प्रश्नपुस्तिका क्रमांक
BOOKLET No.

2018

प्रश्नपुस्तिका - I

पेपर क्र. - 1

Y11 संच क्र. **A**

10645P

कृषि विज्ञान

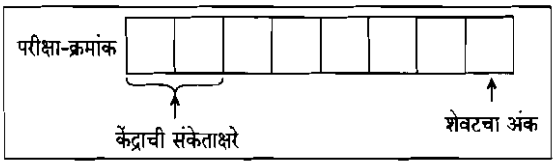
वेळ : 1 (एक) तास

एकूण प्रश्न : 100
एकूण गुण : 200

सूचना

(1) सदर प्रश्नपुस्तिकेत **100** अनिवार्य प्रश्न आहेत. उमेदवारांनी प्रश्नांची उत्तरे लिहिण्यास सुरुवात करण्यापूर्वी या प्रश्नपुस्तिकेत सर्व प्रश्न आहेत किंवा नाहीत याची खात्री करून घ्यावी. असा तसेच अन्य काही दोष आढळल्यास ही प्रश्नपुस्तिका समवेक्षकांकडून लगेच बदलून घ्यावी.

(2) आपला परीक्षा-क्रमांक ह्या चौकोनांत **न विसरता बॉलपेनने** लिहावा.



(3) वर छापलेला प्रश्नपुस्तिका क्रमांक तुमच्या उत्तरपत्रिकेवर विशिष्ट जागी उत्तरपत्रिकेवरील सूचनेप्रमाणे **न विसरता नमूद करावा.**

(4) या प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाला 4 पर्यायी उत्तरे सुचविली असून त्यांना 1, 2, 3 आणि 4 असे क्रमांक दिलेले आहेत. त्या चार उत्तरांपैकी सर्वात योग्य उत्तराचा क्रमांक उत्तरपत्रिकेवरील सूचनेप्रमाणे तुमच्या उत्तरपत्रिकेवर नमूद करावा. अशा प्रकारे उत्तरपत्रिकेवर उत्तरक्रमांक नमूद करताना तो संबंधित प्रश्नक्रमांकासमोर छायांकित करून दर्शविला जाईल याची काळजी घ्यावी. **ह्याकरिता फक्त काळ्या शाईचे बॉलपेन वापरावे, पेन्सिल वा शाईचे पेन वापरू नये.**

(5) सर्व प्रश्नांना समान गुण आहेत. यास्तव सर्व प्रश्नांची उत्तरे द्यावीत. घाईमुळे चुका होणार नाहीत याची दक्षता घेऊनच शक्य तितक्या वेगाने प्रश्न सोडवावेत. क्रमाने प्रश्न सोडविणे श्रेयस्कर आहे पण **एखादा प्रश्न कठीण वाटल्यास त्यावर वेळ न घालविता पुढील प्रश्नाकडे वळावे.** अशा प्रकारे शेवटच्या प्रश्नापर्यंत पोहोचल्यानंतर वेळ शिल्लक राहिल्यास कठीण म्हणून वगळलेल्या प्रश्नांकडे परतणे सोईस्कर ठरेल.

(6) उत्तरपत्रिकेत एकदा नमूद केलेले उत्तर खोडता येणार नाही. नमूद केलेले उत्तर खोडून नव्याने उत्तर दिल्यास ते तपासले जाणार नाही.

(7) **प्रस्तुत परीक्षेच्या उत्तरपत्रिकांचे मूल्यांकन करताना उमेदवाराच्या उत्तरपत्रिकेतील योग्य उत्तरांनाच गुण दिले जातील. तसेच ''उमेदवाराने वस्तुनिष्ठ बहुपर्यायी स्वरूपाच्या प्रश्नांची दिलेल्या चार उत्तरापैकी सर्वात योग्य उत्तरेच उत्तरपत्रिकेत नमूद करावीत. अन्यथा त्यांच्या उत्तरपत्रिकेत सोडविलेल्या प्रत्येक चार चुकीच्या उत्तरांसाठी एका प्रश्नाचे गुण वजा करण्यात येतील''.**

पर्यवेक्षकांच्या सूचनेशिवाय हे सील उघडू नये

ताकीद

ह्या प्रश्नपत्रिकेसाठी आयोगाने विहित केलेली वेळ संपेपर्यंत ही प्रश्नपुस्तिका आयोगाची मालमत्ता असून ती परीक्षाकक्षात उमेदवाराला परीक्षेसाठी वापरण्यास देण्यात येत आहे. ही वेळ संपेपर्यंत सदर प्रश्नपुस्तिकेची प्रत/प्रती, किंवा सदर प्रश्नपुस्तिकेतील काही आशय कोणत्याही स्वरूपात प्रत्यक्ष वा अप्रत्यक्षपणे कोणत्याही व्यक्तीस पुरविणे, तसेच प्रसिद्ध करणे हा गुन्हा असून अशी कृती करणाऱ्या व्यक्तीवर शासनाने जारी केलेल्या ''परीक्षांमध्ये होणाऱ्या गैरप्रकारांना प्रतिबंध करण्याबाबतचा अधिनियम-82'' यातील तरतुदीनुसार तसेच प्रचलित कायद्याच्या तरतुदीनुसार कारवाई करण्यात येईल व दोषी व्यक्ती कमाल एक वर्षाच्या कारावासाच्या आणि/किंवा रुपये एक हजार रकमेच्या दंडाच्या शिक्षेस पात्र होईल.

तसेच ह्या प्रश्नपत्रिकेसाठी विहित केलेली वेळ संपण्याआधी ही प्रश्नपुस्तिका अनधिकृतपणे बाळगणे हा सुद्धा गुन्हा असून तसे करणारी व्यक्ती आयोगाच्या कर्मचारीवृंदापैकी, तसेच परीक्षेच्या पर्यवेक्षकीयवृंदापैकी असली तरीही अशा व्यक्तीविरूद्ध उक्त अधिनियमानुसार कारवाई करण्यात येईल व दोषी व्यक्ती शिक्षेस पात्र होईल.

पुढील सूचना प्रश्नपुस्तिकेच्या शेवटच्या पानावर पहा

कच्च्या कामासाठी जागा/SPACE FOR ROUGH WORK

1. The low content of soil organic carbon in the Indian soils has been attributed to

   a. Excessive tillage

   b. Burning of crop residues

   c. Prevalence of tropical, subtropical, arid and semiarid climatic conditions

   Which of the above statement/s is/are correct ?

   (1) Only a

   (2) Only b and c

   (3) Only c

   (4) All a, b and c

---

2. Soil formed in arid and semiarid regions or under restricted drainage usually have

   (1) Low concentrated soil solution

   (2) More concentrated soil solution

   (3) More diluted soil solution

   (4) Low salt content

---

3. In the following equation of Stokes Law, $V = \left[\frac{2}{9}\frac{r^2(\rho_s - \rho_f)}{\eta}g\right]$, η stands for

   (1) Equivalent special radius of falling particle

   (2) Terminal velocity of falling particles

   (3) Viscosity of suspending particles

   (4) Density of solid particles

---

4. The igneous rocks containing > 0 percent silica are known as

   (1) Acid rocks

   (2) Basic rocks

   (3) Sub-acid rocks

   (4) Sub-basic rocks

---

5. Match the following :

a.	Quartz	I.	Medium weathering ability
b.	Muscovite	II.	Low weathering ability
c.	Hornblende	III.	Very low weathering ability
d.	Olivine	IV.	Very high weathering ability

	a	**b**	**c**	**d**
(1)	IV	III	II	I
(2)	III	II	I	IV
(3)	II	IV	III	I
(4)	I	III	IV	II

---

6. Clay particles play a key role in aggregate formation due to

a. Low surface area

b. High surface area

c. High surface charge

d. Low surface charge

Which of the above statement/s is/are correct ?

Answer Options :

(1) Only a (2) Only a and b

(3) Only b and d (4) Only b and c

---

7. Octahedral sheet in clay minerals dominated by magnesium is known as

(1) Dioctahedral (2) Trioctahedral

(3) Monooctahedral (4) Polyoctahedral

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8. The moisture content of soil on an oven-dry basis, at which plants will wilt and fail to recover their turgidity is observed at

(1) 15 bar suction (2) 31 bar suction

(3) 5 to 10 bar suction (4) $\frac{1}{3}$ bar suction

---

9. Which of the following are typical characteristics of saline soils ?

(1) EC greater than 4 dSm^{-1}, ESP less than 15, pH less than 8·5

(2) EC greater than 4 dSm^{-1}, ESP greater than 15, pH variable usually above 8·5

(3) EC less than 4 dSm^{-1}, ESP more than 15, pH 6·0

(4) EC less than 4 dSm^{-1}, ESP greater than 15, pH 8·5 – 10·0

---

10. Excess of Zn, Mn, and Cu induces

(1) Mo deficiency in crops

(2) Fe deficiency in crops

(3) S deficiency in crops

(4) B deficiency in crops

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11. Which of the following desirable characteristics an ideal green manure crop should possess ?

a. It should be legume with nodular growth

b. It should have little water requirement for its own growth

c. It should have a shallow root system

d. It should contain large quantities of non-fibrous tissues of rapid decomposability

Answer Options :

(1) Only a, b and c (2) Only a, b and d

(3) Only a, c and d (4) Only b, c and d

---

12. The safe limit of Residual Sodium Carbonate (RSC) of irrigation water is

(1) 1·25 – 2·50 m.e./L (2) More than 2·50 m.e./L

(3) Less than 1·25 m.e./L (4) None of the above

---

13. Which of the following is the complex fertilizer ?

(1) Diammonium phosphate (2) Urea

(3) Sulphate of potash (4) Super phosphate

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14. The component which is ***not*** included in Integrated Nutrient Management System is
(1) Biofertilizers (2) Green manures
(3) Biopesticides (4) Fertilizers

15. Calcium (Ca), Magnesium (Mg) and Sulphur (S) are collectively termed as
(1) Essential primary minerals (2) Secondary nutrients
(3) Major nutrients (4) Micronutrients

16. The consumption of water containing high levels of nitrate -N can lead to
(1) Blue baby syndrome in adults
(2) Zinc chlorosis in infants
(3) Ethanol globinemia in infants
(4) Methanoglobinemia in infants

17. Who has developed the 'Banglore method' of composting ?
(1) Albert Howard (2) Shri N.D. Pandharipande
(3) Dr. C.N. Acharya (4) None of the above

18. As per the wet oxidation (Walkley and Black) method of carbon estimation organic matter is calculated by multiplying the organic carbon values by a conversion factor 1·724 on the assumption that
(1) Soil organic matter contains 58% carbon
(2) Soil organic matter contains 56% carbon
(3) Soil organic matter contains 54% carbon
(4) Soil organic matter contains 52% carbon

19. Which type of soil fixes more phosphate ?
(1) Calcareous soils (2) Neutral soils
(3) Alkaline soils (4) Acidic soils

20. The source of negative charge on humus are
(1) Hydroxy (– OH) and Carboxylic (– COOH) groups
(2) Nitrates
(3) Chlorides
(4) Sulphates

21. A seed drill performs the function as

(1) to carry the seeds

(2) to open furrow to an uniform depth

(3) to meter the seeds

(4) All of the above

---

22. Rank the following animals in ascending order of their draft load capacity (% body weight) :

a. Bullock

b. Camel

c. Buffalo

d. Donkey

Answer Options :

(1) a, b, c, d (2) d, a, c, b

(3) a, c, b, d (4) c, d, a, b

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23. It is the power generated in the engine cylinder and received by the piston.

(1) BHP (2) DBHP

(3) IHP (4) Belt Power

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24. For tractor costing ₹ 2,50,000 having life of 10 years and working hours per year as 1000, what is depreciation per hour ?

(1) 22·0

(2) 22·5

(3) 25·0

(4) 24·0

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25. It is a machine to apply chemical in dust form is known as

(1) Flame gun

(2) Fumigator

(3) Duster

(4) None of the above

26. For mounted implements the stress induced in top link of a three-point hitch is _____ and as draft increases this force _____ .

(1) tensile, decreases (2) compressive, decreases

(3) tensile, increases (4) compressive, increases

---

27. The basic component/s of a sprayer is/are

(1) Nozzle body (2) Swirl plate

(3) Spray lance (4) All of the above

---

28. Arrange the following crops in descending order of peripheral speed of the spike tooth type threshing drum :

a. Wheat

b. Sorghum

c. Maize

d. Rice

Answer Options :

(1) a, b, c, d (2) c, b, a, d

(3) a, d, b, c (4) c, a, b, d

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29. If the concave clearance is not adjusted then the following defect/s may be observed :

(1) Broken grains

(2) Unthreshed material

(3) Bhusa

(4) (1) and (2) above

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30. If a farmer wants to erradicate weeds by spraying weedicide, then he should use _____ type of nozzle.

(1) Flat fan (2) Hollow cone

(3) Solid cone (4) Flooding

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31. Soybean is mostly used in India for the production of

(1) Edible oil

(2) Pulses

(3) Milk substitutes

(4) Processed food

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32. Respiration in plants, animals and fungi involves

a. The disappearance of food substance within the cells.

b. The liberation of heat energy.

c. The absorption of oxygen.

d. Excretion of CO_2.

Answer Options :

(1) Only a

(2) Only a and b

(3) Only b, c and d

(4) All a, b, c and d

---

33. For multiple effect evaporater when two evaporators are used in series then

(1) $q_1 > q_2$

(2) $q_1 < q_2$

(3) $q_1 = q_2$

(4) None of the above

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34. Size reduction of grains is caused by impact in

(1) Attrition mill

(2) Roller mill

(3) Hammer mill

(4) Jaw crusher

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35. During _____ evaporation takes place at the surface of material and the water on the surface behaves in a manner similar to an open area of water.

(1) First falling rate drying period

(2) Second falling rate drying period

(3) Constant rate drying period

(4) All of the above

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36. Capacity of morai type grain storage structure varies from _____ tonnes.

(1) 3·5 to 18

(2) 5 to 15

(3) 10 to 15

(4) 20 to 25

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37. In freeze drying the water vapour is removed by

(1) Melting

(2) Evaporation

(3) Condensation

(4) Sublimation

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38. _____ separates the material on the basis of relative length difference.

(1) Specific gravity separator

(2) Air screen cleanness

(3) Spiral separator

(4) Indented cylinder separator

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39. The indented cylinder separator separates the materials on the basis of

(1) Relative width

(2) Relative thickness

(3) Relative length

(4) Relative density

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40. At 100% relative humidity, wet bulb temperature of air is

(1) More than dew point temperature

(2) Less than dew point temperature

(3) Same as dew point temperature

(4) None of the above

कच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK

41. The construction of drop structure is usually limited upto the drop height of _____ only.

(1) 1 to 2 m (2) 2 to 3 m

(3) 3 to 4 m (4) 4 to 5 m

42. Rainfall in the form of drizzle has intensity less than

(1) 1 mm/h (2) 0·5 mm/h

(3) 1 cm/h (4) 0·1 mm/h

43. In estimating peak rate of runoff which of the following form is correct ?

Q = Peak rate of runoff, m^3/sec

C = Coefficient of runoff, unitless

I = Intensity of rainfall, cm/hr

A = Area, hectares

(1) $Q = \frac{CIA}{36}$

(2) $Q = \frac{CIA}{360}$

(3) $Q = \frac{CIA}{3{\cdot}60}$

(4) Q = 0·0195 CIA

44. _____ surveys include photographic surveys of large areas in a relatively short time for the purpose of project planning.

(1) Route (2) Aerial

(3) Cadastral (4) Agricultural

45. In extreme cases of heavy or light textured soils and deep or shallow excavations, the out-fill ratio may be as low as _____ and as high as _____ .

(1) 0·2, 0·8 (2) 1·1, 2·0

(3) 1·5, 2·2 (4) 2·3, 3·1

46. Azimuth angle cannot exceed

(1) 90° (2) 180°

(3) 270° (4) 360°

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47. Which type of graded bund is used when length of bund and discharge are more ?

(1) Variable graded bund

(2) Uniform graded bund

(3) Solid bund

(4) Contour bund

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48. Surveys for laying out plots and constructing streets, water supply system and sewers is known as

(1) Cadastral survey

(2) Engineering survey

(3) City survey

(4) Topographical survey

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49. The preparation of keeping the table at each of the successive stations parallel to the position which it occupied at the first station is known as

(1) Levelling

(2) Centering

(3) Setting

(4) Orientation

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50. The terracing practice is adopted for soil and water conservation in that area, where land slope is greater than _____ percent.

(1) 05 (2) 10

(3) 20 (4) 30

---

51. Which statements are valid regarding filtration system of drip irrigation system ?

a. Sand filter is used to remove organic and inorganic material.

b. Hydrocyclone filter is used to remove high density particle.

c. Disc filters are used to remove organic material and algae.

d. Screen filter is used to remove high density particle.

Answer Options :

(1) Only a, b and c (2) Only b, c and d

(3) Only a, c and d (4) Only a, b and d

---

52. It is the downward vertical movement of water through soil mainly due to gravitational force.

(1) Laminar flow (2) Seepage

(3) Percolation (4) Stream flow

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53. Which drainage layout system consists of parallel laterals that enter the main at an angle usually from both the sides ?

(1) Herringbone (2) Interceptor

(3) Gridiron (4) Random

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54. Emitter selection should be such that it should wet at least _____ potential horizontal cross-section of root system.

a. One-fifth and upto one-fourth

b. One-third and upto one-half

c. One-fourth and upto one-third

d. One-fifth and upto one-half

Answer Options :

(1) Only a and c (2) Only b (3) Only c (4) Only c and d

---

55. What will ETc be for following case ?

a. Pan evaporation (PE) = 20 mm/day

b. Pan factor = 0·7

c. Crop coefficient (kc) = 1·00

Answer Options :

(1) 1·4 mm (2) 140 mm (3) 14 mm (4) 14 cm

---

56. The harmful ingredients in brick earth are

(1) Iron pyrites

(2) Alkalies

(3) Pebbles

(4) All of the above

---

57. In the arrangement of the farmshed, residential buildings should be located away from cattle shed and other buildings to ensure

(1) Privacy

(2) Reduction of nuisance of flies and smell coming from the dairy barn

(3) Both (1) and (2)

(4) None of the above

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58. Which of the following is/are ***not*** special mortar(s) ?

(1) Fire-resistant mortar

(2) Packing mortar

(3) Sound-absorbing mortar

(4) All above are special mortars

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59. The concrete yield obtained from one 50 kg cement bag for a concrete mix of proportion (1 : 2 : 4) will be

(1) 1·63 m^3 (2) 16·3 m^3

(3) 0·163 m^3 (4) 163 m^3

---

60. If 90% light is passing through one layer of UV-inhibited polythene, then amount of light passing through two layers of the same polythene in polyhouse will be

(1) 0·81%

(2) 0·91%

(3) 0·61%

(4) 0·71%

---

61. Which of the following is the progeny of breeders seed ?

(1) Nucleus seed (2) Breeder seed

(3) Foundation seed (4) Certified seed

---

62. Disadvantages of minimum tillage are

a. Lower seed germination

b. More N has to be added

c. Sowing operations are difficult

d. Continuous use of herbicides

Answer Options :

(1) Only a and b (2) Only a, b and c

(3) All of the above (4) Only b and d

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63. Potato and elephant yam are classified as

(1) Fibre crops (2) Forage crops

(3) Spice crops (4) Tuber crops

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64. Match the following :

	Crops		**Associated Weeds**
a.	Sorghum	I.	*Orobanche indica*
b.	Rice	II.	*Phalaris minor*
c.	Wheat	III.	*Striga lutea*
d.	Tobacco	IV.	*Echinochloa colonum*

	a	**b**	**c**	**d**
(1)	I	II	III	IV
(2)	III	IV	II	I
(3)	IV	III	I	II
(4)	II	IV	III	I

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65. _____ soils are ideal for most crops because of adequate nutrient and water availability and well drained conditions.

(1) Clayey (2) Sandy

(3) Heavy (4) Loamy

66. The term _____ is used to describe the resistance of a soil at different soil-moisture contents to mechanical stress or manipulations.

(1) Soil consistency (2) Soil workability

(3) Friability index (4) Soil tilth

67. '*Lantana Camara*' (Lantana weed) can be effectively controlled through biocontrol method by using

(1) *Microlarinus lypriformis* (2) *Neochetina eichhorniae*

(3) *Teleonemia scrupulosa* (4) *Agasicles hygrophila*

68. Wind velocity is generally measured by

(1) Barometer (2) Anemometer

(3) Altimeter (4) Cyclometer

69. Match the following :

	A		**B**
	Weather Elements		**Units**
a.	Vapour pressure	I.	Millibars/mm of Hg/Pascals
b.	Bright sunshine duration	II.	mm of Hg
c.	Cloud cover	III.	Hrs.
d.	Atmospheric pressure	IV.	Okta (0 to 8)

	a	**b**	**c**	**d**
(1)	IV	III	II	I
(2)	II	III	IV	I
(3)	I	II	III	IV
(4)	IV	II	III	I

70. Short-range weather forecast is valid for

(1) 4 – 10 days (2) 3 days

(3) 12 – 15 days (4) 20 – 25 days

71. Based on vertical temperature differences, atmosphere is notionally divided into four major layers or strata among them the outer upper most layer is

(1) Stratosphere (2) Mesosphere

(3) Thermosphere (4) Troposphere

72. _____ are the lines with uniform values of a given scalar quantities.

(1) Isopleths (2) Isohyets

(3) Isobars (4) Isonephs

73. _____ are the dry, cold prevailing winds that blow from high pressure areas of polar highs at North and South poles towards low pressure areas within the westerlies at high latitudes.

(1) Trade winds (2) Westerly winds

(3) Polar esterlies (4) Breeze

74. A soil is saline, if

(1) $EC_e > 4$ dS/m, ESP < 15% and pH < 8·5

(2) $EC_e < 4$ dS/m, ESP > 15% and pH > 8·5

(3) $EC_e < 4$ dS/m, ESP > 15% and pH = 8·5

(4) $EC_e > 4$ dS/m, ESP > 15% and pH > 8·5

75. A volume necessary to cover an area of 1·0 hectare to a depth of 1 centimetre i.e. hectare centimetre is equal to

(1) 10,000 litres

(2) 1,00,000 litres

(3) 10,00,000 litres

(4) 100,00,000 litres

76. The downward entry of water from the air medium into the soil is termed as

(1) Adsorption

(2) Absorption

(3) Infiltration

(4) Gravitation

---

77. Respiration decreases with

(1) Mild stress

(2) Decrease in moisture stress

(3) Increase in moisture stress

(4) None of the above

---

78. Match the following :

	Type of soil		**Available moisture mm m^{-1}**
a.	Clay loam	I.	60
b.	Silt loam	II.	150
c.	Clay	III.	100
d.	Loamy sand	IV.	200

	a	**b**	**c**	**d**
(1)	II	III	IV	I
(2)	I	II	III	IV
(3)	II	IV	I	III
(4)	IV	III	II	I

---

79. Water is released at the rate of 8 cumec at the head of sluice. Duty at field is 120 ha $cumec^{-1}$ and transit loss is 20 percent. How much area can be irrigated with released water ?

(1) 568 ha (2) 868 ha

(3) 1068 ha (4) 768 ha

---

80. _____ water is available for plant growth.

(1) Gravitational water

(2) Capillary water

(3) Hygroscopic water

(4) Atmospheric water

81. First sorghum hybrid CSH – 1 was released in

(1) 1961 (2) 1962

(3) 1963 (4) 1964

82. Sterility mosaic (sm) disease of pigeonpea is transmitted by the vector

(1) Pod borer (2) Moth fly

(3) Pod fly (4) Mite

83. According to Hutchinson's classification generally cultivated species of cotton in India are

a. *Gossypium arboreum*

b. *Gossypium herbaceum*

c. *Gossypium hirsutum*

d. *Gossypium barbadense*

Answer Options :

(1) Only a and b

(2) Only b and c

(3) Only c and d

(4) All a, b, c and d

84. All floral parts are transformed into green leafy structures due to phyllody. It is one of the diseases of

(1) Sunflower (2) Safflower

(3) Groundnut (4) Sesamum

85. SRI is one of the methods of cultivation of

(1) Bt. cotton (2) Sugarcane

(3) Sugarbeet (4) Rice

86. In India, the maximum area of wheat is under the species

(1) *Triticum aestivum*

(2) *Triticum durum*

(3) *Triticum dicoccum*

(4) *Triticum sphaerococcum*

87. The fodder crop Lucerne contains about _____ percent crude protein.

(1) 6 – 7 (2) 10 – 12

(3) 15 – 20 (4) 25 – 30

88. The seed rate of wheat under normal condition is _____ kg/ha.

(1) 100 – 125 (2) 50 – 60

(3) 200 – 250 (4) 180 – 200

89. The floating of fine dust particles smaller than 0·1 mm diameter through the air is known as

(1) Dispersion

(2) Saltation

(3) Suspension

(4) Surface creep

90. Kolhapur is headquarters of _____ Agro Climatic Zone of Maharashtra.

(1) Central Maharashtra Plain Zone

(2) Western Ghat Zone

(3) Western Maharashtra Plain Zone

(4) Submountain Zone

91. The resistance to metabolic strain and plastic strain can increase the plant ability to resist and survive under moisture stress is referred as

(1) Restricting transpiration stress

(2) Accelerating water uptake stress

(3) Mitigating the stress

(4) Tolerating the stress

---

92. Keeping stubbles in trenches protruding above the ground level enhances the available soil moisture. It is known as

(1) Crop residue mulch

(2) Parallel mulch

(3) Stubble mulch

(4) Vertical mulch

---

93. Which type of bench terraces are most effective for high rainfall areas ?

(1) Inward sloping bench terraces

(2) Outward sloping bench terraces

(3) Levelled or table top bench terraces

(4) California type of terraces

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94. The process of runoff collection during periods of peak rainfall in storage tanks, ponds, etc. is usually referred to as

(1) Collection of rainfall

(2) Use of rainfall water

(3) Water harvesting

(4) Water disposal

---

95. In rainfed farming systems the principles of relevant components of environmentally suistainable farming system should include

a. Reducing soil erosion and improving soil conservation.

b. Inclusion of legumes and cover crops in crop rotations.

c. Agroforestry as an alternate land use system.

d. Judicious use of organic wastes.

Answer Options :

(1) Only a and b (2) Only b and c

(3) Only c and d (4) All a, b, c and d

---

96. Which of the following is a resource management strategy to active economic and sustained agricultural production to meet the requirements of farm livelihood while preserving resource base and maintaining environmental quality ?

(1) Cropping system

(2) Eco-farming

(3) Farming system

(4) Sustainable agriculture

---

97. The continued maintenance of plant population within its ecosystem to which it is adapted is referred as _____ plant genetic resources conservation.

a. In-situ conservation

b. Ex-situ conservation

c. Species diversity conservation

d. Resource conservation

Answer Options :

(1) Only a (2) Only b and c

(3) Only c and d (4) Only b and d

---

98. _____ describes the processes of on-farm innovations adopted by farmers towards achieving the goals of sustainable agriculture.

(1) Alternate agriculture

(2) Agriculture

(3) Agronomy

(4) Conventional agriculture

---

99. Which of the following is/are the broad major components of sustainable agriculture ?

a. Sustainable utilization of land, water resources and biodiversity

b. Integrated nutrient management

c. Integrated plant protection

d. Enhancing sustainability of dry land and irrigated agriculture

Answer Options :

(1) Only c

(2) Only a

(3) Only a and d

(4) All of the above

---

100. Which of the following are the agronomic measures of soil conservation ?

a. Contour cultivation

b. Strip cropping

c. Bench terraces

d. Application of organic manures

Answer Options :

(1) Only a, b and c

(2) Only a, b and d

(3) Only b, c and d

(4) All of the above

सूचना — (पृष्ठ 1 वरून पुढे.....)

(8) प्रश्नपुस्तिकेमध्ये विहित केलेल्या विशिष्ट जागीच कच्चे काम (रफ वर्क) करावे. प्रश्नपुस्तिकेव्यतिरिक्त उत्तरपत्रिकेवर वा इतर कागदावर कच्चे काम केल्यास ते कॉपी करण्याच्या उद्देशाने केले आहे, असे मानले जाईल व त्यानुसार उमेदवारावर शासनाने जारी केलेल्या "परीक्षांमध्ये होणाऱ्या गैरप्रकारांना प्रतिबंध करण्याबाबतचे अधिनियम-82" यातील तरतुदीनुसार कारवाई करण्यात येईल व दोषी व्यक्ती कमाल एक वर्षाच्या कारावासाच्या आणि/किंवा रुपये एक हजार रकमेच्या दंडाच्या शिक्षेस पात्र होईल.

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

नमुना प्रश्न

Pick out the correct word to fill in the blank :

Q.No. 201. I congratulate you _____ your grand success.

(1) for (2) at

(3) on (4) about

ह्या प्रश्नाचे योग्य उत्तर "(3) on" असे आहे. त्यामुळे या प्रश्नाचे उत्तर "(3)" होईल. यास्तव खालीलप्रमाणे प्रश्न क्र. **201** समोरील उत्तर-क्रमांक "③" हे वर्तुळ पूर्णपणे छायांकित 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 छायांकित करून दाखवावा. **ह्याकरिता फक्त काळ्या शाईचे बॉलपेन वापरावे, पेन्सिल वा शाईचे पेन वापरू नये.**

कच्च्या कामासाठी जागा/SPACE FOR ROUGH WORK