Sl. No. : 40002222

ACFAG

Register Number | | | | | | | | | |

2014
AGRICULTURE

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. Prior to attempting to answer the candidates are requested to check whether all the questions are there in series without any omission and ensure there are no blank pages in the question booklet. In case any defect in the Question Paper is noticed it shall be reported to the Invigilator within first 10 minutes.
3. Answer **all** questions. **All** 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 invigilator to mark the answers.
6. 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, action will be taken as per commission's notification.
7. 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.
8. In the Answer Sheet there are **four** circles Ⓐ, Ⓑ, Ⓒ and Ⓓ against each question. To answer the questions you are to mark with Blue or Black ink Ball point pen ONLY ONE circle 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, Ⓑ is the correct answer, you have to mark as follows :

   Ⓐ ● Ⓒ Ⓓ

9. 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.
10. The sheet before the last page of the Question Booklet can be used for Rough Work.
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. In all matters and in cases of doubt, the English Version is final.
13. Do not tick-mark or mark the answers in the Question booklet.

SEAL

SPACE FOR ROUGH WORK

1. Which among the following are important agricultural or horticultural products exported by India?

(i) Black pepper

(ii) Apple

(iii) Mango

(iv) Jasmine

Of the above

(A) (i), (ii) and (iii)
(B) (i), (iii) and (iv)
(C) (i), (ii) and (iv)
(D) (i), (ii), (iii) and (iv)

2. The first State Agricultural University, G.B. Pant University of agriculture and technology was established in

(A) 1952
(B) 1959
(C) 1960
(D) 1961

3. Interculture in Ground nut is avoided at

(A) Flowering stage
(B) Pegging stage
(C) Seedling stage
(D) None of these

4. GDP growth rate in 2011-12 is

(A) 10%
(B) 15%
(C) 20%
(D) 25%

5. Contribution of Agriculture to the total value of commodity exports in India is

(A) Approximately 10%
(B) Approximately 25%
(C) Approximately 30%
(D) Approximately 35%

6. Crop logging technique is related to

(A) Maize
(B) Sugar cane
(C) Sugar beet
(D) None of the above

7. Which one of the following area (million hectare) is classified as waste lands in India?

(A) 175
(B) 250
(C) 75
(D) 300

8. Sugarcane productivity is highest in

(A) UP (B) Tamilnadu

(C) Maharashtra (D) MP

9. Small farmers development agency was implemented during the period of

(A) Third five year plan (B) Fourth five year plan

(C) Fifth five year plan (D) Sixth five year plan

10. With regard to total wheat production, India's position in the world is

(A) First (B) Second

(C) Third (D) Fifth

11. Land Equivalent Ratio (LER) is related to

(A) Inter cropping (B) Sequential cropping

(C) Ratooning (D) None of the above

12. The beetle zygogramma bicolorata is used to control the weed

(A) Water hyacinth (B) Parthenium

(C) Trianthema (D) Cyprus

13. In the world India's position in the total cereal production

(A) Third (B) Second

(C) First (D) Fifth

14. Match the crop correctly with the major producing state and select your answer using the codes given below :

	Crop		State
(a)	Grapes	1.	Bihar
(b)	Pepper	2.	Maharashtra
(c)	Apple	3.	Kerala
(d)	Guava	4.	Himachal Pradesh

Codes

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

15. Which Indian state ranks first in the production of coffee?
(A) Kerala (B) Tamilnadu
(C) Karnataka (D) Maharashtra

16. The uppermost layer of atmosphere is
(A) Troposphere (B) Mesosphere
(C) Stratosphere (D) Thermosphere

17. The practice of allowing the regrowth of the planted crop is known as
(A) Mixed cropping (B) Ratooning
(C) Sequential cropping (D) Intercropping

18. Dehulled rice grain is known as
(A) White rice (B) Brown rice
(C) Red rice (D) Grey rice

19. Agriculture which encompassing of
(A) Crop production and livestock farming (B) Fisheries
(C) Forestry (D) All the above

20. Atmosphere extends up to a height of
(A) 600 km (B) 1600 km
(C) 6000 km (D) 240 km

21. Green revolution has been most successful in
(A) Wheat and potato (B) Wheat and rice
(C) Tea and coffee (D) Barley and rice

22. In which of the following state cotton grown as rainfed crop gets highest yield?
(A) Maharashtra (B) Haryana
(C) Gujarat (D) Punjab

23. The N fertilizer use efficiency in rice can be increased by using
(A) S-coated urea (B) Urea super granules
(C) BGA (D) Both (A) and (B)

24. Which of the following pulse crops is used as a pulse, a fodder and a green manure crop?
(A) Moong (B) Urd
(C) Cowpea (D) Pea

25. Assertain (A) : The productivity of total pulses in Tamilnadu increased from 270 kgs/ha (1970-71) to 492 kgs/ha (1994-95) and subsequently declined since 2001-02.

Reason (R) : The above subsequent decline in productivity of total pulses is mainly due to pest and diseases.

Options :

(A) Both (A) and (R) are true and (R) is the correct explanation of (A)

(B) Both (A) and (R) are true but (R) is not the correct explanation of (A)

(C) (A) is true but (R) is false

(D) (A) is false but (R) is true

26. Green Revolution was successfully implemented in which five year plan?

(A) II (B) III

(C) IV (D) V

27. India is the largest producer, consumer and exporter of

(A) Rice (B) Wheat

(C) Sugarcane (D) Spices

28. Tenth five year plan of government of India was executed during the period

(A) 2001-2006 (B) 2002-2007

(C) 2000-2005 (D) 2003-2008

29. Which two districts have lesser area under cotton and sugarcane cultivation?

(A) Salem and Thiruvannamalai (B) Thiruvallur and Cuddalore

(C) Kancheepuram and Thiruvallur (D) Cuddalore and Thiruvannamalai

30. Pheromone trap attracts

(A) Male bug (B) Female moth

(C) Male moth (D) Female bug

31. "Whiptail" is a malady associated with the nutrient

(A) Molybdenum (B) Manganese

(C) Zinc (D) Copper

32. Which of the following elements are considered as energy storers?

(A) Hydrogen, oxygen, sodium and boron

(B) Carbon, nitrogen, phosphorus and sulphur

(C) Potassium, calcium and magnesium

(D) Iron, manganese, molybdenum, copper and zinc

33. Which one of the following categories of drought is associated with high salt concentration?
(A) Physiological drought (B) Soil drought
(C) Agricultural drought (D) Hydrological drought

34. Which of the following institutes in India works for dryland agriculture?
(i) CRIDA
(ii) ICRISAT
(iii) APEDA
(iv) DANIDA
Of the above
(A) (i) and (ii) (B) (ii) and (iii)
(C) (iii) and (iv) (D) (i) and (iv)

35. Ammonia is transformed in to nitrate by
(A) Algae (B) Bacteria
(C) Fungi (D) Actinomycetes

36. Nitrogen fixing biofertilizers may be used in paddy crop as
(A) Seed treatment (B) Seedling root dip
(C) Broadcasting (D) All of the above

37. Which one of the following is the minimum requirement of Rhizobium at the time of manufacturing?
(A) 10^8 viable cells/g of the carrier on dry wt (B) 10^7 viable cells/g. of the carrier on dry wt
(C) 10^{10} viable cells/g of the carrier on dry wt (D) None of this

38. Green manure crops in 50-60 days can able to accumulate
(A) 80 kg N/ha (B) 90 kg N/ha
(C) 100 kg N/ha (D) 60 kg N/ha

39. Match the following and select the correct code :

(a)	Organic manure	1.	Sesbania aculeata
(b)	Green manure	2.	Compost
(c)	Green leaf manure	3.	Pongamia glabra

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

40. Which of the following variety of Blackgram is recommended for rice fallows?

(A) ADT3 (B) T9

(C) CO1 (D) CO2

41. The ratio of oil to seed in sunflower is

(A) 40% (B) 28%

(C) 60% (D) 20%

42. Water requirement for sugar cane is

(A) 1100 mm (B) 900 mm

(C) 2500 mm (D) 1600 mm

43. The required row spacing for the use of rotary weeder in transplanted rice is

(A) 30 cm (B) 10 cm

(C) 20 cm (D) 15 cm

44. Which of these will add calcium to the soil without changing the soil pH?

(A) Lime (B) Gypsum

(C) Superphosphate (D) Dolomite

45. The average composition of Humus is

(A) Carbon 30%, Oxygen 30%, Nitrogen 20%, Hydrogen 10%, Ash 10%

(B) Carbon 50%, Oxygen 35%, Nitrogen 5%, Hydrogen 5%, Ash 5%

(C) Carbon 40%, Oxygen 30%, Nitrogen 20%, Hydrogen 5%, Ash 5%

(D) None of the above

46. Most efficient land management practice evolved by ICRISAT for moisture conservation in deep black soil is known as

(A) Narrow bed conservation system (B) Broad bed furrow system

(C) Furrow improvement system (D) Moisture conservation system

47. Moisture index is calculated by using

(A) $MI = \frac{P}{PET}$ (B) $MI = PET \times P$

(C) $MI = \frac{P - PET}{PET}$ (D) $MI = P - PET$

48. Weakly joining of soil particle is referred to as

(A) Granular structure (B) Crumb structure

(C) Platy structure (D) None of the above

49. Integrated nutrition management is the uses of

(A) Organic wastes available in the farm (B) Organic manures and inorganic fertilizers

(C) Bio-fertilizers (D) All the above components

50. The blanket fertilizer recommendation for irrigated Ragi crop is

(A) 100 Kg N : 50 kg P_2O_5 : 50 Kg K_2O/Ha (B) 200 Kg N : 100 kg P_2O_5 : 100 Kg K_2O/Ha

(C) 60 Kg N : 30 kg P_2O_5 : 30 Kg K_2O/Ha (D) 20 Kg N : 15 kg P_2O_5 : 15 Kg K_2O/Ha

51. Rainfall of more than 30 cm per month for atleast three consecutive months is suitable for the cultivation of

(A) Sugarcane (B) Paddy

(C) Sunhemp (D) Groundnut

52. Mechanical measures of soil conservation include

(i) Contour bunding

(ii) Bench terracing

(iii) Check dams

(iv) Percolation ponds

(A) (i), (ii), (iv) (B) (i), (iii), (iv)

(C) (i), (ii), (iii) (D) All the four

53. An electrical conductivity of less than one millimhos per cm indicates that the soil condition for plant growth is

(A) Above normal (B) Critical

(C) Injurious (D) Normal

54. Causes of soil salinity

(i) The soluble salts are leached from high-lying to low-lying areas due to high rainfall.

(ii) Irrigation of soils with saline water.

(A) (i) is correct (B) (ii) is correct

(C) Both are correct (D) Both are not correct

55. Acid soils are characterised by a pH of

(A) > 8 (B) < 6

(C) 8 to 10 (D) 7 to 8

56. A mixture of dark coloured organic material of indefinite composition extracted from soil with dilute alkali and precipitated by acidification is known as

(A) Vermicompost
(B) Humic acid
(C) Compost
(D) Farm yard manure

57. Which of the following soil test parameters would give the best indication of general fertility?

(A) Phosphorous
(B) Potassium
(C) Organic matter
(D) Sulphur

58. Weather forecasts for a period of one week is grouped under

(A) Quick forecasts
(B) Short range forecasts
(C) Medium range forecasts
(D) Long range forecasts

59. Which of the following is a multi purpose tree species?

(A) Albizia amara
(B) Azadirachta indica
(C) Albizia lebbeck
(D) All the above

60. Alley cropping is known as

(A) Ley system
(B) Silvi-pastural system
(C) Food-cum-fruit system
(D) Hedgerow inter cropping

61. Chemical used in cloud seeding/artificial rainfall is

(A) Calcium chloride
(B) Potassium iodide
(C) Sodium chloride
(D) Silver chloride

62. The formula to convert centigrade into Fahrenheit is

(A) $^{\circ}F = (^{\circ}C - 32) \times \frac{5}{9}$
(B) $^{\circ}F = (^{\circ}C + 32) \times \frac{5}{9}$
(C) $^{\circ}F = {}^{\circ}C \times \frac{9}{5} + 32$
(D) $^{\circ}F = {}^{\circ}C \times \frac{9}{5} - 32$

63. Lysimeter – A device used to measure

(A) Depth of water
(B) Rate of flow of water
(C) Evapotranspiration
(D) Water temperature

64. Climatological information of particular area helps to

(A) Develop irrigation design
(B) Develop irrigation need
(C) Extract ground water
(D) All the above

65. In Tamilnadu, the contribution of rainfall by the north east monsoon is

(A) 22% (B) 48%

(C) 66% (D) 78%

66. The length of crop growing season (days) in Cauvery delta zone of Tamilnadu is

(A) 100-120 days (B) 250-270 days

(C) 165-180 days (D) 100-140 days

67. How many Agro climatic zones are in Tamilnadu?

(A) Five (B) Seven

(C) Eight (D) Nine

68. Growing two or more crops in the same field simultaneous in definite proportion

(A) Companion cropping (B) Sequential cropping

(C) Inter cropping (D) Mixed cropping

69. The name of the rice growing season between the months of may to September in Tamilnadu is known as

(A) Kuruvai (B) Kar

(C) Swarnavari (D) Samba

70. It is a well accepted conservation measure in controlling run-off and soil erosion and thereby maintaining fertility of soil

(A) Strip cropping (B) Inter cropping

(C) Contour farming (D) Mixed cropping

71. In nuts and oil seeds, the limiting amino acid is

(A) Threonine (B) Tryptophan

(C) Lysine (D) Methionine

72. Under drought conditions, plants show increase in

(A) Abscisic acid (B) Proline

(C) Ethylene (D) All the above

73. Which of the following water sources is utilized to the maximum for crop production in India?

(A) Godaveri (B) Chambal

(C) Chinav (D) Ganga

74. In 1866, Mendel postulated laws of inheritance based on his work with

(A) Drosophila (B) Field beans

(C) Garden pea (D) Pigeon pea

75. Minor millets are rich source of

(A) Proteins and vitamins (B) Vitamins and Tryptophan

(C) Lysine and Tryptophan (D) Proteins and Lysine

76. The science which is used for genetic improvement of crop plants is referred to as

(A) Plant breeding (B) Science of crop improvement

(C) Crop improvement technology (D) All the above

77. Cross of F_1 with either of its parents is

(A) Test cross (B) Back cross

(C) Direct cross (D) Polyhybrid cross

78. In plant breeding, homozygous individuals are represented as

(A) RR or rr (B) HP or hp

(C) HH or hh (D) FF or ff

79. Consider the statements

(1) Colchicine is most widely used for chromosome doubling

(2) It is a poisonous chemical isolated from seeds and bulbs of crocus

(3) Pure colchicine is $C_{22}H_{25}O_6N$

(4) It blocks spindle formation

Of these

(A) All are correct (B) Four alone is correct

(C) Two alone is correct (D) One and three are correct

80. Breeding methods for self-pollinated crops are

(i) Mass selection

(ii) Pure line selection

(iii) Pedigree methods

(iv) Back cross methods

Of the above

(A) (i), (ii) and (iii) (B) (i), (iii) and (iv)

(C) (i), (ii) and (iv) (D) (i), (ii), (iii) and (iv)

81. Bulk population breeding is suitable for

(A) Flower crops (B) Vegetable crops

(C) Fruit crops (D) Small grains

82. Lamarck proposed

(A) Theory of Pangenesis (B) Theory of Epigenesis

(C) Performance theory (D) Theory of acquired characters

83. Most commonly used test for estimating GCA in crop species is

(A) Progeny test (B) Top cross test

(C) Single cross test (D) Poly cross test

84. Disease and pest resistance is governed by

(A) Oligogenes (B) Polygenes

(C) Monogene (D) All of the above

85. The term cybrid refers to the

(A) Somatic hybrids (B) Gametic hybrids

(C) Somatic and gametic hybrids (D) None of these

86. Cotton is often cross pollinated crop in which about ———— percent of cross pollination occurs.

(A) 25% (B) 40%

(C) 50% (D) 75%

87. The flower part removed or made non-functional during emasculation is

(A) Anther (B) Calyx

(C) Corolla (D) Ovary

88. Match the following and select the correct option.

	List I		List II
(a)	Agricultural crop Quarantine	1.	DWR, Karnal
(b)	Gene bank of wheat	2.	Obsolete cultivars
(c)	Land race	3.	NBPGR, New Delhi
(d)	Improved varieties of recent past	4.	Primitive cultivars

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

89. Which one of the following is a brinjal variety resistant/tolerant to aphids?

(A) Annamalai (B) Pusa Ruby

(C) Pusa Early Dwarf (D) Rashmi

90. East coast tall is a traditional variety of

(A) Sorghum (B) Palmyrah

(C) Coconut (D) Oil palm

91. In Tamilnadu, which of the following research centres are evaluating/releasing sugarcane varieties?

(i) Sugarcane Breeding Institute, Coimbatore

(ii) Sugarcane Research Station, Cuddalore

(iii) Agricultural Research Station, Sirugamani

(iv) Agricultural Research Station, Aliyarnagar

Of the above

(A) (i) and (ii) (B) (i), (ii) and (iii)

(C) (i), (ii), (iii) and (iv) (D) (i), (ii) and (iv)

92. Which one of the following is a popular Cashewnut variety cultivated in TamilNadu?

(A) TMV – 12 (B) CO –2

(C) AU – 2 (D) VRI – 2

93. Kufri Jyoti is a variety of

(A) Carrot (B) Cauliflower

(C) Potato (D) Rose

94. The headquarters of the union for the protection of new plant varieties (UPOV) is located at

(A) Bangkok (B) Geneva

(C) Moscow (D) Washington

95. Variation arising during tissue culture of plants is known as

(A) Mutation (B) Selection

(C) Somaclonal variation (D) All the above

96. Cloning means

(A) Making an identical copy physically as well as genetically

(B) Exact replica of plants or animals replicated asexually

(C) Deriving genetic matter from single parents

(D) All the above

97. The first recombinant DNA molecule was produced by

(A) Stanley Cohen and H.Boyer (B) T.N. Morgen

(C) Walter Sutton and T. Boveri (D) Calgene

98. Mutation is due to change in gene because of

(A) Loss (B) Degeneration

(C) Addition (D) All of these

99. Genomic imprinting occurs in

(A) Plants (B) Animals

(C) Humans (D) All of these

100. RFLP is a

(A) Genetic marker (B) Molecular marker

(C) Morphological marker (D) Physcological marker

101. Phalaris minor is a major weed in

(A) Rice (B) Maize

(C) Wheat (D) Sorghum

102. Consider the statements.

The state seed certification agencies perform the following functions :

(i) They select seed growers

(ii) They carry out the requisite field inspections

(iii) They conduct seed test

(iv) They guide the seed growers on production, processing and distribution of seeds

Of the statements

(A) (i) alone is correct (B) (i) and (ii) are correct

(C) (i), (ii) and (iii) are correct (D) All are correct

103. Minimum isolation distance for foundation seed production in field crops is

(A) Two metres (B) Three metres

(C) Four metres (D) Five metres

104. Seed sample taken from laboratory sample for testing is known as

(A) Primary sample (B) Composite sample

(C) Submitted sample (D) Working sample

105. Seed health tests may be done through

(A) Visual examination (B) Washing test

(C) Soaking (D) Any one of the above

106. The isolation distance for certified seed production in cole crops is

(A) 1500 m (B) 1000 m

(C) 500 m (D) 100 m

107. Steps in seed multiplication are as follows:

(A) (i) Breeder seed (ii) foundation seed (iii) registered seed (iv) certified seed

(B) (i) Foundation seed (ii) certified seed (iii) breeder seed (iv) registered seed

(C) (i) Certified seed (ii) breeder seed (iii) registered seed (iv) foundation seed

(D) (i) Registered seed (ii) foundation seed (iii) breeder seed (iv) certified seed

108. Match the crops with the respective seed tests. Select the correct code.

	Crop		Seed test
(a)	Sorghum	1.	Peroxidase test
(b)	Wheat	2.	NaOH test
(c)	Soyabean	3.	PAGE
(d)	Cotton	4.	KoH B leach test

Codes

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

109. Which is the most useful method of detecting virus infection in seeds?

(A) Seed plating (B) Phago test

(C) ELISA (D) None of these

110. The ideal requirements for good seed are

(A) Genetic and physical purity (B) Good germination

(C) Freedom from diseases and weeds (D) All the above

111. The Seeds Act was enacted by the parliament in the year

(A) 1965 (B) 1966

(C) 1967 (D) 1968

112. Indian seed industry comprises of state seeds corporations numbering

(A) 10 (B) 11

(C) 12 (D) 13

113. The test used for quick testing of viability of seeds is

(A) Acid Fuchsin test (B) Thiourea test

(C) Tetrazolium test (D) Succinic acid test

114. For breeder seed production, colour of tag used in the field is

(A) Blue (B) Golden Yellow

(C) White (D) None of the above

115. The seed of rice contains 7 – 8% protein which is located in?

(A) Aleurone layer (B) Husk

(C) Inside the endosperm (D) Embryo

116. Which one of the following herbicide is non-selective in action?

(A) Atrazine (B) Butacheor

(C) Alachlor (D) Paraquat

117. In nature, insect pest population is kept under check by factors such as

(A) Topographic (B) Climate

(C) Biotic (D) All the above

118. Pest surveillance comprises of

(A) One basic component (B) Two basic components

(C) Three basic components (D) More than three components

119. Spread of pest from one field to another is largely determined by

(A) Rainfall (B) Temperature

(C) Humidity (D) Wind current

120. Nematodes and wilt disease are major problems in the cultivation of

(A) Chrysanthemum (B) Crotons

(C) Crossandra (D) Crotalaria

121. Components of integrated disease management includes

(A) Surveillance
(B) Agronomic practices
(C) Host plant resistance
(D) All the above

122. Match the following :

	Target function		Symptoms induced
(a)	Mobilization of stored food	1.	Root and foot rot
(b)	Absorption of water minerals	2.	Damping off and seedling blight
(c)	Water transport and translocation	3.	Leaf curl, whiteness broom
(d)	Meristematic activity	4.	Vascular wilt

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

123. Phyllody in sesame is caused by

(A) Bacteria
(B) Insects
(C) Mycoplasma
(D) Virus

124. The term necrosis indicate

(A) Curling
(B) Blightening
(C) Altrophy
(D) Death of cells

125. Root wilt of coconut is incited by

(i) Pythium
(ii) Fusarium
(iii) Ganoderma
(iv) Phytoplasma

Of the above

(A) (i) and (ii)
(B) (ii) and (iii)
(C) (iii) and (iv)
(D) (i) and (iv)

126. Little leaf disease in brinjal is caused by a

(A) Virus (B) Fungus

(C) Phytoplasma (D) Bacterium

127. Which one of the following is a predominant nursery disease in vegetable crops?

(A) Anthracnose (B) Blight

(C) Damping off (D) Rust

128. False smut of rice is caused by

(A) Sclerotinia sclerotiorum (B) Claviceps purpurea

(C) Claviceps oryzae sativae (D) Ustilago oryzae

129. Tristeza disease is commonly found in

(A) Guava (B) Grapes

(C) Citrus (D) Banana

130. Presence of 'bore hole' at the base of sorghum stem is caused by

(A) Semilooper (B) Stem borer

(C) Leaf roller (D) Gall fly

131. Match the following :

(a)	Rice stem borer	1.	Silver shoot
(b)	GLH	2.	Hopper burn
(c)	Ear head bug	3.	Yellow dwarf
(d)	Gall fly	4.	Black spot on the grain
(e)	BPH	5.	Deadheart

	(a)	(b)	(c)	(d)	(e)
(A)	4	5	2	3	1
(B)	2	3	4	1	5
(C)	3	4	2	5	1
(D)	1	2	3	4	5

132. Rhinoceros beetle is a destructive pest of

(A) Mango
(B) Coconut
(C) Citrus
(D) Guava

133. Nibble and cut off in rice ear heads are due to

(A) Ear head bug
(B) Grass hopper
(C) Horned caterpillar
(D) Leaf folder

134. Trace the logical sequence in effective disease management

(A) Surveillance → quarantine → regulatory → exclusion → use of chemotherapeutants
(B) Surveillance → regulatory → exclusion → quarantine → chemotherapeutants
(C) Quarantine → surveillance → regulatory → exclusion → chemotherapeutants
(D) Quarantine → regulatory → exclusion → surveillance → chemotherapeutants

135. To control whitefly in cotton, the number of yellow sticky traps required per ha is

(A) 20
(B) 5
(C) 40
(D) 12

136. In sugarcane cultivation, if the selt treatment is not done, the crop is prove to

(A) Early shoot borer
(B) Mealy bugs
(C) Scale insects
(D) Whitefly

137. The economic threshold level for rice stem borer is

(A) 10% dead heart
(B) 12% dead heart
(C) 15% dead heart
(D) 20% dead heart

138. Important components of insect pest management are

(A) Cultural
(B) Mechanical
(C) Biological
(D) All the above

139. The varieties resistance to rice Tungro disease are

(A) ADT 32 and IR 50
(B) ADT 37 and IR 64
(C) ASD 16 and IR 64
(D) ASD 18 and ADT 32

(A) [illegible]
(C) Semi-spreading type
(D) None of the above

141. Summer ploughing is essential to

(A) Increase the water holding capacity
(B) Kill weeds
(C) Destroy insect pupae
(D) All the above

142. Select the exact expansion for the acronym 'IRM'

(A) Insect Resistance Management
(B) Insecticide Residue Management
(C) Insecticide Resistance Management
(D) Insect Resurgence Management

143. Match list I with list II by using the code given below :

	List I		List II
(a)	Physical poison	1.	Nitrophenols
(b)	Protoplasmic poison	2.	H_2S
(c)	Respiratory poison	3.	Silica
(d)	Nerve poison	4.	Pyrethrum

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

144. Which one of the following is grouped under fumigants?

(A) HCH
(B) Aluminium phosphide
(C) Methyl eugenol
(D) Isopropyl cresols

145. Which one of the following is correctly matched?

(A) Arsenicals – Cycloate

(B) Carbamates – Hexaflurate

(C) Bipyridilliums – Paraquat

(D) Phenols – Dalapon

146. Which of the following chemical is mostly commonly used in India?

(A) Insecticide (B) Herbicide

(C) Acaricide (D) Fumigant

147. Which herbicide is having higher persistence in soil?

(A) Atrazine (B) Pendimethalin

(C) Paraquat (D) 2, 4 – D

148. Rice weevil larvae feeds on grains

(A) Internally (B) Externally

(C) Broken grains (D) Scarving grains

149. The bruchid infestation in storage pulses can be treated with neem oil in the ratio of

(A) 1 : 50 (B) 1 : 100

(C) 1 : 25 (D) 1 : 5

150. When storage space is godown is not sufficient food grains are stored in the open air, this method of storage is known as

(A) Open storage (B) Closed storage

(C) CAP storage (D) Bulk storage

151. Bruchid beetle can cause pod damage in groundnut to the extent of

(A) 70 – 80% (B) 80 – 90%

(C) 90 – 100% (D) None of the above

152. Hermetic principles are related to

(A) Soil pests (B) Foliar pests

(C) Spices pests (D) Stored grain pests

153. Key elements in weed management are

(A) Prevention (B) Control

(C) Eradication (D) All the above

154. Solarisation is a weed control method which comes under

(A) Chemical control (B) Biological control

(C) Physical control (D) Cultural control

155. Match the weed and its type and select the correct code.

	Weed		Type
(a)	Nut grass	1.	Grassy
(b)	Carpet weed	2.	Aquatic
(c)	Bermuda grass	3.	Broad leaved
(d)	Water hyacinth	4.	Sedges

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

156. The herbicides which move from place of application to place which show ultimate effect is known as

(A) Contact herbicide (B) Translocated herbicide

(C) Selective herbicide (D) Non selective herbicide

157. Butachlor application in rice is effective against

(A) Sedges (B) Grasses

(C) Broad leaved weeds (D) None of the above

158. Channel flowing irrigation water is measured by

(i) Submerged orifice

(ii) Pipe orifice

(iii) Parshall flume

(iv) V – Notches

Of the above

(A) (i) and (ii)

(B) (iii) and (iv)

(C) (iii) alone

(D) (iv) alone

159. Gas formed in biogas plant is

(A) Dithane

(B) Ethane

(C) Indane

(D) Methane

160. Identify the correct sequence of activities with regard to silkworm rearing

(A) Brushing → mounting → chawki rearing – late age rearing

(B) Mounting → brushing → chawki rearing – late age rearing

(C) Mounting → chawki rearing → late age rearing – brushing

(D) Brushing → chawki rearing → late age rearing – mounting

161. Choose the correct answer :

A single colony of Rock bee yields upto

(A) 30 kg of honey

(B) 40 kg of honey

(C) 50 kg of honey

(D) 60 kg of honey

162. A good quality irrigation water should have an EC of

(A) < 4.5 ds/m

(B) < 1.5 ds/m

(C) < 0.5 ds/m

(D) 3 to 5 ds/m

163. Relative Yield Total (RYT) in cropping system is

RYT =

(A) $\frac{Y\,ba + Y\,bb}{Y\,aa + Y\,ab}$

(B) $\frac{Y\,bb + Y\,ba}{Y\,aa + Y\,bb}$

(C) $\frac{Y\,aa + Y\,bb}{Y\,ba + Y\,ba}$

(D) $\frac{Y\,ab + Y\,ba}{Y\,aa + Y\,bb}$

164. Choose the correct answer :

Apiculture is a subsidiary occupation and provides additional income to

(A) Small farmers

(B) Marginal farmers

(C) Landless labourers

(D) All the above

165. Which state produces maximum mulberry silk?

(A) Karnataka

(B) Andhra Pradesh

(C) TamilNadu

(D) West Bengal

166. Which one of the following is correctly matched with the pebrine disease of silkworm?

(A) Beauveria

(B) Aspergillus

(C) Nosema

(D) NPV

167. Which one of the following is the correct order of arrangement of the parts in a beehive from bottom to top?

(A) Bottom boards, brood chamber, super chamber, roof

(B) Bottom board, super chamber, brood chamber, roof

(C) Bottom board, super chamber, roof

(D) None of the above

168. Consider the statements :

(i) Four types of silkworm are reared in India.

(ii) 89% of total silk produced in India come from mulberry silk worm.

(A) Statement (i) and (ii) are wrong

(B) Statement (i) is wrong and (ii) is correct

(C) Statement (i) is correct and (ii) is wrong

(D) Statement (i) and (ii) are correct

169. The crops recommended for the tannery waste affected soils are

(A) Tomato (PKM1) and Brinjal

(B) Rice (ASD16) and Ragi (CO12)

(C) Sunflower (CO4) and mustard

(D) All the above

170. The land capability classes suited for cultivation is

(A) V to VIII (B) II to IV

(C) I to IV (D) VI to VIII

171. DFL is related to

(A) Silkworm (B) Earth worm

(C) Honey bee (D) Soil pests

172. Unit of radient energy is

(A) Langley (B) Lysi

(C) Isotach (D) Isobel

173. Growing of two or more crops simultaneously on the same piece of land without definite row pattern is called

(A) Inter cropping (B) Multiple cropping

(C) Mixed cropping (D) Sequence cropping

174. Stiffling is the process involved in

(A) Apiculture
(B) Lac culture
(C) Sericulture
(D) Vermi culture

175. The country plough produced in one of the following places is very famous in Tamil Nadu

(A) Thiruppachethi
(B) Melur
(C) Kangeyam
(D) Cholavandhan

176. All silkworms belong to the insect order

(A) Hemiptera
(B) Lepidoptera
(C) Coleoptera
(D) Hymenoptera

177. Which one of the following implements is not used for wet land operations?

(A) Helical blade puddler
(B) Green manure trampler
(C) Cage wheel
(D) Junior hoe

178. A device for measuring percolation and leaching losses from a column of soil under controlled conditions is known as

(A) Infiltrometer
(B) Evaporimeter
(C) Psycrometer
(D) Lysimeter

179. Farm management is a

(A) Physical science
(B) Biological science
(C) Social science
(D) None of the above

180. The value of seeds and plants, manures and fertilizers, insecticides, fungicides and irrigation charges are known as

(A) Variable cost
(B) Fixed cost
(C) Input cost
(D) Machinery cost

181. Regional rural banks are financed by

(A) Nationalized banks
(B) Government of India
(C) Reserve Bank of India
(D) All the above

182. SLR means

(A) Statutory Liquidity Ratio
(B) Standard Liquidity Ratio
(C) Systamatic Lending Ratio
(D) Subsidised Lending Rate

183. Value Added Tax (VAT) was first introduced in

(A) Sri Lanka
(B) Bangladesh
(C) France
(D) India

184. Choose the correct answer.

The minimum support price system for agricultural commodities was started in the year

(A) 1962
(B) 1963
(C) 1964
(D) 1965

185. The new name of Agricultural Prices Commission is

(A) Commission for farm costs and prices
(B) Commission for agricultural costs and prices
(C) Commission for agricultural costs
(D) Commission for Kisan costs and prices

186. The agricultural sector contributed to our foreign exchange resources by

(A) Earning foreign exchange through export
(B) Conserving through import substitutions
(C) Both of (A) and (B)
(D) None of the above

187. The primary role of MANAGE is to

(A) Develop management skills
(B) Generate employment
(C) Promote entrepreneurship
(D) Promote spiritual talent

188. The toll free telephone number of the Kisan call centre is

(A) 1515
(B) 1551
(C) 5115
(D) 5151

189. The central sector scheme women in agriculture was launched during

(A) Sixth five year plan
(B) Seventh five year plan
(C) Eighth five year plan
(D) Ninth five year plan

190. A, B, C' s of journalism stands for

(A) Accuracy, Brevity and Clarity
(B) Attractive, Brief and Clear
(C) Accuracy, Brief and Clarity
(D) None of the above

191. Chairman of planning commission is

(A) President
(B) Appointed by President
(C) Prime Minister
(D) Appointed by Prime Minister

192. VAT is

(A) Excise tax
(B) Income tax
(C) Indirect sales tax
(D) Direct additional tax

193. Planting of succeeding crop before harvesting the proceeding crop is known as

(A) Ratoon cropping
(B) Mono cropping
(C) Sequence cropping
(D) Relay cropping

194. Which one of the following is a competitive market?

(A) Perfect market
(B) Primary market
(C) Capital market
(D) Wholesale market

195. In pure competitive market, the demand curve is slopping

(A) Downward
(B) Upward
(C) Straight to X-axis
(D) Parallel to Y-axis

196. Area under cultivation in India is

(A) 143. 0 m. ha
(B) 179.5 m. ha
(C) 161.3 m. ha
(D) 185.2 m. ha

197. Services of a lead bank extend up to

(A) Taluk level
(B) Block level
(C) District level
(D) State level

198. The instrument used for measuring depth of water table is known as

(A) Lysimeter
(B) Odometer
(C) Piezometer
(D) Evaporimeter

199. Which of the following is the latest milky mushroom variety released in Tamil Nadu?

(A) MDU 2
(B) CO 2
(C) APK 2
(D) PKM 2

200. Growing of coconut, black pepper and ginger simultaneously in the same field is called

(A) Relay cropping
(B) Inter cropping
(C) Mixed cropping
(D) Multistoreyed cropping

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