

- (9) सदर प्रश्नपत्रिकेसाठी आयोगाने विहित केलेली वेळ संपल्यानंतर उमेदवाराला ही प्रश्नपुस्तिका स्वतःबरोबर परीक्षाकक्षाबाहेर घेऊन जाण्यास परवानगी आहे. मात्र परीक्षाकक्षाबाहेर जाण्यापूर्वी उमेदवाराने आपल्या उत्तरपत्रिकेचा भाग-1 समवेक्षकाकडे न विसरता परत करणे आवश्यक आहे.

नमुना प्रश्न

Q. 201. Tensiometers measure the tension with which water is held in soils at :

- (1) hygroscopic coefficient (2) wilting coefficient
(3) field capacity (4) point of saturation

ह्या प्रश्नाचे योग्य उत्तर “(3) field capacity” हे आहे. त्यामुळे या प्रश्नाचे उत्तर “(3)” होईल. आता प्र.क्र. 201 समोरील उत्तर-क्रमांक “③” चा कंस खालीलप्रमाणे पूर्णपणे छायंकित करून दाखविणे आवश्यक आहे.

प्र.क्र. 201. ① ② ● ④

अशा पद्धतीने प्रस्तुत प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाचा तुमचा उत्तरक्रमांक हा तुम्हाला स्वतंत्ररीत्या पुरविलेल्या उत्तरपत्रिकेवरील त्या त्या प्रश्नक्रमांकासमोरील संबंधित वर्तुळ पूर्णपणे छायंकित करून दाखवावा. ह्याकरिता फक्त काळ्या शाईचे बॉलपेन वापरावे. पेन्सिल वा शाईचे पेन वापरू नये.

पर्यवेक्षकांच्या सूचनेविना हे पृष्ठ उलटू नये

कच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK

1. Specific fuel consumption of diesel engine is about :
(1) 0.2 kg/bhp/hour (2) 1.2 kg/bhp/hour
(3) 1.5 kg/bhp/hour (4) 0.2 kg/1Hp/hour
-
2. The highest negative charge sides are present in :
(1) Chlorite (2) Vermiculite (3) Fine Mica (4) Smectite
-
3. Which organization has made pioneer efforts in stabilizing milk produce in India ?
(1) NAFED (2) AMUL (3) VARANA (4) GOKUL
-
4. Agronomy is a branch of Agricultural science which deals with principles and practices of _____.
(1) all sciences (2) soil, water and crop production
(3) water management (4) soil management
-
5. The material added in fertilizer mixture to maintain its good physical condition are known as _____.
(1) Nutrient supplier (2) Conditioner
(3) Neutralizer (4) Filler
-
6. The diameter of pit silo is usually limited to :
(1) 3 m (2) 6 m (3) 10 m (4) 15 m
-
7. Drought is a condition under which crops are fail to grow and mature because of _____.
(1) insufficient availability of moisture
(2) insufficient availability of sunlight
(3) insufficient availability of nutrients
(4) insufficient availability of space
-
8. Agronomist aims at obtaining _____.
(1) maximum production at maximum cost
(2) maximum production at minimum cost
(3) minimum production at maximum cost
(4) minimum production at minimum cost
-
9. Farm processing includes the operation of :
(1) chaff cutting and grain drying (2) cane crushing and grain drying
(3) milk processing (4) all above
-

10. Before onset of monsoon the dry sowing of *kharif* grain sorghum is done _____ .
(1) one day earlier (2) one week earlier
(3) fifteen days earlier (4) one month earlier
-
11. Successful of dry land agriculture depends upon :
(1) Rain water conservation (2) Utilization of rain water
(3) Mulching (4) None of the above
-
12. Identify the most efficient earthworm species for production of vermi compost :
(1) *Perionyx excavatus* (2) *Eudrilus eugenia*
(3) *Eisenia foetids* (4) None of the above
-
13. _____ technology is useful for *rabi* groundnut.
(1) BBF (2) Grass mulch
(3) Polythene mulch (4) SRI
-
14. Time required for the runoff water to flow from the most remote point (in time of flow) of the area to the farthest outlet is called as :
(1) Unit duration (2) Time of concentration
(3) Run-off duration (4) All above
-
15. The charge due to "isomorphous substitution" in clay colloids is :
(1) permanent charge and does not change with change in pH
(2) charges according to charge in soil pH
(3) permanent under acidic condition but increases with increase in pH in alkaline range
(4) none of the above
-
16. The term "Contingent cropping" means :
(1) Crops grown for protecting weather condition
(2) Crops grown to maintain soil fertility
(3) Crops grown to achieve nutritive production
(4) Crops grown to increase production
-
17. Thermal efficiency of diesel engine varies from :
(1) 20 to 25% (2) 25 to 32% (3) 32 to 38% (4) 38 to 48%
-
18. The rate of heat transfer from any material to atmosphere is proportional to :
(1) Fourth power of temperature difference between material and atmosphere
(2) Square root of temperature difference between material and atmosphere
(3) Weight of material only
(4) None of above
-

19. Ferrule is a part of :
(1) Thresher (2) Mower (3) Sickle (4) Seed drill
-
20. Which grass has gained popularity as best biological soil conservation measure all over the world ?
(1) Citronella (2) Vetiver (3) Lime (4) None of above
-
21. Number of links in a 30 metre metric chain is :
(1) 90 (2) 120 (3) 150 (4) 180
-
22. Draft of an implement depends on :
(1) Sharpness of cutting edge (2) Working speed and width
(3) Working depth and soil condition (4) All above
-
23. Which of the poultry house is suitable for hot-dry area ?
(1) Wire floored poultry house (2) Deep litter poultry house
(3) Cage poultry house (4) None of these
-
24. Under high rainfall conditions maize crop should be planted :
(1) On a flat bed (2) In narrow furrows
(3) On the side of ridges (4) In widely spaced furrows
-
25. Standard P.T.O. (Power Take Off) speed recommended by A.S.A.E. in the year 1961 is :
(1) 500 ± 10 rpm (2) 540 ± 10 rpm (3) 600 ± 10 rpm (4) 640 ± 10 rpm
-
26. The dropping of seeds in furrow lines in continuous flow is :
(1) Drilling (2) Planting (3) Dibbling (4) Hill dropping
-
27. Under alkaline soil conditions, the adsorbed sodium causes dispersion of clay which results in _____ .
(1) Loss of desired soil texture and development of compact soil
(2) Loss of desired soil structure and development of compact soil
(3) Loss of plant nutrients from soil
(4) Unavailability of water and nutrients for plant growth
-
28. _____ seed is used to produce foundation seed.
(1) Nucleous (2) Certified (3) Breeder's (4) Truthful
-
29. _____ rice has good export potential.
(1) Nylon (2) Basmati (3) Hybrid (4) Golden
-

30. The process of heating the milk upto specified temperature for a predetermined duration of time for removing bacteria and harmful organism is called :
- (1) Refrigeration (2) Pasteurization
(3) Sterilisation (4) None of the above
-
31. Identify the group of crops species with relatively more tolerance to salinity.
- (1) Carrot, onion, pulses (2) Barley, cotton, safflower
(3) Cowpea, cabbage, onion (4) Tomato, radish, groundnut
-
32. The _____ of Sunlight is most satisfactory for plant growth.
- (1) Half spectrum
(2) Full spectrum
(3) Little more than full spectrum
(4) None of these
-
33. Micro-irrigation means :
- (1) only drip irrigation
(2) only sprinkler irrigation
(3) both drip and micro sprinkler irrigation
(4) none of the above
-
34. Which is the first step in aggregation of soil particles ?
- (1) Hydration (2) Flocculation
(3) Dehydration (4) Cementation
-
35. _____ is the study of whole farm systems, which includes all the enterprises on the farm, their biological, economic and cultural operations and usually implies some involvement of the farmer in the research process.
- (1) Farming system cycle (2) Farm enterprise
(3) Farming system approach (4) Farming system research
-
36. Cumulative evaporation required for scheduling irrigation at 0.75 IW/CPE ratio with 5 cm of irrigation water is _____.
- (1) 8.33 mm (2) 6.66 cm (3) 6.25 cm (4) 6.0 mm
-
37. The duration of Adsali sugarcane is _____.
- (1) 12 months (2) 8 months (3) 15 months (4) 18 months
-
38. Rice-wheat system is most popular in part of _____.
- (1) South India (2) East India
(3) Coastal Region (4) North India
-

39. Which of the following method of irrigation employed when the soil surface is undulating?
(1) Flooding (2) Sprinkler (3) Drip (4) Surface
-
40. Practically the suction lift of centrifugal pump is :
(1) < 10 m (2) 10.0 m (3) 20.0 m (4) > 20.0 m
-
41. In normal mineral soils, acidity is mostly produced by replacement of which ions by H ions ?
(1) Ca and N (2) Ca and Mg (3) Ca and Na (4) Mg and Na
-
42. Bucket elevator with belts are employed in food industry for :
(1) horizontal conveyance (2) angle upto 45° from horizontal
(3) angle upto 60° from horizontal (4) vertical conveyance
-
43. For proper maintenance of irrigation pump, drain the lubricants in oil bearing and wash out bearing every _____ .
(1) month (2) three months (3) six months (4) year
-
44. Which type of beaters are used in hammer mill to break the products ?
(1) stationery type (2) revolving type
(3) reciprocating type (4) none of the above
-
45. The recommended seed rate of soyabean is _____ .
(1) 60 - 75 kg/ha (2) 45 - 55 kg/ha
(3) 40 - 50 kg/ha (4) 10 - 15 kg/ha
-
46. What is the appropriate way of increasing value of fruits ?
(1) Storing for long period (2) Processing
(3) Selling in local markets (4) None of above
-
47. Grain to straw ratio in most of the Mexican wheat varieties is :
(1) 2 : 1 (2) 3 : 1 (3) 1 : 1 (4) 1 : 2
-
48. In Disc plough, the penetration of disc can be increased by :
(1) Increasing tilt angle (2) Reducing body weight
(3) Increasing disc angle (4) Decreasing speed
-
49. Rainfall is described in the forecast as isolated when _____ of the specified area is expected to receive rains.
(1) < 25% (2) < two third (3) two third (4) < one third
-

50. A closed conduit is used in case of :

- | | |
|-------------------------|----------------------------|
| (1) Drop inlet spillway | (2) Straight drop spillway |
| (3) Chute spillway | (4) None of above |
-

51. The primary purpose of level on ridge-type terrace is to :

- (1) Conserve water and control erosion
 - (2) Reduce runoff
 - (3) Make steep lands cultivable
 - (4) All are correct
-

52. The yearly sequence and spacial arrangement of crops and fallow on a given area is called as _____.

- | | |
|--------------------------------|---------------------|
| (1) Sustainable farming system | (2) Cropping system |
| (3) Cropping pattern | (4) Farming systems |
-

53. The active acidity pool of the soil represents :

- (1) Exchangeable H^+ and Al^{+++} present in soil
 - (2) H^+ and Al^{+++} ions in soil solution
 - (3) H^+ and Al^{+++} ions present both in soil solution and exchangeable site
 - (4) None of the above
-

54. Which is the process of transformation of solid rocks by physical agents and chemical agencies into regolith ?

- | | |
|--------------------|------------------------|
| (1) Disintegration | (2) Regolith formation |
| (3) Weathering | (4) Soil formation |
-

55. Soyabean is classified as _____ crop as per its use.

- | | |
|--------------------|-------------|
| (1) fibre | (2) grain |
| (3) green manuring | (4) oilseed |
-

56. _____ refers to complementary interaction among the intercrops in respect of space and time.

- | | |
|-----------------------|----------------|
| (1) Multiple cropping | (2) Symbiosis |
| (3) Allelopathy | (4) Annidation |
-

57. Which is the farm operation for which power tiller is most suitable ?

- | | |
|-------------------------|--------------------------------|
| (1) Transplanting | (2) Ploughing heavy soils |
| (3) Farm transportation | (4) Puddling of low land paddy |
-

58. _____ variety of gram is recommended for Maharashtra under rainfed condition.

- | | | | |
|----------|----------|-----------|-----------|
| (1) Asha | (2) Jaya | (3) Vijay | (4) Surya |
|----------|----------|-----------|-----------|
-

59. Which is the natural unit draining runoff water to a common point ?
(1) Farm pond (2) Spillway (3) Water shed (4) Earth dam
-
60. Which of the following is considered as biofertilizer ?
(1) Compost (2) Blue green algae
(3) Green manure (4) Farm yard manure
-
61. The organic chelating agent is known as the "Ligand" and the micro-nutrients such as borate and molybdate cannot be chelated because _____ .
(1) Borate and molybdate supply Boron and Molybdenum respectively
(2) Borate and molybdate ions are negatively charged
(3) Borate and molybdate ions are present in traces in soil
(4) Boron and molybdenum can be supplied through sodium tetraborate and ammonium molybdate respectively
-
62. The length of revenue chain is :
(1) 33 feet (2) 33 meter (3) 66 feet (4) 66 meter
-
63. Which of the following cake contains relatively higher percentage of nitrogen ?
(1) Neem cake (2) Castor cake
(3) Linseed cake (4) Groundnut cake
-
64. Identify the group of textural classes of the soil with increasing degree of fineness :
(1) Silty clay loam, sandy clay loam, loam
(2) Loam, sandy clay loam, silty clay loam
(3) Sandy clay loam, silty clay loam, loam
(4) Loam, silty clay loam, sandy clay loam
-
65. The allowable discharge variation along drip lateral should be :
(1) less than 15% (2) less than 10% (3) less than 20% (4) none of these
-
66. Why nitrate ions are move easily leached from soil than ammonium ions ?
(1) Because of smaller size of nitrate ions, leached with water
(2) Nitrate ions are positively charged hence easily leached from soil
(3) Nitrate ions being negatively charged, not held by soil particles
(4) Ammonium ions replace nitrate ions very easily
-
67. Which plant nutrient increases nodule formation that fix nitrogen in Legume crops ?
(1) Potassium (2) Manganese (3) Sulphur (4) Phosphorus
-

68. Spacing of check dam varies inversely with :
(1) drop height (2) gully slope (3) runoff rate (4) all above
-
69. The soil temperature for satisfactory growth of potato tuber should be _____ °C.
(1) 7 - 9 (2) 11 - 13 (3) 17 - 19 (4) 20 - 23
-
70. What is the source of energy used for drying field crops like wheat ?
(1) Electrical energy (2) Heat from wood
(3) Solar energy (4) Hydro power energy
-
71. Which of the following monsoon, country mainly receives maximum rainfall ?
(1) North-East (2) South-West
(3) South-East (4) North-West
-
72. When organic residues with a wide C : N ratio are incorporated in the soil, for the time being, why little or no nitrogen is available to plants ?
(1) Available nitrogen is converted to unavailable form
(2) Keen competition among micro-organisms for available nitrogen
(3) Available nitrogen is lost due to volatilization
(4) Available nitrogen is lost due to leaching
-
73. What should be the uniform thickness of single drain on float glass used in construction of glass house ?
(1) 1 to 2 mm (2) 3 to 4 mm (3) 5 to 6 mm (4) 1.5 to 3 mm
-
74. Which type of soil survey is recommended for priority areas or micro-water shed planning and development ?
(1) Detailed soil survey (2) Reconnaissance soil survey
(3) Detailed and Reconnaissance (4) Semi-detailed
-
75. The seed rate of Pigeonpea is _____ kg/ha.
(1) 100 - 120 (2) 40 - 45 (3) 3 - 5 (4) 12 - 15
-
76. Subsistence is important objective of _____.
(1) Live stock farming (2) Mixed farming
(3) Cropping system (4) Farming system
-
77. If the electrical conductivity of irrigation and drainage water is 0.2 ds/m and 0.4 ds/m respectively, the leaching requirement will be equal to :
(1) 20% (2) 40% (3) 50% (4) 80%
-

78. A short duration crop in between two main crops is termed as :

- (1) Companion crop (2) Catch crop
(3) Cash crop (4) Ephemeral
-

79. $35^{\circ}\text{C} = \text{_____ } ^{\circ}\text{K}$.

- (1) 235 (2) -258 (3) 135 (4) 308
-

80. The dividing component that joins the low pressure side to the high pressure side of compression refrigeration system is :

- (1) Compressor (2) Condenser
(3) Evaporator (4) Expansion valve
-

81. Bulk Density of soil is influenced by :

- (1) Micropores
(2) Macropores
(3) Relative distribution of micro and macropores
(4) Total porosity of soil
-

82. In which type of textural class of soils highest percentage of total pore space is present ?

- (1) Sandy clay (2) Clay
(3) Sandy clay loam (4) Sand
-

83. How P solubilising bacteria increase the availability of phosphorus ?

- (1) They have capacity to convert unavailable form to available form
(2) They are responsible to release P ions adsorbed on surface of organic colloids
(3) They secrete organic acids and bring about the dissolution of immobile form of soil phosphate
(4) They secrete some strong acids which bring about dissolution of insoluble soil phosphates
-

84. Transpiration losses can be reduced by use of _____.

- (1) Stubble mulch (2) Polythene mulch
(3) Interculture (4) Kaoline spray
-

85. Which agricultural implement is used for wheat crop to reduce human drudgery during operation ?

- (1) serrated sickle
(2) power tiller
(3) power operated combine harvester
(4) seed-cum-fertilizer drill
-

86. Which of the herbicide is used to control weeds in zero tillage ?
(1) Pendimethalin (2) Paraquat
(3) Alachlor (4) Trifluralin
-
87. In thin layer drying, the grain bed depth is :
(1) more than 20 cm (2) less than 20 cm
(3) more than 40 cm (4) more than 100 cm
-
88. The most common fumigant used for control of insect pests in stored products including seeds are :
(1) Methyl alcohol and phosphorous (2) Methyl bromide and phosphine
(3) Ethanol and methanol (4) Benzene and ethanol
-
89. The type of frame used for green house structure having span more than or equal to 15 m :
(1) Pipe frame (2) Wooden frame (3) Truss frame (4) Even frame
-
90. In sequence cropping, the crop can be harvested at _____.
(1) before planting another crop
(2) physiological maturity
(3) harvest at maturity
(4) grain filling stage
-
91. The actual area covered by the implement during its total time consumed is known as :
(1) Theoretical field capacity (2) Effective field capacity
(3) Theoretical field efficiency (4) Field efficiency
-
92. The Gunta chain is 66 feet long and is divided into _____ links.
(1) 66 (2) 100 (3) 50 (4) 33
-
93. Keeping in view the available technology for the *Kharif* and *Rabi* crops, which one of the following patterns would be more useful for crop planting ?
(1) Monoculture (2) Location specific cropping
(3) Mixed cropping (4) Multiple cropping
-
94. Which of the following is the cheapest and easily manipulable soil moisture conservation technique suitable for rainfed vertisols having slope of less than 1% ?
(1) Ridges and furrow (2) Bench terracing
(3) Mulching (4) Compartment bunding
-

95. The primary purpose of graded terrace is :
- (1) to trap and hold rainfall for infiltration into the soil
 - (2) moisture conservation, erosion control is secondary
 - (3) efficient distribution of rain water
 - (4) to remove excess water to minimise erosion
-
96. The quantity of water retained in the soil between the limit of field capacity and permanent wilting point is _____.
- (1) available water for plant use
 - (2) gravitational water for plant use
 - (3) potential water for plant use
 - (4) pure water for plant use
-
97. Transpiration is :
- | | |
|----------------------------|------------------------------|
| (1) Wilting co-efficient | (2) Evaporation |
| (3) Water loss from plants | (4) Changing status of water |
-
98. Woolly aphid, an insect pest causes much damage mainly to _____.
- | | | | |
|---------------|-----------|------------|-----------|
| (1) Sugarcane | (2) Onion | (3) Cotton | (4) Wheat |
|---------------|-----------|------------|-----------|
-
99. To prevent spoilage, silage should be removed from pit silo at the rate of :
- | | | | |
|---------------|--------------|---------------|---------------|
| (1) 10 cm/day | (2) 5 cm/day | (3) 15 cm/day | (4) 20 cm/day |
|---------------|--------------|---------------|---------------|
-
100. _____ refers to planting of the succeeding crop before harvesting the preceding crop.
- | | |
|--------------------|---------------------|
| (1) Relay cropping | (2) Ratoon cropping |
| (3) Monocropping | (4) Intercropping |
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