

Question Booklet No. :

AOEX/2021

Register  
Number

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2021  
AGRICULTURE  
(Degree Standard)

Duration : Three Hours]

[Total Marks : 300

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

IMPORTANT INSTRUCTIONS

1. You will be supplied with this question booklet 15 minutes prior to the commencement of the examination.
2. This question booklet contains 200 questions. Before answering the questions, you are requested to check whether all the questions are printed serially and ensure that there are no blank pages in the question booklet. **If any defect is noticed in the question booklet, it shall be reported to the invigilator within the first 10 minutes and get it replaced with a complete question booklet. If the defect is reported after the commencement of the examination, it will not be replaced.**
3. Answer all the questions. All the questions carry equal marks.
4. 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.
5. An answer sheet will be supplied to you separately by the room invigilator to shade the answers. Instructions regarding filling of answers etc., which are to be followed mandatorily, are provided in the answer sheet and in the memorandum of admission (Hall Ticket).
6. You shall write and shade your question booklet number in the space provided on page one of the answer sheet with **BLACK INK BALL POINT PEN**. If you do not shade correctly or fail to shade the question booklet number, your answer sheet will be invalidated.
7. Each question comprises of five responses (answers) : i.e. (A), (B), (C), (D) and (E). You have to select **ONLY ONE** correct answer from (A) or (B) or (C) or (D) and shade the same in your answer sheet. If you feel that there are more than one correct answer, shade the one which you consider the best. **If you do not know the answer, you have to mandatorily shade (E).** In any case, choose **ONLY ONE** answer for each question. If you shade more than one answer for a question, it will be treated as a wrong answer even if one of the given answers happens to be correct.
8. 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 room during the time of the examination. After the examination, 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.
9. **You should not make any marking in the question booklet except in the sheets before the last page of the question booklet, which can be used for rough work. This should be strictly adhered to.**
10. Failure to comply with any of the above instructions will render you liable for such action as the Commission may decide at their discretion.



SPACE FOR ROUGH WORK

1001255

1. The temperature limit for heated air drying for seed is
- (A) 65°F (B) 87°F  
 (C) 110°F (D) 168°F  
(E) Answer not known
2. Certification shall be conducted by the certification Agency notified under which of the following section of the Seeds Act, 1966.
- (A) Section 9 (B) Section 5  
 (C) Section 8 (D) Section 19  
(E) Answer not known
3. If 22 acres of area registered by a seed produced for Bajra certified seed production, how many heads to be counted by the seed certification officer at the time of first field Inspection?
- (A) 700 heads (B) 900 heads  
(C) 8000 heads  (D) 9000 heads  
(E) Answer not known
4. Which of the following crop the Seed Multiplication Ratio (SMR) is low?
- (A) Paddy (B) Maize  
(C) Bajra  (D) Groundnut  
(E) Answer not known
5. What is the colour of certification tag for certified class seed?
- (A) White (B) Opal Green  
 (C) Azure Blue (D) Golden Yellow  
(E) Answer not known



6. Bunchy top of banana disease is transmitted by
- (A) Helopeltis antonii (B) Phymatostetha deschampes  
(C) Pentalonia nigronervosa (D) Stephanitis typicus  
(E) Answer not known
7. The chemical responsible for the production of silver shoot in rice due to the attack by rice gall midge is
- (A) Cumanin (B)  Cecidogen  
(C) Oryzinone (D) Phenol  
(E) Answer not known
8. In Insects, if the food resources shared equally by the competing members it is called
- (A) Contest competition (B) Inter competition  
(C)  Scramblé competition (D) Mutualistic competition  
(E) Answer not known
9. First report of Nematode associated with a plant diseases was observed by
- (A) Hiltner (B)  Needham  
(C) Mckinney (D) Mayer  
(E) Answer not known
10. The Pest as grub which completes its life cycle in one year is
- (A) *Scirpophaga nivella* (B) *Acigona steniella*  
(C) *Chilo auricilius* (D)  *Holotrichia serrata*  
(E) Answer not known



11. The following is not a characteristic of land
- (A) Free gift of Nature
  - (B) Permanent resource
  - (C) Distinct characteristic features from location to location
  - (D) Supply is elastic
  - (E) Answer not known
12. The slope of Isoquant indicates
- (A) Marginal rate of product substitution
  - (B) Marginal rate of technical substitution
  - (C) Elasticity of substitution
  - (D) Elasticity of supply
  - (E) Answer not known
13. At Break event point, the profits to the farmer is
- (A) Negative
  - (B) Zero
  - (C) Positive
  - (D) Cannot be calculated
  - (E) Answer not known
14. Which of the following is/are irrational zone(s) of production
- (A) I zone
  - (B) II zone
  - (C) III zone
  - (D) I and III zone
  - (E) Answer not known
15. This method of depreciation is suitable for livestock assets
- (A) Straight line method
  - (B) Diminishing balance method
  - (C) Sum of year digit method
  - (D) Annual revaluation method
  - (E) Answer not known



16. If the price of coffee rises from Rs.45 per 250 gms per pack to Rs. 55 per 250 gram per pack, and as a result the consumer's demand for tea increases from 600 packs to 800 packs of 250 gms, then the cross elasticity of demand of tea for coffee is
- (A) 0.7 (B) 1.43  
 (C) 1.34 (D) 1.5  
 (E) Answer not known
17. Allocative efficiency is also called as
- (A) Pricing efficiency (B) Physical efficiency  
 (C) Technical efficiency (D) Operational efficiency  
 (E) Answer not known
18. The difference between the price paid by the consumer and the price received by the farmer is
- (A) Price spread (B) Market margin  
 (C) Wholesale price (D) Retail price  
 (E) Answer not known
19. A market in which the purchase and sale of a commodity takes place at time 't' but the exchange of commodity takes place on some specified date in future i.e time t + 1
- (A) Forward market (B) Spot market  
 (C) Secular market (D) National market  
 (E) Answer not known
20. Agricultural markets were classified into regulated and unregulated market on the basis of
- (A) Basis of stage of marketing (B) Basis of degree of competition  
 (C) Basis of nature of transactions (D) Extent of public intervention  
 (E) Answer not known



21. \_\_\_\_\_ defined audience segmentation is a communication strategy that consists of identifying certain subaudience within a total audience and then conveying a special message to each of these sub audiences.

- (A) Klapper
- (B)  Rogers
- (C) Dey
- (D) Berlo
- (E) Answer not known

22. S - M - C - R - E model of communication was proposed by

- (A) Leagar
- (B)  Rogers and Shoemaker
- (C) Berlo
- (D) Shannon - Weaver
- (E) Answer not known

23. Match the following:

- |                     |                  |
|---------------------|------------------|
| (a) Spoken          | 1. Folder        |
| (b) Written         | 2. Tape recorder |
| (c) Projected       | 3. Puppet show   |
| (d) Non - Projected | 4. Film          |

- (A) 2 1 4 3
- (B) 1 2 3 4
- (C) 2 3 4 1
- (D) 4 3 2 1
- (E) Answer not known

24. Display type of visual aids

- (A) Posters - Bulletin Bounds, models - exhibits
- (B) Slide - Filmship - Demonstrations
- (C) Flashcards - Pullchart - Slide
- (D) None of the above
- (E) Answer not known

25. Extension teaching methods according to their use

- (A) Written - spoken - visual - spoken and visual
- (B) Individual, group and mass contact
- (C) Micro computer, E - mail and internet
- (D) None of the above
- (E) Answer not known



26. The State having the highest area under fruits

(A) Kerala

(B) Tamil Nadu

(C) Maharashtra

(D) Karnataka

(E) Answer not known

27. The guidelines for Intellectual property management and commercialization of technologies in the ICAR came into operation with effect from 2<sup>nd</sup> October,

(A) 1996

(B) 2006

(C) 2016

(D) 2000

(E) Answer not known

28. In first Five Year Plan, percentage of agriculture and allied sector to total outlay is

(A) 20%

(B) 21%

(C) 24%

(D) 31%

(E) Answer not known



29. The medium range weather forecasting is valid for
- (A) 3 days  (B) 3 – 10 days
- (C) 15 – 20 days  (D) 21 – 25 days
- (E) Answer not known
30. Identify the correct order of atmospheric layer arrangement from the surface of the earth to the top layer of atmosphere.
- (A) Troposphere, Stratosphere, Mesosphere, Thermosphere
- (B) Thermosphere, Stratosphere, Mesosphere, Troposphere
- (C) Troposphere, Mesosphere, Stratosphere, Thermosphere
- (D) Thermosphere, Mesosphere, Stratosphere, Troposphere
- (E) Answer not known
31. Total number of agro – climatic zones of Tamil Nadu is
- (A) 5  (B) 7
- (C) 9  (D) 11
- (E) Answer not known
32. The recommended pre emergence herbicide for Maize and Pulse inter crop is
- (A) Atrazine @ 0.75 Kg a.L / ha
- (B) Pendimethalin @ 0.75 Kg a.L / ha
- (C) Butachlor @ 1.0 Kg ai / ha
- (D) Quizalofop ethyl @ 0.5 Kg ai / ha
- (E) Answer not known



33. Soil structure classification based on general shapes and arrangement of peds are called
- (A) Types of structure (B) Grades of structure  
(C) Classes of structure (D) None of the above  
(E) Answer not known
34. Soil order characterized by low (< 35%) base saturation and accumulation of clay in sub soil is called as
- (A) Aridisols (B) Spodosols  
(C) Mollisols  (D) Ultisols  
(E) Answer not known
35. \_\_\_\_\_ is an example for ferromagnesian phyllosilicate minerals.
- (A) Biotite (B) Feldspars  
(C) Orthoclase (D) Amphiboles  
(E) Answer not known
36. Which of the following epipedon has high organic matter?
- (A) Histic (B) Natric  
(C) Salic (D) Oxic  
(E) Answer not known
37. The columnar soil structure is observed in \_\_\_\_\_ soils.
- (A) Saline  (B) Sodic  
(C) Black (D) Red  
(E) Answer not known



38. Tiller Production in rice is greatly affected by
- (A) Complete drainage                       (B) Prolonged stagnation of water  
(C) Alternate wetting and drying              (D) Short period submergence  
(E) Answer not known
39. Identify the incorrect/wrong statement about irrigation
- (A) Irrigation is to provide crop insurance against short duration droughts  
(B) Irrigation is to cool the soil and atmosphere  
 (C) Irrigation is to keep the soil wet  
(D) Irrigation is to wash out/dilute salts in soils  
(E) Answer not known
40. Intermittent "on" and "off" system is followed in \_\_\_\_\_ irrigation system.
- (A) Level border                                      (B) Border strip  
 (C) Surge    (D) Basin  
(E) Answer not known
41. The plant sample for tissue analysis to diagnose nutrient deficiency should consider
- (A) Physiological age of crops                      (B) Chronological age of crops  
(C) Stage of crop maturity                      (D) All the above  
(E) Answer not known
42. Which of the following BGA is not widely distributed in rice growing tracts of India
- (A) Anabaena                                      (B) Nostoc  
(C) Calothrix                                       (D) Tolypothrix  
(E) Answer not known



43. Under the provisions of UPOV 1991 Act, a plant variety must satisfy the criteria viz., novelty, distinction, uniformity and
- (A) Purity (B) Heterozygosity  
 (C) Homozygosity (D) Stability  
 (E) Answer not known
44. Conservation of germplasm in its natural habitate or in the area where it grows naturally is known as
- (A) in-situ conservation (B) cryopreservation  
 (C) conservation in gene bank (D) ex-situ conservation  
 (E) Answer not known
45. NBPGR has substation at \_\_\_\_\_ to represent arid zone.
- (A) Akola (B) Kota  
 (C) Jodhpur (D) Jaipur  
 (E) Answer not known
46. Which one of the following chemical is used for creating high osmoticum for prolonged storage of culture?
- (A) Paclobutrazole (B) Chlormequat  
 (C) Sorbitol (D) Naphthalene acetic acid  
 (E) Answer not known
47. Which one of the following is not a property of a good host for gene cloning?
- (A) lack active restriction enzyme  
 (B) have methylase  
 (C) easy to transform  
 (D) support the replication of recombinant DNA  
 (E) Answer not known
48. A collection of plasmid clone containing recombinant DNA molecules so that the sum total of DNA insert represent the entire genome of the concerned organism is called
- (A) cDNA clone (B) Genomic library  
 (C) Gene Bank (D) cDNA library  
 (E) Answer not known
49. The chairman of the state variety release committee
- (A) Director of state seed corporation  
 (B) Director of Agriculture of the state  
 (C) Director of seed certification  
 (D) Additional director of agriculture  
 (E) Answer not known



50. Sew village concept facilitates the empowerment of Agriculture farmers
- (A) To make High Profit through export
  - (B) To meet the requirement of quantity of quality sew
  - (C) To facilitate to become sew company
  - (D) To supply for Government demand
  - (E) Answer not known
51. Acid delinting is recommended for fuzzy cotton seed at the rate of
- (A) 10 ml con.sulphuric acid/kg of seeds
  - (B) 100 ml con.sulphuric acid/kg of seeds
  - (C) 50 ml con.sulphuric acid/kg of seeds
  - (D) 25 ml con. sulphuric acid/kg of seeds
  - (E) Answer not known
52. \_\_\_\_\_ is the most critical factor in the maintenance of seed germination and viability of seed during storage.
- (A) Colour
  - (B) Moisture content
  - (C) Health
  - (D) Purity
  - (E) Answer not known
53. Weight of submitted samples for moisture estimation of species that have to be ground shall be
- (A) 100 g
  - (B) 50 g
  - (C) 25 g
  - (D) 10 g
  - (E) Answer not known
54. In which of the following country The World First Station for seed testing was established
- (A) Denmark
  - (B) Germany
  - (C) U.S.A.
  - (D) Spain
  - (E) Answer not known



55. ULV spraying of herbicides refers to
- (A) Ultra Light Violet
  - (B) Unlimited Light Visibility
  - (C) Ultra Low Volume
  - (D) Ultra Linear Variation
  - (E) Answer not known
56. \_\_\_\_\_ weed is the alternate. Weed host for Ergot disease in Pearl millet.
- (A) Cenchrus Ciliaris
  - (B) Saccharum Spontaneum
  - (C) Crotalaria sp
  - (D) Parthenium
  - (E) Answer not known
57. The combined effect of weed infestation due to allelo chemicals and competition is termed as.
- (A) Allelopathy
  - (B) Eradication
  - (C) Parasitism
  - (D) Interference
  - (E) Answer not known
58. The practical utilization of nematode transmitted bacterium Bacillus Popillae achieved towards which of the following insects.
- (A) Chaffer beetle
  - (B) Japanese beetle
  - (C) Rhinoceros beetle
  - (D) Epilachna beetle
  - (E) Answer not known
59. The biological control agent used for management of rice leaf folder is
- (A) Trichogramma Faponicum
  - (B) Trichogramma Minutum
  - (C) Trichogramma Chilonis
  - (D) Trichogramma australicum
  - (E) Answer not known



60. Farmer with good mental and moral will have a good
- (A) Character (B) Capacity  
(C) Capital (D) Condition  
(E) Answer not known
61. Capacity is the second "C" of 3'C of credit, which indicates
- (A) Capacity to withstand risk  (B) Capacity to repay loan  
(C) Capacity to avail loan (D) Capacity to manage the farm  
(E) Answer not known
62. The following is not included under purpose wise classification of credit
- (A) Production loan (B) Marketing loan  
 (C) Short term loan (D) Consumption loan  
(E) Answer not known
63. The institution involved in linking Self Help groups to credit institution is
- (A) RBI  (B) NABARD  
(C) ARDC (D) World Bank  
(E) Answer not known
64. The World Bank is officially known as
- (A) ADB (B) CRAFTICARD  
 (C) IBRD (D) ARDC  
(E) Answer not known



65. Farm management is not concerned about
- (A) Economic efficiency
  - (B) Profit
  - (C) Inter-farm study
  - (D) Problems of individual farm
  - (E) Answer not known
66. The focus of \_\_\_\_\_ was on food, work and productivity.
- (A) VI plan
  - (B) VII plan
  - (C) VIII plan
  - (D) IX plan
  - (E) Answer not known
67. In Offer Curve (OC) is defined as the locus of pairs of its export offer and import demand at different.
- (A) Balance of Payment (BOP)
  - (B) Balance of Trade (BOT)
  - (C) Terms of Payment (TOP)
  - (D) Terms of Trade (TOT)
  - (E) Answer not known
68. WTO was established in the year
- (A) 1945
  - (B) 1965
  - (C) 1995
  - (D) 2015
  - (E) Answer not known
69. Geographical Indications comes under \_\_\_\_\_ agreement.
- (A) TRIPS
  - (B) AMS
  - (C) SPS
  - (D) TRIMS
  - (E) Answer not known



70. These markets are of a Permanent nature.
- (A) Short period markets (B) Regional markets  
(C) Periodic markets (D) Secular markets  
(E) Answer not known
71. Not less than one-third of the total number of seats in all the three tiers of panchayat shall be reserved for women – It provides
- (A) The Constitution 73<sup>rd</sup> Amendment Act 1992  
(B) The Constitution 73<sup>rd</sup> Amendment Act 2000  
(C) The Constitution 72<sup>nd</sup> Amendment Act 1995  
(D) The Constitution 93<sup>rd</sup> Amendment Act 1976  
(E) Answer not known
72. A set of interrelated units that are engaged in joint problem solving to accomplish a common goal.
- (A) Group  
(B) Society  
(C) Socialization  
(D) Social system  
(E) Answer not known
73. It is plan of activities to be undertaken in a particular time sequence.
- (A) Project (B) Plan of work  
(C) Problem (D) Calendar of work  
(E) Answer not known
74. Socially acceptable ways of behaviour that do involve moral standards
- (A) Folkways (B) Moves  
(C) Norms (D) Beliefs  
(E) Answer not known



75. Is the process by which an individual through one's own effort and abilities to changes the behaviour
- (A) Learning
  - (B) Teaching
  - (C) Attitude
  - (D) None of the above
  - (E) Answer not known
76. Adoption index suitable for Laggards is
- (A) 2.5%
  - (B) 13.5%
  - (C) 16%
  - (D) 34%
  - (E) Answer not known
77. To meet the new challenges in agriculture through NARS strong and supportive \_\_\_\_\_ policies are very imporative.
- (A) WHO Policies
  - (B) FAO Policies
  - (C) IPR and SPS driven
  - (D) NARS Policies
  - (E) Answer not known
78. \_\_\_\_\_ is chairman of the NITI Aayog.
- (A) Prime Minister
  - (B) President
  - (C) Finance minister
  - (D) Agriculture minister
  - (E) Answer not known



79. The first IIT that provided agricultural education is
- (A) IIT, Chennai. (B) IIT, Ahmedabad  
 (C) IIT, Kharagpur (D) IIT, Delhi  
(E) Answer not known
80. The \_\_\_\_\_ is a unique institution under ICAR to conduct research and training in agricultural management.
- (A) IVRI (B) NDRI  
(C) IWMI  (D) NAARM  
(E) Answer not known
81. India is world's \_\_\_\_\_ largest producer of fruits and vegetables.
- (A) First  (B) Second  
(C) Third (D) Fourth  
(E) Answer not known
82. Four fold food production occurred in
- (A) White revolution  (B) Green revolution  
(C) Blue revolution (D) None  
(E) Answer not known
83. The book "Horse Hoeing Husbandry" was written by
- (A) Aurthur Young  (B) Jethro Tull  
(C) Van Helmont (D) Sir Humphry Davy  
(E) Answer not known



84. \_\_\_\_\_ is a cumbu hybrid rice in fe content.
- (A) Hybrid Co 9  
(B) Hybrid Co 5  
(C) Co 10  
(D) Co 9  
(E) Answer not known
85. The rice variety recommended under semi dry condition is
- (A) Anna 4 (B) ADT 50  
(C) CR 1009 (D) Co 52  
(E) Answer not known
86. The recommended dose of fertilizers for rainfed maize in Alfisols is \_\_\_\_\_ kg  
N/P<sub>2</sub>O<sub>5</sub> K<sub>2</sub>O/ha
- (A) 60:30:30 (B) 40:20:0  
(C) 80:40:40 (D) 90:45:45  
(E) Answer not known
87. The Recommended seed rate for sunhemp - varietal seed production is \_\_\_\_\_  
kg/ha in Tamil Nadu.
- (A) 10 - 15 (B) 40 - 50  
(C) 100  (D) 20 - 30  
(E) Answer not known
88. \_\_\_\_\_ is recommended for the removal of Ergot affected seeds and sclerotia  
to prevent primary infection in cumbu
- (A) 10% common salt (B) 10% Urea  
(C) 5% Ammonium sulphate (D) 10% Atrazine  
(E) Answer not known



89. What is the absorption of ions in plants occurring with the aid of metabolic energy called?
- (A) Passive absorption (B) Metabolic absorption  
(C) Mass flow absorption  (D) Active absorption  
(E) Answer not known
90. The minimum area to be delineated for regional planning is \_\_\_\_\_ ha.
- (A) 252 to 4000 (B) 16 to 252  
(C) 1.6 to 16 (D) 0.6 to 4  
(E) Answer not known
91. The properties of soil which determine the water movement and root penetration
- (A) Chemical properties (B) Biological properties  
(C) Physico-chemical properties  (D) Physical properties  
(E) Answer not known
92. A slope of \_\_\_\_\_ % is good for highway and building constructions.
- (A) 8 (B) 8 - 10  
(C) 8 - 15 (D) >15  
(E) Answer not known
93. The organic matter content of the peat soil is
- (A) < 5% (B) 5 - 20%  
(C) 20 - 50%  (D) >50%  
(E) Answer not known



94. The fungi that degrades lignin as well as cellulose from agricultural waste
- (A) Pleurotus
  - (B) Mucor
  - (C) Fomes
  - (D) Rhizopus
  - (E) Answer not known
95. The sewage and sludge contains an average NPK content of
- (A) 2.0 to 3.0% N, 1.0% P<sub>2</sub>O<sub>5</sub> and 1.0% K<sub>2</sub>O
  - (B) 2.0 to 4.0% N, 2.0% P<sub>2</sub>O<sub>5</sub> and 1.0% K<sub>2</sub>O
  - (C) 3.0 to 6.0% N, 2.0% P<sub>2</sub>O<sub>5</sub> and 1.0% K<sub>2</sub>O
  - (D) 3.0 to 6.0% N, 2.0% P<sub>2</sub>O<sub>5</sub> and 2.0% K<sub>2</sub>O
  - (E) Answer not known
96. In biogas production, the last stage of anaerobic digestion where acetate and H<sub>2</sub> plus CO<sub>2</sub> are converted into methane, CO<sub>2</sub>, H<sub>2</sub>O is known as
- (A) Acidogenesis
  - (B) Methanogenesis
  - (C) Hydrolysis
  - (D) Glycolysis
  - (E) Answer not known
97. The microsymbiont present in actinorhizal root nodule is
- (A) Rhizobium phaseoli
  - (B) Rhizobium lupini
  - (C) Rhizobium leguminosarum
  - (D) Frankia
  - (E) Answer not known



98. An example for groundnut variety released through mutation  
 (A) TG 17 (B) Co 6  
(C) TMV 3 (D) VRI 6  
(E) Answer not known
99. Which one of the following rice variety is resistant to rice gall midge  
 (A) MDU 3 (B) IR 64  
(C) Co 51 (D) ADT 39  
(E) Answer not known
100. Heterosis results from the masking of harmful effects of recessive alleles by their dominant alleles  
(A) Gene-for-gene hypothesis  (B) Dominance hypothesis  
(C) Recessive hypothesis (D) Over dominance hypothesis  
(E) Answer not known
101. Three way cross is a cross between  
(A) a cross between (A × B)  
(B) a double cross (A × B) × (C × D) and an inbred (E)  
 (C) a single cross (A × B) and an inbred (C)  
(D) a cross between a single cross and a variety  
(E) Answer not known
102. Pennisetum violaceum is a source for \_\_\_\_\_ in Bajra.  
(A) Downy mildew resistance (B) Ergot disease resistance  
 (C) Male sterility (D) Stem borer resistance  
(E) Answer not known
103. Which of the following method is not relevant to hybrid rice seed production?  
(A) Three-line system (B) Two-line system  
(C) Using chemical emasculators  (D) Using Gynomonoecious lines  
(E) Answer not known



104. Seedlings with weak (or) unbalanced development of essential structures are referred as
- (A) Decayed seedlings                       (B) Deformed seedlings  
(C) Damaged seedlings                      (D) Diseased seedlings  
(E) Answer not known
105. Minimum germination limits prescribed for labelled seed of cotton is
- (A) 80%     (B) 65%  
(C) 75%    (D) 60%  
(E) Answer not known
106. Number of plants required for sample for maximum permissible off-types of 0.10% in GOT is
- (A) 4000 plants                                      (B) 400 plants  
(C) 2000 plants                                      (D) 800 plants  
(E) Answer not known
107. ISTA office is located at
- (A) France     (B) Switzerland  
(C) India    (D) America  
(E) Answer not known
108. Cross pollination range of gossypium hirsutum is \_\_\_\_\_ percent.
- (A) 1 to 2%    (B) 5 to 10%  
(C) 10 to 20%                                         (D) 10 to 50%  
(E) Answer not known



109. The entomopathogenic fungi effective against citrus rust mite is
- (A) Hirsutella thompsoni
  - (B) Metarhizium anisopliae
  - (C) Beauveria bassiana
  - (D) Verticillium lecanii
  - (E) Answer not known
110. Which of the following sprayers works on the same principle as the rocker sprayer?
- (A) Knapsack sprayer
  - (B) Wheel – barrow sprayer
  - (C) Power – take-off sprayer
  - (D) Pedal pump sprayer
  - (E) Answer not known
111. Aflatoxin is an example of
- (A) Pathotoxin
  - (B) Vivotoxin
  - (C) Phytotoxin
  - (D) Mycotoxin
  - (E) Answer not known
112. In tea, which one of the following insecticides does not cause resurgence of pink mite.
- (A) Cypermethrin
  - (B) Permethrin
  - (C) Deltamethrin
  - (D) Fenvalerate
  - (E) Answer not known
113. Which one of the following crop is sensitive to carbaryl?
- (A) Paddy
  - (C) Soybean
  - (B) Cotton
  - (D) Groundnut
  - (E) Answer not known



114. Farmers Service societies were first established in the year
- (A) 1951 (B) 1961  
(C) 1971 (D) 1981  
(E) Answer not known
115. The committee which recommended the merger of RRB with sponsoring bank.
- (A) Hadgil committee  
(B) Khusro committee  
(C) Narasimham committee  
(D) Bhandari committee  
(E) Answer not known
116. The Apex Refinance Institution for agriculture and rural development is
- (A) RBI  
(B) World Bank  
(C) NABARD  
(D) AFC  
(E) Answer not known
117. The decline in the value of asset due to usage, accidental damage and time obsolescence is called
- (A) Depreciation  
(B) Opportunity cost  
(C) Time value of money  
(D) Law diminishing return  
(E) Answer not known



118. Minimum support prices for different agricultural crops are announced before
- (A) Sowing season
  - (B) Harvesting season
  - (C) Monsoon season
  - (D) Summer season
  - (E) Answer not known
119. Under \_\_\_\_\_ system the farmers are forced to sell part of their produce to the Government at the announced prices.
- (A) Monopoly procurement
  - (B) Pre-emptive purchase
  - (C) Buffer stock
  - (D) Levy
  - (E) Answer not known
120. \_\_\_\_\_ means developing entrepreneurship in agricultural sector.
- (A) Agri-preneurship
  - (B) Entrepreneurship
  - (C) Horti-preneurship
  - (D) Flori-preneurship
  - (E) Answer not known
121. The Indian Cooperative Societies Act 1912, \_\_\_\_\_ defined cooperative as a society to promote economic interests of the members by Co-operative principles. Of which majority of the members are agriculturists.
- (A) Section 3
  - (B) Section 4
  - (C) Section 5
  - (D) Section 6
  - (E) Answer not known
122. DMI stands for
- (A) Director of Market and Inspection
  - (B) Directorate of Marketing and Inspection
  - (C) Department of Marketing in India
  - (D) Director of Marketing Intelligence
  - (E) Answer not known



123. The rural development work at Shantiniketan by Rabindranath Tagore could not be extended to more villages because
- (A) Corruption in the organisation
  - (B) Rabindranath Tagore left India
  - (C) The Institute could not get much help from Government for research work
  - (D) No support from local people
  - (E) Answer not known
124. This rural reconstruction project initiated by Dr. Spencer Hatch with the aim of "Self – help with intimate expert counsel" was able to produce more honey through modern bee – hives
- (A) Marthandom Project
  - (B) Etawah Project
  - (C) Sarvodaya Project
  - (D) Nilokheri Project
  - (E) Answer not known
125. The Gurgaon project in Punjab was initiated by
- (A) Mr. F.L. Brayne
  - (B) Sir Daniel Hamilton
  - (C) Dr. Spencer Hatch
  - (D) None of the above
  - (E) Answer not known
126. The rural development programme launched with the objective of providing road connectivity to all rural habitations
- (A) Rashtriya Sam Vikas Yojana
  - (B) Sampoorna Gramin Rozgar Yojana
  - (C) Pradhan Mantri Gram Sadak Yojana
  - (D) Samagra Awaas Yojana
  - (E) Answer not known



127. As per the international Trade statistics of UNO the share of India in the value of total world exports of agricultural and allied products has decreased from 1.8% in 1970 to \_\_\_\_\_ % in 2000.
- (A) 1.0%
  - (B) 1.3%
  - (C) 0.9 %
  - (D) 1.6%
  - (E) Answer not known
128. The United Nations General Assembly (UNGA) declared 2023 as the international year of
- (A) Pulses
  - (B) Oil seeds
  - (C) Millets
  - (D) Cereals
  - (E) Answer not known
129. T.N. was conferred \_\_\_\_\_ times with Krishi Karman award in 7 years for commendable performance in increasing production and productivity of various agricultural crops.
- (A) 4 times
  - (B) 5 times
  - (C) 6 times
  - (D) 2 times
  - (E) Answer not known



130. Tamil Nadu with 6 percent of population in the country is endowed with only \_\_\_\_\_ of the water resources of India.

- (A) 3.5 %
- (B) 3.0 %
- (C) 4.0 %
- (D) 2.75 %
- (E) Answer not known

131. The National Gross Domestic Product (GDP) of Indian Agriculture contributes to

- (A) 25%
- (B) 35%
- (C) 52%
- (D) 53%
- (E) Answer not known

132. Central Rice Research Institute is located in which of the following states?

- (A) New Delhi
- (B) Punjab
- (C) Odisha
- (D) Tamil Nadu
- (E) Answer not known







138. What is the cation exchange capacity of humus?

- (A) 2 – 15 C mol (p<sup>+</sup>) kg<sup>-1</sup>
- (B) 250 – 1500 C mol (p<sup>+</sup>) kg<sup>-1</sup>
- (C) 25 – 150 C mol (p<sup>+</sup>) kg<sup>-1</sup>
- (D) 0 – 2 C mol (p<sup>+</sup>) kg<sup>-1</sup>
- (E) Answer not known

139. Best suitable soil structure for agriculture is

- (A) Crumb
- (B) Prism
- (C) Columnar
- (D) Platy
- (E) Answer not known

140. Red soil is generally poor in

- (A) Aluminium
- (B) Nitrogen, Phosphorous and Humus
- (C) Nitrogen and Potassium
- (D) Iron
- (E) Answer not known

141. Nitrogen content of Ammonium Sulphate is

- (A) 20.6%
- (B) 24%
- (C) 26%
- (D) 18%
- (E) Answer not known



142. The type of activity of Bacillus Megaterium bioinoculant in soil is

- (A) PO<sub>4</sub> solubilisation
- (B) Zn solubilisation
- (C) PO<sub>4</sub> mobilisation
- (D) Zn mobilisation
- (E) Answer not known

143. Which one of the following Azolla species tolerant to high temperature and salinity

- (A) A. Nilotica
- (B) A. Foliculoides
- (C) A. Microphylla
- (D) A. Mexicana
- (E) Answer not known

144. The pH range for the biofertilizers production as specified by Bureau of Indian Standard (BIS) should be

- (A) 4.50 to 5.50
- (B) 5.50 to 6.50
- (C) 6.50 to 7.50
- (D) 7.50 to 8.50
- (E) Answer not known

145. The Blue-Green Algae (BGA) inoculum minimum required per hectare is \_\_\_\_\_ kg.

- (A) 5
- (B) 25
- (C) 15
- (D) 10
- (E) Answer not known



146. In which of the following crop staggering is not required for hybrid seed production?
- (A) Rice (B) Maize  
 (C) Tomato (D) Sorghum  
 (E) Answer not known
147. Which one of the following is incorrect
- (A) Haploids carry two sets of identical chromosomes  
 (B) Doubled haploids are 100% heterozygous  
 (C) Haploids can be generated from pollen  
 (D) Haploids can be generated from ovules  
 (E) Answer not known
148. \_\_\_\_\_ is an indication which identify a good as originating from a particular region.
- (A) GATT  (B) GI  
 (C) IPR (D) CBD  
 (E) Answer not known
149. The wild progenitor of pigeonpea is
- (A) *Cajanus Cinereus*  (B) *Cajanus Cajanifolius*  
 (C) *Cajanus Albicans* (D) *Cajanus Elongatus*  
 (E) Answer not known
150. An example for monoecious nature is
- (A) Rice (B) Groundnut  
 (C) Castor (D) Cotton  
 (E) Answer not known
151. The haploid chromosome complement of a species is represented by
- (A)  $n$  (B)  $x$   
 (C)  $2n$  (D)  $2x$   
 (E) Answer not known



152. A long day biennial crop \_\_\_\_\_ requires two season to produce sew.
- (A) Cluster bean (B) Jute  
(C) Karunkani Cotton  (D) Sugar beat  
(E) Answer not known
153. Seed yield of irrigated Italian millet is \_\_\_\_\_ qtls/ha.
- (A) 5 – 10 kg/ha  (B) 10 – 16 kg/ha  
(C) 15 – 20 kg/ha (D) 25 – 50 kg/ha  
(E) Answer not known
154. Number of field inspection for self pollinated crops are
- (A) 1 (B) 3  
 (C) 2 (D) 6  
(E) Answer not known
155. As per Indian Minimum Seed Certification Standard (IMSCS), minimum physical purity required for certified seed class of Bhendi (or) okra? is
- (A) 96% (B) 97%  
(C) 98%  (D) 99%  
(E) Answer not known
156. Expand IMSCS
- (A) Indian Maximum Seed Certification Standards  
 (B) Indian Minimum Seed Certification Standards  
(C) International Maximum Seed Certification Standards  
(D) International Minimum Seed Certification Standards  
(E) Answer not known



157. Based on mode of action, activated clay exerts what type of effect?
- (A) Protoplasmic diffusion
  - (B) Nerve poison
  - (C) Physical effect
  - (D) Chitin inhibition
  - (E) Answer not known
158. Which of the following chemical is used in bird scarer to produce acetylene gas?
- (A) Calcium carbonate
  - (B) Calcium hydroxide
  - (C) Calcium oxide
  - (D) Calcium carbide
  - (E) Answer not known
159. Activated kaolinite clay is used to manage
- (A) Subterranean pests
  - (B) Leaf feeders
  - (C) Storage pests
  - (D) Stem borers
  - (E) Answer not known
160. The tip clipping of infested seedling to manage stem borer in rice is a
- (A) Mechanical control
  - (B) Physical control
  - (C) Cultural control
  - (D) Biological control
  - (E) Answer not known
161. False root galls are the nematode symptoms produced on tomato roots by
- (A) Meloidogyne incognita
  - (B) Ditylenchus radicum
  - (C) Nacobbus batatiformis
  - (D) Xiphinema diversicaudatum
  - (E) Answer not known



162. Choose the correct one

(A)  $MR = AR \left( \frac{l}{l+1} \right)$

(B)  $AR = MR \left( \frac{l}{l+1} \right)$

(C)  $MR = AR \left( \frac{l-1}{l} \right)$

(D)  $AR = MR \left( \frac{l+1}{l} \right)$

(E) Answer not known

163. A situation when all possible outcomes are known with probability is called as

(A) Risks

(B) Uncertainty

(C) Probability

(D) Variability

(E) Answer not known

164. Balance sheet is otherwise known as

(A) Network statement

(B) Profit and loss statement

(C) Income statement

(D) Budget Report

(E) Answer not known

165. Imputed value of family labour is included in the

(A) Cost A<sub>1</sub>

(B) Cost A<sub>2</sub>

(C) Cost B

(D) Cost C

(E) Answer not known

166. Iso - revenue line represents the

(A) Ratio of prices of two competing products

(B) Ratio of prices of two competing factors

(C) Ratio of prices of inputs and outputs

(D) Ratio of prices of factors and products

(E) Answer not known







172. The stages in "Innovation – Decision" process according to Rogers is
- (A) Awareness, Interest, Evaluation, Trial, Adoption
  - (B) Knowledge, Persuasion, Decision, Confirmation
  - (C) Need, Awareness, Interest, Deliberation, Trial and Adoption
  - (D) Attention, Interest desire, Conviction, Action and Satisfaction
  - (E) Answer not known
173. The degree to which an innovation is perceived as better than the idea it super seeds
- (A) Compatibility
  - (C) Relative Advantage
  - (B) Complexity
  - (D) Observability
  - (E) Answer not known
174. The degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters
- (A) Compatibility
  - (B) Trialability
  - (C) Complexity
  - (D) Observability
  - (E) Answer not known
175. It is a group of people that primarily interact via communication media such as letters, telephone, email or usenet rather than face to face
- (A) Community
  - (C) Virtual community
  - (B) Society
  - (D) Primary group
  - (E) Answer not known
176. ARIS was initiated in the year
- (A) 2000
  - (C) 1995
  - (B) 2020
  - (D) 1999
  - (E) Answer not known



177. Rainfed area in India presently constitute about \_\_\_\_\_ % of the not cultivated area.
- (A) 30%
  - (B) 65%
  - (C) 75%
  - (D) 90%
  - (E) Answer not known
178. The agriculture growth rate target fixed by the Planning Commission during 11<sup>th</sup> plan of India is
- (A) 9.0 percent
  - (B) 4.0 percent
  - (C) < 3.0 percent
  - (D) > 5.0 percent
  - (E) Answer not known
179. Most of the research work on alley cropping in India concentrates on \_\_\_\_\_ in semi – arid regions.
- (A) Gliricidia Sepium
  - (B) Leucaena leucocephala
  - (C) Cajanus Cajan
  - (D) Morus Alba
  - (E) Answer not known



180. Central Institute of Cotton Research is situated in
- (A) Nagpur (B) Coimbatore  
(C) Kovilpatti (D) Ludhiana  
(E) Answer not known
181. High soil temperature suppresses the weed germination. The heating process is
- (A) Heat Solarization  (B) Soil Solarization  
(C) Weed Solarization (D) Strip Solarization  
(E) Answer not known
182. Mechanical manipulation of the soil with tools to provide necessary soil conditions favourable for the growth of crops are found as
- (A) Ploughing (B) Puddling  
(C) Tilt (  ) (D) Tillage  
(E) Answer not known
183. The average conditions of weather for a month, season or year are denoted as
- (A) Weather map  (B) Climatic map  
(C) Physics of atmosphere (D) Atmospheric map  
(E) Answer not known
184. The Normal lapse rate is \_\_\_\_\_ °C per Km.
- (A) 4.5 °C (B) 5.5 °C  
 (C) 6.5 °C (D) 7.5 °C  
(E) Answer not known



185. The seed requirement for taking up line sowing in samai is \_\_\_\_\_ kg/ha.
- (A) 10
  - (B) 25
  - (C) 20
  - (D) 15
  - (E) Answer not known
186. Crop growth and development are primarily governed by following environmental factors
- (A) Soil
  - (B) Rainfall
  - (C) Temperature
  - (D) All the above
  - (E) Answer not known
187. The criteria used for the classification of irrigation water includes
- (A) Element toxicity
  - (B) Salinity
  - (C) Sodidity/Alkalinity
  - (D) All the above
  - (E) Answer not known
188. Water use efficiency is more when
- (A) the crop yield is increased
  - (B) evaporation loss is increased
  - (C) transpiration loss is increased
  - (D) evapo-transpiration loss is increased
  - (E) Answer not known
189. Adoption of new resource conserving technologies in Agriculture will have to
- (A) produce more food while sustaining environmental quality
  - (B) produce more food alone
  - (C) produce less food while sustaining environmental quality
  - (D) environmental quality alone
  - (E) Answer not known



190. The size of the clay particle is  
(A)  < 0.02 mm (B)  < 0.0002 mm  
(C)  < 0.002 mm (D)  < 0.2 mm  
(E)  Answer not known
191. \_\_\_\_\_ is the structural component of Nitrogenase and Nitrate reductase enzyme.  
(A)  Molybdenum (B)  Zinc  
(C)  Iron (D)  Copper  
(E)  Answer not known
192. Soil texture can be determined by  
(A)  Feel method (B)  Hydrometer method  
(C)  International Pipette method (D)  All the above methods  
(E)  Answer not known
193. An open trench left in between two adjacent strips of land after finishing the ploughing is called as  
(A)  Dead furrow (B)  Back furrow  
(C)  Head land (D)  Furrow slice  
(E)  Answer not known
194. Optimum temperature maintained for paddy straw mushroom cultivation (Oyster mushroom) is  
(A)  10 – 15°C (B)  18 – 20°C  
(C)  28 – 29°C (D)  30 – 35°C  
(E)  Answer not known
195. In honey bees, \_\_\_\_\_ enzyme converts sucrose into dextrose and levulose.  
(A)  Nuclease (B)  Invertase  
(C)  Amylase (D)  Sucrase  
(E)  Answer not known



196. The system of sowing a second crop after the first crop has reached its maturity but before it is harvested is known as
- (A) Double cropping (B) Inter cropping  
(C) Mixed cropping (D) Relay cropping  
(E) Answer not known
197. Cultivation of crop from regrowth after harvest is known as
- (A) Multiple cropping (B) Mixed cropping  
(C) Multi-tier cropping (D) Ratooning  
(E) Answer not known
198. Growing two or more crops on the same piece of land in one year is called
- (A) inter cropping (B) mixed cropping  
(C) mono cropping (D) multiple cropping  
(E) Answer not known
199. The optimum age of seedling for transplanting long duration rice varieties is
- (A) 13 – 14 days (B) 18 – 21 days  
(C) 25 – 30 days (D) 35 – 40 days  
(E) Answer not known
200. Trips for collection of cultivated farms like land races, open pollinated varieties wild forms and wild relatives of crop plants are
- (A) Exploration (B) Collection  
(C) Evaluation (D) Conservation  
(E) Answer not known



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