

16P/202/24/2(i)

(To be filled up by the candidate by blue/black ball-point pen)

Roll No.

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Serial No. of OMR Answer Sheet

(2016)

Day and Date

(Signature of Invigilator)

INSTRUCTIONS TO CANDIDATES

(Use only **blue/black ball-point pen** in the space above and on both sides of the **Answer Sheet**)

1. Within 30 minutes of the issue of the Question Booklet, check the Question Booklet to ensure that it contains all the pages in correct sequence and that no page/question is missing. In case of faulty Question Booklet bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.
2. Do not bring any loose paper, written or blank, inside the Examination Hall **except the Admit Card without its envelope**.
3. **A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided. Only the Answer Sheet will be evaluated.**
4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.
5. **On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.**
6. **No overwriting is allowed in the entries of Roll No., Question Booklet no. and Set no. (if any) on OMR sheet and Roll No. and OMR sheet no. on the Question Booklet.**
7. **Any change in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfair means.**
8. **Each question in this Booklet is followed by four alternative answers. For each question, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet.**
9. For each question, darken only one circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
10. **Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks).**
11. For rough work, use the inner back page of the title cover and the blank page at the end of this Booklet.
12. **Deposit only OMR Answer Sheet at the end of the Test.**
13. You are not permitted to leave the Examination Hall until the end of the Test.
14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.

Total No. of Printed Pages : 32

[उपर्युक्त निर्देश हिन्दी में अन्तिम आवरण पृष्ठ पर दिये गए हैं।]



16P/202/24/2(i)

ROUGH WORK

रफ़ कार्य

16P/202/24/2(i)

No. of Questions : 120

Time : 2 Hours

Full Marks : 360

Note : (1) Attempt as many questions as you can. Each question carries 3 (Three) marks. **One mark will be deducted for each incorrect answer. Zero** mark will be awarded for each *unattempted* question.

(2) If more than one alternative answers seem to be approximate to the correct answer, choose the closest one.

01. When the general equilibrium position (GEP) lies well above damage boundary (DB) and EIL, the pest is said to be a ?

- | | |
|----------------|-------------------|
| (1) Major pest | (2) Key pest |
| (3) Minor pest | (4) Sporadic pest |

02. *Bacillus thuringiensis* subspecies *israeliensis* was first successfully used against :

- | | |
|----------------|------------------|
| (1) Mosquitoes | (2) Horseflies |
| (3) Sandflies | (4) Tsetse flies |

03. Which one of the sugarcane pests has all India occurrence ?

- (1) *Chilo infuscatellus*
- (2) *Chilo sacchariphagus indicus*
- (3) *Chilo auricilius*
- (4) *Acigona steniella*

04. The nonchitinous layer of insect integument is :

- | | |
|-----------------|----------------|
| (1) Endocuticle | (2) Exocuticle |
| (3) Epicuticle | (4) Epidermis |

05. Inflorescence blight in cashew is caused by :

- | | |
|--------------------------------------|-----------------------------------|
| (1) <i>Nephoteryx eugraphella</i> | (2) <i>Crocidolomia binotalis</i> |
| (3) <i>Solenothrips rubrocinctus</i> | (4) <i>Helopeltis antonii</i> |

06. Bees was contains :

- | | |
|-----------------------------|-----------------------|
| (1) Hydroxy methyl furfural | (2) Lauryl acetate |
| (3) Glucose amine | (4) Myricyl palmitate |

07. Indoxacarb belongs to the group of :

- | | |
|----------------|----------------|
| (1) Carbamate | (2) Pyrethroid |
| (3) Oxadiazine | (4) Indoxine |

08. Rosetting of flowers and interocular burrowing of bolls in cotton is due to :

- | | |
|------------------------|-------------------------|
| (1) <i>Earias</i> | (2) <i>Spodoptera</i> |
| (3) <i>Helicoverpa</i> | (4) <i>Pectinophora</i> |

09. Lac sticks left after escape of nymphs are called :
- | | |
|--------------|-------------|
| (1) Chowri | (2) Kiri |
| (3) Baisakhi | (4) Phunkai |
10. The earliest attempt at introduction of a natural enemy made in India was with :
- | | |
|--------------------------------------|-----------------------------|
| (1) <i>Rodalia cardinalis</i> | (2) <i>Aphelinus mali</i> |
| (3) <i>Cryptolaemus montrouzieri</i> | (4) <i>Encarsia Formosa</i> |
11. When more than one species of parasitoid is present in the same host, it is referred to as ?
- | | |
|---------------------|---------------------|
| (1) Superparasitism | (2) Hyperparasitism |
| (3) Endoparasitism | (4) Multiparasitism |
12. After release of phosphine, the nontoxic grey material left as residue is :
- | | |
|-------------------------|-------------------------|
| (1) Aluminium chloride | (2) Aluminium hydroxide |
| (3) Aluminium phosphate | (4) Aluminium phosphide |
13. Which of the following are most effective in inducing photomorphogenetic responses in plants ?
- | | |
|---------------------------|---------------------------|
| (1) Blue and yellow light | (2) Blue and red light |
| (3) Orange and red light | (4) Red and far-red light |

14. Pollen tubes and fungal hyphae exhibit :

- | | |
|--------------------------|--------------------------|
| (1) Phototropic movement | (2) Phototactic movement |
| (3) Chemotactic movement | (4) Chemotropic movement |

15. Which of the following proteins is responsible for the osmotic adjustment of salt adapted cells ?

- | | |
|---------------|---------------|
| (1) Traumatin | (2) Aquaporin |
| (3) Gluten | (4) Osmotin |

16. Which of the following instrument measures the photosynthesis in plants ?

- | | |
|---------------|----------------------------|
| (1) Osmometer | (2) Infra red gas analyser |
| (3) Porometer | (4) Psychrometer |

17. The Stomatal pores open when ?

- (1) H^+ ions are pumped into the guard cells
- (2) K^+ ions are pumped out of the guard cells
- (3) Water moves into the guard cells in response to a decrease in water potential in the guard cells
- (4) Water moves out of the guard cells in response to a decrease in water potential of the guard cells

18. Which of the following is the main enzyme of photosynthesis in maize plant ?
- | | |
|----------------------|--------------------------|
| (1) RuBP carboxylase | (2) PEP Carboxylase |
| (3) Malic anhydrase | (4) Superoxide desmutase |
19. From which crop field the methane emission takes place ?
- | | |
|-----------|----------------|
| (1) Wheat | (2) Rice |
| (3) Maize | (4) Sugar cane |
20. What is the current concentration of carbon-dioxide in the atmosphere ?
- | | |
|-------------|-------------|
| (1) 270 ppm | (2) 300 ppm |
| (3) 396 ppm | (4) 700 ppm |
21. C4 plants are mostly abundant in :
- (1) Tropical region with more dry condition
 - (2) Tropical region with more humid condition
 - (3) Temperate region with more humid condition
 - (4) Temperate region with dry condition

22. Which of the following equation is correct ?

- | | |
|------------------------------|-------------------------|
| (1) $DPD = O.P. - T.P.$ | (2) $DPD = O.P. + T.P.$ |
| (3) $DPD = O.P. \times T.P.$ | (4) $DPD = O.P.$ |

23. ATP molecules in glycolysis are synthesized by :

- (1) Substrate level phosphorylation
- (2) Oxidative phosphorylation
- (3) Photophosphorylation
- (4) Photolysis of water

24. Decreased rate of photosynthesis at high concentration of oxygen is referred to as :

- | | |
|--------------------|--------------------|
| (1) Pasture effect | (2) Emerson effect |
| (3) Warburg effect | (4) Tanada effect |

25. The famous book "Wealth of Nations" was written by :

- | | |
|--------------|-----------------|
| (1) Robbins | (2) J.M. Keynes |
| (3) Marshall | (4) Adam Smith |

26. Rent is the reward for :

- | | |
|------------|----------------|
| (1) Labour | (2) Capital |
| (3) Land | (4) Management |

27. Marginal cost can be derived from :

- | | |
|------------------------|------------------------|
| (1) Fixed cost | (2) Variable cost |
| (3) Average fixed cost | (4) Average total cost |

28. When marginal rate of technical substitution is more than one, the relationship between the enterprises is termed as ?

- | | |
|-------------------|-----------------------|
| (1) Complementary | (2) Competitive |
| (3) Supplementary | (4) None of the above |

29. When marginal product is equal to average product, the elasticity of production becomes ?

- | | |
|-------------------|-------------------|
| (1) More than one | (2) Less than one |
| (3) Equal to one | (4) Equal to zero |

30. When marginal product increases, total product ?

- 31.** Imputed value of family labour is included into :

- 32. NABARD** was set up in year :

- 33. Processing creates :**

- 34.** In case of food grains the price elasticity of demand is :

- 10

35. Net worth is a measure of :
- | | |
|-------------------|------------------------|
| (1) Liquidity | (2) Managerial ability |
| (3) Profitability | (4) Financial position |
36. Internal rate of return is the discount factor at which net present worth is ?
- | | |
|-------------|----------|
| (1) Maximum | (2) Zero |
| (3) Minimum | (4) One |
37. Effective weedicide for controlling weeds in transplanted rice crop is:
- | | |
|-----------------|--------------|
| (1) Isoproturon | (2) Simazine |
| (3) Butachlor | (4) 2, 4-D |
38. Form of potassium held against the negative charge of the soil colloid is :
- | | |
|------------------|---------------------|
| (1) Non- Exch. K | (2) Water soluble K |
| (3) Exch. K | (4) Inert K |
39. Soil temperature is influenced by :
- | | |
|---------------|---------------------|
| (1) Nitrogen | (2) Phosphorus |
| (3) Potassium | (4) Humus, contents |

40. At which crop stage of ground nut soil moisture stress is harmful the most ?

- | | |
|------------------|-------------------|
| (1) Early growth | (2) Maturity |
| (3) Pegging | (4) Nut formation |

41. Symbiotic-N-fixing bacteria is :

- | | |
|--------------------|-----------------|
| (1) Closteridium | (2) Azotobacter |
| (3) Rhizobium Sps. | (4) Bacillus |

42. Crop tolerant to frost during December-January month is :

- | | |
|----------------|------------|
| (1) Pigeon pea | (2) Patato |
| (3) Wheat | (4) Gram |

43. The maximum area under wheat in India is occupied by the species :

- | | |
|-------------------------------|-----------------------------|
| (1) <i>Triticum aestivum</i> | (2) <i>Triticum durum</i> |
| (3) <i>Triticum diococcum</i> | (4) <i>Triticum vulgare</i> |

44. Who is known as the Father of Agronomy ?
- (1) Jethro Tull (2) B. P. Pal
(3) M. S. Swaminathan (4) Pietro de Crescenzi
45. When soil pH changes from 7.0 to 6.0, its H-ion concentration increases times ?
- (1) 1 (2) 10 (3) 100 (4) 1000
46. The 17th nutrient added to the list of essential elements is :
- (1) boron (2) molybdenum
(3) chlorine (4) nickel
47. Peg in groundnut is a stalk-like structure (originating from the meristematic region at the base of the ovary) known as :
- (1) androphore (2) gynophore
(3) perianth (4) androgynophore
48. 'Depog' method of raising nursery is followed in.:
- (1) Tobacco (2) Paddy
(3) Bajra (4) Onion

49. The SPC/ml of milk as bacteriological standard of raw fresh milk considered as very good :

- (1) Between 200,000 and 1,000,000
- (2) Not exceeding 200,000
- (3) Between 1,000,000 and 5,000,000
- (4) Over 5,000,000

50. In Artificial Insemination :

- (1) Transfer of embryo is done
- (2) Ovum is harvested
- (3) Semen is collected
- (4) In vitro fertilization is done

51. Rate of milk feeding to new born calves should be :

- (1) $1/10^{\text{th}}$ of body weight
- (2) $1/20^{\text{th}}$ of body weight
- (3) $1/5^{\text{th}}$ of body weight
- (4) equal to body weight

52. Before the first calf birth animal is called :

- (1) Calf
- (2) Heifer
- (3) Cow female
- (4) Adult/animal

53. The minimum standards prescribed by the PFA (1976) rules for cow milk is :
- (1) 3 to 4 per cent fat only
 - (2) 8.5 to 9 per cent solids not fat only
 - (3) Both 1 and 2
 - (4) None of these
54. The minimum standards prescribed by the PFA (1976) rules for buffalo milk is :
- (1) 5 to 6 per cent fat only
 - (2) 9 per cent solids not fat only
 - (3) Both 1 and 2
 - (4) None of these
55. How many kg. each of 28% cream and 3% milk will be required to make 500 kg. of a mixture testing 45 fat ?
- (1) 25 kg. Cream and 475 kg. Milk
 - (2) 30 Kg. Cream and 470 Kg. Milk
 - (3) 20 Kg. Cream and 480 Kg. Milk
 - (4) 45 Kg. Cream and 455 Kg. Milk

56. In HTST pasteurization the milk is heated to 72° C for :

- | | |
|----------------|----------------|
| (1) 15 Minutes | (2) 15 Seconds |
| (3) 30 Minutes | (4) 30 Seconds |

57. Plastic cream contains :

- | | |
|------------------------|------------------------|
| (1) 65 to 85% milk fat | (2) 55 to 60% milk fat |
| (3) 45 to 55% milk fat | (4) 90 to 95% milk fat |

58. The lactic acid percentage by weight maximum in sweet dahi should be:

- | | | | |
|----------|----------|----------|----------|
| (1) 0.90 | (2) 0.80 | (3) 0.70 | (4) 0.60 |
|----------|----------|----------|----------|

59. The lactic acid percentage by weight maximum in sour dahi should be :

- | | | | |
|----------|----------|----------|----------|
| (1) 0.90 | (2) 1.00 | (3) 2.00 | (4) 3.00 |
|----------|----------|----------|----------|

60. Inadequate homogenization of ice-cream mix may result is a texture defect called as :

- | | |
|-------------|------------|
| (1) Icy | (2) Coarse |
| (3) Buttery | (4) Sandy |

61. All the front line TOT projects of ICAR have been merged in :

- | | |
|----------|----------|
| (1) LLP | (2) KVK |
| (3) ATIC | (4) NATP |

62. Which one of the following is the latest project of ICAR ?

- | | |
|----------|----------|
| (1) IVLP | (2) NAIP |
| (3) NATP | (4) KVK |

63. An entrepreneur's primary motivation for starting a business is :

- | | |
|--------------------|-----------------------|
| (1) To make money | (2) To be independent |
| (3) To be powerful | (4) To be famous |

64. You cannot do everything and the employees need to take ownership of the job, the type of leadership is expressed by the situation :

- | | |
|---------------------|-------------------|
| (1) Autocratic | (2) Democratic |
| (3) Laissez - faire | (4) Participative |

65. Which one of the following is not a part of the 3 tier democratic decentralization ?

- | | |
|-----------------------|---------------------|
| (1) Village Panchayat | (2) Caste Panchayat |
| (3) Panchayat Samiti | (4) Zilla Parishad |

66. Adopter category is based on :

- | | |
|--------------------|----------------|
| (1) Education | (2) Awareness |
| (3) Innovativeness | (4) Innovation |

67. The process by which information about new breed of cattle is spread through inter personal channel over a period of two years among the women members of village community will be suitably explained by :

- | | |
|----------------|-------------------|
| (1) Innovation | (2) Diffusion |
| (3) Adoption | (4) Communication |

68. When various aspect of culture in society change at unequal rates, the situation will be explained by the theory of ?

- | | |
|---------------------|-------------------|
| (1) Social change | (2) Globalization |
| (3) Sanskritization | (4) Cultural lag |

69. Who introduced "noise" as an element in the model of communication process ?

- | | |
|------------------------|-------------|
| (1) Shannon and Weaver | (2) Schramm |
| (3) Berlo | (4) Leagans |

70. Who is the chairman of National Institution for Transforming India Aayog ?

- | | |
|--------------------------|------------------------------|
| (1) Prime Minister | (2) Chief Minister |
| (3) Agriculture Minister | (4) Development Commissioner |

71. Skeptical are :

- | | |
|--------------------|-------------------|
| (1) Early majority | (2) Late majority |
| (3) Innovators | (4) Laggards |

72. The word extension was coined in which country ?

- | | |
|-----------|------------|
| (1) India | (2) U.S.A. |
| (3) U.K. | (4) France |

73. Aneuploidy arising through loss of chromosomes is termed as :

- | | |
|-----------------|----------------|
| (1) Hypoploidy | (2) Nanoploidy |
| (3) Lethoploidy | (4) Aploidy |

74. Complementary interaction of genes gives the ratio is :

- | | | | |
|------------|------------|-----------|-----------|
| (1) 13 : 3 | (2) 15 : 1 | (3) 9 : 7 | (4) 1 : 1 |
|------------|------------|-----------|-----------|

75. Quantitative inheritance is through :

- | | |
|---------------------|-------------------|
| (1) Effective genes | (2) Special genes |
| (3) Polygenes | (4) Ultragenes |

76. Who discovered transposons ?

- | | |
|-----------------------|------------------------|
| (1) Hargobind Khorana | (2) Morgan |
| (3) Hugo de Vries | (4) Barbara McClintock |

77. How small is an episome, as compared to the main bacterial chromosome ?

- | | | | |
|----------|-----------|----------|-----------|
| (1) 1.0% | (2) 0.75% | (3) 0.5% | (4) 0.25% |
|----------|-----------|----------|-----------|

78. What is *Bt* cotton ?

- (1) High-yielding hybrid of American cotton
- (2) Disease resistant variety of cotton
- (3) Insect resistant variety of cotton
- (4) Drought resistant variety of cotton

79. When one gene specifies more traits, it is ?

- | | |
|------------------|--------------|
| (1) Pleiotropism | (2) Atavism |
| (3) Polytropism | (4) Dwarfism |

80. Acridine orange is used for inducing :

- | | |
|-----------------------|------------------------------|
| (1) DNA denaturation | (2) Mutagenesis |
| (3) Chiasma formation | (4) Bacterial transformation |

81. pBR322 is a :

- | | |
|----------------------|---------------------------|
| (1) Colicin producer | (2) Reconstructed plasmid |
| (3) Super coiled DNA | (4) Hfr |

82. Number of chromosome in wheat endosperm is :

- | | | | |
|--------|--------|--------|--------|
| (1) 21 | (2) 42 | (3) 63 | (4) 14 |
|--------|--------|--------|--------|

83. The statistical test applied to test the goodness of fit is :

- | | |
|-----------------------|--------------|
| (1) ' χ^2 ' test | (2) 'F' test |
| (3) 'Z' test | (4) 't' test |

84. For dosage compensation in mammals, the phenomenon of heterochromatization occurs in :

- (1) One 'X' chromosome
- (2) Both 'X' chromosomes
- (3) 'Y' chromosome
- (4) One 'X' chromosome and one 'Y' chromosome

85. Which of the following is pome fruit ?

- | | |
|-----------|-----------------|
| (1) Pear | (2) Pomegranate |
| (3) Mango | (4) Coconut |

86. *Punjab Dawn*, *American Beauty*, *Gulal* are varieties of :

- | | |
|--------------------------|--------------------------|
| (1) <i>Baugainvillea</i> | (2) <i>Gladiolus</i> |
| (3) Rose | (4) <i>Chrysanthemum</i> |

87. Origin of African marigold is

- | | |
|------------------|------------------|
| (1) South Africa | (2) North Africa |
| (3) China | (4) Mexico |

88. The basic chromosome number of rose is

- | | | | |
|--------|--------|-------|--------|
| (1) 12 | (2) 22 | (3) 7 | (4) 18 |
|--------|--------|-------|--------|

89. Which one of the following is stem vegetable ?

- | | |
|---------------|------------|
| (1) Knol-khol | (2) Radish |
| (3) Turnip | (4) Carrot |

90. Edible portion of Brussels sprouts is :

- | | |
|-------------|-----------------------|
| (1) Root | (2) Leaves |
| (3) Capsule | (4) Small head or bud |

91. Which of the following is non-climacteric fruit ?

- | | |
|---------------|------------|
| (1) Apple | (2) Mango |
| (3) Pineapple | (4) Banana |

92. Bitterness in carrot is due to :

- | | |
|-----------------|-------------------|
| (1) Isopentanal | (2) Carotene |
| (3) Isocoumarin | (4) Sulphoraphane |

93. Edible portion of grape is :

- | | |
|----------------------------|--------------|
| (1) Pericarp and placentae | (2) Mesocarp |
| (3) Endocarp | (4) Bract |

94. Little leaf in brinjal is caused due to :

- | | |
|------------|----------------|
| (1) Fungus | (2) Bacteria |
| (3) Virus | (4) Mycoplasma |

95. Baldwin a cultivar of apple is :

- | | |
|----------------|---------------|
| (1) Diploid | (2) Triploid |
| (3) Tetraploid | (4) Octaploid |

96. Hollow heart in potato is caused due to :

- | | |
|-------------------------|------------------------------|
| (1) Moisture deficiency | (2) Excessive N ₂ |
| (3) Poor Ventilation | (4) Low temperature |

97. Gametangial meiosis found in :

- | | |
|-------------------------|-------------------------|
| (1) <i>Erysiphe</i> | (2) <i>Sclerotinia</i> |
| (3) <i>Cochliobolus</i> | (4) <i>Phytophthora</i> |

98. Dikaryotization in heterocious rust is taken place at :

- | | |
|--------------------|---------------------|
| (1) Same host | (2) Collateral host |
| (3) Alternate host | (4) Animal host |

99. Alfa toxin is produced by the fungus :

- | | |
|------------------------------|------------------------------------|
| (1) <i>Aspergillus niger</i> | (2) <i>Colletotrichum falcatum</i> |
| (3) <i>Alternaria porii</i> | (4) <i>Cercospora canescens</i> |

100. Sulphure is used to control the :

- | | |
|----------------|--------------------|
| (1) Web blight | (2) Powdery mildew |
| (3) Rice blast | (4) Downy mildew |

101. Identify the pathogen internally seed borne :

- | | |
|-----------------------------|--------------------------------|
| (1) <i>Ustilago tritici</i> | (2) <i>Ustilagoidea virens</i> |
| (3) <i>Neovossia indica</i> | (4) <i>Uromyces necator</i> |

102. Double stranded circular DNA found it :

- | | |
|-------------------|------------------------------|
| (1) TMV | (2) MYMV |
| (3) YVMV of Okara | (4) Cauliflower mosaic virus |

103. Alternate host of wheat rust is :

- | | |
|--------------|-----------|
| (1) Sorghum | (2) Oat |
| (3) Barberry | (4) Maize |

104. Cell wall of fungi is made of :

- | | |
|-------------------|---------------------|
| (1) Peptidoglycan | (2) Chitin |
| (3) Cellulose | (4) β -lactam |

105. Which of the following is considered as father of Indian phytopathology ?

- | | |
|------------------|-----------------|
| (1) B.B. Mundkur | (2) K.C. Metha |
| (3) M.K. Patel | (4) E.J. Butler |

106. Bengal famine is caused by :

- | | |
|-----------------------------|-------------------------|
| (1) <i>Alternaria</i> | (2) <i>Phytophthora</i> |
| (3) <i>Helminthosporium</i> | (4) <i>Erysiphe</i> |

107. Peritrichous flagella arrangement is found in :

- | | |
|------------------------|--------------------------|
| (1) <i>Pseudomonas</i> | (2) <i>Erwinia</i> |
| (3) <i>Xanthomonas</i> | (4) <i>Agrobacterium</i> |

108. Which of the following cause powdery mildew disease ?

- | | |
|---------------------|------------------------|
| (1) <i>Erysiphe</i> | (2) <i>Sclerospora</i> |
| (3) <i>Venturia</i> | (4) <i>Aspergillus</i> |

109. Negative potential at hygroscopic coefficient is approximatelybar.

- | | | | |
|--------|--------|--------|--------|
| (1) 15 | (2) 20 | (3) 31 | (4) 41 |
|--------|--------|--------|--------|

110. The p^H of 0.1NHCl solution is

- (1) 0 (2) 1 (3) 2 (4) 3

111. The available nitrate and ammonium form is only% of the total nitrogen :

- (1) 1-2 (2) 2-4 (3) 4-6 (4) 6-8

112. is a constituent part of the enzyme nitrate reductase and nitrogenase :

- (1) M_o (2) B
(3) F_e (4) None of these

113. Pressure plate apparatus is used for measurement of soil moisture tension upto

- (1) 4.2 bars (2) 0.33 bars
(3) 15 bars (4) 30 bars

114. Specific heat of mineral fraction and organic fraction of soil are& $\text{cal gm}^{-1} \text{ } ^\circ\text{C}^{-1}$:

- (1) 0.18 & 0.24 (2) 0.18 & 0.46
(3) 0.46 & 0.18 (4) 0.24 & 0.18

115. Conversion of protein to amino acid is called :

- | | |
|-----------------|-----------------|
| (1) Carbonation | (2) Deamination |
| (3) Aminization | (4) Amination |

116. Which form of phosphate ions are absorbed by plants ?

- | | |
|----------------------------------|------------------|
| (1) $H_2PO_4^-$ | (2) HPO_4^{-2} |
| (3) $H_2PO_4^-$ and HPO_4^{-2} | (4) PO_4^{-3} |

117. Retention of water molecules on clay particles occurs due to the force of

- | | |
|---------------------------|--------------------|
| (1) Adhesion | (2) Cohesion |
| (3) Adhesion and Cohesion | (4) Centrifugation |

118. Horizon in which redeposition of leached soil constituents occurs :

- | | |
|------------------------------|------------------------------|
| (1) Horizon of eluviation | (2) Horizon of illuviation |
| (3) Horizon of sedimentation | (4) Horizon of precipitation |

119. Red colour of the soils is due to the presence of :

- | | |
|---------------|--------------|
| (1) Gibbsite | (2) Goethite |
| (3) Magnetite | (4) Hematite |

120. For accurate pH measurement, which of the following is often used ?

- | | |
|---------------------|------------------|
| (1) Pocket pH meter | (2) Dye solution |
| (3) pH meter | (4) Colour chart |

16P/202/24/2(i)

ROUGH WORK

रफ़ कार्य

ROUGH WORK

रफ़ कार्य

अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर केवल नीली-काली बाल-प्वाइंट पेन से ही लिखें)

1. प्रश्न पुस्तिका मिलने के 30 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें।
2. परीक्षा भवन में लिफाफा रहित प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लायें।
3. उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा। केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा।
4. अपना अनुक्रमांक तथा उत्तर-पत्र का क्रमांक प्रथम आवरण-पृष्ठ पर पेन से निर्धारित स्थान पर लिखें।
5. उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृत्तों को गाढ़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें।
6. ओ० एम० आर० पत्र पर अनुक्रमांक संख्या, प्रश्नपुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्नपुस्तिका पर अनुक्रमांक और ओ० एम० आर० पत्र संख्या की प्रविष्टियों में उपरिलेखन की अनुमति नहीं है।
7. उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
8. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिए आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करना है।
9. प्रत्येक प्रश्न के उत्तर के लिए केवल एक ही वृत्त को गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अथवा एक वृत्त को अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।
10. ध्यान दें कि एक बार स्याही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो संबंधित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. रफ कार्य के लिए प्रश्न-पुस्तिका के मुखपृष्ठ के अंदर वाला पृष्ठ तथा उत्तर-पुस्तिका के अंतिम पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त केवल ओ एम आर उत्तर-पत्र परीक्षा भवन में जमा कर दें।
13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
14. यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का/की, भागी होगा/होगी।