
Rajasthan Pre PG 2022 Question Paper



aglasem

1. Severity of 'Club root' of crucifers can be reduced by the application of-
(1) Gypsum (2) Lime
☒ (3) Fertilizer (4) Wood chips
2. is the relative land area under sole crops that is required to produce the yields achieved in intercropping.
☒ (1) Land Equivalent Ratio (2) Multiple Cropping Index
(3) Cropping Intensity (4) Crop Equivalent yield
3. To improve milk production of non-descript buffaloes the following buffalo breed is widely used for breeding-
(1) Surti (2) Mehsani
☒ (3) Murrah (4) Nili-Ravi
4. 'Swarna Sub - I' is a famous variety of-
(1) Wheat (2) Rice
(3) Pigeon pea (4) Lentil

5. A herbicide belonging to 'Amide' group is-
- | | |
|----------------|---------------|
| (1) Paraquat | (2) Butachlor |
| (3) Glyphosate | ✓(4) Atrazine |
6. Diffusion of Innovation theory has been given by-
- | | |
|----------------------|-------------------|
| (1) J P Leagens | (2) E M Rogers |
| ✓(3) Rayon and Gross | (4) Gabriel Tarde |
7. The essentiality for Fe (iron) in plants is discovered by.....
- | | |
|-------------------------|---------------------------|
| (1) C. Sprengel in 1839 | (2) J.S. McHargue in 1922 |
| ✓(3) E. Gris in 1843 | (4) K. Warington in 1923 |
8. Ear-cockle of wheat is caused by-
- | | |
|---------------|--------------------------------|
| ✓(1) Nematode | (2) Bacteria |
| (3) Fungi | (4) Both nematode and bacteria |

9. Non-verbal communication is-
- | | |
|----------------------------------|------------------------------------|
| (1) Oral communication | (2) Written communication |
| (3) Use of gestures and postures | (4) Oral and written communication |
10. Furrow openers used in zero till seed drills are-
- | | |
|---------------------|---------------|
| (1) Shoe type | (2) Hoe type |
| (3) Inverted T Type | (4) Disk type |
11. Highly suitable crop for making good quality silage-
- | | |
|-------------|------------|
| (1) Maize | (2) Oats |
| (3) Lucerne | (4) Cowpea |
12. Which cans are recommended for canning of strawberry?
- | | |
|--------------------------------------|----------------------------|
| (1) Acid resistant lacquered cans | (2) R-enamel plain cans |
| (3) Sulphur resistant lacquered cans | (4) Sulphur resistant cans |
13. Zero stage of rust fungi is commonly known as-
- | | |
|------------------------|-----------------------|
| (1) <u>Pycniospore</u> | (2) <u>Aeciaspore</u> |
| (3) Urediospore | (4) Teliospore |

4. The tomato transgenic variety 'Flavr Savr' was developed using, which of the following technology-

- | | |
|--------------------------------|-------------------------------|
| (1) Antisense DNA Technology | ✓(2) Antisense RNA Technology |
| (3) Terminator Gene Technology | (4) <u>Mutation Breeding</u> |

15. Water dispersal of spore is called-

- | | |
|-----------------|-----------------|
| (1) Anemochory | (2) Anthrochory |
| ✓(3) Hydrochory | (4) Zoochory |

16. Which type of weather forecast is useful for choosing cropping patterns-

- | | |
|-----------------|------------------|
| (1) Now casting | (2) Short range |
| ✓(3) Long range | (4) Medium range |

17. A wrong decision about hypothesis leads to-
- (1) One kind of error
 - (2) Two kinds of errors
 - (3) Three kinds of error
 - (4) Four kinds of error
18. Identify the cell organelle which is not participating in photorespiration process?
- (1) Chloroplast
 - (2) Mitochondria
 - (3) Endoplasmic Reticulum
 - (4) Peroxisome
19. Technologies to manage spatial and temporal variability associated with all aspects of agricultural production is called-
- (1) Integrated Farming System
 - (2) Cooperative Farming
 - (3) Precision farming
 - (4) Jhum Farming
20. Which of the following erosion is not a type of soil erosion caused by water-
- (1) Sand dunes
 - (2) Rain drop
 - (3) Sheet
 - (4) Rill
21. Cytoplasmic and Genetic Male sterility (CGMS) in plants was discovered by-
- (1) Shull (1908)
 - (2) Hallauer and Miranda (1952)
 - (3) Johannson (1909)
 - (4) Jones and Davis (1944)

22. The process of mechanical migration of small mineral particles from the A to the B horizons of a soil, producing in B horizons relative increase in clay is known as
Argillation.
- (1) Resilication
(2) Lessivage
(3) Melanization
(4) Braunification
23. Ber variety 'Thar Sevika' developed with the crossing of-
- (1) Seb x Illachi
(2) Gola x Katha
(3) Gola x Illachi
(4) Seb x Katha
24. 'Flor' gave the concept of 'Gene For Gene Hypothesis', while working on-
- (1) Maize
(2) Pea
(3) Linseed
(4) Bajra

25. Which fungicide is highly specific towards oomycetous fungi?
- (1) Metalaxyl (2) Carbendazim
(3) Vitavax (4) Plantvex
26. Which one is the bud and leaf nematode?
- (1) Aphelenchoides (2) Ditylenchus
(3) Hoplolaimus (4) Tylenchorhynchus
27. Trenching around groundnut field is a done to check the attack of-
- (1) Groundnut leaf miner (2) Red hairy caterpillar
(3) Pulse beetles (4) Groundnut earwig
28. If 3 genes are segregating following Mendel's 'Law of Independent Assortments', how many different types of genotypes will be observed in F_2 generation?
- (1) 3 (2) 16
(3) 27 (4) 64
29. A pre-storage or pre-shipping short duration treatment for cut-flowers for long storage or distance transportation is called-
- (1) Pre-cooling (2) Conditioning
(3) Pulsing (4) Impregnation

30. The major difference between drying and dehydration is-

- | | |
|---|---|
| <p>(1) Dehydration is removal of moisture from solid/semi solid/liquid, while drying is the removal of water from water containing compound.</p> <p>(3) Drying is partial removal of water whereas dehydration is complete removal of water</p> | <p>(2) Dehydration is partial removal of water whereas drying is complete removal of water.</p> <p>(4) Drying is removal of moisture from solid/semi solid/liquid, while dehydration is the removal of water from water containing compound</p> |
|---|---|

31. Structure bottom heat box is generally used for-

- | | |
|---|---|
| <p>(1) <u>Seed's</u> germination</p> <p>(3) Cutting's rooting</p> | <p>(2) Seedling's prote</p> <p>(4) Crop's raising</p> |
|---|---|

32. In which state of India, shifting cultivation is commonly practiced-
- (1) Himachal Pradesh (2) Haryana
(3) Punjab (4) Arunachal Pradesh
33. 'Quality Protein Maize' is different than the normal maize, because it has higher amount of-
- (1) Lysine and Tryptophan (2) Methionine and Arginine
(3) Oleic acid and Linoleic acid (4) Sulphur and Methionine
34. Suitable storage temperature & relative humidity respectively for onion crop is-
- (1) 0-2°C & 65-70% (2) 2-5°C & 80-85%
(3) 5-10°C & 50-60% (4) 10-13°C & 90-95%

35. Correlation coefficient is value from -
☒ (1) -1 to 1 (2) 0 to 1
 (3) Above 1 (4) $-\infty$ to ∞
36. Elements of diffusion are-
 (1) Knowledge, persuasion, decision, implementation and confirmation ☒ (2) Awareness, interest, evaluation, trial and adoption
 (3) Relative advantage, complexity, trialability, observability and compatibility (4) Innovation, communication channels, time and social system
37. Which segment in male grasshoppers forms the genital segment?
 (1) 8th abdominal segment (2) 9th abdominal segment
 (3) 10th abdominal segment (4) 11th abdominal segment

38. *Cynodon dactylon* is a -
☒ (1) Perennial weed (2) Biennial weed
 (3) Annual weed (4) Triennial weed
39. The genetic architecture of a 'Clone variety' is-
 (1) Homozygous and Heterogeneous (2) Heterozygous and Homogenous
☒ (3) Homozygous and Homogeneous (4) Heterozygous and Heterogeneous

40. Central Sheep and Wool Research Institute -CSWRI(ICAR) is located at-
- (1) Makhdoom (2) Avikanagar
(3) Karnal (4) Hissar
41. Which one of following soil textural classes (as per Triangular Texture diagram) is having higher sand content?
- (1) Loamy sand (2) Sandy loam
(3) Sandy clay (4) Loam
42. A component of drip fertigation system is-
- (1) Rain gauge (2) Flat fan nozzle
(3) Ventury (4) Hand sprayer

43. Elements of learning situation are-
- (1) Teacher, subject matter, teaching material, and physical facilities (2) Teacher, subject matter and teaching material
(3) Teacher, subject matter, teaching material, physical facilities and learner (4) Subject matter, teaching material, physical facilities and learner

44. Dogridge rootstock pertains to-
- | | |
|-----------|-----------|
| (1) Guava | (2) Grape |
| (3) Plum | (4) Ber |
45. During milking process, name the hormone responsible for milk let down-
- | | |
|---------------|---------------------------|
| (1) Estrogen | (2) Thyroxin |
| ✓(3) Oxytocin | (4) Somatotrophic hormone |
46. The word 'Agronomy' is derived from-
- | | |
|-----------------|----------------------|
| (1) Latin Word | (2) Sanskrit |
| ✓(3) Greek word | (4) Mandarin Chinese |
47. In maize crop, a cross between an inbred line and open pollinated variety is known as-
- | | |
|------------------|---------------------|
| ✓(1) Top cross | (2) Single cross |
| (3) Double cross | (4) Three way cross |

48. Deltamethrin belongs to which chemical group?
- (1) Synthetic pyrethroid (2) Neonicotinoid
(3) Diamide (4) Tetramic acid derivative
49. Which of the following is not a measure of dispersion-
- (1) Mean deviation (2) Quartile deviation
(3) Standard deviation (4) Median
50. Traumatic insemination is observed in which family?
- (1) Lymantriidae (2) Cimicidae
(3) Belostomatidae (4) Drvinidae

51. Under Law of demand-
- (1) Price of commodity is an independent variable (2) Quantity demand is a dependent variable
(3) Reciprocal relationship is found between price and quantity demand (4) All the above

52. Choose the aromatic crop from the following-

- | | |
|---------------------------------------|---------------------------------------|
| (1) Davana (<i>Artemisia sp.</i>) | (2) Dill (<i>Anethum sp.</i>) |
| (3) Foxglove (<i>Digitalis sp.</i>) | (4) Henbane (<i>Hyoscyamus sp.</i>) |

53. Identify the nutrient which play an important role in stomata opening and closing process?

- | | |
|--------------|----------------|
| (1) Nitrogen | (2) Phosphorus |
| (3) Calcium | (4) Potassium |

54. The most abundant primary minerals are Quartz and

- | | |
|-------------|-----------------------|
| (1) Alumina | (2) Feldspar |
| (3) Silica | (4) Calcium carbonate |

55. Identify the nutrient which is function as secondary messenger?

- | | |
|-------------|---------------|
| (1) Sodium | (2) Potassium |
| (3) Calcium | (4) Magnesium |

56. Solvency of a business can be determined by evaluating the-
- (1) Cash flow statement
 - (2) Debt to equity ratio
 - (3) Price to earnings ratio
 - (4) Net income

57. The main combustible components of biogas are-
- (1) Carbon Dioxide and Hydrogen
 - (2) Carbon Dioxide and Nitrogen
 - (3) Carbon Dioxide and Hydrogen Sulphide
 - (4) Methane and hydrogen

58. The progeny of cross between two genetically different homozygous plants is known as-
- (1) Strain
 - (2) Line
 - (3) F_1 or hybrid
 - (4) Variety

59. The bulk of the powers is concentrated in the crystalline clay minerals of the soil colloids.
- (1) Flocculation
 - (2) Membrane potential
 - (3) Cation exchange
 - (4) Resilication potential

60. In classical production function, rational zone is always-
- | | |
|----------------|-------------------------|
| (1) First zone | (2) Second zone |
| (3) Third zone | (4) All the three zones |

61. Community Development (CD) Programme was launched on-
- | | |
|---------------------|---------------------|
| (1) August 15, 1952 | (2) October 2, 1952 |
| (3) October 2, 1953 | (4) October 2, 1955 |

62. CIMMYT, Mexico maintains the germplasms of-
- | | |
|-----------|-----------------|
| (1) Maize | (2) Triticale |
| (3) Wheat | (4) All of them |

63. *Sphacelotheca reiliana* causes which disease in sorghum?
- | | |
|----------------|---------------|
| (1) Grain smut | (2) Head smut |
| (3) Loose smut | (4) Long smut |

64. Holes in coconut tree trunk with protruding chewed fibrous material and brownish ooze is a characteristic symptom produced by which pest?

- | | |
|---------------------|------------------------------|
| (1) Red palm weevil | (2) Black headed caterpillar |
| (3) Coconut mite | (4) <u>Rhinoceros beetle</u> |

✓65. In which rice disease kresek phase is there?

- | | |
|-------------------|----------------------------|
| (1) Blast | (2) Brown spot |
| (3) Sheath blight | ✓(4) Bacterial leaf blight |

66. Anabe-roga or foot rot is the disease of-

- | | |
|---------------|--------------|
| (1) Cashewnut | (2) Cocoa |
| (3) Arecanut | (4) Cardamom |

✓67. What is the net ATP production under anaerobic respiration in plants?

- | | |
|-------|--------|
| (1) 8 | (2) 6 |
| (3) 4 | ✓(4) 2 |

✓68. Critical stage of irrigation for wheat crop is-

- | | |
|--------------------------|----------------------------------|
| (1) Pod formation stage | (2) Fruit setting stage |
| (3) Boll formation stage | ✓(4) Crown root initiation stage |

69. The alkalinity in the alkali soils depends upon the relative concentration of and partial pressure of CO_2 in the soil solution.
- (1) MgCO_3 and CaCO_3 (2) $\text{Mg}(\text{HCO}_3)_2$ and CaCO_3
(3) Na_2CO_3 and CaCO_3 ✓(4) Na_2CO_3 and NaHCO_3
70. The energy status of water at field capacity is-
- (1) 0.10 to 0.30 MPa ✓(2) 0.01 to 0.03 MPa
(3) 10 to 30 MPa (4) 100 to 300 MPa
71. First Krishi Vigyan Kendra was established in the year-
- ✓(1) 1974 (2) 1962
(3) 1953 (4) 1952

72. Identify the beneficial nutrient among the following nutrients?
- (1) Calcium ✓(2) Sodium
(3) Magnesium (4) Sulfur
73. Who is considered as father of tillage?
- (1) Pietro de'Crescenzi ✓(2) Jethro Tull
(3) Norman Upoff (4) Norman Borlaugh

74. The objectives of the soil survey are to have a broad idea about the major soil groups.
- | | |
|-----------------------------|-----------------------|
| (1) Detailed | (2) Reconnaissance |
| (3) Detailed reconnaissance | (4) None of the above |
75. When total utility becomes maximum, marginal utility will be-
- | | |
|-------------|--------------|
| (1) Minimum | (2) Average |
| ✓(3) Zero | (4) Negative |
76. In Acrididae, the tympanum is present on
- | | |
|---------------------------------------|---------------------------------------|
| (1) Fore tibia | (2) Hind femur |
| (3) 1 st abdominal segment | (4) 3 rd abdominal segment |

77. Among the following which medicinal crop naturally prevails in arid region of Thar desert?

- | | |
|----------------------------------|---------------------------------|
| (1) <i>Buchanania lanzan</i> | (2) <i>Jatropha curcas</i> |
| (3) <i>Citrullus colocynthis</i> | (4) <i>Vetiveria zizanoides</i> |

78. S-M-R-C model of communication has been given by-

- | | |
|-----------------|--------------|
| (1) David Berlo | (2) Lasswell |
| (3) Aristotle | (4) Leagans |

79. Water Use Efficiency is-

- | | |
|---------|----------|
| (1) Y/E | (2) Y/ET |
| (3) Y/T | (4) ET/Y |

80. Zinc-coated urea should contain minimum % Zn?

- | | |
|-------|--------|
| (1) 9 | (2) 14 |
| (3) 7 | (4) 2 |

81. Pressler's formula for diameter increment is (where D is diameter after n years, d is initial diameter)

(1) $p = \frac{200 (D-d)}{n (D+d)}$

(2) $p = \frac{200}{n D}$

(3) $p = \frac{200 (D-d)}{(D+d)}$

(4) $p = \frac{200 d}{n}$

82. Identify the parasitoid(s) of papaya mealy bug (*Paracoccus marginatus*).

(1) *Acerophagus papayae*

(2) *Pseudleptomastix mexicana*

(3) *Anagyrus loecki*

(4) All of the above

83. Genetic purity of a pureline variety can be maintained by-

(1) Hybridization

(2) Mass Selection

(3) Open pollination

(4) Systematic crossing

84. Among the different multi-storey and multi-species cropping system which system sustain most in arid region?

(1) Date palm-Citrus-Pineapple

(2) Aonla- Lasoda- Bael

(3) Ber-Ker-Phog

(4) Pilu-Papaya-P...

85. What is the maximum water potential of the pure water?
- (1) 1
(2) 0
(3) 2
(4) 3

86. Which one among the following extension programme was launched by Indian Council of Agricultural Research?
- (1) T&V programme
(2) Integrated Rural Development Programme (IRDP)
(3) Lab to Land Programme
(4) ATMA

87. Aquaporins facilitates the movement of water across the plasma membrane. Aquaporins are-
- (1) Lipids
(2) Carbohydrates
(3) Proteins
(4) Phospholipids

88. Water movement through the apoplast pathway is obstructed by casparian strips which are present in-
- (1) Pericycle
(2) Endodermis
(3) Cortex
(4) Epidermis

89. Which glands in honey bees produces royal jelly?

- | | |
|-----------------------|-------------------------------|
| (1) Mandibular glands | (2) Lateral pharyngeal glands |
| (3) Nasanov's glands | (4) Dufor's glands |

90. Most suitable time for nursery raising of *Kharif* onion is-

- | | |
|-----------------------|-----------------------|
| (1) December- January | (2) March-April |
| (3) May- June | (4) September-October |

91. Which among these is the host plant for Kusumi strain of lac?

- | | |
|-------------------------------|-----------------------------|
| (1) <i>Schleichera oleosa</i> | (2) <i>Butea monosperma</i> |
| (3) <i>Zizypus mauritiana</i> | (4) <i>Acacia nilotica</i> |

Moist soils which are relatively darker have lower than drier ones.

- | | |
|---------------|-------------|
| (1) Impedance | ✓(2) Albedo |
| (3) Aggregate | (4) Tilth |

93. The saline soils have an electrical conductivity of

- | | |
|------------------|--------------------|
| ✓(1) > 4 mmho/cm | (2) < 1.25 mmho/cm |
| (3) 1.25 mmho/cm | (4) 2.5 mmho/cm |

94. In Rajasthan under canal irrigation source the major area irrigated is through project.

- | | |
|--------------------------|---------------------------|
| (1) Chambal Project | (2) Gurgaon canal project |
| ✓(3) Ganga canal project | (4) Bhakra Project |

95. The taxon 'Subclass' ends with the suffix-
- | | |
|--------------------|---------------|
| (1) Mycota | (2) Mycotina |
| (3) <u>Mycetes</u> | (4) Mycetidae |
96. The compression ratios of the diesel engines are in the order of-
- | | |
|-------------------------|----------------|
| (1) 4 to 8:1 | (2) 9 to 13:1 |
| ✓ (3) 14 to <u>20:1</u> | (4) 21 to 30:1 |
97. Which of the following silkworm disease is transovarially transmitted?
- | | |
|--------------------|----------------|
| (1) Grasserie | (2) Flacherie |
| (3) <u>Pebrine</u> | (4) Muscardine |

98. In which part of the atmosphere rainy clouds are formed-

(1) Mesosphere

☒ (2) Troposphere

(3) Thermosphere

(4) Stratosphere

99. In which crop, the Doak's method is adopted for hybrid seed production-

(1) Bajra

(2) Maize

(3) Rice

(4) Cotton

100. Which one of following soil conservation measures is not an agronomical measure?

(1) Contour cultivation

(2) Tillage

(3) Crop geometry

☒ (4) Contour trenches