RAJASTHAN PRE PG 2023 Question Paper

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1. A cabbage disease which is known to be more severe in acidic soil is -
(1) Black spot
(2) Club root
(3) Ring spot
(4) White blisters

2. Moko disease of banana is caused by -
(1) *Ralstonia solanacearum*
(2) *Fusarium oxysporum*
(3) *Ceratocystis paradoxa*
(4) *Cercospora musae*

3. Stem gall is an important disease of -
(1) Fennel
(2) Cumin
(3) Fenugreek
(4) Coriander

4. Which of the following is teak skeletoniser?
(1) *Eutectona machaeralis*
(2) *Tonica niviferana*
(3) *Hypsipyla robusta*
(4) *Plectptera reflexa*

5. Single nucleotide mutation, in which a pyrimidine is substituted for a purine -
(1) Transition
(2) Transversion
(3) Frameshift
(4) Conversion

6. The site-specific nutrient management recommendations could be evolved on the basis of solely .....
(1) Nutrient index
(2) Plant analysis or Soil-cum-plant analysis
(3) Targeted yield
(4) Soil fertility ratings

7. Which of the following statement is true?
(1) A diploid individual carries only two alleles even though the character is multi-allelic
(2) A diploid individual may carry two alleles even though the character is multi-allelic
(3) A diploid individual may carry more than two alleles when the character is multi-allelic
(4) A diploid individual always carries more than two alleles when the character is multi-allelic

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8. Who has given the concept of 'Soil Zonality'?
(1) Dokuchaev
(2) H. Jenny
(3) Thomas Murphy
(4) J.L. Sehgal

9. Ploidy level of chickpea cotyledons is -
(1) n
(2) 2n
(3) 3n
(4) 4n

10. Green manure crop suitable for wet lands -
(1) Dhaincha
(2) Sunnhemp
(3) Green gram
(4) Cluster bean

11. In the process of social change, a social system may attain the following states of equilibrium -
(1) Stable equilibrium and Dynamic equilibrium
(2) Dynamic equilibrium
(3) Disequilibrium and Stable equilibrium
(4) Stable equilibrium, Dynamic equilibrium and Disequilibrium

12. Homoeologous chromosomes are -
(1) Chromosomes of *Homo sapiens*
(2) Another name of homologous pair
(3) Identical chromosome
(4) Partially homologous chromosomes

13. The price elasticity of demand is equal to one, the total expenditure on a commodity ..... if its price rises.
(1) Increases
(2) Decreases
(3) No change
(4) Can't say

14. The repulsion of anions by the negatively charged sites gives rise to a local deficit of anions near a clay particle in comparison with equilibrium solution. This deficit is termed as .....
(1) Isomorphous substitution
(2) Anion exchange
(3) Negative adsorption
(4) Schofield's ratio law

15. Cultivation of crops in areas where rainfall is less than 750 mm per annuum -
(1) Dry farming
(2) Dryland farming
(3) Rainfed farming
(4) Arid farming.

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16. The mineral salts after being absorbed by epidermal cells of root are transported to xylem by -

(1) Apoplastic pathway
(2) Symplastic pathway
(3) Transmembrane pathway
(4) All of the above

17. Loose smut of wheat is a -

(1) Soil borne disease
(2) Externally seed borne disease
(3) Air borne disease
(4) Internally seed borne disease

18. Corm is the commercial propagation method of ..... flower.

(1) Tuberose
(2) Gladiolus
(3) Carnation
(4) Orchid

19. Synthetic variety is developed by -

(1) Crossing inbred lines tested for GCA
(2) Mixing seed of inbred lines
(3) Crossing inbred lines tested for GCA
(4) Mixing seeds of open pollinated cultivars

20. C_4 plant is -

(1) Wheat
(2) Rice
(3) Sorghum
(4) Groundnut

21. Which of the following is the first Indian wheat variety resistant to all three rusts?

(1) NP 209
(2) NP 508
(3) NP 809
(4) Kalyan Sona

22. As per the Modern system of soil classification soils of which order is not found in Rajasthan?

(1) Aridisol
(2) Andisol
(3) Entisol
(4) Inceptisol

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23. The growing root tips and roots of young plants often exhibited the ..... CEC values.

(1) Zero
(2) Lowest
(3) Highest
(4) Negative

24. Who has given the model of communication shown in Figure 1-

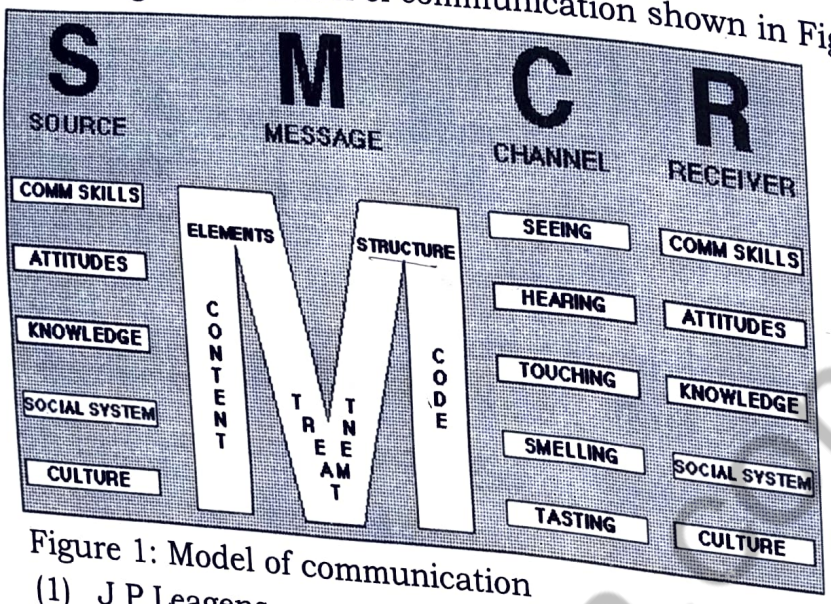


Figure 1: Model of communication

(1) J P Leagens
(2) Shannon and Weaver
(3) David Berlo
(4) Lacewell

25. Which sampling technique ensures the representation of all important sub-populations in the sample and combines the use of simple random sampling?

(1) Systematic Sampling
(2) Stratified Sampling
(3) Cluster Sampling
(4) Purposive Sampling

26. Mixing ash with stored grains (particularly pulses) to prevent insect attack comes under -

(1) Legal method of control
(2) Physical method of control
(3) Cultural method of control
(4) Chemical method of control

27. What is *Tylenchulus semipenetrans* commonly known as?

(1) Cotton root knot nematode
(2) Pine wilt nematode
(3) Citrus nematode
(4) Sugarbeet cyst nematode

28. Which is the correct formula for the calculation of net present value?

(1) $\sum_{t=1}^{n} \frac{C_t}{(1+r)^t}$
(2) $\sum_{t=0}^{n=1} \frac{C_t}{(1+r)^t}$
(3) $\sum_{t=1}^{n} \frac{C_t}{(1+n)^t}$
(4) $\sum_{t=1}^{n} \frac{C_t}{(1+r)^r}$

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29. Eaton and Shepherd have presented ..... organizational models for contract farming.

(1) Four
(2) Three
(3) Five
(4) Six

30. The glycolytic end product pyruvate enters Krebs cycle as -

(1) Pyruvate itself
(2) Acetate
(3) Acetyl-CoA
(4) Oxaloacetate

31. What is the full form of e-NAM?

(1) National Agriculture Market
(2) Electronic National Agriculture Market
(3) National Agricultural Mandi
(4) Electronic National Agricultural Mandi

32. Which is the densest part of the atmosphere and contains 85 percent of the atmosphere's mass?

(1) Troposphere
(2) Stratosphere
(3) Mesosphere
(4) Thermosphere

33. The first agricultural extension service of a modem kind came into existence as the result of one of the following crisis -

(1) The Bengal famine
(2) The potato famine in Ireland
(3) Famine in Cape Verde
(4) The Great Chinese Famine

34. Which of the following is not the element of landscaping?

(1) Rhythm
(2) Colour
(3) Form
(4) Texture

35. Which of the following does not occur in cyclic electron transport and photophosphorylation?

(1) Photolysis of water
(2) Oxygen evolution
(3) Formation of NADPH
(4) All of the above

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36. Which system of orchard is mainly followed for planting of fruit crops in hilly areas?

(1) Quincunx
(2) Contour
(3) Triangle
(4) Rectangular

37. Absorbed PAR is ..... percent of the total solar radiation received at the top of the crop canopy.

(1) 10
(2) 20
(3) 30
(4) 40

38. Cumulative pan evaporation required for scheduling irrigation at 0.8 IW/CPE with 5 cm irrigation water -

(1) 10 cm
(2) 8.33 cm
(3) 6.66 cm
(4) 6.25 cm

39. The compression ratios of the petrol engines are in the order of -

(1) 15:1 to 18:1
(2) 18:1 to 22:1
(3) 22:1 to 28:1
(4) 6:1 to 12:1

40. Herbicide used in wheat as pre-emergence-

(1) Atrazine
(2) Pendimethalin
(3) 2,4-D
(4) Glyphosate

41. 'Molya' disease of wheat and barley is caused by -

(1) *Meloidogyne incognita*
(2) *Globodera leptonepia*
(3) *Radopholus similis*
(4) *Heterodera avenae*

42. Feldspars are mainly 'Silicate salts' of -

(1) Acidic cations
(2) Acidic anions
(3) Basic cations
(4) Basic anions

43. Malpighian tubules in insects are the organs of -

(1) Circulation of blood
(2) Digestion
(3) Flight
(4) Excretion

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44. Which of the following statements regarding techniques and their applications NOT correct?

(1) Recombinant DNA Technology: cloning genes and expression of proteins

(2) Western Blot: detect DNA in given samples

(3) Enzyme Linked Immuno Sorbent Assay: recognize antigen and antibody interactions

(4) Polymerase Chain Reaction: amplify specific DNA sequences

45. Extension education is -

(1) Formal education

(2) Informal education

(3) Non-formal education

(4) School education

46. Occurrence of whiptail disorder in Cole crop is due to the -

(1) Boron deficiency

(2) Insect injury

(3) High temperature

(4) Molybdenum deficiency

47. Soils with high plasticity indices are difficult to .....

(1) Decompose

(2) Plough

(3) Illuviate

(4) Melanize

48. Water content (%) in cow milk is -

(1) 90

(2) 75

(3) 87

(4) 80

49. Inflorescence of Onion is called -

(1) Spadix

(2) Raceme

(3) Racemose

(4) Umbel

50. Which of the following is best suited method for production of virus free plants?

(1) Embryo culture

(2) Meristem culture

(3) Ovule culture

(4) Anther culture

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51. The non-rotating head type sprinkler system is -
(1) Portable system
(2) Semi portable system
(3) Perforated type system
(4) Solid set system

52. It is an extreme form of minimum tillage -
(1) Reduced tillage
(2) Stubble mulch tillage
(3) Conservation tillage
(4) Zero tillage

53. "Pride of India" is a variety of .....
(1) Cauliflower
(2) Cowpea
(3) Cabbage
(4) Garden Pea

54. The Insecticide Act was passed in the Parliament and Insecticide Rules were framed and brought into force in India during the years -
(1) 1968 & 1971, respectively
(2) 1947 & 1951, respectively
(3) 1908 & 1909, respectively
(4) 2008 & 2022, respectively

55. Uzi fly is a pest of -
(1) Ber
(2) Apple
(3) Sorghum
(4) Silkworm larvae

56. Frozen semen is stored in Liquid Nitrogen at a temperature (°C) -
(1) -4
(2) -196
(3) -100
(4) -18

57. The obligate parasitic fungi absorb their nourishment from the host cells through -
(1) The surface
(2) Appressoria
(3) Haustoria
(4) Rhizoids

58. Refers to the working of the soil of the entire field in such a way no living plant is left undisturbed -
(1) Wet tillage
(2) Clean tillage
(3) Conservation tillage
(4) Zero tillage

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59. "Umaran" is a variety of .....

(1) Watermelon
(2) Coconut
(3) Ber
(4) Tea

60. It occupies the total solid space of an ideal soil by about 5 percent -

(1) Mineral matter
(2) Water
(3) Air
(4) Organic matter



61. For better absorption of antibodies, Colostrum should be fed to calf within ..... minutes of calving.

(1) 180
(2) 120
(3) 150
(4) 30

62. Allogamy is best favoured by -

(1) Dicliny
(2) Homogamy
(3) Chasmogamy
(4) Cleistogamy

63. Plasmids are used as cloning vectors as these -

(1) Can self-replicate in bacterial cells
(2) Can be multiplied in culture media
(3) Can be multiplied in laboratories with the help of enzymes
(4) Can replicate freely outside bacterial cells

64. Initial seed of an improved variety produced by the breeder is called -

(1) Certified seed
(2) Breeder seed
(3) Foundation seed
(4) Stock seed

65. The transfer of a chromosomal DNA fragment from one bacterium to another bacteriophage is known as -

(1) Transduction
(2) Conjugation
(3) Reduction
(4) Transformation

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66. Spermatheca is present in -
(1) Insect egg
(2) Male reproductive organ
(3) Female reproductive organ
(4) Insect head capsule

67. Dolipore septum is the characteristic feature of -
(1) Ascomycotina
(2) Basidiomycotina
(3) Deuteromycotina
(4) Mastigomycotina

68. The incidence of rice blast disease can be reduced by application of -
(1) Nitrogen
(2) Silicon
(3) Zinc
(4) Boron

69. Which of the following are elements of diffusion of innovations?
(1) Innovations-Time-Social System
(2) Innovation-Communication Channels-Time-Social System
(3) Innovation-Communication Channels-Time-Social System-Adoption
(4) Innovation-Communication Channels-Social System-Adoption

70. The discipline with the conception, production, dissemination and study of maps -
(1) Photogrammetry
(2) Geoinformatics
(3) Geodesy
(4) Cartography

71. Which is not true about Pearson correlation coefficients?
(1) Does not distinguish between independent and dependent variables
(2) Treats the variables symmetrically
(3) For continuous linearly related variables
(4) Predicting one variable from another's score

72. Which among following is not an efficient species of earthworm for vermiculture?
(1) *Pheretima elongata*
(2) *Lumbricus terrestris*
(3) *Eisenia foetida*
(4) *Perionyx excavatus*

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73. Demand for a good is said to be elastic if the elasticity of demand for it is .....

(1) Less than one
(2) Greater than one
(3) Equal to one
(4) Equal to zero

74. The following is not one of the ill effects of soil erosion -

(1) Loss of fertility of the soil
(2) Raising the bed of the streams and rivers
(3) Silting of the reservoirs.
(4) Establishment of natural protective cover.

75. The most important biological effect of kinetin in plants is to induce -

(1) Cell division
(2) Elongation of internodes
(3) Cell enlargement
(4) None of the above

76. Enzymatic browning of cut fruits and vegetables occurs due to the presence of ..... enzyme.

(1) Polyphenol oxidase
(2) Methyl salicylate
(3) Erythrosine
(4) Geosmin

77. Piercing and sucking type of mouth parts is present in which of the following group of insect Orders?

(1) Paleoptera Orders
(2) Orthopteroid Orders
(3) Hemipteroid Orders
(4) Panorpoid Orders

78. Vertical section of plough influences -

(1) Width of cut
(2) Depth of cut
(3) Degree of pulverization
(4) Particle size distribution

79. If 0.15% of the recombinant types are obtained by cross-over between two loc what is the distance between two loci in Centi Morgan?

(1) 15
(2) 1.5
(3) 0.15
(4) 0.0015

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80. A plant product having repellent, antifeedant and insecticidal activity is -
(1) Azadirachtin
(2) Rotenoid
(3) Pyrethroid
(4) Nicotinoid

81. Indian mustard, *Brassica juncea* is -
(1) Autotetraploid
(2) Allotetraploid
(3) Interspecific hybrid
(4) Segmental polyploid

82. When green fodder is wilted to 50% moisture and then ensiled, the product is called -
(1) Hay
(2) Haylage
(3) Silage
(4) Soilage

83. As per Indian State of Forest Report 2021 published by Forest Survey of India, the total forest cover in India is..... per cent of the geographical area.
(1) 19.44
(2) 21.71
(3) 20.10
(4) 33.10

84. Ground spot is a maturity index of -
(1) Watermelon
(2) Pumpkin
(3) Muskmelon
(4) Cucumber

85. Name of the *Rhizobium* species suitable for soybean crop -
(1) *R. leguminosarum*
(2) *R. glycine*
(3) *R. japonicum*
(4) *R. phaseoli*

86. Sauerkraut is a product prepared from -
(1) Cauliflower
(2) Chilli
(3) Cabbage
(4) Radish

87. The increasing order of average chemical composition of the earth's crust for Al, Ca, K and Fe is -
(1) Al < Ca < K < Fe
(2) K < Ca < Fe < Al
(3) Fe < Al < K < Ca
(4) Ca < Al < Fe < K

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88. According to Leagans (1961) elements of effective learning are -

(1) Teachers-Learners

(2) Teachers-Learners-Subject matter-Teaching methods-Physical facilities

(3) Teachers-Learners-Subject matter

(4) Teachers-Subject matter-Teaching methods

89. Out of these soil textural classes (as per Triangular Texture diagram) which one is having higher sand content?

(1) Loamy sand

(2) Sandy clay

(3) Sandy loam

(4) Loam

90. In adventives embryony, embryos develop from -

(1) Egg cell of ovule

(2) Vegetative cell of embryo sac

(3) Egg cell of embryo sac

(4) Vegetative cell of ovule

91. Water is lost from aerial parts of higher plants mainly through -

(1) Lenticular transpiration

(2) Cuticular transpiration

(3) Stomatal transpiration

(4) None of the above

92. Which stage of production function is known as the stage of diminishing returns?

(1) Stage 1

(2) Stage 2

(3) Stage 3

(4) All stages

93. The process of placing the seeds in holes made in seed bed and covering them known as-

(1) Broadcasting

(2) Transplanting

(3) Check row planting

(4) Dibbling

94. Who established the essentiality of potassium?

(1) Bimer and Lucanus (1966)

(2) Liebig (1839)

(3) de Saussure (1802)

(4) Arnon and Stout (1959)

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95. Fungus *Claviceps purpurea* belongs to class -

(1) Coelomycetes
(2) Plectomycetes
(3) Oomycetes
(4) Pyrenomycetes

96. Insects which characteristically feed on plant species belonging to one single family are called -

(1) Amphiphagous insects
(2) Monophagous insects
(3) Oligophagous insects
(4) Polyphagous insects

97. Propargite is -

(1) An insecticide
(2) A fungicide
(3) A rodenticide
(4) An acaricide

98. Spinosyns are obtained from the fermentation metabolites of -

(1) *Streptomyces avermitilis*
(2) *Streptomyces fumanus*
(3) *Streptomyces hygroscopicus*
(4) *Saccharopolyspora spinosa*

99. Evaluation in extension programme planning is -

(1) Programme determination phase
(2) Programmed determination and implementation phase
(3) Programme implementation phase
(4) Determination of objectives and goals

100. What is the formulae of Limonite?

(1) $Al_2O_3.H_2O$
(2) $2CaSO_4.H_2O$
(3) $Ca(HCO_3)_2$
(4) $2Fe_2O_3.3H_2O$

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