

**COMPUTER BASED TEST – 2023**  
**PAPER – I – SUBJECT PAPER**  
**AGRICULTURE**  
**(DEGREE STANDARD)**

1. The ICAR has established \_\_\_\_\_ national Bureaus to collect, conserve, evaluated and document basic resources of agriculture and initials such measures to had to long term productivity of plant, animal, fish, agriculturally important micro organism and soils
- (A) Six  
(B) Two  
(C) Five  
(D) Ten  
(E) Answer not known
2. The National seed corporation (NSC) was established to
- (A) Development of seed production and marketing of seeds  
(B) Train personnel involved in seed programmes  
(C) Co-ordinate the improved seed programmes  
 (D) All of the above  
(E) Answer not known
3. The Act which allows direct transactions between producers and buyers for sale/purchase of produce is
- (A) Essential Commodities Act, 1955  
(B) Consumer Protection Act, 1986  
 (C) Model APMC Act  
(D) Standard of Weights and Measures Act  
(E) Answer not known

4. The planning commission recommended the agro climatic zone in which five year plan
- (A) Fifth five year plan
  - (B) Seventh five year plan
  - (C) Sixth five year plan
  - (D) Eighth five year plan
  - (E) Answer not known
5. Total food grain production in India during year 2019-20 was
- (A) 292.0 m. tonnes
  - (B) 285.0 m tonnes
  - (C) 282.0 m tonnes
  - (D) 320.0 m tonnes
  - (E) Answer not known
6. Agriculture sector utilize \_\_\_\_\_ % of the total water available in our country
- (A) 50%
  - (B) 30%
  - (C) 85%
  - (D) 20%
  - (E) Answer not known

7. Match India's position in the world with the production of crops

Position	Crops
(a) First	1. Coarse grains
(b) Second	2. Oil seeds
(c) Third	3. Total cereals
(d) Fourth	4. Total pulses

- (a) (b) (c) (d)
- (A) 3 4 2 1
- (B) 2 1 4 3
- (C) 4 2 3 1
- (D) 1 3 4 2
- (E) Answer not known

8. In India, the gross irrigated area in 1950-51 was \_\_\_\_\_ m. ha.

- (A) 22.6
- (B) 32.6
- (C) 42.6
- (D) 52.6
- (E) Answer not known

9. Projected demand of rice in the world in 2005 is estimated to be about

- (A) 765. m.t.
- (B) 675. m.t
- (C) 576. m.t
- (D) 876. m.t
- (E) Answer not known

10. The drought of \_\_\_\_\_ is regarded as one of the worst droughts in the last one hundred years
- (A) 2000
  - (B) 2001
  - (C) 2002
  - (D) 2010
  - (E) Answer not known
11. When X represent exports, M imports,  $I_f$  foreign investment, B foreign borrowing, the equilibrium equation of balance of payments is expressed as
- (A)  $X - M = I_f - B$
  - (B)  $X - B = I_f - M$
  - (C)  $(X - M) + (I_f - B) = 0$
  - (D)  $(X + M) - (I_f + B) = 0$
  - (E) Answer not known
12. Based on the success of KVK model one in each rural districts, Government had approved an additional KVK in each of the \_\_\_\_\_ large districts during XI plan.
- (A) 20
  - (B) 30
  - (C) 40
  - (D) 50
  - (E) Answer not known

13. The first National Research Centre in 1977-78 was established for the crop
- (A) Rice
  - (B) Red gram
  - (C) Groundnut
  - (D) Cotton
  - (E) Answer not known
14. Based on the recommendations of the First Education Commission (1949), headed by Dr. S. Radhakrishnan, the first SAU was set up at \_\_\_\_\_ in 1960
- (A) Pusa, Bihar
  - (B) IARI, New Delhi
  - (C) TNAU, Coimbatore
  - (D) Pantnagar, Uttar Pradesh
  - (E) Answer not known
15. It is introduced as an autonomous organisation to integrate Research, Extension and all stake holders to support farmers needs
- (A) National Agricultural Innovation Project (NAIP)
  - (B) Agricultural Technology Management Agency (ATMA)
  - (C) Provide Urban Amenities in Rural Areas (PURA)
  - (D) None of the above
  - (E) Answer not known

16. Excavations in areas of Harappan Civilization confirms evidence of cultivation of \_\_\_\_\_ fibre crop
- (A) Mesta
  - (B) Jute
  - (C) Cotton
  - (D) Agave
  - (E) Answer not known
17. Highest producer of milk in the world contributed by
- (A) Denmark
  - (B) USA
  - (C) India
  - (D) Sweden
  - (E) Answer not known
18. Agriculture sector contributes to the National GDP to the tune of
- (A) 10 %
  - (B) 17 %
  - (C) 25 %
  - (D) 50 %
  - (E) Answer not known
19. Agriculture provides Employment to the following % of Indian population in 2020
- (A) 30
  - (B) 50
  - (C) 70
  - (D) 41.49%
  - (E) Answer not known

20. The main objectives of Drought prone Area programme include
- (a) Development of small and marginal farmers and agricultural labourers
  - (b) Development of irrigation sources
  - (c) Restructuring the cropping pattern
  - (d) Soil, water conservation and afforestation
- (A) (a) only  
(B) (b) and (c)  
(C) (d) only  
(D) (a), (b), (c) and (d)  
(E) Answer not known
21. Increased CO<sub>2</sub> concentration due to poor soil aeration will cause
- (A) Reduce water uptake
  - (B) Adsorption of nutrients
  - (C) Reduce root respiration
  - (D) All the above
  - (E) Answer not known
22. The plough – plant system of tillage was grouped under
- (A) Conventional tillage
  - (B) Minimum tillage
  - (C) Zero tillage
  - (D) Conservation tillage
  - (E) Answer not known

23. The highest area of land degradation is under

- (A) Water erosion
- (B) Gully erosion
- (C) Wind erosion
- (D) (A) and (C)
- (E) Answer not known

24. Conversion formula for Celsius (C) to Fahrenheit (F)

(A)  $F = C\left(\frac{9}{5}\right) + 32$

(B)  $F = (C - 32)\frac{5}{9}$

(C)  $F = C\left(\frac{5}{9}\right) + 32$

(D)  $F = (C - 32)\frac{9}{5}$

- (E) Answer not known

25. The major rainfall season of Tamilnadu

- (A) South-West Monsoon
- (B) North-East Monsoon
- (C) Winter
- (D) Summer
- (E) Answer not known



26. The layer of atmosphere where weather phenomena and atmospheric turbulence are most marked.
- (A) Troposphere
  - (B) Stratosphere
  - (C) Thermosphere
  - (D) Mesosphere
  - (E) Answer not known
27. Indian Meteorological Department was established in
- (A) 1875
  - (B) 1879
  - (C) 1950
  - (D) 1951
  - (E) Answer not known
28. Pelleted seeds with chlorpyrifos 20 EC @ 4 ml / kg of seed is recommended for the control of \_\_\_\_\_ in maize.
- (A) Cob borer
  - (B) Aphids
  - (C) Thrips
  - (D) Stem borer
  - (E) Answer not known

29. The spacing requirement for transplanted cumbu varieties and hybrids is
- (A)  $30 \times 10$  cm
  - (B)  $30 \times 15$  cm
  - (C)  $45 \times 15$  cm
  - (D)  $60 \times 30$  cm
  - (E) Answer not known
30. The plant geometry recommended for transplanting Ragi is \_\_\_\_\_ in Tamil Nadu.
- (A)  $30 \times 10$  cm
  - (B)  $30 \times 15$  cm
  - (C)  $40 \times 15$  cm
  - (D)  $60 \times 30$  cm
  - (E) Answer not known
31. The nursery area requirement to plant 1 ha in SRI method of rice cultivation is
- (A)  $200 \text{ m}^2$
  - (B)  $300 \text{ m}^2$
  - (C)  $100 \text{ m}^2$
  - (D)  $500 \text{ m}^2$
  - (E) Answer not known

32. A large part of the north-eastern and the South Eastern India is designated as
- (A) Rice Region
  - (B) Wheat Region
  - (C) Temperate Himalayan Region
  - (D) Plantation crop Region
  - (E) Answer not known
33. The recommended seed rate for pure cowpea CO (CP)7 is \_\_\_\_\_ kg/ha.
- (A) 20
  - (B) 10
  - (C) 25
  - (D) 30
  - (E) Answer not known
34. \_\_\_\_\_ corn is grown primarily for food and is harvested with about 70% moisture in grains.
- (A) Flint
  - (B) Dent
  - (C) Pop
  - (D) Sweet
  - (E) Answer not known
35. The critical value of LCC for rice cultivators and hybrids except ponni is
- (A) 3.0
  - (B) 4.0
  - (C) 5.0
  - (D) 6.0
  - (E) Answer not known

36. The recommended seed rate for hybrid castor in Tamil Nadu is \_\_\_\_\_ kg/ha.
- (A) 10
  - (B) 2
  - (C) 5
  - (D) 8
  - (E) Answer not known
37. The blackgram variety suitable for rice fallow pulses in Tamiraparani command area is
- (A) KKM 1
  - (B) ADT 6
  - (C) VBN 6
  - (D) VBN 8
  - (E) Answer not known
38. Among the cereal crops, the maximum productivity is found in
- (A) Wheat
  - (B) Rice
  - (C) Maize
  - (D) Sorghum
  - (E) Answer not known
39. Daily water requirement for rice to meet both ET and other losses will be
- (A) 5 – 12 cm
  - (B) 5 – 12 mm
  - (C) > 20 mm
  - (D) None of these
  - (E) Answer not known

40. Photosynthetically active Radiation is in the wavelength of
- (A) 0.2 to 0.3  $\mu\text{m}$
  - (B) 0.3 to 0.4  $\mu\text{m}$
  - (C) 0.4 to 0.7  $\mu\text{m}$
  - (D)  $> 0.7 \mu\text{m}$
  - (E) Answer not known
41. The modified system of classification of irrigation water proposed by US salinity laboratory (1954) includes
- (A) EC & pH
  - (B) EC & SAR
  - (C) pH & SAR
  - (D) SAR & ESP
  - (E) Answer not known
42. Choose the incorrect statement with regard to Salt Index (SI).
- (A) Used for predicting sodium hazard
  - (B) It is the relation between  $\text{Na}^+$ ,  $\text{Ca}^{2+}$  and  $\text{CaCO}_3$  in irrigation water
  - (C) Positive value of SI indicates good quality water
  - (D) High quality irrigation water has a negative value
  - (E) Answer not known
43. The dimension for Broadbed and furrow system of field layout is
- (A) 120 – 150 cm width beds and 45 cm wide furrows
  - (B) 100 – 200 cm width beds and 60 cm wide furrows
  - (C) 45 cm width beds and 30 cm wide furrows
  - (D) 90 – 100 cm width beds and 15 cm wide furrows
  - (E) Answer not known

44. Vertisols are otherwise called as
- (A) Red soils
  - (B) Medium and deep black soils
  - (C) Alluvial soils
  - (D) Clayey soils
  - (E) Answer not known
45. Sub-Basic igneous rocks have a silica content of
- (A) > 65%
  - (B) 60 – 65%
  - (C) 55 – 60%
  - (D) < 55%
  - (E) Answer not known
46. Processes leading to the development of acid soils are called
- (A) Laterization
  - (B) Podzolisation
  - (C) Intense leaching
  - (D) All the above
  - (E) Answer not known
47. By which process more than 90 percent of gaseous exchange in soil takes place?
- (A) Diffusion
  - (B) Mass flow
  - (C) Equilibrium
  - (D) Seasonal variation
  - (E) Answer not known

48. Grouping of soils based on kind and arrangement of horizons, colour, texture structure and reaction of horizons
- (A) Series
  - (B) Order
  - (C) Suborder
  - (D) Family
  - (E) Answer not known
49. The undisturbed soil profile columns are preserved in wooden or metal boxes are termed as
- (A) Soil profile
  - (B) Soil horizon
  - (C) Soil monoliths
  - (D) Soil pedon
  - (E) Answer not known
50. Total soluble salts content of a solution can be obtained by multiplying the EC value by
- (A) 640
  - (B) 64
  - (C) 6.4
  - (D) 0.64
  - (E) Answer not known

51. The soil suitability class N<sub>2</sub> represents
- (A) Moderately suitable
  - (B) Highly suitable
  - (C) Marginally suitable
  - (D) Permanently not suitable
  - (E) Answer not known
52. The diagnostic horizons found at soil surface are called as
- (A) Endopedon
  - (B) Soil type
  - (C) Hard pan
  - (D) Epipedon
  - (E) Answer not known
53. A soil having pH less than 8.5, ESP < 15 and EC > 4 dsm<sup>-1</sup> is called as
- (A) Saline soil
  - (B) Alkaline soil
  - (C) Saline-Alkaline soil
  - (D) Acid soil
  - (E) Answer not known
54. In which soil order, no developed horizon exists?
- (A) Oxisol
  - (B) Alfisol
  - (C) Entisol
  - (D) Ultisol
  - (E) Answer not known



55. The study of origin of soil, classification and description
- (A) Pedology
  - (B) Mineralogy
  - (C) Physiology
  - (D) Ornithology
  - (E) Answer not known
56. The presence of glauconite in soil, imparts \_\_\_\_\_ colour to soil.
- (A) White
  - (B) Red
  - (C) Green
  - (D) Yellow
  - (E) Answer not known
57. In soil suitability classification, the subclass 'S' indicates
- (A) Climatic limitations
  - (B) Wetness limitations
  - (C) Physical soil limitations
  - (D) Salinity limitations
  - (E) Answer not known
58. \_\_\_\_\_ compounds acts as "Energy currency" with in plants.
- (A) Phosphate
  - (B) Borate
  - (C) Potassium
  - (D) Nitrogen
  - (E) Answer not known

59. The scale map used for district planning is
- (A) 1 : 1000,000
  - (B) 1 : 50,000
  - (C) 1 : 25,000
  - (D) 1 : 10,000
  - (E) Answer not known
60. The process of accumulation of sodium ions on the exchange complex is called as
- (A) Salinisation
  - (B) Calcification
  - (C) Solonization
  - (D) Podzolisation
  - (E) Answer not known
61. A method of planting, in which row to row and plant to plant distance is uniform
- (A) Check row plating (Square)
  - (B) Transplanting
  - (C) Hill dropping
  - (D) Dibbling
  - (E) Answer not known

62. Two basic types of instruments employed for solar radiation measurement is
- (A) Pyrhelimeter and Pyranometer
  - (B) Pyrhelimeter and Anemometer
  - (C) Anemometer and Pyranometer
  - (D) Pyranometer and Ammeter
  - (E) Answer not known
63. Bee round dance is used to indicate the foraging sources are \_\_\_\_\_ away.
- (A) < 50 metres
  - (B) > 50 metres
  - (C) 50 – 100 metres
  - (D) > 100 metres
  - (E) Answer not known
64. The total quantity of dry matter produced per unit quantity of water used is expressed as
- (A) Water Use Efficiency (WUE)
  - (B) Water Productivity
  - (C) Water Profitability
  - (D) Factor Productivity
  - (E) Answer not known
65. \_\_\_\_\_ is the use of irrigated soils and irrigation water that insures high production without wasting.
- (A) Optimum irrigation
  - (B) Conservation irrigation
  - (C) Modern irrigation
  - (D) Periodical irrigation
  - (E) Answer not known

66. The Kernel yield of groundnut was 5000 kg/ha and average ET (Evapotranspiration) was 50 cm. What is the water use efficiency/m<sup>3</sup>
- (A) 0.5 kg/m<sup>3</sup> (B) 1.0 kg/m<sup>3</sup> ✓  
 (C) 1.5 kg/m<sup>3</sup> (D) 2.0 kg/m<sup>3</sup>  
 (E) Answer not known
67. Molybdenum deficiency is most common in \_\_\_\_\_ genus.
- (A) Musa (B) Capsicum  
 (C) Allium (D) Brassica ✓  
 (E) Answer not known
68. Which of the following is not a quality of carrier for Biofertilizers?
- (A) Have High Organic Matter  
 (B) Have High Nutrient Content ✓  
 (C) Have Higher water holding Capacity  
 (D) Should Support the growth of organism  
 (E) Answer not known
69. “The soils of India are often not only thirsty but also hungry” is the statement made by
- (A) John Walter Leather (B) M.S. Swaminathan ✓  
 (C) J.S. Kanwar (D) M. Velayutham  
 (E) Answer not known

70. Pickup the correct statement from the following
- (A) The bacteria of effective nodules contain glycogen
  - (B) Pink or red coloured mature nodules is due to leghaemoglobin
  - (C) N-fixation is essentially an aerobic process
  - (D) Leghaemoglobin facilitates oxygen supply
  - (E) Answer not known
71. The process of accumulation of inorganic substances by microorganisms and making the plants nutrient deficient is known as
- (A) Mineralisation
  - (B) Succession
  - (C) Decomposition
  - (D) Immobilization
  - (E) Answer not known
72. In 1895 the first rhizobia for nearly 17 legumes was grown in U.S.A. laboratory by
- (A) Noble and Hiltner
  - (B) Beijerinck
  - (C) Winogradsky
  - (D) Russel
  - (E) Answer not known
73. The fungal hyphae of mycorrhizae translocates phosphorus from soil by the action of
- (A) Cytoplasmic streaming
  - (B) Cellular movement
  - (C) Portal system
  - (D) Anti-portal system
  - (E) Answer not known
74. Which of the following genera fix nitrogen non symbiotically?
- (A) Rhizobium
  - (B) Nitrosomonas
  - (C) Nitrobacter
  - (D) Azotobacter
  - (E) Answer not known

75. The unavailable phosphorus is converted to available form by  
(A)  phosphorus solubilization (B) phosphorylation  
(C) phosphorus mobilization (D) phosphorus fixation  
(E) Answer not known
76. \_\_\_\_\_ fertilizer is suitable for strongly acidic or organic soils.  
(A) Single Superphosphate (B) Ammonium phosphate  
(C) Double Superphosphate (D)  Rock phosphate  
(E) Answer not known
77. In an inter cropping system, if the actual yield of each species is less than the expected yield, it is called as  
(A) Annidation (B) Compensation  
(C) Mutual co-operation (D)  Mutual inhibition  
(E) Answer not known
78. Growing four crops in a year in sequence is called as  
(A) Double cropping (B) Mono cropping  
(C) Relay cropping (D)  Quadruple cropping  
(E) Answer not known
79. Growing of only one crop on a piece of land in a year is known as  
(A) Inter cropping (B) Mixed cropping  
(C)  Mono cropping (D) Multiple cropping  
(E) Answer not known

80. The yearly sequence and spatial arrangement of crop or crops and fallow on a given area is
- (A) Mono culture  
(B)  Cropping pattern  
(C) Shifting cultivation  
(D) Crop rotation  
(E) Answer not known
81. Example for ex-situ conservation
- (A) Natural park  
(B) Biosphere reserve  
(C) Gene sanctuary  
(D)  Seed gene banks  
(E) Answer not known
82. \_\_\_\_\_ variety is a notified variety or a farmer's variety that is in public domain.
- (A) wild  
(B) land race  
(C)  extant  
(D) breeding line  
(E) Answer not known
83. Base collection of germplasm are stored at \_\_\_\_\_ with \_\_\_\_\_ moisture content.
- (A)  $-10^{\circ}\text{C}$  ; 12%  
(B)  $-5^{\circ}\text{C}$  ; 15%  
(C)  $-15^{\circ}\text{C}$  ; 15%  
(D)   $-20^{\circ}\text{C}$  ; 5%  
(E) Answer not known

84. Which is an example for insitu germplasm conservation?
- (A) Seed bank
  - (B) Field bank
  - (C) Natural park
  - (D) In vitro gene bank
  - (E) Answer not known
85. The gus marker gene ( $\beta$  galactourinidase) produces \_\_\_\_\_ colour in the presence of appropriate substrate.
- (A) Red
  - (B) Green
  - (C) Blue
  - (D) Yellow
  - (E) Answer not known
86. \_\_\_\_\_ enzyme seals the nicks that remain in the recombinant DNA molecules.
- (A) Reverse transcriptase
  - (B) Polynucleatide kinase
  - (C) DNA ligase
  - (D) SI nuclease
  - (E) Answer not known
87. Barnase gene for male sterility was isolated from
- (A) Bacillus thuringiensis
  - (B) Bacillus amyloliquefaciens
  - (C) Streptomyces hygrosopicus
  - (D) Agrobacterium rhizogenes
  - (E) Answer not known



88. Gene-for-gene relationship between a host and its pathogen was postulated by Flor (1951) on his work on \_\_\_\_\_
- (A) castor
  - (B) sunflower
  - (C) linseed
  - (D) safflower
  - (E) Answer not known
89. Latest, fodder cowpea variety released from TNAU
- (A) CO 7
  - (B) CO 4
  - (C) CO 9
  - (D) VBN 2
  - (E) Answer not known
90. Opaque 2 gene is present in
- (A) Rice
  - (B) Wheat
  - (C) Maize
  - (D) Sorghum
  - (E) Answer not known
91. A line is a nearly homozygotee obtained throughs continues inbreeding of a cross pollinated species.
- (A) Inbred
  - (B) Hybrid
  - (C) Variety
  - (D) Open pollinated variety
  - (E) Answer not known

92. Cytoplasmic-genetic male sterility is most widely used in
- (A) *Ascaris hypogaea*
  - (B) *Sorghum bicolor*
  - (C) *Vigna radiata*
  - (D) *Saccharum officinarum*
  - (E) Answer not known
93. The hybrid developed from cross between *lycopersicon esculentum* × *Lycopersicon pimpinellifolium* is
- (A) Complete sterile
  - (B) Complete fertile
  - (C) Partial fertile
  - (D) Lethal
  - (E) Answer not known
94. Which of the two cell organelles are implicated to cytoplasmic male sterility in plants?
- (A) Chloroplast and golgi bodies
  - (B) Mitochondria and chloroplast
  - (C) Mitochondria and endoplasmic reticulum
  - (D) Chloroplast and endoplasmic reticulum
  - (E) Answer not known

95. Male sterility controlled by nuclear genes without any influence of cytoplasm is known as
- (A) CMS
  - (B) CGMS
  - (C) GMS
  - (D) EGMS
  - (E) Answer not known
96. Which one of the following techniques can be followed to overcome self-incompatibility?
- (A) Heterosis breeding
  - (B) Bud pollination
  - (C) Apomixis
  - (D) Diplospory
  - (E) Answer not known
97. Aneuploid individuals in which one chromosome pair is missing ( $2n - 2$ ) are called
- (A) Double monosomic
  - (B) Nullisomics
  - (C) Disomic
  - (D) Double nullisomic
  - (E) Answer not known
98. \_\_\_\_\_ varieties are a mixture of several purelines of similar height, flowering and maturity dates, seed colour and agronomic characteristics but have a different gene for disease resistance.
- (A) Pureline
  - (B) Hybrids
  - (C) Synthetics
  - (D) Multiline
  - (E) Answer not known

99. \_\_\_\_\_ are modified flowers that develop into plants directly without formation of seeds.
- (A) Bulbs (B) Corm  
(C)  Bulbils (D) Rhizome  
(E) Answer not known
100. A biological model expected to perform in a predictable manner under defined environment
- (A) Phenotype (B)  Ideotype  
(C) Ideogram (D) Dendrogram  
(E) Answer not known
101. New variety of a crop species shall be protected for a period of \_\_\_\_\_ years under plant varieties Act.
- (A) 10 years (B)  15 years  
(C) 18 years (D) 25 years  
(E) Answer not known
102. Coating of seeds with certain substances like bentonite clay to form pellets of desired size is referred as
- (A)  Seed singulation (B) Seed priming  
(C) Seed tape (D) Seed mate  
(E) Answer not known
103. Under the force by which the Boerner divider mixes and divides the seed sample is
- (A) Centrifugal force (B)  Gravitational force  
(C) Aspiration (D) Flootation principle  
(E) Answer not known

104. Father of seed testing

- (A) Paul Neergaard                       Fredrick Nobbe  
(C) Harrington J.F                      (D) M. Black  
(E) Answer not known

105. Mechanically injured legume seed turns to \_\_\_\_\_ colour when treated with Ferric chloride.

- Black                                      (B) Green  
(C) Deep green                      (D) Blue  
(E) Answer not known

106. Match the following minimum limit of purity standard for labelling of seeds under seed centrifugation programme with its crop:

Crop	Purity (%)
(a) Paddy	1. 96
(b) Ragi	2. 97
(c) Groundnut	3. 98
(d) Bhendi	4. 99

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

107. Seedlings which are decayed by pathogen but it is clearly evident that the parent seed is not the source of secondary infection

- (A) Deformed seedlings                      (B) Decayed seedlings  
 (C) Normal seedlings                      (D) Abnormal seedlings  
(E) Answer not known

108. Which one of the following is not the component of purity analysis of seeds?

- (A) Pure seed                      (B) Inert matter  
(C) Other crop seeds                       (D) ODV  
(E) Answer not known

109. Minimum weight of submitted sample prescribed for purity analysis of paddy is

- (A) 1000 gms                       (B) 400 gms  
(C) 200 gms                      (D) 70 gms  
(E) Answer not known

110. Match the following seed processing machines with principle of operation :

Machine	Principle
(a) Disc separator	1. Floatation principle
(b) Gravity separator	2. Terminal velocity
(c) Pneumatic separator	3. Length basis
(d) Cylinder separator	4. Centrifugal force

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

111. What is the isolation distance for crops with 75% cross pollination?

- |                      |  |
|----------------------|--|
| (A) 100 – 200 m      | (B) 200 – 300 m                                      |
| (C) 300 – 500 m      | <input checked="" type="checkbox"/> (D) 500 – 1000 m |
| (E) Answer not known |  |

112. How many number of field counts to be taken by the seed certification officer while making field inspection in an area of 10 ha?

- |                      |   |
|----------------------|---|
| (A) 6                | (B) 7                                     |
| (C) 8                | <input checked="" type="checkbox"/> (D) 9 |
| (E) Answer not known |   |

113. Hybrid seeds developed by using chemical hybridizing agents should be subjected to \_\_\_\_\_ as a prerequisite for grant of certificate.
- (A)  Grow out test (B) Moisture test  
(C) Viability test (D) Vigour test  
(E) Answer not known
114. Which one of the following crop exhibit all three types of dormancy?
- (A) Amaranthus (B) Parthenium hysterophorus  
(C)  Avena fatua (D) Abutilan  
(E) Answer not known
115. Breeder seed is the progeny of
- (A) Foundation seed (B) Certified seed  
(C) Labelled seed (D)  Nucleus seed  
(E) Answer not known
116. \_\_\_\_\_ is the faster than germination test in assessing the viability of seeds and does not require a controlled environment.
- (A) KOH – Bleach test  
(B)  1, 3, 5 Triphenyl Tetrazolium Chloride test (TTZ test)  
(C) NaOH test  
(D) None of the above  
(E) Answer not known
117. Objectionable weed plant in Lucerne seed crop is
- (A) Argemone mexicana (B)  Cuscuta spp  
(C) Helianthus spp (D) Abelmaschus spp  
(E) Answer not known



118. What is the minimum isolation distance required for cotton foundation seed?
- (A) 30 metre (B) 40 metre  
 (C) 50 metre (D) 60 metre  
(E) Answer not known
119. Seed is defined as fertilized mature
- (A) Radicle  (B) Ovule  
(C) Testa (D) Cotyledon  
(E) Answer not known
120. A seed – grading machine that separates seeds based on length difference
- (A) Magnetic separator  
(B) Cylinder separator  
(C) Specific gravity separator  
 (D) Disc separator  
(E) Answer not known
121. Any herbicide that causes injury to plant where contact occurs is termed as
- (A) Instant herbicide (B) Translocated herbicide  
 (C) Contact herbicide (D) Systemic herbicide  
(E) Answer not known

122. \_\_\_\_\_ weed is the alternate weed host for peanut stem necrosis disease
- (A) Agropyron repens (B) Crotalaria sp  
(C) Parthenium (D) Amaranthus  
(E) Answer not known
123. Which of the following herbicides is commonly used in weed management in rice crop?
- (A) Fluchloralin (B) Diuron  
(C) Butachlor (D) Paraquat  
(E) Answer not known
124. Which of the egg parasitoid was employed for control of sugarcane shoot borer?
- (A) Trichogramma japonicum (B) Trichogramma australicum  
(C) Trichogramme chilonis (D) Trichoderma viride  
(E) Answer not known
125. The effective larval parasitoid to control Orseolia Oryzae in rice ecosystem is
- (A) Bracon brevicornis  
(B) Trichogramma chilonis  
(C) Platygastor oryzae  
(D) Trichospilus pupivova  
(E) Answer not known

126. The chemical compound normally used for inducing systemic resistance in plants against diseases is
- (A) Actifed
  - (B) Actigand
  - (C) Actinol 100
  - (D) Antigen 500
  - (E) Answer not known
127. While taking stored grain samples to decide the need for shed fumigation, the infestation level is categorized as mild if the no. of insects/kg and sample is
- (A) Nil
  - (B) Upto 2
  - (C) Upto 5
  - (D) Upto 10
  - (E) Answer not known
128. The stored pest which is also used for mass production of *Trichogramma* is
- (A) *Corcyra Cephalonica*
  - (B) *Sitotroga Cerealella*
  - (C) *Ephestia Cautella*
  - (D) *Plodia Inter Punctella*
  - (E) Answer not known

129. The acid which is used during activation of clay is
- (A) HCl
  - (B) H<sub>2</sub>SO<sub>4</sub>
  - (C) HNO<sub>3</sub>
  - (D) H<sub>3</sub>PO<sub>4</sub>
  - (E) Answer not known
130. Which of the following is not a Juvenile Hormone Analogues (JHA)?
- (A) Hydrepene
  - (B) Chloropicrin
  - (C) Kinoprene
  - (D) Methoprene
  - (E) Answer not known
131. Which of crystal protein produced by Bacillus Thuringiensis effective for coleoptera alone?
- (A) Cry I
  - (B) Cry II
  - (C) Cry III
  - (D) Cry IV
  - (E) Answer not known
132. Target insect pests of transgenic Bt cotton are \_\_\_\_\_ in India.
- (A) Bollworms + Prodenia
  - (B) Prodenia + boll weevil
  - (C) Bollworms + Stem weevil
  - (D) Bollworms + Boll Weevil
  - (E) Answer not known

133. KKM 10D, which contain Acorus calamus rhizome powder is effective against \_\_\_\_\_ pest in paddy
- (A) Thrips
  - (B) Stem borer
  - (C) Ear head bug
  - (D) Green leaf hopper
  - (E) Answer not known
134. The Occurrence of silver onion shoot symptom in rice is due to
- (A) Case Worm
  - (B) Yellow stem borer
  - (C) Gall midge
  - (D) Hispa
  - (E) Answer not known
135. Which of the following category of nematodes are free in the soil throughout the life cycle and not attached with plants?
- (A) Sedentary ectoparasite
  - (B) Endoparasite
  - (C) Semi endoparasite
  - (D) Migratory ectoparasite
  - (E) Answer not known

136. The typical symptom of “Rosette Flowers” in cotton indicates the attack of
- (A) Spiny bollworm
  - (B) Pink bollworm
  - (C) American bollworm
  - (D) Spotted bollworm
  - (E) Answer not known
137. The chemical required by the germ tube of Pyricularia Oryzae is to penetrate rice leaf
- (A) Sterols
  - (B) Polysaccharides
  - (C) Melonin
  - (D) Quinone
  - (E) Answer not known
138. A study of the insects which are variously related to the welfare of mankind is referred as
- (A) Economic Entomology
  - (B) Medical Entomology
  - (C) Fundamental Entomology
  - (D) General Entomology
  - (E) Answer not known

139. Which of the following insets is having quarantine importance?
- (A) Tomato fruit borer
  - (B) Rice gall midge
  - (C) Mango stone weevil
  - (D) Pulse pod bug
  - (E) Answer not known
140. Which one of the following will multiply more in heavy clay soil, with poor drainage?
- (A) White grubs
  - (B) Termites
  - (C) Red Hairy caterpillar
  - (D) Wire worms
  - (E) Answer not known
141. The ability of the farmer to withstand the risk that arises due to financial loss
- (A) Returns from investment
  - (B) Repayment capacity
  - (C) Risk bearing ability
  - (D) Economic ratio
  - (E) Answer not known
142. Principle of Payments, which directly influences
- (A) Prompt payment of loan by banks
  - (B) Unauthorized payment of borrower
  - (C) Prompt repayment of loan by borrower
  - (D) Proper utilization of loan
  - (E) Answer not known

143. LAMPS were established in the year

- (A) 1951
- (B) 1961
- (C) 1971
- (D) 1981
- (E) Answer not known

144. Number of banks Nationalized in the year 1980.

- (A) 6
- (B) 10
- (C) 14
- (D) 20
- (E) Answer not known

145. RRB's are sponsored by

- (A) State Government
- (B) Central Government
- (C) Commercial Banks
- (D) Co-operative Banks
- (E) Answer not known

146. The jurisdiction of LAMPS is

- (A) One State
- (B) One Village
- (C) One District
- (D) One Taluk
- (E) Answer not known



147. Regional Rural Banks (RRB's) were established based on the working Group recommendation chaired by

- (A) Narasimham
- (B) Gadgil
- (C) Bawa
- (D) Bhandari
- (E) Answer not known

148. Short term loan is provided by the Co-operative Credit structure in India under

- (A) One tier
- (B) Two tier
- (C) Three tier
- (D) Four tier
- (E) Answer not known

149. The following is not a discounted measure of Investment analysis

- (A) Net Present Worth
- (B) Pay back period
- (C) Benefit Cost Ratio
- (D) Internal Rate of return
- (E) Answer not known

150. The future value of annuity can be estimated as A =

(A)   $P \frac{(1+i)^t - 1}{i}$

(B)  $P(1+i)^t$

(C)  $\frac{P}{(1+i)^t}$

(D)  $P \frac{1 - (1+i)^{-t}}{i}$

(E) Answer not known

151. One of the following is a Undiscounted measure of Investment analysis

(A)  Pay back period

(B) Net present worth

(C) B – C ratio

(D) Internal rate of return

(E) Answer not known

152. Which stage of the MPP is greater than APP in the classical production?

(A)  I stage

(B) II stage

(C) I and II stage

(D) III stage

(E) Answer not known

153. Variables such as gender, marital status, colour of the eye are examples of
- (A) Ratio scale
  - (B) Interval scale
  - (C) Ordinal scale
  - (D) Nominal scale
  - (E) Answer not known
154. Identify the type of production function given below :  $Q = \text{Min} (2L, K)$  where  $Q$  = output,  $L$  = Labour ,  $K$  = Capital
- (A) Heterogenous production function
  - (B) Leontief production function
  - (C) Constant elasticity production function
  - (D) Linear production function
  - (E) Answer not known
155. Which of the following is included in computing Cost C?
- (A) Imputed value of family Labour
  - (B) Depreciation
  - (C) Rental value of leased in land
  - (D) Rental value of Owned land
  - (E) Answer not known
156. The following is not a Characteristics of an Iso - quant
- (A) Isoquant slope downwards from Left to right
  - (B) Concave to the origin
  - (C) Place above another represent higher output
  - (D) Non-Intersecting with each other
  - (E) Answer not known

157. Which of the following is a continuously falling curve?
- (A) AFC
  - (B) AVC
  - (C) ATC
  - (D) MC
  - (E) Answer not known
158. The curve representing all possible combination of two products that could be produced with given amount of resources is termed as
- (A) Expansion path
  - (B) Iso-quant
  - (C) Production possibility curve
  - (D) Isoclines
  - (E) Answer not known
159. The type of ownership is individual and that of operatorship is collective in the case of
- (A) Co-operative Tenant farming
  - (B) Co-operative Joint farming
  - (C) Co-operative Collective farming
  - (D) Co-operative better farming
  - (E) Answer not known
160. Farm management is considered to fall in the field of
- (A) Macro economics
  - (B) Business economics
  - (C) Micro economics
  - (D) Environmental economics
  - (E) Answer not known

161. Access by all people at all times to enough food for an active, healthy life

- (A) Food security
- (B) Social security
- (C) Public distribution system
- (D) Green revolution
- (E) Answer not known

162. Which of the following is a price intervention to trade?

- (A) Tariff
- (B) Import Quota
- (C) Voluntary Export Restraint
- (D) Sanitary and Phyto Sanitary measures
- (E) Answer not known

163. Under WTO, AMS (Aggregate Measure of Support) includes

- (A) Product specific subsidies
- (B) Non-product specific subsidies
- (C) Export subsidies
- (D) Product and non-product specific subsidies
- (E) Answer not known

164. \_\_\_\_\_ policies used to describe domestic support policies that are not subject to reduction commitments under AOA in WTO.

- (A) Green box
- (B) Blue box
- (C) Amber box
- (D) Anti dumping
- (E) Answer not known

165. Statutory minimum price is related to
- (A) Rice
  - (B) Groundnut
  - (C) Pulses
  - (D) Sugarcane
  - (E) Answer not known
166. The Food grains Prices Committee was headed by
- (A) Shri L. K. Jha
  - (B) Dr. S. S. Acharya
  - (C) Shri. R. C. A. Jain
  - (D) Dr. Ashok Gulati
  - (E) Answer not known
167. Entrepreneur who are characterized by readiness to adopt successful innovations of others are known as
- (A) Active Entrepreneurs
  - (B) Drone Entrepreneurs
  - (C) Fabian Entrepreneurs
  - (D) Initiative Entrepreneurs
  - (E) Answer not known
168. Under Section 3(i)(iii) of the Companies Act 1956, a firm is defined by its Articles of Association as
- (A) Private company
  - (B) Public company
  - (C) Secular company
  - (D) Service company
  - (E) Answer not known

169. NDDB is located at

- (A) Chennai
- (B) Anand
- (C) Ahmedabad
- (D) Delhi
- (E) Answer not known

170. Bombay Cotton Market Act was enacted in the year

- (A) 1947
- (B) 1957
- (C) 1937
- (D) 1927
- (E) Answer not known

171. National Grid of Rural Godown was established in the year

- (A) 1978
- (B) 1979
- (C) 1980
- (D) 1981
- (E) Answer not known

172. \_\_\_\_\_ an scientific storage structure constructed for the protection of the quantity and quality of stored products.

- (A) Warehouse
- (B) Godown
- (C) Gunny bags
- (D) Theksa
- (E) Answer not known

173. A market in which goods are exchanged for money immediately after the sale
- (A) Forward market
  - (B) Future market
  - (C) Secular market
  - (D) Spot market
  - (E) Answer not known
174. A market having only one seller is
- (A) Monopsony
  - (B) Monopoly
  - (C) Perfect market
  - (D) Oligopoly
  - (E) Answer not known
175. All types of commodity are sold in
- (A) Specialized market
  - (B) Local market
  - (C) General market
  - (D) Regional market
  - (E) Answer not known
176. For the small and marginal farmers, the marketed surplus is
- (A) More than the marketable surplus
  - (B) Less than the marketable surplus
  - (C) Equal to the marketable surplus
  - (D) Not related with marketable surplus
  - (E) Answer not known



177. Standardization of commodities precedes

- (A) Agmark
- (B) ISI
- (C) Regulated market
- (D) Grading
- (E) Answer not known

178. \_\_\_\_\_ determines the market conduct and performance.

- (A) Market structure
- (B) Market power
- (C) Market information
- (D) Market intelligence
- (E) Answer not known

179. The following market is classified on the basis of degree of competition

- (A) Perfect market
- (B) Monopoly market
- (C) Oligopoly market
- (D) All of the above
- (E) Answer not known

180. At times of distress sales

- (A) Marketed surplus > Marketable surplus
- (B) Marketed surplus < Marketable surplus
- (C) Marketed surplus = Marketable surplus
- (D) Zero marketed surplus
- (E) Answer not known

181. National policy for woman's Empowerment was declared in the year

- (A) 2006
- (B) 2001
- (C) 1992
- (D) 1998
- (E) Answer not known

182. Group of people is more or less permanent association who are organised for their collective activities

- (A) Village
- (B) Society
- (C) Community
- (D) None of the above
- (E) Answer not known

183. Collection of two or more individuals in which they are psychological interactions and reciprocal roles based upon durable contents shared norms and interest.

- (A) Aggregation
- (B) A social group
- (C) Category
- (D) Collectives
- (E) Answer not known

184. It is a condition in which a person is not capable of procuring the minimum amount of required for one's own sustenance and the members of the family

- (A) Rural poverty
- (B) Poorness
- (C) Urbanization
- (D) None of the above
- (E) Answer not known

Expansion:

185. i) IRDP – Integrated Rural Development Programme  
ii) T & V – Teaching and Visit  
iii) IVS – Indian Village Service  
iv) TRYSEM – Training Rural Youth for Self Employment
- (A) i), ii) iii) are correct
  - (B) ii) iii) iv) are correct
  - (C) i) ii) iv) are correct
  - (D) i) iii) iv) are correct
  - (E) Answer not known

186. Based on the experiences within the country and abroad, the recommendation of the Fiscal Commission (1949) and the Grow More Food Enquiry Committee (1952) the Community Development Programme was launched in

- (A) 1953
- (B) 1952
- (C) 1957
- (D) 1949
- (E) Answer not known

187. First KVK was sanctioned in the Fourth Five Year Plan

- (A) KVK Puducherry 1974
- (B) KVK firm 1967
- (C) TNAV KVK 1972
- (D) None of the above
- (E) Answer not known

188. The rural development programme launched jointly by Labour Ministry and Life Insurance Corporation of India to provide social security to agricultural labourers.

- (A) Prime Minister's Rozgar Yojana
- (B) Pradhan Mantri Gram Sadak Yojana
- (C) Krishi Sramik Samajik Suraksha Yojana
- (D) Ganga Kalyan Yojana
- (E) Answer not known

189. It is a decision to reject an innovation after having previously adopted it

- (A) Discontinuance
- (B) Rejection
- (C) Over adoption
- (D) None of the above
- (E) Answer not known

190. It is a decision to make full use of an innovation as the best course of action available.
- (A) Adoption
  - (B) Innovation
  - (C) Diffusion
  - (D) Continuation
  - (E) Answer not known
191. The stages of adoption process are
- (A) Knowledge, Persuasion, Decision, Confirmation
  - (B) Attention, Interest, Desire, Conviction, Action, Satisfaction
  - (C) Awareness, Interest, Evaluation, Trial, Adoption
  - (D) Source, Message, Encoding, Receiver, Decoding, Feedback.
  - (E) Answer not known
192. ICT Based village knowledge centre initiative was taken by
- (A) ICAR
  - (B) MSSRF
  - (C) ITC
  - (D) None of the above
  - (E) Answer not known
193. Agromet Advisory Service – ICT Tools used to.
- (A) Reduce the climate Risk in Agriculture
  - (B) To manage pest and diseases
  - (C) Nutritional knowledge and practice for Rural Women
  - (D) None of the above
  - (E) Answer not known

194. It is the information a communicator wishes his audience to receive, understand, accept and act upon
- (A) Fact
  - (B) Truth
  - (C) Message
  - (D) None of the above
  - (E) Answer not known
195. The credibility of the communicator means
- (A) Trustworthiness and competence
  - (B) Knowledgeable
  - (C) Expressing the message positively
  - (D) None of the above
  - (E) Answer not known
196. Mass media for communicating information to a large number of literate people.
- (A) Newspapers, magazines, leaflets, and folders.
  - (B) Radio, Television, and motion pictures.
  - (C) Meetings, Campaign and Exhibition.
  - (D) None of the above
  - (E) Answer not known

197. It is essentially a recognizable imitation or replica of the original whether workable or not and whether differing or not from the original in size.

- (A) Mock up
- (B) Model
- (C) Picture
- (D) Exhibits
- (E) Answer not known

198. It is a gap between what is and what ought to be?

- (A) Need
- (B) Objectives
- (C) Situation
- (D) Problems
- (E) Answer not known

199. \_\_\_\_\_ has described four principles, which make the philosophy of extension education. They are

1. The individual is supreme in democracy
2. The home is the fundamental unit in a civilization.
3. The family is the first training group of the human race.
4. The foundation of any permanent civilization must rest on the partnership of man and land.

- (A) Kelsey and Hearne (1967)
- (B) Mildred Horton (1952)
- (C) Dahama (1965)
- (D) Ensminger (1962)
- (E) Answer not known

200. The Training and visit system was designed by

- (A) Seaman A.Knapp
  - (B) Daniel Hamilton
  - (C) Smith lever
  - (D) Daniel Benor
  - (E) Answer not known
-