

**A**

2016

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प्रश्नपुस्तिका क्रमांक

प्रश्नपुस्तिका-I

BOOKLET NO.

पेपर क्र.-1

एकूण प्रश्न : 100

कृषि विज्ञान

एकूण गुण : 200

वेळ : 1 ( एक ) तास

### 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.  

परीक्षा-क्रमांक									
	↑							↑	
	केंद्राची संकेताक्षरे							शेवटचा अंक	
- (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 उमेदवारांच्या उत्तरपत्रिकेतील योग्य उत्तरांनाच गुण दिले जातील. तसेच "उमेदवाराने वस्तुनिष्ठ बहुपर्यायी स्वरूपाच्या प्रश्नांची दिलेल्या चार पर्यायांपैकी सर्वात योग्य उत्तरेच उत्तरपत्रिकेत नमूद करावीत. अन्यथा त्यांच्या उत्तरपत्रिकेत सोडविलेल्या प्रत्येक चार चुकीच्या उत्तरांसाठी एका प्रश्नाचे गुण वजा करण्यात येतील".

### ताकीद

ह्या प्रश्नपत्रिकेसाठी आयोगाने विहित केलेली वेळ संपेपर्यंत ही प्रश्नपुस्तिका आयोगाची मालमत्ता असून ती परीक्षाकक्षात उमेदवारांला 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 व्यक्तीविरुद्ध उक्त अधिनियमानुसार कारवाई करण्यात येईल व दोषी व्यक्ती शिक्षेस पात्र होईल.

**पुढील सूचना प्रश्नपुस्तिकेच्या अंतिम पृष्ठावर पहा**

पर्यवेक्षकांच्या सूचनेविना हे सील उघडू नये

Q08

2

A

कच्च्या कामासाठी जागा /SPACE FOR ROUGH WORK



6. Which of the following is categorised under seed's viability test ?

- (1) Physical test (2) Embryo culture method  
(3) Traditional bite test (4) Carl Fisher reagent method
- 

7. Tillage performed from the start of the crop season to the crop harvest are known as \_\_\_\_\_ tillage operations :

- (1) off-season (2) sub-soiling  
(3) clean cultivation (4) on-season
- 

8. Which of the following consists of transforming relatively steep land into a series of level strips across the slope to reduce slope length and consequently erosion ?

- (a) Graded bunding (b) Bench terracing  
(c) Contour bund (d) Graded border strip

Answer options :

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

9. The ratio of total cropped area in a year to the total land area available for cultivation expressed in percentage is \_\_\_\_\_.

- (1) Cropping index (2) Cultivated land utilization  
(3) Multiple cropping intensity (4) Land equivalent index
- 

10. The ability to maintain favourable water balance and turgidity even when subjected to drought thereby avoiding stress and its consequences is referred as \_\_\_\_\_.

- (a) Drought tolerance (b) Drought avoidance  
(c) Mitigating stress (d) Drought escaping

Answer options :

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

11. Important components of farming system is/are \_\_\_\_\_.

- (a) multiple cropping (b) poultry farming  
(c) sequential cropping (d) multi storied cropping

**Answer options :**

- (1) (a) and (b) only (2) (b) and (c) only  
(3) (a), (b) and (c) only (4) All above
- 

12. The optimum seed rate of bajra is about \_\_\_\_\_ per ha.

- (1) 4 to 5 kg (2) 12 to 15 kg  
(3) 8 to 10 kg (4) 10 to 12 kg
- 

13. Weed can be defined as \_\_\_\_\_.

- (a) a plant growing where it is not wanted  
(b) an unwanted plant  
(c) a plant out of place  
(d) a plant that is interfering with the requirements of people.

**Answer options :**

- (1) (a) and (b) only (2) (b), (c) and (d) only  
(3) (c) and (d) only (4) All above
-

14. Fungus causing fusarium wilt in gram \_\_\_\_\_.

- (a) *Fusarium Solani*
- (b) *Fusarium oxysporum*
- (c) *Uromyces ciceris - arietini*
- (d) *Fusarium bengalensis*

**Answer options :**

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

15. How much area of groundnut is sown in the kharif season under rainfed conditions ?

- (1) About 70%                      (2) About 60%                      (3) About 95%                      (4) About 50%
- 

16. Global change of weather and climate information is today coordinated through World Meteorological Organisation (WMO) with headquarters in \_\_\_\_\_.

- (1) Moscow                      (2) Geneva                      (3) London                      (4) New York
- 

17. Complementary interaction of various crops which occurs in both space and time is known as \_\_\_\_\_.

- (1) Intercropping                      (2) Annidation  
(3) Interaction                      (4) Complementation
- 

18. Rabi sorghum variety having higher grain quality and fodder yield.

- (1) CSV - 13                      (2) M - 35 - 1                      (3) PVK - 400                      (4) CSV - 15
- 

कच्चा कामासाठी जागा /SPACE FOR ROUGH WORK

19. Following are the species of turmeric out of that which \_\_\_\_\_ is 'Ambe halad' :

- (1) *Curcuma amoda* (2) *Curcuma augustiafolia*  
(3) *Curcuma aromatic, Salish* (4) *Curcuma longa*
- 

20. Which of the following terms is used to express the water that an even dry soil absorbs when kept under nearly a saturated atmosphere ?

- (a) Hygroscopic co-efficient (b) Oven-dry soil  
(c) Permanent wilting point (d) Air dry soil

**Answer options :**

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

21. Which of the following methods is not used for estimating the crop water requirement ?

- (1) Transpiration ratio method (2) Soil moisture depletion  
(3) Climatological approach (4) Tensiometer and Gypsum block method
- 

22. Petals of \_\_\_\_\_ crop are sold as substitute for saffron and used in food, beverages and medicinal preparations.

- (1) *Helianthus annus* (2) *Guizotia abyssinica*  
(3) *Linium usitassimum* (4) *Carthamus tinctorius*
-

23. Who carries out research on scientific cultivation of crops taking into account the effects of factors like soil, climate ?

- (1) Agrometeorologist (2) Soil scientist  
(3) Agronomist (4) Geologist
- 

24. In sustainable agriculture \_\_\_\_\_.

- (1) Chemical fertilizers are used  
(2) Chemical pesticides and fungicides are used  
(3) High productivity and low diversity chemical are used  
(4) High diversity, renewable and bio-degradable inputs are used
- 

25. In which of the following drainage system main and submain are laid in low area and laterals could be drawn from both sides ?

- (1) Random or natural (2) Herringbone system  
(3) Gridiron system (4) Parellel system
- 

26. Advantages of  $C_4$  plants over  $C_3$  plants are \_\_\_\_\_.

- (a) The carboxylating enzyme has high potential activity  
(b) For the same amount of stomatal opening have higher photosynthesis rate  
(c) Translocate photosynthetes more rapidly  
(d) Drought resistant

**Answer options :**

- (1) (a), (b) and (d) only (2) (d), (c) and (b) only  
(3) all above (4) (b), (c) and (a) only
- 

कच्चा कामासाठी जागा /SPACE FOR ROUGH WORK



27. Different micro-catchment methods used for water harvesting is/are \_\_\_\_\_.

- (a) Compartmental bunding      (b) Circular basin  
(c) Crescent method      (d) Micro check dams

Answer options :

- (1) (d), (c) and (b)      (2) (a), (b) and (c)  
(3) (c), (a) and (d)      (4) All above
- 

28. \_\_\_\_\_ is successful management of resource for agriculture to satisfy changing human needs while maintaining or enhancing quality of the environment and conserving natural resources.

- (1) Sustainable agriculture      (2) Organic farming  
(3) Biodynamic agriculture      (4) Integrated farming
- 

29. Applying irrigation through shallow furrows to close growing crops is called \_\_\_\_\_.

- (1) short furrow irrigation      (2) corrugation irrigation  
(3) alternate furrow irrigation      (4) spaced furrow irrigation
- 

30. The process of beaking, scratching, mechanically altering or softening the seed coats to make them permeable to water and gases is known as \_\_\_\_\_.

- (1) stratification      (2) acid seed treatment  
(3) scarification      (4) priming
- 

31. The percentage of infrared spectral band in the main spectral bands (Sunlight) is \_\_\_\_\_.

- (1) 7.0      (2) 47.5      (3) 11.0      (4) 29.5
-

32. Among the following which rays are largely absorbed in the atmosphere ?

- (1) infrared rays (2) ultraviolet rays (3) Gamma rays (4) X-rays
- 

33. The most important objectives of tillage are \_\_\_\_\_.

- (1) Ploughing, harrowing and clod crushing  
(2) Seedbed preparation, weed control and soil and water conservation  
(3) To improve the soil structure, arrange the soil particles and improve the bulk density  
(4) To break the hard pan of soil, improve the irrigation and crop growth
- 

34. Which state has maximum area as well as production which contributes > 50% of total guar production of our country ?

- (1) Maharashtra (2) Rajasthan  
(3) Gujarat (4) Madhya Pradesh
- 

35. Rainfed farming is cultivation of crops in regions receiving annual rainfall \_\_\_\_\_.

- (1) More than 750 mm (2) Less than 750 mm  
(3) Between 750 to 1150 mm (4) More than 1150 mm
- 

36. Name the pre emergence herbicide which effectively controls the broad leaf weeds and most grasses in maize crop ?

- (1) Oxyflurofen (2) Pendimethalin (3) Glyphoset (4) Atrazine
- 

कच्चा कामासाठी जागा /SPACE FOR ROUGH WORK

37. \_\_\_\_\_ is a function of water retentive capacity of the root-zone soil and the extent of soil water depletion at the time of irrigation ?

- (a) Depth of irrigation (b) Interval of irrigation  
(c) Irrigation frequency (d) Outer capillary water

Answer options :

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

38. Which of the following can stabilize soil structure and improve tilth ?

- (a) Irrigation (b) Organic matter  
(c) Fertilizers (d) Biofertilizers

Answer options :

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

39. In plantation crops the practice of growing different crops of varying height, rooting pattern and duration is known as \_\_\_\_\_.

- (1) Inter cropping (2) Mixed cropping  
(3) Multi-tier cropping (4) Triple cropping
- 

40. Acid scarification is usually done for which of the following crop ?

- (1) Agave (2) Jute (3) Sunhemp (4) Cotton
- 

41. Schonite a, by product of coastal salt industry is a :

- (1) nitrogenous fertilizer (2) phosphatic fertilizer  
(3) potassic fertilizer (4) micronutrient fertilizer
-

42. In the determination of particle size analysis the law followed is :

- (1) Fick's Law      (2) Davi's Law      (3) Stoke's Law      (4) Boyl's Law
- 

43. The commonly used preservatives added to the FYM to decrease nitrogen losses are :

- (1) Gypsum and superphosphate      (2) Urea and diammonium phosphate  
(3) Sulphate of potash and urea      (4) Calcium carbonate and urea
- 

44. Irrigation water is not suitable if residual sodium carbonate content is :

- (1) more than 1.25 (m.e./L.)      (2) more than 1.50 (m.e./L.)  
(3) more than 1.75 (m.e./L.)      (4) more than 2.50 (m.e./L.)
- 

45. The acid soils can be managed by ameliorating the soil through application of :

- (1) Liming material      (2) Gypsum  
(3) Iron sulphate      (4) Iron pyrite
- 

46. Biologically soil water is classified as :

- (1) Gravitational, capillary and hygroscopic water  
(2) Available, unavailable and superfluous water  
(3) Superfluous, hygroscopic and capillary water  
(4) Available, unavailable and hygroscopic water
- 

47. Average percentage of nitrogen in the fresh excreta is more in :

- (1) cows and bullocks      (2) sheep and goats  
(3) horses      (4) Pigs
- 

कच्चा कामासाठी जागा /SPACE FOR ROUGH WORK

48. Smectite group of minerals include :

- (a) montmorillonite (b) saponite  
(c) nontronite (d) beidellite

Answer options :

- (1) (a) and (b) (2) (b) and (c) (3) (a), (b) and (c) (4) All of these
- 

49. Which of the following mineral is the most resistant to weathering ?

- (1) Biotite (2) Quartz (3) Gypsum (4) Granite
- 

50. The 'law of minimum' hypothesis put forward by :

- (1) Von Liabig (2) De Lavoiser  
(3) Warrington (4) Laws and Gilbert
- 

51. Many toxic pesticides remain active in the environment for only a few days or a week. Among the following which pesticides has less persistence in soil.

- (1) Heptachlor, Aldrin (2) Atrazine, 2-4-D  
(3) Chlorodane, Dieldrin (4) DDT, BHC
- 

52. Oxidation is an important chemical reaction occurring in well aerated rock and soil materials where.

- (1) oxygen supply is low and biological oxygen demand is low  
(2) oxygen supply is low and biological oxygen demand is high  
(3) oxygen supply is high and biological oxygen demand is low  
(4) oxygen supply is high and biological oxygen demand is high
-

53. The process of enrichment of surface water bodies with nutrient is referred as :

- (1) putrifaction (2) fortification  
(3) nutrification (4) eutrophication
- 

54. Pore spaces in soil consists of that portion of the soil volume not occupied by solids. The pore space under field conditions are occupied at all times by air and water. Which of the following Statements is/are correct.

- (1) Clayey soils have greater number of micropores  
(2) Sandy soils have large number of macropores  
(3) Soil containing high organic matter possess high porosity  
(4) Intensive crop cultivation tends to lower the porosity of soils as compared to fallow soil.
- 

55. Zinc deficiency symptoms observed in plants commonly named as :

- (a) Little leaf of cotton (b) Khaira disease of rice  
(c) White bud of maize (d) Frenching of citrus

**Answer options :**

- (1) (a) and (b) (2) (b) and (c) (3) (a) and (c) (4) All of these
- 

56. The chelating agent EDTA is :

- (1) Ethylene diamine tetra acetic acid  
(2) Ethylene dimethoate tetra acetic acid  
(3) Ethylene dimethyl tetra acetic acid  
(4) Ether dimethyl tetra acetic acid
- 

कच्चा कामासाठी जागा /SPACE FOR ROUGH WORK

57. Match the following :

- |                                     |                  |
|-------------------------------------|------------------|
| (a) Symbiotic Nitrogen fixation     | (i) Frankia      |
| (b) Non-symbiotic nitrogen fixation | (ii) Azotobacter |
| (c) Cynobacteria                    | (iii) Rhizobium  |
| (d) Actinomycetes                   | (iv) Anabaena    |

(a) (b) (c) (d)

(1) (i) (iv) (iii) (ii)

(2) (iii) (ii) (iv) (i)

(3) (iv) (iii) (i) (ii)

(4) (ii) (i) (iv) (iii)

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58. Based on the shape and arrangement of peds or aggregates, soil structure is classified into the four principal types :

- (1) plate like, prism like, block like and spherodical
- (2) prismatic, columner, angular and granular
- (3) platy, blocky, granular and crumb
- (4) platy, prismatic, angular and columner

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59. The salts primarily originate as a result of :

- |                 |                         |
|-----------------|-------------------------|
| (a) hydrolysis  | (b) hydration           |
| (c) carbonation | (d) oxidation-reduction |

**Answer options :**

- (1) (a) and (b)      (2) (a) and (c)      (3) (a) and (d)      (4) All of these

60. 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 percent carbon
  - (2) soil organic matter contains 56 percent carbon
  - (3) soil organic matter contains 54 percent carbon
  - (4) soil organic matter contains 52 percent carbon
- 

61. Power developed by an average pair of bullocks is about :

- (1) 1 hp
  - (2) 0.1 hp
  - (3) 2.5 hp
  - (4) 0.3 hp
- 

62. It is a mechanical manipulation of soil to provide favourable condition for crop production is known as :

- (1) Puddling
  - (2) Tillage
  - (3) Seeding
  - (4) None of the above
- 

63. It is a machine to cut herbage crops and leave them in swath is called as :

- (1) Reaper
  - (2) Mower
  - (3) Sickle
  - (4) None of the above
- 

64. It is that part of the plough which slides against the furrow walls and gives lateral stability in the plough is called as :

- (1) Landside
  - (2) Frog
  - (3) Mould board
  - (4) Standard
- 

65. A draft animal can exert about \_\_\_\_\_ of its body weight for doing farm work.

- (1) One - tenth
  - (2) Three - fourth
  - (3) One - third
  - (4) One - half
- 

कच्चा कामासाठी जागा /SPACE FOR ROUGH WORK



66. It is that part of the plough to which landside, mould board and share are attached.

- (1) Mould board (2) Beam (3) Frog (4) Standard
- 

67. \_\_\_\_\_ is a machine which cuts the crops and ties them into neat and uniform sheaves.

- (1) Mower (2) Windrower (3) Reaper binder (4) Reaper
- 

68. Equipment for placing \_\_\_\_\_ in the soil is called Transplanter.

- (1) seeds (2) plants (3) sets (4) rizomes
- 

69. Tractors can be classified on the basis of structural design :

- (1) Wheel tractor (2) Crawler tractor (3) Walking tractor (4) All above
- 

70. After starting the engine, the \_\_\_\_\_ is engaged to transmit power from the engine to the gear box.

- (1) Rear axle (2) Differential (3) Connecting rod (4) Clutch
- 

71. Grain isotherms are generally \_\_\_\_\_.

- (1) L - Shaped (2) S - Shaped (3) Z - Shaped (4) V - Shaped
- 

72. For grain conveying through belt conveyer, the belt speed should be in the range of \_\_\_\_\_.

- (1) 0.1 to 0.5 m/s (2) 2.5 to 2.8 m/s (3) 10.5 to 15.5 m/s (4) 25 to 28 m/s
-

73. The moisture migration in stored grains results from \_\_\_\_\_.

- (1) Temperature change
  - (2) Pressure change
  - (3) Change in hydraulic conductivity
  - (4) All of above
- 

74. In deep bed drying the sequence of three zones present in the bin from bottom to top is \_\_\_\_\_.

- (1) dried grain - drying front - wet grain
  - (2) wet grain - drying front - dried grain
  - (3) drying front - dried grain - wet grain
  - (4) dried grain - wet grain - drying front
- 

75. The capacity of Morai type storage structure ranges from \_\_\_\_\_ to \_\_\_\_\_ tones.

- (1) 1 to 3.5
  - (2) 1 to 2.5
  - (3) 3.5 to 18
  - (4) 9.5 to 35.5
- 

76. In Air screen cleaner, the width of screen affect \_\_\_\_\_.

- (1) the capacity of cleaner
  - (2) efficiency of cleaner
  - (3) both (1) and (2)
  - (4) none of above
- 

77. \_\_\_\_\_ moves granular materials in a closed duct by a high velocity of air stream.

- (1) Belt Conveyor
  - (2) Bucket Elevator
  - (3) Screw Conveyor
  - (4) Pneumatic Conveyor
- 

कच्चा कामासाठी जागा /SPACE FOR ROUGH WORK

78. Chilling of food is usually done in the range of temperature of \_\_\_\_\_.

- (1) -2 to 2°C      (2) -10 to 10°C      (3) -40 to 10°C      (4) -20 to 20°C
- 

79. To separate round seeds like finger millet from wheat the best type of separator is \_\_\_\_\_.

- (1) indented cylinder separator      (2) specific gravity separator  
(3) centrifugal separator      (4) spiral separator
- 

80. A continuous flow - mixing type grain dryer, LSU was developed at \_\_\_\_\_.

- (1) Ludhiana, India      (2) London, England  
(3) Louisiana, USA      (4) None of these
- 

81. An \_\_\_\_\_ is an angular measurement in a spherical coordinate system.

- (1) Azimuth      (2) Zenith      (3) Celestial      (4) Latitude
- 

82. In Maharashtra \_\_\_\_\_ village is famous for implementation of watershed management including soil and water conservation structures.

- (1) Dapoli      (2) Akola      (3) Heware Bazar      (4) Basmat
- 

83. Emulsions of asphalt in water, is actually \_\_\_\_\_ form of mulch.

- (1) Rasin      (2) Bitumen emulsion  
(3) Petroleum      (4) Canvas
-

84. Which formula is used to determine horizontal distance between two consecutive bench terraces ?

If

D = Vertical depth between two consecutive terraces, m

S = slope of land, %

- (1)  $\frac{100}{SD}$       (2)  $\frac{SD}{100}$       (3)  $\frac{100S}{D}$       (4)  $\frac{100D}{S}$
- 

85. In which of the following survey, alidade is an important instrument ?

- (1) Dumpy level survey      (2) Prismatic compass survey  
(3) Theodolite survey      (4) Plane table survey
- 

86. Calculate the width of bench terrace for 15% hill land slope with 2.5 m vertical interval and 1.1 as batter slope :

- (1) 10 m      (2) 12 m      (3) 14 m      (4) 16 m
- 

87. The least count of prismatic compass is \_\_\_\_\_.

- (1) 5 minutes      (2) 10 minutes      (3) 15 minutes      (4) 20 minutes
- 

88. The \_\_\_\_\_ is an electronic theodolite integrated with an electronic distance meter to read slope distances from the instrument to a particular point.

- (1) Total station      (2) Altimeter      (3) GIS      (4) GPS
- 

कच्चा कामासाठी जागा /SPACE FOR ROUGH WORK

89. \_\_\_\_\_ is a precision instrument used for measuring angles in the horizontal and vertical planes :

- (1) Theodolite      (2) Inclinator      (3) Dumpy level      (4) Tacheometer
- 

90. For loamy sand, the recommended strip width for wind-strip cropping according to FAO 1965 is \_\_\_\_\_.

- (1) 75 m      (2) 7 m      (3) 30 m      (4) 6 m
- 

91. The nozzle pressure of a sprinkler head is normally checked with the help of a \_\_\_\_\_.

- (1) manometer      (2) pitot tube      (3) ventury      (4) notch
- 

92. Clay pipes or tiles used in subsurface drainage system are usually made in lengths of :

- (1) 10 cm      (2) 30 cm      (3) 70 cm      (4) 100 cm
- 

93. For irrigation water having fine sand in it, the most efficient water filter for drip system is :

- (1) sand filter      (2) screen filter  
(3) hydro cyclone filter      (4) disc filter
- 

94. Which type of emitter is more efficient for soils with high rate of infiltration ?

- (1) 2 lph      (2) 4 lph      (3) 8 lph      (4) 12 lph
-

95. Pressure compensating emitters are designed :

- (a) to produce different pressures in lateral.
- (b) to discharge water at a constant rate over a wide range of operating pressures.
- (c) to continuously permit passage of large solid particles.

**Answer options :**

- (1) Only (a)
  - (2) Only (b)
  - (3) Only (c)
  - (4) All (a), (b) and (c)
- 

96. The space requirement for hen is increased due to hot climate by :

- (1) 0.46 m<sup>2</sup>/bird
  - (2) 0.046 m<sup>2</sup>/bird
  - (3) 0.046 cm<sup>2</sup>/bird
  - (4) 0.46 cm<sup>2</sup>/bird
- 

97. Disposing the farm produce point of view, location of farmstead should be located at :

- (1) Centre of farm
  - (2) Middle of long side
  - (3) One side or at corner near road
  - (4) Only at one side
- 

98. Green house operations costs include expenditure on environmental and agricultural inputs. As a result the cost of production per unit Greenhouse area as compared to open field condition is :

- (1) Lower
  - (2) Higher
  - (3) Equal
  - (4) None of the above
- 

कच्चा कामासाठी जागा /SPACE FOR ROUGH WORK

99. The type of mortar to be used for stone-masonry construction depends on :

- (1) Strength required
  - (2) Load coming on structure
  - (3) Resistance desired for weathering agencies
  - (4) All of these
- 

100. The spoilage of silage and dry matter losses of horizontal silos range between :

- |                       |                       |
|-----------------------|-----------------------|
| (1) 20 and 30 percent | (2) 30 and 40 percent |
| (3) 5 and 10 percent  | (4) None of the above |
- 

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### 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 स्वतःबरोबर 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 :

- प्र. क्र. 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