

11-2

117 X

M.Sc. (Ag.)

111 X

38 X

51-1

117 2-

39 X

62 X

45-?

29 X

13P/202/25

Set No. - I

107-1

Question Booklet No.

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

Roll No.

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Roll No.

(Write the digits in words)

Serial No. of Answer Sheet

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 10 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 changes 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 the 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.

| उपर्युक्त निर्देश हिन्दी में अन्तिम आवरण-पृष्ठ पर दिये गये हैं। |

Total No. of Printed Pages : 14

24

13P/202/25(Set-I)

No. of Questions : 120

Time : 2 Hours]

[Full Marks : 360

Note : (i) 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.*

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

1. Slate is metamorphosed :
(1) Sand Stone (2) Lime Stone
(3) Mica Schists (4) Shales and mud stones
2. The downward entry of water into the soil is termed as :
(1) Percolation (2) Infiltration (3) Permeability (4) Seepage
3. The horizon of eluviation is currently designated as :
(1) E (2) A₂ (3) AB (4) AC
4. Wherein the chemical weathering of rocks is most intense ?
(1) Cold regions (2) Semi-arids & Arids
(3) Mediterranean regions (4) Humid tropics
5. Which two new soil orders have been added in US Soil-Taxonomy after 1975 ?
(1) Histosol & Andisol (2) Histosol and Gelisol
(3) Andisol & Gelisol (4) Histosol and Spodosol
6. Which soils favour maximum ammonia volatilization losses of fertilizer-N ?
(1) Acid Soils (2) Waterlogged Soils
(3) Soddy Soils (4) Saline Soils

(1)

P. T. O.

13P/202/25(Set-I)

7. Which one is the most tolerant crop to Soil Sodcity ?
(1) Pearl millet (2) Cotton (3) Barley (4) Rice
8. "Browning of cauliflower" disease is attributed to the plant deficiency of the micronutrient :
(1) Boron (2) Molybdenum (3) Copper (4) Zinc
9. The zinc content (%) of Zn-EDTA is :
(1) 12 (2) 21 (3) 33 (4) 55
10. Critical deficiency level (mg Kg^{-1}) of available zinc (DTPA-Zn) in alluvial soils of Indo Gangetic plains is :
(1) 0.20 (2) 0.45 (3) 0.60 (4) 3.50
11. The "equivalent basicity" of the fertilizer Sodium nitrate is :
(1) 23 (2) 29 (3) 33 (4) 63
12. Crop innocuous biuret content (%) of urea for foliar sprays is :
(1) < 1.0 (2) < 2.0 (3) < 3.0 (4) < 4.0
13. The bacterial colony is known as :
(1) Spore (2) Mycelium (3) Ooze (4) Hypha
14. Which of the following is the principal storage material in bacteria ?
(1) Galactose (2) Glycogen (3) Starch (4) Sucrose
15. "Bean Common Mosaic" disease is caused by :
(1) Begomovirus (2) Potexvirus (3) Potyvirus (4) Aureusivirus
16. Which of the following disease is caused by viroid ?
(1) Bunchy top of banana (2) Tomato bunchy top
(3) Papaya ringspot (4) Leaf roll of potato
17. A viroid consists of :
(1) DNA (2) RNA
(3) DNA+protein coat (4) RNA+protein coat

18. White rust of crucifer is caused by :
 (1) *Puccinia* (2) *Albugo* (3) *Sclerospora* (4) *Perenospora*
19. Which of the following is known as "downy mildew fungus" ?
 (1) *Erysiphe* (2) *Sclerospora* (3) *Taphrina* (4) *Urocystis*
20. The perfect stage is *not* seen in :
 (1) Zygomycotina (2) Ascomycotina
 (3) Basidiomycotina (4) Deuteromycotina
21. are the sexual spores of fungi.
 (1) Chlamydo spores (2) Sporangiospores
 (3) Zoospores (4) Zygo spores
22. Which one of the following stain is used for staining of the nematodes ?
 (1) Lugol's Solution (2) Acid-Fuchsin
 (3) Formaline (4) Lactic Acid
23. Which of the following is nematode disease of rice ?
 (1) Molya (2) Ufra (3) Stubby (4) Slow decline
24. The theory of vertical resistance and horizontal resistance was proposed by :
 (1) Flor (2) Vanderplank (3) Gauman (4) Klement
25. Who coined the word 'Cell' ?
 (1) Robert Hook (2) Robert Brown (3) Schleiden (4) Schwann
26. Diffusion of water or other solvent through a semi permeable membrane is called :
 (1) Diffusion (2) Osmosis (3) Imbibition (4) Absorption
27. Enzymes are :
 (1) Carbohydrates (2) Lipids
 (3) Proteins (4) Inorganic compound
28. One of the following mineral elements plays an important role in biological nitrogen fixation :
 (1) Copper (2) Zinc (3) Boron (4) Molybdenum

29. In symbiosis :
- (1) Both plants and bacteria are benefited
 - (2) Only plants are benefited
 - (3) Only bacteria are benefited
 - (4) One is harmed and other is benefited
30. Leghaemoglobin is a pigment present in :
- (1) Leaf tissues
 - (2) Human blood
 - (3) Root nodules of legumes
 - (4) Bone marrow
31. Hydrophytes are :
- (1) Desert plants
 - (2) Terrestrial plants
 - (3) Water plants
 - (4) Tropical plants
32. Technology in which plants are grown without soil is known as :
- (1) Sand culture
 - (2) Media culture
 - (3) Hydroponics
 - (4) Biotechnology
33. Photoperiodism is :
- (1) Response to the sun
 - (2) Response to day length
 - (3) Response to the day temperature
 - (4) Response to light
34. Which one of these resistances is contributing maximum to the gas exchange in leaves ?
- (1) Stomatal resistance
 - (2) Mesophyll resistance
 - (3) Boundary layer resistance
 - (4) Laminal resistance
35. The carbon dioxide concentration in the atmosphere is :
- (1) Constant
 - (2) Rising
 - (3) Decreasing
 - (4) Intermittent changing
36. Which of the following hormones is associated with the reduction of plant growth ?
- (1) Gibberellic acid
 - (2) Indole acetic acid
 - (3) Cycocil
 - (4) Abscissic acid

37. Which one is *not* related with 4-H club ?
 (1) Hand (2) Heart (3) Home (4) Head
38. IADP was launched to have higher production of crops in the area of :
 X (1) Assured irrigation (2) Fallow Lands
 (3) Multiple cropping (4) Rainfed condition
39. Which one is most effective to/motivate for adoption of an innovation ?
 X (1) Kisan Mela (2) Contact farmer (3) Change agent (4) Lecture .
40. Demonstration conducted by research workers in farmers' field is known as :
 (1) Research Demonstration (2) Result Demonstration
 (3) Method Demonstration (4) Front Line Demonstration
41. Which one project was started in the year 1948 ?
 (1) Neelokheri (2) Gurgaon (3) Marthandom (4) Etawah pilot
42. Kisan Sahayak concept came out from :
 (1) Community Development
 (2) Training and Visit System
 (3) Integrated Rural Development
 (4) Intensive Agriculture District Programme
43. 'All round development of people' is a :
 (1) Principle of Extension Education (2) Objective of Extension Education
 (3) Philosophy of Extension Education (4) Scope of Extension Education
44. Learning by doing and seeing is believing is applicable for :
 (1) Kisan Mela (2) Rural Market
 (3) Demonstration (4) Picture
45. Which one is *not* the component of programme planning ?
 1 (1) Evaluation (2) Interest
 3 (3) Useful-technology (4) Need

46. "Rural Sociology is the sociology of life in rural environment" It is given by :
(1) Lowry Nelson (2) Sanderson
(3) Chapin (4) J. B. Chitamber
47. Psychology is the science of :
(1) Culture (2) Society (3) Soul (4) Environment
48. Which one is *not* the component of communication ?
(1) Source (2) Receiver (3) Overtime (4) Channel
49. Soil property *not* alterable by tillage :
(1) Structure (2) Texture (3) Airation (4) Infiltration
50. White bud of maize is due to :
(1) Nutrient deficiency (2) Nutrient toxicity
(3) Disease (4) Insect damage
51. Which one is *not* ICAR publication ?
(1) Khad Patrika (2) Indian Farming
(3) Kheli (4) Krishi Chayanika
52. Relahvely more drought tolerant crop is :
(1) Maize (2) Sorghum (3) Bajra (4) Ragi
53. Relatively more hygrosopic fertilizer is :
(1) SSP (2) DAP (3) MOP (4) Urea
54. Suberization is associated with the crop :
(1) Potato (2) Tomato (3) Tobacco (4) Okra
55. Which one is *not* a herbicide ?
(1) Diuron (2) Butachlor (3) Proclaim (4) Amiben
56. Which one in field of PRH-10 rice will be considered rogue ?
(1) Cyperus spp. (2) Echinichloa spp.
(3) Wild rice (4) Sambha Mahsoori
57. Experimental design in which two experimental errors are calculated is :
(1) RBD (2) CRD
(3) Split plot (4) Double split plot

58. ICRIASAT is located at :
 (1) New Delhi (2) Hyderabad (3) Bangalore (4) Kolkata
59. Retting is process associated with :
 (1) Jute (2) Cotton (3) Sugarcane (4) Opium
60. White rust is a deadly disease of :
 (1) Wheat (2) Mustard (3) Castor (4) Gram
61. Which fruit is referred to be as "BATHROOM-FRUIT" ?
 (1) Banana (2) Mango (3) Papaya (4) Guava
62. Which of the following is a frost resistant species of Papaya ?
 X (1) Carica-papaya (2) Carica-pentagona
 (3) Carica-candamarcensis (4) Carica-cauliflora
63. In which variety of cauliflower seed production is *not* possible in North-Indian Plains ?
 (1) Pusa Snow Ball-1 (2) Pusa Synthetic
 (3) Pusa Deepali (4) Pusa Himjyot
64. Japanese arrangement of flowers is known as :
 (1) Morimona (2) Tatebana (3) Ikebana (4) Jiyubana
65. Weeping Jelly is due to :
 (1) Excess of sugar (2) Excess of water
 (3) Excess of acid (4) Excess of pectin
66. Which is the Precursor of Ethylene :
 (1) Tryptophan (2) Violaxanthin
 (3) Methionine (4) Isopentenyladenine
67. The most economic method of irrigation in orchard under water scarcity conditions are :
 (1) Ring system (2) Sprinkler system
 ✓ (3) Drip system (4) Flood system

68. Family of sweet potato is :
(1) Solanaceae (2) Compositae
(3) Malvaceae (4) Convolvulaceae
69. Wolf-Apple is the common name of :
(1) Potato (2) Tomato (3) Brinjal (4) Muskmelon
70. Eugenol is the important chemical content of :
(1) Nutmeg (2) All-spice (3) Cardamom (4) Clove
71. Which plant is used for control of blood-pressure :
(1) Isabgol (2) Mulathi (3) Cinchona (4) Vinca
72. Winter Banana is a variety of :
(1) Mango (2) Banana (3) Apple (4) Pear
73. On an average the total solids in buffalo milk is :
(1) 15% (2) 16% (3) 17% (4) 18%
74. The normal titratable acidity in fresh cow milk is :
(1) 0.12% (2) 0.15% (3) 0.17% (4) 0.20%
75. NDDDB was established with the objective of taking up the activity of :
(1) Dairy Education (2) Dairy Research
(3) Dairy Development (4) Dairy Extension
76. Oxidized flavour development in milk is catalyzed by :
(1) Vitamin C (2) Riboflavin
(3) Copper (4) Manganese
77. Vaccination is most commonly used in pasteurization of :
(1) Milk (2) Flavoured Milk
(3) Cream (4) Ice Cream Mix
78. As per BIS standards pasteurized milk should have standard plate count not exceeding :
(1) 20,000/ml (2) 30,000/ml (3) 40,000/ml (4) 50,000/ml
79. Milk is an excellent source of :
(1) Iron and Copper (2) Sodium and Potassium
(3) Calcium and Phosphorus (4) Zinc and Manganese

80. Milk fat in ice cream should *not* be less than :
 (1) 8% (2) 10% (3) 12% (4) 12.5%
81. Chhena of better quality is prepared from :
 (1) Buffalo milk (2) Cow milk (3) Goat milk (4) Mixed milk
82. On an average the fat content in Cheddar Cheese is :
 (1) 32% (2) 35% (3) 38% (4) 40%
83. Lactose can be manufactured from :
 (1) Sugarcane (2) Sugar-beet (3) Milk (4) Soymilk
84. Currently most commonly used milk packaging materials in India is :
 (1) Bottle (2) Pouches (3) Carton (4) Tetrapack
85. Income elasticity for normal goods is :
 (1) Zero (2) Positive (3) Negative (4) Infinite
86. If $MPC = 0$, the consumption functions will be :
 (1) Vertical shaped (2) Horizontal shaped
 (3) Both (1) and (2) (4) None of the above
87. Giffin goods refer to :
 (1) Stock of goods (2) Lack of goods (3) Superior goods (4) Inferior goods
88. Speculative demand, depends on :
 (1) Income (2) Profit (3) Interest rate (4) Autonomous
89. According to law of diminishing return the optimum profit will be at the point where :
 (1) $MP > AP$ (2) $AP < MP$ (3) $MP = AP$ (4) $MC = MP$
90. Production is a function of :
 (1) Profit (2) Factors (3) Price (4) Cost
91. Demographic transition theory of population was proposed by :
 (1) J. A. Schumpter (2) Malthus
 (3) F. A. Walker (4) C. Blacker

92. 'Keynes' is associated with :
(1) Structural unemployment (2) Seasonal unemployment
(3) Frictional unemployment (4) Cyclical unemployment
93. Price theory is a part of :
(1) Micro economics (2) Macro economics
(3) Farm Management (4) Marketing
94. Line passing through the least cost points in the isoquant map is called :
(1) Isoline (2) Ridge line
(3) Expansion path (4) Isoquant curve
95. Mean deviation is the least, when calculated about (minimal property) :
(1) Arithmetic mean (2) Median
(3) Mode (4) Geometric mean
96. Which test is used to test the significance of the difference between two means :
(1) T-test (2) F-test (3) Z-test (4) X^2 -test
97. The correct name of father of Genetics is :
(1) Gregor Mendel (2) Gregor John Mendel
(3) Gregor Johann Mendel (4) Gregor Johan Mendel
98. Dihybrid ratio 9 : 3 : 3 : 1 in F_2 results due to independent assortment of :
(1) Genes (2) Chromosomes
(3) Genes & chromosomes (4) Alles
99. Continuous variation in a population occur mainly due to :
(1) Multiple alleles (2) Major genes
(3) Modifying genes (4) Polygenes
100. The main objective of plant breeding is :
(1) Domestication (2) Improvement (3) Collection (4) Introduction
101. Adventitious embregony occurs in :
(1) Mango (2) Jack fruit (3) Guava (4) Banana

102. The ultimate source of production of organic compound is :
 (1) Leucoplast (2) Protoplast (3) Chloroplast (4) Chromoplast
103. The common syndrome or Managoliam idiocy is also known as :
 (1) Down syndrome (2) Edward syndrome
 (3) Pataiu's syndrome (4) Kinefelter's syndrome
104. The branch of biology developed to study chromosome and its application in genetics is known as :
 (1) Cytology (2) Nuclear genetics
 (3) Cylogenetics (4) Cytoplasmic genetics
105. Indian Lac Research Institute is located at :
 (1) Dehradun (2) Coimbatore (3) Ranchi (4) Jodhpur
106. The complete set chromosomes in species listed below is called genome :
 (1) Tetraploid (2) Haploid (3) Triploid (4) Diploid
107. Most effective induced mutagenic agents are :
 (1) Gamma radiations (2) X. radiations
 (3) U. V. rays (4) Neutrons
108. Major genes are responsible for :
 (1) Vertical resistance (2) Horizontal resistance
 (3) Population resistance (4) Synthetic resistance
109. Propodeum is found in the insect belonging to the sub-order :
 (1) Symphyta (2) Apocrita (3) Adephaga (4) Polyphaga
110. Which one of the following is an insect ?
 (1) Cray fish (2) Dog fish (3) Silver fish (4) Star fish
111. Whorled type of antenna is found in :
 (1) Male mango mealy bug (2) Cockroach
 (3) Pulse beetle (4) Rice weevil

112. Which one of the following is red in the adult of red hairy caterpillar ?
1
2
(1) Anal margin of forewing (2) Outer margin of the forewing
(3) Costal margin of the forewing (4) Tarsi
113. The bright yellow colour of the label on the insecticide container indicates that the product is :
(1) Extremely toxic (2) Very Toxic
(3) Moderately toxic (4) Relatively safe
114. Grubs of *Holotrichia consanguinea* feed on :
(1) Roots (2) Leaves (3) Fruits (4) Flowers
115. *Idioscopus niveosparsus* is the pest of :
(1) Radish (2) Paddy (3) Sugarcane (4) Mango
116. On brinjal crop, the malathion 50_{EC} is sprayed in the concentration of :
(1) 1% (2) 0.5% (3) 0.2% (4) 0.05%
117. DD-136 is a :
(1) Bacteria (2) Mite
(3) Insect (4) Nematode
118. Central Silk Board is situated at :
(1) Bangalore (2) Mysore
(3) Mumbai (4) Kolkata
119. Which country is the highest producer of lac ?
(1) China (2) America
(3) India (4) Pakistan
120. Which one of the following hormones sclerotizes the newly formed cuticle ?
(1) Juvenile hormone (2) Bursicon
(3) Prothoracic gland hormone (4) Ecdysone



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 10 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दाययुक्त 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 वगवज साधन 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, प्रश्न-पुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्न-पुस्तिका पर अनुक्रमांक संख्या 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 लिये 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 लिये 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 सम्बन्धित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. रफ कार्य के लिये इस पुस्तिका के मुखपृष्ठ के अंदर वाला पृष्ठ तथा अंतिम खाली पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त केवल ओ० एम० आर० उत्तर-पत्र ही परीक्षा भवन में जमा करें।
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।