(1) सदर प्रश्नपत्रकित 100 अनिवार्य प्रश्न आहेत. उदाहरणार्थ प्रश्नांची उत्तर देण्यासाठी स्वयंचार करण्यापूर्वी प्रश्नपत्रकित सर्व प्रश्नांचा यांचा निर्णय करून प्रश्न करणे चांगले. असा तसेच अन्य काही दोष आढळून नाही. प्रश्नपत्रकित समवेदनशील लोकांना अद्यावधिक व्यक्ती.

(2) आपला परीक्षा क्रमांक हा चाहून करावा न बिसरत बोलणे आवश्यक नाही.

(3) वर झालेला प्रश्नपत्रकितक्रम प्रश्नांचा उत्तर प्रश्नपत्रकित क्रमांक विशिष्ट आहेत. प्रश्नपत्रकित क्रमांक वर शोध करा. अनुसार प्रश्नांच्या संख्या 1, 2, 3 आणि 4 प्रश्नक्रमांक विशिष्ट आहेत. प्रश्नपत्रकित क्रमांक वर आवश्यक नाही. क्रमांक प्रश्न पूर्ण करा. प्रश्नपत्रकित क्रमांक उत्तरा देऊन शोध करा. प्रश्नांची संख्या 1, 2, 3 आणि 4 आपल्याकडे आहेत. प्रश्नपत्रकित क्रमांक वर शोध करा.

(4) प्रश्नक्रमांक वर उत्तराची देखील सादीच आहे. प्रश्नपत्रकित क्रमांक वर उत्तराची देखील सादीच आहे.

(5) सर्व प्रश्नांचा संपूर्ण उत्तर आहे. सर्व प्रश्नांचा संपूर्ण उत्तर होणार तो सर्वप्रश्नांचा संपूर्ण उत्तर होणार हे आवश्यक आहे. प्रश्नपत्रकित क्रमांक वर उत्तराची देखील सादीच आहे.

(6) प्रश्नपत्रकित क्रमांक वर उत्तर देऊन शोध करा. प्रश्नपत्रकित क्रमांक वर उत्तराची देखील सादीच आहे.

(7) प्रश्नपत्रकित क्रमांक वर उत्तराची देखील सादीच आहे. प्रश्नपत्रकित क्रमांक वर उत्तर देऊन शोध करा.

(8) प्रश्नपत्रकित क्रमांक वर उत्तराची देखील सादीच आहे. प्रश्नपत्रकित क्रमांक वर उत्तर देऊन शोध करा.

(9) प्रश्नपत्रकित क्रमांक वर उत्तर देऊन शोध करा.
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

इस प्रश्न के योग्य उत्तर "(3) field capacity" है आहे. त्यानुसार या प्रश्नाचे उत्तर "(3)" होईल. आता प्र.क्र. 201 समावेश उत्तर-अंकांक "(3)" चा केंद्र खालीलप्रमाणे पूर्णपणे छायांकित करून दाखविणे आवश्यक आहे.

प्र.क्र. 201. ① ② ③ ④

अशा पद्धतीते प्रस्तुत प्रस्तुतप्रश्नके तत्काल प्रश्नाचा तुमचा उत्तर-अंकांक हा तुम्हाला स्वतंत्रता व पुर्णावलोकना उत्तर-अंकांक त्या त्या प्रश्नके कामगार रेत वर्तून गुणस्तोत्र-पूर्णपणे छायांकित करून दाखवावा. खालीलप्रति फक्त काही छायांचे बोलपणे वापरावे. वेस्टन वा शाईचे घेणे वापर नये.

पर्यावरणकाळ्या सूचनेचिन्ह हे वृत्त उत्तर नये
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

P.T.O.
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 fetida  (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 up to specified temperature for a predetermined duration of time for removing bacteria and harmful organisms 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 45º from horizontal
   (3) angle upto 60º 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

P.T.O.
50. A closed conduit is used in case of:
   (1) Drop inlet spillway  (2) Straight drop spillway
   (3) Cnute 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 Al³⁺⁺ present in soil
   (2) H⁺ and Al³⁺⁺ ions in soil solution
   (3) H⁺ and Al³⁺⁺ 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. $35^\circ C = \underline{\quad} ^\circ K.$
   (1) 235        (2) -258       (3) 135       (4) 308

80. The dividing component that joins the low pressure side to the high pressure side of a 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

P.T.O.
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 greenhouse 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 minimize 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. Wooly 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
कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK