant used for moisture conservation in drylands is  
 (A) Sorghum (B) Soybean  
 (C) Ber (D) Vetiver
136. Cultivation of crops in areas where rainfall is less than 750 mm per annum is termed as  
 (i) Rainted farming  
 (ii) Dry land farming  
 (A) Only (i) is correct (B) Only (ii) is correct  
 (C) Both are correct (D) Both are incorrect
137. Drip irrigation is also called as  
 (i) Micro irrigation  
 (ii) Surface irrigation  
 (iii) Surge irrigation  
 (iv) Trickle irrigation  
 (A) (i) and (ii) of the above (B) (i) and (iii) of the above  
 (C) (i) and (iv) of the above (D) (ii) and (iii) of the above
138. Quality of irrigation water is estimated by  
 i. Electrical conductivity  
 ii. Infiltration rate  
 iii. Evaporation rate  
 iv. Sodium adsorption rate  
 (A) i and ii of the above (B) ii and iii of the above  
 (C) i and iii of the above (D) i and iv of the above
139. For obtaining optimum yield in rice, the depth of water in the field should not exceed  
 (A) 2 cm (B) 5 cm  
 (C) 8 cm (D) 10 cm
140. WUE is  
 (A)  $Y/ET$  (B)  $Y/E$   
 (C)  $Y/T$  (D) None of the above

141. Available water is between  
(A) FC and PWP  
(B) FC and Saturation  
(C) PWP and Hygroscopic coefficient  
(D) None of the above
142. Lysimeter is used for measuring  
(A) Evapotranspiration  
(B) Evaporation  
(C) Transpiration  
(D) Humidity
143. Higher water use efficiency can be achieved with the help of  
(A) Furrow Irrigation  
(B) Drip irrigation  
(C) Corrugation  
(D) Basin irrigation
144. Water requirement for pulses is  
(A) 200 mm  
(B) 300 mm  
(C) 400 mm  
(D) 350 mm
145. Ground water contamination is mainly due to  
(A) Nitrate leaching  
(B) Erosion  
(C) Nitrons oxide emission  
(D) None of the above
146. Rain bearing cloud is  
(A) Cirrus  
(B) Cumulonimbus  
(C) Cumulus  
(D) Nimbostratus
147. Short range weather forecasting refers to forecasting weather parameters with in  
(A) 3 days  
(B) 7 days  
(C) 10 days  
(D) 12 days
148. Longevity of a drone is about  
(A) 40 days  
(B) 50 days  
(C) 60 days  
(D) 70 days
149. Any direct or indirect harmful effect of one plant on another through chemical substances is called  
(A) Allelopathy  
(B) Inhibition  
(C) Annidation  
(D) Annihilation
150. The suitable substrate for spawn preparation in mushroom cultivation is  
(A) Cholam grains  
(B) Maize grains  
(C) Wheat grains  
(D) All the above
151. Which one of the following Bee yields maximum honey ?  
(A) Rock Bee  
(B) Indian Bee  
(C) Italian / European Bee  
(D) Little Bee



152. Which of the following crop rotation is suitable for dry land areas ?  
 (A) Rice - Gram (B) Sesamum - Gram  
 (C) Mustard - Cucurbits (D) Wheat - Cucurbits
153. The ideal size of chopped leaves for feeding the silkworm during third instar stage is  
 (A) 0.5 - 1 cm (B) 1 - 2 cm  
 (C) 4 - 6 cm (D) 6 - 8 cm
154. A nitrogen fixing tree species used in agroforestry is  
 (A) Neem (B) Eucalyptus  
 (C) Subabul (D) Teak
155. Renewable source of energy is  
 (A) Exhaustible (B) Inexhaustible  
 (C) Nuclear based (D) Biogas
156. In India, the average intensity of solar radiation received is about  
 (A) 200 - 500 Cal/cm<sup>2</sup>/day  
 (B) 400 - 700 Cal/cm<sup>2</sup>/day  
 (C) 500 - 1000 Cal/cm<sup>2</sup>/day  
 (D) 600 - 1200 Cal/cm<sup>2</sup>/day
157. More number of wind mills are located in the following district.  
 (A) Madurai (B) Cuddalore  
 (C) Tirunelveli (D) Thanjavur
158. Match List I with List II and select the correct answer by using the codes given below
- |                  |              |
|------------------|--------------|
| List I           | List II      |
| (a) Heterozygote | (1) rr       |
| (b) Homozygote   | (2) RR       |
| (c) Recessive    | (3) Aa Bb Cc |
| (d) Dominant     | (4) AA BB CC |
- Codes :**
- |     |     |     |     |     |
|-----|-----|-----|-----|-----|
|     | (a) | (b) | (c) | (d) |
| (A) | 4   | 3   | 2   | 1   |
| (B) | 4   | 3   | 1   | 2   |
| (C) | 3   | 4   | 1   | 2   |
| (D) | 3   | 4   | 2   | 1   |
159. The progeny of a self - pollinated homozygous plant obtained by selfing is called  
 (A) Inbred line (B) Isogenic line  
 (C) Multi line (D) Pure line
160. Highest adaptability is observed in  
 (A) Single cross (B) Double cross  
 (C) Three way cross (D) Multiple cross

161. N use efficiency of fertilizers can be enhanced by  
 (A) Coating (B) Split application  
 (C) Placement (D) All the above
162. Photorespiration is the characteristic of  
 (A)  $C_3$  plants (B)  $C_4$  plants  
 (C) CAM plants (D) None of the above
163. Seed testing is done for  
 (A) Purity (B) Germination  
 (C) Moisture content (D) All of the above
164. In sunflower, production of foundation seed requires an isolation distance of  
 (A) 400 metres (B) 800 metres  
 (C) 200 metres (D) 100 metres
165. Expand IPM  
 (A) Insect Pest Management (B) International Pest Management  
 (C) Integrated Pest Management (D) Insecticide and Pest Management
166. The locust warning station was established in India in the year  
 (A) 1937 (B) 1938  
 (C) 1939 (D) 1940
167. Which one of the following is a naturally occurring growth inhibitor ?  
 (A) NAA (B) GA3  
 (C) ABA (D) IAA
168. PAR ranges from  
 (A) 200 – 500 nm (B) 400 – 700 nm  
 (C) 800 – 900 nm (D) 600 – 900 nm
169. Sesame phyllody disease is caused by  
 (A) Bacteria  
 (B) Fungus  
 (C) Phytoplasma like organisms (PLO)  
 (D) Spiroplasma
170. Actions to preserve the natural enemies by environmental manipulation is known as  
 (A) Augmentation (B) Importation  
 (C) Conservation (D) Multiplication
171. Which of the following organism are not storage pests ?  
 (A) Insects (B) Rodents  
 (C) Nematodes (D) Fungi
172. The earliest known fungicide is  
 (A) Sulphur (B) Copper  
 (C) Mercury (D) None of the above

173. The Insecticides Act enforced by Government of India during 1968 regulates

- (i) import of pesticides
- (ii) manufacture of pesticides
- (iii) research on pesticides
- (iv) transport of pesticides
- (A) (i), (ii) and (iii) of the above
- (B) (ii), (iii) and (iv) of the above
- ~~(C) (i), (ii) and (iv) of the above~~
- (D) (i), (iii) and (iv) of the above

174. Significant examples for biocontrol of weeds are

- (A) eradication of Prickly pear weed
- (B) Lantana weed
- ~~(C) Water hyacinth (Eichornia crassipes)~~
- (D) As the above

175. Research under participatory technology development is mostly carried out at

- (A) Experimental Farms
- ~~(B) Farmers, Holdings~~
- (C) Research Centres
- (D) None of the above

176. Expansion of 'GATT' is

- (A) General Arrangement on Tariff and Trade
- (B) Government Agreement on Trade and Tariff
- ~~(C) General Agreement on Tariff and Trade~~
- (D) Government Arrangement on Tour and Trade

177. Agricultural Price Commission is now known as

- (A) Commission on Agricultural Prices
- ~~(B) Commission on Agricultural Cost and Prices~~
- (C) Agricultural Prices and Cost Commission
- (D) None of the above

178. The apex institution in the field of rural credit is

- (A) Industrial Development Bank of India
- (B) State Bank of India
- (C) Reserve Bank of India
- ~~(D) National Bank for Agriculture and Rural Development~~

179. Which of the following is not a characteristic of PRA ?

- (A) Quick
- (B) Interactive
- (C) Team effort
- ~~(D) Rigidity~~

180. Television is an

- (A) Audio aid
- (B) Visual aid
- ~~(C) Audio-visual aid~~
- (D) None of the above

181. Taccavi loans are the loans from

- (A) Private sector
- ~~(B) Government~~
- (C) Individual money lender
- (D) All the above

182. Major commercial banks were nationalised in

- (A) 1967 (B) 1969  
(C) 1971 (D) 1973

183. Marketed surplus is

- (A) Less than the total production  
(B) More than the total production  
(C) Equal to total production  
(D) None of the above

184. Match List I with List II by using the codes given below :

**List I**

- (a) Bulb  
(b) Corm  
(c) Rhizome  
(d) Tuber

**List II**

- (1) Gladiolus  
(2) Onion  
(3) Potato  
(4) Turmeric

**Codes :**

- |     | (a) | (b) | (c) | (d) |
|-----|-----|-----|-----|-----|
| (A) | 1   | 2   | 4   | 3   |
| (B) | 2   | 1   | 4   | 3   |
| (C) | 1   | 2   | 3   | 4   |
| (D) | 2   | 1   | 3   | 4   |

185. Eri silkworms are commercially reared on

- (A) Mulberry leaves (B) Castor leaves  
(C) Tobacco leaves (D) None of the above

186. Factors influencing Elasticity of supply

- (A) Availability of Input of Production  
(B) Length of Time Period  
(C) Diversification of Production Activity  
(D) All the above

187. Loans extended for a period varying from 15 months to 5 years is known as

- (A) Short term loan (B) Medium term loan  
(C) Long term loan (D) Clean loan

188. Fertilizer recommendation for hybrid cotton is

- (A) 150 : 75 : 75 kg NPK/ha (B) 100 : 40 : 40 kg NPK/ha  
(C) 120 : 60 : 60 kg NPK/ha (D) 100 : 50 : 50 kg NPK/ha

189. An example of green leaf manure is

- (A) Glyricidia (B) Sunnhemp  
(C) Daincha (D) Sesbania rostrata

190. Trade in textiles and clothing is governed by an agreement known as

- (A) Multilaterate Trading Agreement (B) Multi-fibre Agreement  
(C) General Agreement on Trade in Services (D) None of the above



191. Minimum size of the farm below which the output of a farm will be too small to maintain the family in a reasonable standard of living is called  
(A) Reasonable holding (B) Minimum holding  
(C) Economic holding (D) High standard holding
192. Reserve Bank of India was set up in the year  
(A) 1904 (B) 1934  
(C) 1935 (D) 1948
193. The most common method exists in regulated markets is  
(A) Open auction system (B) Close tender system  
(C) Moghum Sale (D) Dara Sale
194. Supporting prices of agricultural commodities are announced by  
(A) Agricultural Universities (B) ICAR  
(C) State Government (D) Agricultural Price Commission
195. CGIAR means  
(A) Consultative Group on International Agricultural Research  
(B) Consultative Group on Indian Agricultural Research  
(C) Consultative Group on Innovative Agricultural Research  
(D) Contact Group on Indian Agricultural Review
196. Maximum Support Price (MSP) is fixed based on  
(A) Average Cost of Production (B) Maximum Cost of Production  
(C) Over all Profit (D) Total Cost of Production
197. Levy Prices applies to  
(A) Farmers (B) Traders  
(C) Farmers and Traders (D) None
198. Expansion of IFOAM is  
(A) International Foreign Agriculture meeting  
(B) International Federation of Organic Agriculture Movement  
(C) International Forum of Agricultural Movement  
(D) International Federation of Agricultural Countries Meeting
199. In NABARD, extent of refinance under various activities includes  
(A) Pilot Rainfed Projects  
(B) Waste Land Development Scheme  
(C) Non Farm Sector Scheme & Agro Processing Promoting Units  
(D) All the above
200. Oligopoly market refers to  
(A) Differentiated or Undifferentiated products or services  
(B) Few firms are in market  
(C) Firm may be price maker  
(D) All the above