(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 OMR Answer Sheet $\qquad$
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. Oniy 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 also 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 ball-point 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 mark).
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 both the Question Booklet and the 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 गए है]
[No. of Printed Pages: 22+2

## No. of Questions/प्रश्नों की संख्या : 150

Time/समय : 2 Hours/घण्टे
Full Marks/पूर्णांक : 450
Note/नोट : (1) Attempt as many questions as you can. Each question carries 3 marks. One mark will be deducted for each incorrect answer. Zero mark will be awarded for each unattempted question.

अधिकाधिक प्रश्नों को हल करने का प्रयत्न करें। प्रत्येक प्रश्न 3 अंक का है। प्रत्येक गलत उत्तर के लिए एक अंक काटा जाएगा। प्रत्येक अनुत्तरित प्रश्न का प्राप्षांक शून्य होगा।
(2) If more than one alternative answers seem to be approximate to the correct answer, choose the closest one.
यदि एकाधिक वैकल्पिक उत्तर सही उत्तर के निकट प्रतीत हों, तो निकटतम सही उत्तर दें।

1. Who put forward 'Germ theory of disease'?
(1) Leeuwenhoek
(2) Louis Pasteur
(3) Robert Koch
(4) Nocard and Roux
2. Auxospore formation takes place in
(1) desmids
(2) diatoms
(3) green algae
(4) red algae
3. Paralytic shellrfish poisoning is caused by
(1) diatoms
(2) dinoflagellates
(3) blue-green algae
(4) toxic seaweeds
4. Vinegar is obtained from sugar by
(1) Lactobacillus
(2) Acetobacter
(3) Nitrosomonas
(4) Salmonella
5. Viroids contain
(1) protein only
(2) DNA only
(3) RNA only
(4) protein and DNA
6. VAM is an example of
(1) fungal symbiosis
(2) bacterial symbiosis
(3) algal symbiosis
(4) mycoplasmal symbiosis
7. Which of the following is not controlled by vaccination?
(1) Polio
(2) Rabies
(3) Diphtheria
(4) Malaria
8. Chantransia stage is found in
(1) Chara
(2) Ectocarpus
(3) Batrachospermum
(4) Fucus
9. Red tides are caused by
(1) Nostoc
(2) Anabaena
(3) Gymnodinium
(4) Scytonema
10. Desmids are the indicators of
(1) polluted river water
(2) oligotrophic water
(3) organically rich water
(4) eutrophic water
11. It can shoot its sporangia vertically upward to a height of 6 ft
(1) Pilobolus
(2) Blackslea
(3) Cunninghamella
(4) Albugo
12. Many celled long teleutospores surrounded by a gelatinous sheath are found in
(1) Gymnosporangium
(2) Uromyces
(3) Phragmidium
(4) Puccinia coronata
13. Which one of the following are archaebacteria?
(1) Blue green
(2) Green sulphur
(3) Rickettsias
(4) Methanogens
14. Silicified cell wall is the feature of
(1) Chlorophyceae
(2) Dinophyceae
(3) Bacillariophyceae
(4) Cryptophyceae
15. Which of the following is known as Drosophila of plant kingdom?
(1) Neurospora
(2) Peziza
(3) Agaricus
(4) Polyponus
16. The most common laboratory weed is
(1) Penicillium
(2) Synchytrium
(3) Aspergillus
(4) Claviceps
17. RNA particles without protein sheath are
(1) Viroid
(2) Mycoplasma
(3) Ricketts
(4) Virus
18. Subunit of coat of virus is
(1) Nucleosome
(2) Capsomere
(3) Nucleotide
(4) None of these
19. Which antibiotic is not of bacterial origin?
(1) Streptomycin
(2) Penicillin
(3) Erythromycin
(4) Ethromycin
20. Floridean starch is the reserve food of
(1) Cyanophyceae
(2) Bacillariophyceae
(3) Rhodophyceae
(4) Chlorophyceae
21. Which of the following is considered as progenitor of higher plants?
(1) Coleochaete
(2) Tretiphohlia
(3) Batrachospermum
(4) Fritschiella
22. The alga associated with the coralloid root of cycads is
(1) Chlorella
(2) Nostoc
(3) Anabaena
(4) Chaetophora
23. Downy mildew disease is caused by
(1) Peronospora
(2) Albugo
(3) Pythium
(4) Phytophthora
24. Mycoplasma are resistant to penicillin but sensitive to
(1) osmotic shock
(2) detergents
(3) alcohols
(4) None of these
25. Bakane disease of rice is caused by secretion of a substance as
(1) Auxins
(2) Gibberellins
(3) Cytokinins
(4) ABA
26. Yeast is the important source of
(1) vitamin A
(2) vitamin $B$
(3) vitamin C
(4) vitamin D
27. Calyptra develops from
(1) venter of the archegonium
(2) neck of the archegonium
(3) outgrowth of the gametophyte
(4) outgrowth of saprophyte
28. Septate rhizoids are found in
(1) Hepaticopsida
(2) Anthocerotopsida
(3) Bryopsida
(4) None of the above
29. Rhizoids are absent in
(1) Takakia
(2) Pellia
(3) Riella
(4) Marchantia
30. Sphagnum is popularly known as
(1) spike
(2) peat moss
(3) hair cap moss
(4) reindeer moss
31. Which of the following eras is regarded as the 'age of pteridophytes'?
(1) Pre-Cambrian
(2) Cambrian
(3) Silurian
(4) Carboniferous
32. Which plant is commonly called as 'quillwort'?
(1) Isoetes
(2) Botrychium
(3) Ophioglossum
(4) None of these
33. The book Liverworts of Western Himalayas was written by
(1) Kashyap
(2) Campbell
(3) Smith
(4) Ramudar
34. Elaters in bryophyte are
(1) haploid
(2) diploid
(3) triploid
(4) None of these
35. Which of the following is a true moss?
(1) Irish moss
(2) Bog moss
(3) Club moss
(4) Reindeer moss
36. Vallecular canal is found in the stem of
(1) Psilotum
(2) Spenophyllum
(3) Selaginella
(4) Equisetum
37. Ginkgo biloba, the only living species of Ginkgoales has continued to live unchanged since the Triassic period of
(1) Palaeozoic
(2) Mesozoic
(3) Coenozoic
(4) Carboniferous
38. Whish is a 'rootless fern'?
(1) Pteris
(2) Dryopteris
(3) Slavinia
(4) Adiantum
39. If a sporangium is derived from a single cell, it is called
(1) leptosporangiate fern
(2) eusporangiate fern
(3) heterosporangiate fern
(4) None of these
40. Pollen chamber is found in
(1) anther
(2) microsporangium
(3) pollen grain
(4) ovule
41. Largest archegonium is found in which member of gymnosperm?
(1) Pinus
(2) Gnetum
(3) Ephedra
(4) Cycas
42. Winged pollen grains are found in
(1) Coniferales
(2) Cycadales
(3) Taxales
(4) Gnetales
43. A distinct aril is present in
(1) litchi
(2) apple
(3) castor
(4) cashew-nut
44. The term mitoplast defines the following
(I) Chloroplast + mitochondria
(2) Inner membrane + matrix of mitochondria
(3) Stroma of chloroplast + matrix of mitochondria
(4) Outer membrane + matrix of mitochondria
45. DNA can best be stained by which one of the following?
(1) Basic dyes
(2) Slightly acidic dyes
(3) Highly acidic dyes
(4) Neutral dyes
46. The main components of cell membrane are
(1) vitamins and polysaccharides
(2) carbohydrates only
(3) fats and glycerol
(4) proteins and lipids
47. The number of types of gamete produced by plant having genotype AAbbCcDD is
(1) 2
(2) 4
(3) 8
(4) 16
48. Which one of the following is popularly known as 'suicidal bag'?
(1) Lysosome
(2) Peroxisome
(3) Golgi apparatus
(4) Oxysome
49. Which phytohormone has role in stomatal closing?
(1) GA
(2) ABA
(3) Cytokinin
(4) Ethylene
50. The first step in photosynthesis is
(1) ionization of water
(2) formation of ATP
(3) attachment of $\mathrm{CO}_{2}$ to 5 -carbon sugar
(4) excitement of electron to chlorophyll-a by photon of light
51. The precursor of ethylene is
(1) methionine
(2) tryptophan
(3) tyrosine
(4) glycine
52. Which one of the following represents a linear tetrapyrrole structure?
(1) Cytochrome
(2) Phytochrome
(3) Chlorophyll
(4) All of the above
53. ABA is a
(1) diterpene
(2) monoterpene
(3) sesquiterpene
(4) steroid
54. Substrate level phosphorylation takes place in Krebs' cycle in between
(1) Succinyl CoA and Succinic acid
(2) Succinic acid and Fumaric acid
(3) Fumaric acid and Malic acid
(4) Isocitric acid and $\alpha$-Ketoglutaric acid
55. Sucrose is
(1) monosaccharide
(2) oligosaccharide
(3) polysaccharide
(4) None of the above
56. Peroxisome contains most of cell's
(1) catalase
(2) lipase
(3) urease
(4) hydrolase
57. Phargmoplast is related to
(1) cell elongation
(2) karyokinesis
(3) cytokinesis
(4) DNA replication
58. Histone proteins are synthesized in
(1) M-phase
(2) S-phase
(3) $G_{1}$-phase
(4) $G_{2}$-phase
59. The $\alpha$-helix of protein usually is right-handed with -_ amino acid residue per turn.
(1) $2 \cdot 6$
(2) 3.6
(3) 4.6
(4) 1.6
60. Glyoxylate pathway was discovered by
(1) Krebs
(2) Kornberg and Krebs
(3) Beevers
(4) Slater
61. Example of diamino-monocarboxylic essential amino acid is
(1) leucine
(2) isoleucine
(3) proline
(4) lysine
62. Formation of sodium salt with fatty acid is a process called
(1) hydrogenation
(2) hydrolysis
(3) chelation
(4) saponification
63. The intra-fascicular cambium is an example of
(1) primary lateral meristem
(2) primary intercalary meristem
(3) secondary lateral meristem
(4) secondary intercalary meristem
64. The atactostele is the characteristic of all monocot stems, except
(1) Triticum
(2) Dracaena
(3) Sorghum
(4) Secale
65. Double fertilization leads to the formation of
(1) antipodals
(2) endosperm
(3) tapetum
(4) synergids
66. The explant used for the formation of a triploid plant is
(1) embryo
(2) fertilized secondary nucleus
(3) integument
(4) aril
67. It is difficult to find out the age of a palm tree because of the lack of
(1) vascular bundles
(2) annual rings
(3) persistent crown of leaves
(4) xylem vessels
68. The method used for rapid multiplication of plant species in vitro is called
(1) somatic multiplication
(2) micropropagation
(3) micromanipulation
(4) cybridization
69. The national tree is
(1) Azadirachta indica
(2) Mangifera indica
(3) Ficus bengalensis
(4) Ficus religiosa
70. Organisation responsible for maintaining 'Red Data Book' is
(1) WWF
(2) IUCN
(3) BNHS
(4) IBWL
71. Solanum melongena is the botanical name of
(1) love apple
(2) apple
(3) egg plant
(4) bleeding heart
72. Sun Hemp is
(1) Corchorus capsularis
(2) Hibiscus sabdariffa
(3) Cannabis sativa
(4) Crotalaria juncea
73. The Convention on Wetlands of international importance is better known as the
(1) Montreal Convention
(2) Rio Convention
(3) Vienna Convention
(4) Ramsar Convention
74. Which of the following vectors is suitable for construction of genomic libraries?
(1) Cosmid
(2) Plasmid
(3) Lambda phase
(4) YAC
75. In Ti plasmid, the T-DNA is flanked by
(1) 25 bp perfect direct repeat
(2) 25 bp imperfect direct repeat
(3) 25 kb perfect direct repeat
(4) 25 kb imperfect direct repeat
76. Prokaryotic mRNA is
(1) polycistronic
(2) monocistronic
(3) oligocistronic
(4) None of these
77. DNA polymerase III is involved in
(1) repair of damaged DNA
(2) removal of RNA
(3) de novo synthesis of new strands of DNA
(4) loading helicase/primase
78. DNA methylation of genes inhibits transcription by
(1) blocking the base pairing between cytosine and guanine
(2) blocking the base pairing between uracil and adenine
(3) blocking the TATA sequence
(4) turning off the gene permanently
79. A human gene is made up of numerous fragments of protein coding exon and non-coding interon. The percentage of protein coding regions in the genome is
(1) 1.5
(2) 2.4
(3) 15
(4) 24
80. Eco RI restriction enzyme recognizes site
(1) GGTACC
(2) GAATTC
(3) GGGCCC
(4) ACTAGT
81. Which of the following is not a method of genetic recombination in bacteria?
(1) Conjugation
(2) Transformation
(3) Transduction
(4) Transcription
82. ' K ' populations are characterized by
(1) long life cycles
(2) low turnover rates
(3) sedentary populations
(4) All of the above
83. Taiga forests are also called as
(1) montane coniferous forests
(2) boreal coniferous forests
(3) deciduous forests
(4) rain forests
84. The functional unit of Golgi complex is
(1) oxysome
(2) thylakoid
(3) cristae
(4) cisternae
85. Who first propounded the 'telome theory'?
(1) Bower
(2) Campbell
(3) Zimmerman
(4) Andrews
86. Nucleolus takes part in the synthesis of
(1) tRNA
(2) mRNA
(3) rRNA
(4) DNA
87. Smooth endoplasmic reticulum synthesizes
(1) carbohydrates
(2) proteins
(3) steroids and lipids
(4) All of these
88. $F_{1}$-generation represents
(1) first fertile generation
(2) first final generation
(3) first filial generation
(4) first federation generation
89. Who coined the term 'linkage'?
(1) Bateson and Punnet
(2) T. H. Morgan
(3) Correns
(4) de Vries
90. Raphano brassica is a classical example of
(1) autopolyploidy
(2) allopolyploidy
(3) segmental polyploidy
(4) aneuploidy
91. Correct sequence of cell cycle is
(1) $\mathrm{SG}_{1} \mathrm{G}_{2} \mathrm{M}$
(2) $\mathrm{SMG}_{1} \mathrm{G}_{2}$
(3) $G_{1} S G_{2} M$
(4) $M G_{1} G_{2} S$
92. ABA closes the stomata by
(1) influencing ion transport by inhibiting ATPase activity
(2) decrease in unsaturated fatty acids
(3) increase in saturated fatty acids
(4) All of the above
93. The cell walls form a hydrated continuum which helps in loading and unloading of phloem is called
(1) Apoplast
(2) Symplast
(3) Leucoplast
(4) Plasmodesmata
94. Saccharum officinarum is a
(1) $\mathrm{C}_{2}$ plant
(2) $\mathrm{C}_{3}$ plant
(3) $\mathrm{C}_{4}$ plant
(4) None of these
95. Which of the following types of oxido-reductase enzyme is usually for hydrogen peroxide $\left(\mathrm{H}_{2} \mathrm{O}_{2}\right)$ as one of its products?
(1) Dehydrogenases
(2) Oxidases
(3) Oxygenases
(4) Peroxidases
96. Number of ATP molecules produced by the oxidation of one molecule of pyruvate is
(1) 4
(2) 2
(3) 12
(4) 15
97. Who suggested 'induced fit mechanism' for enzyme action?
(1) Emil Fisher
(2) Koshland
(3) Pasteur
(4) Calvin
98. Succinic thiokinase is a
(1) Transferase
(2) Lyase
(3) Ligase
(4) Hydrolase
99. The number of tail fibres in bacteriophage is
(1) 2
(2) 4
(3) 5
(4) 6
100. Litmus is obtained from
(1) Red algae
(2) Chytrids
(3) Lichens
(4) Streptococcus
101. Taraxanthin is found in
(1) Green algae
(2) Brown algae
(3) Blue-green algae
(4) Red algae
102. Mucopolymeric cell wall is found in
(1) Bacillariophyceae
(2) Chlorophyceae
(3) Cyanophyceae
(4) Euglenophyceae
103. Red rust of tea is caused by a member of
(1) Chlorophyceae
(2) Phaeophyceae
(3) Rhodophyceae
(4) Basidiomycetes
104. Branched conidiophores are produced by
(1) Mucor
(2) Claviceps
(3) Peronospora
(4) Puccinia
105. Aflatoxin is mainly produced by
(1) Aspergillus candidus
(2) Aspergillus parasiticus
(3) Aspergillus ochraceous
(4) All of the above
106. Which one is an edible fungus?
(1) Agaricus
(2) Morchella
(3) Volvariella
(4) All of these
107. Which one of the following includes the bryophytes?
(1) Stoneworts
(2) Quillworts
(3) Hornworts
(4) None of these
108. Plants having genetic constitution as $(2 n-2)$ are called
(1) monosomics
(2) double monosomics
(3) nullisomics
(4) tetrasomics
109. Common wheat (Triticum aestivum) is an important example of
(1) aneuploidy
(2) allopolyploidy
(3) autopolyploidy
(4) All of the above
110. The phenomenon in which an allele of one gene suppresses the activity of an allele of anothei gene is known as
(1) dominance
(2) inactivation
(3) epistasis
(4) suppression
111. If plasmolysis is to be initiated in a cell, which type of salt solution will be needed?
(1) Hypotonic
(2) Hypertonic
(3) Isotonic
(4) Only water
112. In $\mathrm{C}_{4}$ plants 'Calvin cycle' occurs in
(1) stroma of bundle sheath chloroplast
(2) stroma of mesophyll chloroplast
(3) membrane of bundle sheath chloroplast
(4) grana membrane of mesophyll chloroplast
113. Which one controls the flowering in long-day plant?
(1) Auxins
(2) Cytokinins
(3) Gibberellins
(4) Brassinosteroids
114. Which of the following is called stress hormone?
(1) Abscisic acid
(2) $2,4-\mathrm{D}$
(3) Zeatin
(4) Ethylene
115. Which of the following reactions is suggestive of oxidative decarboxylation?
(1) Conversion of oxalosuccinate to $\alpha$-ketoglutarate
(2) Conversion of isocitrate to oxalosuccinate
(3) Conversion of $\alpha$-ketoglutarate to succinyl CoA
(4) Conversion of succinate to fumerate
116. With which of the following process Cholodny-Went is concerned?
(1) Photorespiration
(2) Photomorphogenesis
(3) Phototropism
(4) Photoperiodism
117. With increasing secondary growth, which type of wood will increase in thickness?
(1) Heart wood
(2) Hard wood
(3) Sap wood
(4) Soft wood
118. Pollination by ants is called
(1) Ornithophily
(2) Myrmecophily
(3) Malacophily
(4) Chiropterophily
119. Sanctuaries for Rhododendron and Orchids have been established in
(1) Assam
(2) Meghalaya
(3) Tripura
(4) Sikkim
120. Which statement is correct?
(1) RNA is double-stranded
(2) RNA is single-stranded
(3) Most cellular RNA is single-stranded
(4) Both double- and single-stranded RNA's are present in equal amount
121. The number of H -bonds that bound guanine and cytosine is
(1) 4
(2) 3
(3) 2
(4) 1
122. If resistance is spread against all races of a pathogen, it is called
(1) Vertical resistance
(2) Horizontal resistance
(3) Apparent resistance
(4) None of the above
123. Hypersensitivity is a sign of
(1) high resistance
(2) high susceptibility
(3) moderate resistance
(4) None of the above
124. Plant quarantine aims at
(1) preventing entry of the plant
(2) preventing entry of propagating material
(3) preventing entry of the pathogen
(4) All of the above
125. Name of the chemicals released due to the disease called 'stinking smut' giving foul smell is
(1) Trimethylamine (2) Trifluoroamine
(3) Triethylamine
(4) None of these
126. Which mycotoxin is secreted in milk of lactating animals?
(1) Aflatoxin $G_{1}$
(2) Aflatoxin $M_{1}$
(3) Aflatoxin $\mathrm{B}_{1}$
(4) Aflatoxin $\mathrm{B}_{2}$
127. Central Food Technological Research Institute is situated at
(1) New Delhi
(2) Mysore
(3) Chennai
(4) Coimbatore
128. The term 'retting' is related with
(1) flax
(2) cotton
(3) tea
(4) coir
129. The 'Golden rice' is rich in
(1) $\beta$-Carotene
(2) Xanthophyll
(3) Anthocyanin
(4) All of the above
130. Which of the following restriction endonucleases is obtained from E.coli ?
(1) Bam H I
(2) Hind III
(3) Sau 3A I
(4) Eco RI
131. Nilgiri Biosphere Reserve is located in
(1) Karnataka
(2) Kerala
(3) Tamil Nadu
(4) All of these
132. The process of shoot initiation during organogenesis is
(I) Sporogenesis
(2) Rhizogenesis
(3) Embryogenesis
(4) Caulogenesis
133. The immunity developed by a person during the life time against specific pathogen is called
(1) Acquired immunity
(2) Natural immunity
(3) Innate immunity
(4) All of the above
134. Which of the following is chiefly and mainly responsible for extinction of wildife?
(1) Pollution of water and air
(2) Hunting
(3) Destruction of habitats
(4) All of the above
135. 'Silent Valley' having rare plants and animals is situated in
(1) Karnataka
(2) Kashmir
(3) Kerala
(4) Bihar
136. Which of the following pulses is having high content of protein?
(1) Gram
(2) Arhar
(3) Soybean
(4) Mung
137. Non-conventional source of energy is
(1) wood
(2) biogas
(3) coal
(4) petroleum
138. A plasmid into which the DNA sequences from $\lambda$ bacteriophage are necessary for packing of DNA is called
(1) Plasmid
(2) Cosmid
(3) Clone
(4) Germ
139. An explant is
(1) whole plants
(2) piece of plant placed in culture
(3) short of plants
(4) side branches of plant
140. Which one of the following is not the component of $P C R$ ?
(1) Taq polymerase
(2) Primers
(3) d NTPS
(4) pBR 322
141. Insulin is
(1) protein
(2) fat
(3) carbohydrate
(4) steroid
142. The term 'Kilobase' refers to
(1) a 100 molecular weight pieces of RNA
(2) 1000 base pairs of a double-stranded DNA molecules
(3) a 1000 molecular weight pieces of DNA
(4) 1000 base of a single-stranded DNA molecule
143. DNA is single-stranded in
(1) eukaryotes
(2) prokaryotes
(3) viruses
(4) $\phi \times 174$
144. Interferon is effective against
(1) bacteria
(2) viruses
(3) fungi
(4) Mycoplasma
145. Chloramphenicol is obtained from
(1) Streptomyces venezualae
(2) S. rimosus
(3) S. fradiae
(4) S. griseus
146. Which of the following is the largest virus?
(1) Pox-virus
(2) Bacteriophage
(3) TMV
(4) Cyanophage
147. Sewage water can be purified by recycling with the action of
(1) aquatic plants
(2) penicillin
(3) microbes
(4) fishes
148. Which of the following is most widely used as biocontrol agents?
(1) Bacilhs thuringiensis
(2) Acetobacter acetii
(3) Escherichia coli
(4) Salmonella spp.
149. Mycotoxins are
(1) primary metabolites
(2) secondary metabolites
(3) both of these
(4) None of these
150. Which chemical is used for diploidization of haploids?
(1) $2,4-\mathrm{D}$
(2) Borax
(3) Colchicine
(4) GA3

## अर्थ्थर्थयों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण-पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्षों पर केवल नीली या 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 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, केषल उत्तरपत्र 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 सं० और ओ० एम० आर० पत्र सं० 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 उत्तरपत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पुष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करना है।
9. प्रत्येक प्रश्न के उत्तर के लिये केवल एक ही वृत 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 है, तो सम्बन्धित पंक्ति के सामने दिये गये सभी वृतों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. रफ़ कार्य के लिये प्रश्न-पुस्तिका के मुखपृष्ठ के अन्दर वाले पृष्ठ तथा अंतिम पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त प्रश्न-पुस्तिका एवं उत्तर-पत्र परीक्षा भवन में जमा कर दें।
13. परीक्षा समात्त 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।
