PREVIOUS YEAR PAPER

UP TGT 2016 — Agriculture (Series A)

UP TGT · 8 or 9 March 2019

125 questions · +3.4 for a correct answer, −0 for a wrong one · 120 minutes

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Questions from the U.P. Secondary Education Services Selection Board's paper of 8 or 9 March 2019. Each question is followed by its answer, and the answer key is repeated on the last page.

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Agriculture

1. Dr.V.Kurien is related to which field ?
   (a) Animal husbandry
   (b) Dairy Milk production
   (c) Fishery science
   (d) Forage crop production
   Answer: (b)

2. Foot and Mouth Disease (FMD) is caused by
   (a) Virus
   (b) Bacteria
   (c) Fungi
   (d) Protozoa
   Answer: (a)

3. Buffalo milk is rich source of
   (a) Iron and copper
   (b) Phosphorus and copper
   (c) Calcium and iron
   (d) Calcium and phosphorus
   Answer: (d)

4. Dark reaction occurs in
   (a) Grana
   (b) Stroma
   (c) Cytoplasm
   (d) Vacuole
   Answer: (b)

5. Rashtriya Krishi VikasYojana (RKVY) was launched during which Five Year Plan (FYP) ?
   (a) IX FYP
   (b) X FYP
   (c) XI FYP
   (d) XII FYP
   Answer: (c)

6. Soil Health Card (SHC) Scheme was started during the year
   (a) 2015
   (b) 2018
   (c) 2016
   (d) 2017
   Answer: (a)

7. National Food Security Act is also called
   (a) Right to Work
   (b) Right to Employment
   (c) Right to Food
   (d) None of these
   Answer: (c)

8. The gaseous envelope of invisible film of air surrou ng the earth is called as
   (a) Climate
   (b) Weather
   (c) Troposphere
   (d) Atmosphere
   Answer: (d)

9. Zero tillage was first introduced in India under
   (a) Rice – Wheat cropping system
   (b) Cotton – Wheat cropping system
   (c) Sorghum – Wheat cropping system
   (d) Pearl millet – Wheat cropping system
   Answer: (a)

10. Red colour of the soil is due to
   (a) Haematite
   (b) Magnetite
   (c) Silica
   (d) Organic matter
   Answer: (a)

11. The cropping system in which field crops are alternated with pasture crops on the same field
    (a) Silviculture
    (b) Agroforestry
    (c) Arboriculture
    (d) Ley farming
    Answer: (d)

12. "Aki-ochi", a disorder in Paddy is attributed to
    (a) Hydrogen sulphide toxicity
    (b) Boron toxicity
    (c) Zinc toxicity
    (d) Sulphur deficiency
    Answer: (a)

13. Among the following pulse crops, which one has a characteristic of slow initial growth rate ?
    (a) Pigeon pea
    (b) Black gram
    (c) Mungbean
    (d) Gram
    Answer: (a)

14. Which of the following oilseed crop is known by th ame "Unpredictable legume" ?
    (a) Soybean
    (b) Groundnut
    (c) Sunflower
    (d) Linseed
    Answer: (b)

15. Which of the following oilseed crop plant has spines on its surface ?
    (a) Mustard
    (b) Sunflower
    (c) Safflower
    (d) Soybean
    Answer: (c)

16. Which form of Nitrogen is available in urea ?
    (a) Amide
    (b) Ammonical
    (c) Nitrate
    (d) Nitrite
    Answer: (a)

17. The process of conversion of available form of nutrient into unavailable form through microbial action is known as

(a) Immobilization
(b) Mineralization
(c) Fixation
(d) None of these

Answer: (a)

18. The end product of organic matter decomposition is

(a) Humic acid
(b) Fulvic acid
(c) Lignin
(d) Humus

Answer: (d)

19. Which gene is responsible for Nitrogen fixation ?

(a) Nif gene
(b) Norin-1
(c) Norin-10
(d) Nif-1

Answer: (a)

20. Transpiration will be maximum during

(a) Morning
(b) Evening
(c) Night
(d) Afternoon

Answer: (d)

21. Which irrigation system is known to provide highest irrigation efficiency ?

(a) Surface method
(b) Sub surface method
(c) Sprinkler method
(d) Trickle method

Answer: (d)

22. Most suitable method of irrigation used for widely spaced crops, orchard trees and vegetables is

(a) Drip irrigation
(b) Sprinkler irrigation
(c) Cablegation
(d) Surge irrigation

Answer: (a)

23. Contour cultivation is done
    (a) Along the slope of the field
    (b) Across the slope of the field
    (c) Even topographic land
    (d) None of these
    Answer: (b)

24. Check dams are constructed for
    (a) Controlling gully erosion
    (b) Water harvesting
    (c) Both (A) and (B)
    (d) None of these
    Answer: (c)

25. In which type of bees, stings are found ?
    (a) Queen
    (b) Drone
    (c) Worker
    (d) None of these
    Answer: (c)

26. The carrier of leaf curl tomato virus is
    (a) White fly
    (b) Beetle
    (c) Soil borne bacteria
    (d) Striga plant
    Answer: (a)

27. Quality seed refers to
    (a) Genetic purity
    (b) Physical purity
    (c) Seed quality parameters
    (d) All of these
    Answer: (d)

28. Which zone of the country has emerged as good location for potato seed production ?
    (a) Northern plains
    (b) Western plains
    (c) Central plains
    (d) Eastern plains
    Answer: (a)

29. All the released and notified varieties which are in seed production chain are known as
    (a) Extinct varieties
    (b) Candidate varieties
    (c) Example varieties
    (d) Reference varieties
    Answer: (d)

30. Parthenocarpic fruits are
    (a) False fruits
    (b) Composite fruits
    (c) Seedless fruits
    (d) None of these
    Answer: (c)

31. Fleshy edible part of knol-khol is an enlargement of
    (a) Root
    (b) Stem
    (c) Leaf
    (d) None of these
    Answer: (b)

32. 'Operation flood' refers to
    (a) Flood control
    (b) Milk production
    (c) Control of soil erosion
    (d) None of these
    Answer: (b)

33. Ongole is a breed of
    (a) Cow
    (b) Buffalo
    (c) Goat
    (d) Camel
    Answer: (a)

34. Milk sugar is
    (a) Lactose
    (b) Maltose
    (c) Fructose
    (d) Sucrose
    Answer: (a)

35. Highest photosynthesis occurs in
    (a) Red light
    (b) Blue light
    (c) Green light
    (d) All of these

    Answer: (a)

36. ATMA Scheme is being sponsored by
    (a) State Government
    (b) Central Government
    (c) ICAR
    (d) NABARD

    Answer: (b)

37. Which of the following is major scheme of Central Government towards enhancing oilseeds production ?
    (a) ISOPOM
    (b) TBOs
    (c) NMOOP
    (d) All the above

    Answer: (d)

38. Contract Farming is deal between
    (a) Producers and sponsored companies
    (b) Producers and mediators
    (c) Mediators and companies
    (d) All of these

    Answer: (a)

39. The condition favourable for precipitation to occur is
    (a) Low moisture content
    (b) High moisture content
    (c) Cooling of air
    (d) Descending air

    Answer: (c)

40. Which soil has the highest Cation Exchange Capacity (CEC) ?
    (a) Loamy soils
    (b) Sandy loam
    (c) Sandy soils
    (d) Clay loam

    Answer: (d)

41. All are true statements with respect to puddling except
    (a) It creates impervious layer
    (b) It checks percolation losses
    (c) It requires standing water in field
    (d) It improves soil structure

    Answer: (d)

42. Tillage results in
    (a) Increased bulk density
    (b) Decreased bulk density
    (c) No change in bulk density
    (d) None of these

    Answer: (b)

43. Anaerobic environment in paddy soil is responsible for gaseous loss of fertilizer nitrogen by
    (a) Denitrification
    (b) Volatilization
    (c) Nitrification
    (d) Ammonification

    Answer: (a)

44. The best stage for using green cobs of maize for [illegible]e purposes is
    (a) Tasseling
    (b) Silking
    (c) Soft dough
    (d) Hard dough

    Answer: (c)

45. "Arhar" is commonly known as
    (a) Pigeon pea (Toor)
    (b) Black gram (Urd)
    (c) Bengal gram (Bengali Chana)
    (d) Green gram (Moong)

    Answer: (a)

46. Which characters of Linseed oil favour their use in paints, varnishes and printing ?
    (a) Fast drying
    (b) Semi-drying
    (c) Non-drying
    (d) Fragrance

    Answer: (a)

47. Mycorrhiza helps in the uptake of
(a) Potassium
(b) Phosphorus
(c) Nitrogen
(d) Iron

Answer: (b)

48. To reduce the loss of Nitrogen from the applied fertiliser in puddle rice field, urea fertilisers should be applied to /as
(a) Oxidized zone
(b) Reduced zone
(c) Foliar spray
(d) None of these

Answer: (b)

49. Commercially, urea fertiliser should not contain biuret % more than
(a) 0.5
(b) 1.0
(c) 1.5
(d) 2.0

Answer: (c)

50. Organic matter can be calculated by multiplying anic carbon content by the factor
(a) 1.72
(b) 1.82
(c) 1.92
(d) 1.27

Answer: (a)

51. Field water use efficiency is equal to
(a) Yield/Water Requirement (Y/WR)
(b) Water Requirement/Yield (WR/Y)
(c) Yield/Evapotranspiration (Y/ET)
(d) Evapotranspiration/Yield (ET/Y)

Answer: (a)

52. Soil water potential can be measured by
(a) Tensiometer
(b) Neutron moisture meter
(c) Pressure plate apparatus
(d) All the above

Answer: (d)

53. The total loss of water from soil and plant surface is known as
    (a) Evaporation
    (b) Evapotranspiration
    (c) Transpiration
    (d) Water logging
    Answer: (b)

54. The instrument for measuring water table is
    (a) Drosometer
    (b) Piezometer
    (c) Penetrometer
    (d) None of these
    Answer: (b)

55. The land area which drain to a common point is known as
    (a) Water harvesting
    (b) Watershed area
    (c) Farm pond
    (d) None of the above
    Answer: (b)

56. The three body parts of an insect are
    (a) Head, thorax and abdomen
    (b) Head, leg and thorax
    (c) Head, thorax and wings
    (d) None of these
    Answer: (a)

57. Smut disease in pearl millet is
    (a) Soil borne disease
    (b) Air borne disease
    (c) Seed borne disease
    (d) None of these
    Answer: (a)

58. Downey mildew is a
    (a) Seed borne
    (b) Soil borne
    (c) Seed and soil borne
    (d) Air borne
    Answer: (c)

59. Supplementary pollination is generally followed to enhance seedset in
    (a) Caster
    (b) Pigeon pea
    (c) Rice
    (d) Sunflower
    Answer: (d)

60. The quick seed viability test is
    (a) Tetrazolium test
    (b) Germination test
    (c) Field test
    (d) Vigour test
    Answer: (a)

61. For regular bearing in mango, which growth regulator is recommended ?
    (a) GA3
    (b) IAA
    (c) NAA
    (d) Paclobutrazol
    Answer: (d)

62. Vegetables are rich sources of
    (a) Carbohydrates
    (b) Proteins
    (c) Vitamins
    (d) Fat
    Answer: (c)

63. For the purpose of canning, tomato fruits are harvested at
    (a) Immature green stage
    (b) Matured green stage
    (c) Half ripe pink stage
    (d) Red ripe stage
    Answer: (d)

64. Cattle and buffaloes belongs to the family
    (a) Cammelidae
    (b) Suidae
    (c) Equidae
    (d) None of these
    Answer: (d)

65. Protein present in cow's milk is
    (a) Zein
    (b) Lactalbumin
    (c) Casein
    (d) Albumin
    Answer: (c)

66. Rinderpest is caused by
    (a) Bacteria
    (b) Virus
    (c) Fungi
    (d) Protozoa
    Answer: (b)

67. NABARD was established during the year
    (a) 1928
    (b) 1934
    (c) 1935
    (d) 1955
    Answer: —

68. The headquarter of which of the following organisation is situated at Geneva, Switzerland ?
    (a) WMO
    (b) IPRI
    (c) ICARDA
    (d) WARDA
    Answer: (a)

69. Which crop figures in the logo of Indian Council of Agricultural Research (ICAR) ?
    (a) Wheat
    (b) Paddy
    (c) Pigeon pea
    (d) None of these
    Answer: (a)

70. The type of rains on the slopes of Western Ghats is
    (a) Cyclonic
    (b) Convectional
    (c) Orographic
    (d) None of these
    Answer: (c)

71. The relationship between plant growth duration and temperature is termed as
    (a) Base temperature
    (b) Growing Degree Days
    (c) Photo Thermal Unit (PTU)
    (d) None of these
    Answer: (b)

72. Intercultivation operations are meant for
    (a) Roughing
    (b) Thinning
    (c) Destroying weeds
    (d) Maintaining optimum plant stand
    Answer: (c)

73. Soil crusting is a problem in
    (a) Vertisols
    (b) Alfisols
    (c) Aridisols
    (d) Inceptisols
    Answer: (c)

74. Pulses are preferred in cropping system as they a
    (a) Rich in protein
    (b) Short duration crops
    (c) Drought resistant crops
    (d) Fertility restorer crops
    Answer: (d)

75. Barley is a quite famous commodity in
    (a) Baking industry
    (b) Malting and brewing industry
    (c) Starch industry
    (d) Flour industry
    Answer: (b)

76. Which of the following pulse crop is popularly called as “Vegetable meat” ?
    (a) Green gram
    (b) Black gram
    (c) Cow pea
    (d) Pigeon pea
    Answer: (c)

77. Which of the following commonly indicate Rapeseed ?
(a) Rai
(b) Raya
(c) Laha
(d) Sarson and Toria
Answer: (d)

78. Complete fertiliser means – fertiliser which contains
(a) One major nutrient
(b) Three primary nutrients
(c) Two primary nutrients
(d) None of these
Answer: (b)

79. KCl is otherwise called as
(a) SOP (Sulphate of Potash)
(b) MOP (Muriate of Potash)
(c) Gromor
(d) Suphala
Answer: (b)

80. The micro-organism involved in conversion of nitr to nitrate form is
(a) Nitrobacter
(b) Nitrosomonas
(c) Pseudomonas
(d) Nitrosococcus
Answer: (a)

81. Chemical formula of gypsum is
(a) $CaSO_4 . 7H_2O$
(b) $CaSO_4 . 2H_2O$
(c) $CaSO_4 . 3H_2O$
(d) $CaSO_4$
Answer: (b)

82. Darcy's law is related to
(a) Flow of liquid through porous medium
(b) Infilterability
(c) Permeability
(d) Water potential
Answer: (a)

83. Which of the following is accumulated in plant body during water stress ?
    (a) Fats
    (b) Proteins
    (c) Proline
    (d) Water
    Answer: (c)

84. Transpiration is
    (a) Evaporation
    (b) Depletion of ground water
    (c) Evaporation from plant
    (d) Water loss from plant surface
    Answer: (d)

85. Upper limit of available water in soil is
    (a) Saturation capacity
    (b) Field capacity
    (c) Water retention capacity
    (d) None of these
    Answer: (b)

86. Agrostology is the study of
    (a) Weeds
    (b) Grasses
    (c) Trees
    (d) None of these
    Answer: (b)

87. Entomology refers to
    (a) Study of insects
    (b) Study of nematodes
    (c) Study of honeybees
    (d) None of these
    Answer: (a)

88. 'Dead Heart' in sugarcane is caused by
    (a) Pyrilla insects
    (b) Top borer
    (c) Gandhi bug
    (d) Shoot weevil
    Answer: (b)

89. Mycology is related to the study of
    (a) Bacteria
    (b) Virus
    (c) Algae
    (d) Fungi
    Answer: (d)

90. The plant which is little deviated from the main crop is called as
    (a) Voluntary plant
    (b) Off type
    (c) Pollen shedder
    (d) None of these
    Answer: (b)

91. Seeds with no endosperm is
    (a) Albuminous seeds
    (b) Exalbuminous seeds
    (c) Perispermic seeds
    (d) None of these
    Answer: (b)

92. A mature and ripened ovary containing seed is re[illegible]d as
    (a) Stone
    (b) Embryo
    (c) Fruit
    (d) None of these
    Answer: (c)

93. Which of the following fruit is most considered for marmalade preparation ?
    (a) Guava
    (b) Litchi
    (c) Orange
    (d) Apple
    Answer: (c)

94. Which of the following vegetables belong to the family Chenopodiaceae ?
    (a) Potato
    (b) Sweet potato
    (c) Okra
    (d) Spinach
    Answer: (d)

95. Colostrum feeding is necessary for
(a) Enhancing protein
(b) To ease digestion
(c) Disease resistance
(d) All of these
Answer: (d)

96. Cattle plague is an another name for
(a) Anthrax
(b) Rinderpest
(c) Mastitis
(d) Cow pox
Answer: (b)

97. Expulsion of foetus from cow is known as
(a) Calving
(b) Farrowing
(c) Kidding
(d) None of these
Answer: (a)

98. Which of the following plant has higher photoresp ion rate ?
(a) Sorghum
(b) Paddy
(c) Maize
(d) Sugarcane
Answer: (b)

99. The headquarter of the Food and Agriculture Organisation (FAO) is at
(a) Rome, Italy
(b) Colombo, Sri Lanka
(c) Hyderabad, India
(d) Manila, Phillipines
Answer: (a)

100. National Institute of Biotic Stress Management is situated at
(a) Raipur, Chhattisgarh
(b) Malegaon, Maharashtra
(c) Ranchi, Jharkhand
(d) New Delhi
Answer: (a)

101. The condition of the atmosphere at a given place and time is termed as
(a) Climate
(b) Weather
(c) Meteorology
(d) None of these
Answer: (b)

102. Cloud seeding is done with the help of
(a) Silver iodide
(b) Magnesium iodide
(c) Strontium chloride
(d) All of these
Answer: (a)

103. Macropores of the soil are usually filled with
(a) Water
(b) Air
(c) Water and air both
(d) Nutrients
Answer: (c)

104. The machinery equipment which is not used in c ervation agriculture is
(a) Happy seeder
(b) Rotavator
(c) Turbo seeder
(d) Raised bed planter
Answer: (b)

105. Repetitive growing of same crop on the same field over several years is known as
(a) Mono cropping
(b) Sole cropping
(c) Multiple cropping
(d) Pure cropping
Answer: (a)

106. The most critical stage for irrigation in wheat is
(a) Flowering
(b) Dough stage
(c) Late jointing
(d) Crown root initiation
Answer: (d)

107. In food dishes like dosa and idli, which of the following pulse crop is used as main ingredient ?
(a) Mungbean
(b) Black gram
(c) Pigeon pea
(d) Soybean
Answer: (b)

108. Aflatoxin problem is more predominant in which of the following oilseed crop ?
(a) Pigeon pea
(b) Soybean
(c) Groundnut
(d) Mustard
Answer: (c)

109. The fruit of mustard plant is called by the name
(a) Capsule
(b) Berry
(c) Siliqua
(d) Drupe
Answer: (c)

110. Inherent capacity of soil to supply nutrient to plar n adequate and in suitable proportion is
(a) Soil productivity
(b) Soil fertility
(c) Soil sickness
(d) Soil health
Answer: (b)

111. Which one of the following fertilisers is totally imported from outside to India ?
(a) Nitrogen fertilisers
(b) Phosphatic fertilisers
(c) Potassic fertilisers
(d) Sulfur fertilisers
Answer: (c)

112. Mycorrhiza is associated with which part of the plant ?
(a) Root
(b) Shoot
(c) Leaf
(d) Seed
Answer: (a)

113. Which of the following soil types holds maximum water ?
(a) Clay soil
(b) Loam soil
(c) Sandy loam soil
(d) Sandy soil
Answer: (a)

114. Which of the following is affected first under water stress conditions ?
(a) Cell division and elongation
(b) Photosynthesis
(c) Transpiration
(d) Protein synthesis
Answer: (a)

115. Which of the following crop requires more water ?
(a) Maize
(b) Paddy
(c) Wheat
(d) Sugarcane
Answer: (d)

116. Which of the following is not related with plant w status ?
(a) Relative Water Content
(b) Diffusion Pressure Deficit
(c) Turgor potential
(d) Infiltration rate
Answer: (d)

117. Soil compaction caused by use of heavy machinery
(a) Increases soil erodability
(b) Decreases soil erodability
(c) No effect on soil erodability
(d) None of these
Answer: (a)

118. Universal Soil Loss Equation (USLE) was proposed by
(a) Willey
(b) Wischmeyer
(c) Pennman
(d) Blaney and Criddle
Answer: (b)

119. Acaricides are used against
(a) Mites
(b) Beetles
(c) Moths
(d) Boll worms
Answer: (a)

120. Which of the following is a viral disease ?
(a) Blight of rice
(b) Ring rot of potato
(c) Potato mosaic
(d) Black arm of cotton
Answer: (c)

121. Minimum isolation distance requirement in quality seed production is to
(a) Maintain genetic purity
(b) Prevent admixture
(c) Both (A) and (B)
(d) Avoid pest disease attack
Answer: (c)

122. The seeds of sunflower are called as
(a) Achene
(b) Caryopsis
(c) Utricle
(d) Schizocarp
Answer: (a)

123. The process of eradication of pathogen from the seed surface is
(a) Seed disinfection
(b) Seed disinfestation
(c) Seed protection
(d) None of these
Answer: (b)

124. Sweetest sugar present in fruit is
(a) Glucose
(b) Galactose
(c) Fructose
(d) Sucrose
Answer: (c)

125. Delayed harvesting of radish results in

(a) Forking

(b) Pithiness

(c) Deformed roots

(d) All of these

Answer: (b)

Answer key

Answer key from the U.P. Secondary Education Services Selection Board's official answer key for this sitting. "—" means the key gave none.

Agriculture

1	**(b)**	2	**(a)**	3	**(d)**	4	**(b)**	5	**(c)**	6	**(a)**
7	**(c)**	8	**(d)**	9	**(a)**	10	**(a)**	11	**(d)**	12	**(a)**
13	**(a)**	14	**(b)**	15	**(c)**	16	**(a)**	17	**(a)**	18	**(d)**
19	**(a)**	20	**(d)**	21	**(d)**	22	**(a)**	23	**(b)**	24	**(c)**
25	**(c)**	26	**(a)**	27	**(d)**	28	**(a)**	29	**(d)**	30	**(c)**
31	**(b)**	32	**(b)**	33	**(a)**	34	**(a)**	35	**(a)**	36	**(b)**
37	**(d)**	38	**(a)**	39	**(c)**	40	**(d)**	41	**(d)**	42	**(b)**
43	**(a)**	44	**(c)**	45	**(a)**	46	**(a)**	47	**(b)**	48	**(b)**
49	**(c)**	50	**(a)**	51	**(a)**	52	**(d)**	53	**(b)**	54	**(b)**
55	**(b)**	56	**(a)**	57	**(a)**	58	**(c)**	59	**(d)**	60	**(a)**
61	**(d)**	62	**(c)**	63	**(d)**	64	**(d)**	65	**(c)**	66	**(b)**
67	—	68	**(a)**	69	**(a)**	70	**(c)**	71	**(b)**	72	**(c)**
73	**(c)**	74	**(d)**	75	**(b)**	76	**(c)**	77	**(d)**	78	**(b)**
79	**(b)**	80	**(a)**	81	**(b)**	82	**(a)**	83	**(c)**	84	**(d)**
85	**(b)**	86	**(b)**	87	**(a)**	88	**(b)**	89	**(d)**	90	**(b)**
91	**(b)**	92	**(c)**	93	**(c)**	94	**(d)**	95	**(d)**	96	**(b)**
97	**(a)**	98	**(b)**	99	**(a)**	100	**(a)**	101	**(b)**	102	**(a)**
103	**(c)**	104	**(b)**	105	**(a)**	106	**(d)**	107	**(b)**	108	**(c)**
109	**(c)**	110	**(b)**	111	**(c)**	112	**(a)**	113	**(a)**	114	**(a)**
115	**(d)**	116	**(d)**	117	**(a)**	118	**(b)**	119	**(a)**	120	**(c)**
121	**(c)**	122	**(a)**	123	**(b)**	124	**(c)**	12	**(b)**		