# Qno:95 and lot are cancelled. MiSc. Biochemistry 10P/210/1 

Question Booklet No
(To be filled up by the candidate by blue / black ball-point pen )
Roll No.


Roil No. (Writethe digit in words)
Serial No. of Answer Sheet.
Day and Date.

## INSTRUCTIONS TO CANDIDATES

(1Jse only bljeblack 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 contain's all the pages in correct sequence and that no page/question is missing in case of faulty, Question Bcoklet bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Bookies.
2. Do not bring any loose paper, written or blank, inside the Examination Hall except the Admit Card without it 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 Acill Number and Serial Number of the Answer Sheet by pen in the space provided above.
5. On the from page of :he Answer Sheet, write by pen your Roll Number in the space provided at the top, ard 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 Roil No., Question Booklet No. and Set No. (if any) on OMR sheet ard 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 both the Qurastion 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 हैं ]
Total No. of Printed Pages : 24

## 10P/210/1

No. of Questions/प्रश्नों की संख्या : 150
$\begin{array}{lr}\text { Time : } 2 \text { hours] } & \text { [Full Marks : } 450 \\ \text { समय : } 2 \text { घण्टे] } & \text { [ पूर्णांक : } 450\end{array}$

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.

अधिकाधिक प्रश्नों को हल करने का प्रयत्न करें। प्रत्येक प्रश्न 3 (तीन) अंक का है। प्रत्येक गलत उत्तर के लिए एक अंक काटा जायेगा। प्रत्येक अनुत्तरित प्रश्न का प्रापांक 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. One of the following shows bioluminescence
(1) Copepod
(i) Dianoflagellates
(3) Brown Algae
(4) Red Algae
2. One of the following is not a cryoprotectant
(1) Dimethylsulphoxide
(2) Proline
(3) Sucrose
(4) Glycine
3. The burning of fossil fuels have severely affected
(1) Sulphur cycle
(2) Phosphorus cycle
(3) Carbon cycle
(4) Nitrogen cycle
4. The only non-leguminous plant in which Rhizobia is found as symbiont is
(1) Casuarina
(2) Rice
(3) Sugarcane
(4) Parasponia
5. Ozone holes means
(1) Holes in ozone layer
(2) Damaging effects of ozone in troposphere
(3) Thining of ozone layer
(4) Absence of ozone layer in some parts of stratosphere
6. In global warming the dangerous gas next to $\mathrm{CO}_{2}$ is
(1) $\mathrm{CH}_{4}$
(2) $\mathrm{SO}_{2}$
(3) $\mathrm{NO}_{2}$
(4) Water vapour
7. Crossing over is not found in
(1) Female drosophila
(2) Male drosophila
(3) Maize
(4) Evening primrose
8. One of the following will not cause a transition mutation
(1) 5-Bromouracil
(2) Nitrous acid
(3) 2-Aminopurine
(4) None of these
9. The mutagenic changes induced by $X$-rays are mainly by
(1) Transitions
(2) Frame shifting
(3) Transversions
(4) Chromosomal breakage
10. Which of the following sequences is the best target for damage by UV radiation?
(1) AGGCAAA
(2) AGGGAAA
(3) CTTTTGA
(4) GUAAAAU
11. Genes for cytoplasmic male sterility in plants are generally located in
(1) Mitochondrial genome
(2) Cytosol
(3) Chloroplast genome
(4) Nuclear genome
12. All anticancer agent, taxol, prevents cell division because it
(1) Inhibits microtubule plymerisation
(2) solubilises microtubule
(3) Inhibits DNA replication
(4) Inhibits cytokinesis
13. Pseudolinkage is caused by
(1) Translocation
(2) Deletion
(3) Inversion
(4) Duplication
14. Crossing over occurs at
(1) Leptotene
(2) Zygotene
(3) Pachytene
(4) Diplotene
15. During DNA synthesis, the frame reading is in the direction of
(1) $3^{\prime} \rightarrow 5^{\prime}$
(2) $5^{\prime} \rightarrow 3^{\prime}$
(3) Both simultaneously
(4) Any one direction at a time
16. Only one genetic code exists for one of the following amino acids
(1) Tryptophan
(2) Tyrosine
(3) Isoleucine
(4) Phenyl alanine
17. One letter code for glutamine is
(1) $P$
(2) A
(3) $Q$
(4) G
18. Glutathione is a
(1) Protein
(2) Fatty acid
(3) Trisaccharide
(4) Tripeptide
19. The lac operon requires which one of the following for full expression
(1) Lactose and cAMP
(2) Allolactose and cAMP
(3) Lactose
(4) Allolactose
20. Gene expression can be regulated at the level of
(1) Replication
(2) Transcription
(3) Conjugation
(4) Cell Division
21. Recombination dependent mechanism for DNA repairing is
(1) SOS repair
(2) Excision repair
(3) Post-replication repair
(4) Photo reactivation repair
22. During replication the primer used for extension of DNA chain is
(1) DNA
(2) RNA
(3) DNA or RNA
(4) A small polypeptide
23. The genomic material in retroviruses is
(1) RNA
(2) DNA
(3) RNA-DNA duplex
(4) RNA or DNA
24. Restriction endonucleases hydrolyse a polynucleotide from
(1) Only the $3^{\circ}$ end
(2) Only the 5 ' end
(3) From either terminal
(4) A phosphodiester bond within a specific sequence
25. Shine-Dalgarno elements on prokaryotic open reading frame show complementarity to that of
(1) 16 S rRNA of ribosome
(2) 18 S rRNA of ribosome
(3) 5 S rRNA of ribosome
(4) 23 S rRNA of ribosome
26. In eukaryotes, the distinction in coding for the start and other Methionine is made by
(1) elfl
(2) eIF2
(3) elF4
(4) eIF6
27. IF2 is a
(1) ATPase
(2) Ribonuclease
(3) GTPase
(4) DNAse
28. The number of glucose residues per chain of cellulose may be obtained by dividing the molecular weight of cellulose by the molecular weight of
(1) Galactose
(2) Glucose
(3) Sucrose
(4) Fructose
29. The number of stereoisomers of any aldohexose depends on the presence of number of
(1) Symmetric carbon
(2) Aldehyde group
(3) Asymmetric carbon
(4) Keto group
30. The number of moles may be calculated by dividing the given weight of a compound by the
(1) Atomic weight of any atom
(2) Molecular weight
(3) Number of atoms
(4) All of the above
31. The average molecular weight of an amino acid is
(1) 120
(2) 240
(3) 320
(4) 190
32. The average molecular weight of a deoxynucleotide base is
(1) 120
(2) 240
(3) 206
(4) 190
33. In general, the ratio of molecular weights of mRNA and protein is
(1) $2-5$
(2) $3-5$
(3) $6-8$
(4) $8-10$
34. The enzymes
(1) Participate in the reaction (2) Lower the activation energy
(3) Change at the end of reaction(4) All of the above
35. The protein part of any enzyme is called
(1) Lipoprotein
(2) Holoprotein
(3) Conjugate protein
(4) Apoprotein
36. Ribosomes are
(1) Glycoproteins
(2) Lipoproteins
(3) Ribonucleoproteins
(4) Complex carbohydrates
37. The induced-fit theory proposed by Dr. D.E. Koshland explains about
(1) Enzyme-substrate interaction
(?) Active site architecture
(3) Substrate
(i) Lock-and-key analogy
38. The non-protein organic molecule which remains tightly bound to the enzyme is called
(1) Cofactor
(2) Coenzyme
(3) Prosthetic group
(4) Leaving group
39. The best substrate is that which has
(1) Lowest $\mathrm{V}_{\text {max }} / \mathrm{K}_{\mathrm{m}}$ ratio
(2) $\mathrm{V}_{\max } / \mathrm{K}_{\mathrm{m}}$ ratio equal to 1
(3) Highest $V_{\text {max }} / K_{m}$ ratio
(4) None of the above
40. Atoms that contain the same number of protons but different number of ncutrons are called
(1) Isobars
(2) Isotopes
(3) Neobars
(4) All of the above
41. The half life of $P^{32}$ is
(1) 14 days
(2) 1 year
(3) 14 years
(4) 6 months
42. The curies per gram $(\mathrm{Ci} / \mathrm{g})$ is the unit of
(1) Specific activity of an enzyme
(2) Specific activity of a radioactive compound
(3) Radioactivity
(4) None of the above
43. 1 mM is equal to
(1) $1 \mu \mathrm{~mole} / \mathrm{ml}$
(2) 1 nmole/ml
(3) 1 pmole $/ \mathrm{ml}$
(4) $1 \mathrm{fmole} / \mathrm{ml}$
44. The enthalpy, entropy and free energy depend
(1) On the mechanism and path of the system
(2) Only on the initial state of the system
(3) Only on the final state of the system
(4) Only on the initial and final states of the system
45. In which of the following compounds C - H bond length is minimum?
(1) Ethane
(2) Ethene
(3) 1,2-dichloroethene
(4) 1,2-dichloroethane
46. The Huckel rule defines
(1) Alkanes nature
(2) Alkenes nature
(3) Aromaticity
(4) Transition elements
47. In any organic species, if the number of pi bond is one, the type of hybridization would be
(1) sp 2
(2) sp
(3) sp 3
(4) both sp3 and sp2
48. Any atom or group of atoms that contain single electron is called as
(1) Compound
(2) Ions
(3) Free radical
(4) All of the above
49. One of the following reaction intermediates does not have a planar structure
(1) Alkyl carbocation
(2) Alkyl carbanion
(3) Alkyl free radical
(4) Singlet carbene
50. Enantiomers are stereoisomers which exhibit
(1) Mirror images of each other
(2) Not mirror images of each other
(3) Same structure
(4) No any optical properties
51. Corey-House synthesis is a method for preparing
(1) Pure alkanes from alkynes
(2) Pure aromatic compounds
(3) Pure alkenes from alkanes
(4) Pure alkanes from alkyl halides
52. Vinyl halides are
(1) Haloalkanes
(2) Halobenzenes
(3) Haloethenes
(4) Carotenes
53. Freons are
(1) Carbohydrates
(2) Aromatic molecules
(3) Unsaturated fats
(4) Chloroflurocarbons
54. One of the following is true
(1) The cation is always bigger in size than the parent atom
(2) An anion is always bigger in size than the parent atom
(3) The anion is always smaller in size than the parent atom
(4) The cation is always same in size with that of the parent atom
55. Cesium (Cs) belongs to
(1) sl-block
(2) s2-block
(3) p2-block
(4) p5-block
56. Allred and Rochow defined one of the following
(1) Electropositivity
(2) Electronegativity
(3) Atomic size
(4) Magnetic property
57. Cryophytic algae grow on
(1) Rocks
(2) Water
(3) Ice and snow
(4) Soil
58. Agar-agar is obtained from
(1) Chlorella
(2) Gracilaria
(3) Sargassum
(4) Smut
59. The smallest known aerobic prokaryotes without a cell wall are called as
(1) Mycoplasmas
(2) Virus
(3) Viroids
(4) Nostoc
60. Litmus is a natural dye obtained from
(1) Algae
(2) Lichens
(3) Fungi
(4) Corals
61. Double stranded RNA viruses are called
(1) Pox viruses
(2) Lentiviruses
(3) Reoviruses
(4) Riboviruses
62. HIV- 1 is a
(1) Pox virus
(2) Reovirus
(3) Lentivirus
(4) Retrovirus
63. Claviceps synthesize the following metabolite
(1) Ergot
(2) Penicillin
(3) Asarose
(4) Kanamycin
64. The genetic material in bacteria is anchored on to the
(1) Plastids
(2) Scaffold protein
(3) Histones
(4) Membrane
65. The N -acetylmuramic acid and N -acetylgluconic acids are constituents of
(1) Cell wall of algae
(2) Cell wall of virus
(3) Animal cell membrane
(4) Bacterial cell wall
66. One of the following is not a parasite
(1) Gnetum trinerve
(2) Loaloa
(3) Pisum sativum
(4) Plasmodium vivax
67. Gingko biloba is also known as
(1) Living fossil
(2) Fossil fuel
(3) Cactus
(4) Succulent plant
68. Vegetable farming is known as
(1) Sericulture
(2) Apiculture
(3) Tissue culture
(4) Olericulture
69. Deficiency of vitamin $E$ leads to cause
(1) Cataract
(2) Ricket
(3) Infertility
(4) Scurvy
70. The highly low pH of gastric juice is
(1) Bacteriostatic in nature
(2) Fungicidal in nature
(3) Viricidal in nature
(4) Namaticidal in nature
71. The vitamin needed for blood clotting is
(1) C
(2) $\mathrm{B}_{12}$
(3) D
(4) K
72. Wheat is a
(1) C3 plant
(2) C4 plant
(3) Succulent plant
(4) All of the above
73. 'Chloride shift' in blood is required for the transport of
(1) $\mathrm{O}_{2}$
(2) Ammonia
(3) Urea
(4) $\mathrm{CO}_{2}$
74. RuDP carboxylase can utilize following as the substrate
(1) Water
(2) $\mathrm{O}_{2}$ and $\mathrm{CO}_{2}$
(3) $\mathrm{O}_{2}$
(4) $\mathrm{CO}_{2}$
75. Auxins generally inhibit cell enlargement in root tissue whereas gibberellins
(1) Show no such effect
(2) Also do the same
!ミ) Do not act on root tissues
(4) Only act on leaves
76. The metal atom found in the myoglobin is
(1) Ca
(2) Fe
(3) Cu
(4) Mg
77. The ribose sugar in DNA is attached to purine bases at the position
(1) $\mathrm{N}-9$
(2) N-5
(3) N-3
(4) N-4
78. The majority of amino acids in histones in eukaryotes are
(1) Aromatic in nature
(2) Basic in nature
(3) Acidic in nature
(4) Hydrophobic in nature
79. The prosthetic group present in a conjugated protein like ribosome is
(1) FAD
(2) DNA
(3) Galactose
(4) RNA
80. The fatty acids esters with glycerol are known as
(1) Lipids
(2) Polysaccharides
(3) Nucleic acids
(4) Vitamins
81. Most of the water soluble vitamins are used as
(1) Substrate
(2) Activator
(3) Coenzymes
(4) Non-competitive inhibitor
82. The genetic material of Simion Virus 40 (SV 40) is
(1) RNA
(2) DNA
(3) RNA-DNA hybrid
(4) Peptidonucleic acid
83. Microsomes are formed from
(1) Chloroplasts
(2) Lysosomes
(3) Endoplasmic reticulum
(4) Golgi body
84. The red pigment found in the ripe tomatoes are called
(1) Carotene
(2) Chloroplast
(3) Leukoplast
(4) Lycopene
85. Zymogens are also called as
(1) Nucleoproteins
(2) Proenzymes
(3) Coenzymes
(4) Cofactors
86. The gencration time for E.coll is
(1) 20 minutes
(2) 30 minutes
(3) 1 hour
(4) 24 hours
87. The vectors for the virus causing yellow fever are
(1) Mosquitoes
(2) Ticks
(3) Black flies
(4) Tsetse flies
88. The most variable period of the cell cycle is
(1) S phase
(2) G2 phase
(3) G1 phase
(4) M phase
89. The codon UGA is also called as
(1) Ochre
(2) Opal
(3) Amber
(4) Initiation
90. Transcription takes place in
(1) Nucleus
(2) Cytoplasm
(3) Golgi body
(4) Endoplasmic reticulum
91. Schilling test is
(1) Absorption of Vit B12 from the gut
(2) Rate of respiration
(3) Rate of urine filtration
(4) Pulse rate
92. The force with which the surface molecules of a liquid are held together is called
(1) Tensile strength
(2) Power
(3) Cohesive
(4) Surface tension
93. In liver, the glycogen breaks down to glucose but in muscle it breaks down to
(1) Glucose
(2) Fructose
(3) Mannose
(4) Lactic acid
94. One of the following is not a reducing sugar
(1) Fructose
(2) Galactose
(3) Maltose
(4) Lactose
95. One of the following is not an essential fatty acid
(1) Linoleic acid
(2) Palmitic acid
(3) Arachidonic acid
(4) Linoleic acid
96. One of the following is a suicide enzyme
(1) GOT
(2) Cyclooxygenase
(3) LDH
(4) Glucokinase
97. The colour of bile is yellow
(1) Due to salts present in bile
(2) Due to biliverdin present in bile
(3) Due to bilirubin present in bile
(4) Due to bile enzyme reticulum
98. The red wine is considered beneficial because
(1) It contains antioxidants
(2) It contains proper carbohydrate
(3) It contains vitamins
(4) It contains proteins
99. Enzymes whose concentration in a cell is dependent of any inducer is called as
(1) Ribozyme
(2) Constitutive enzyme
(3) Inducive enzyme
(4) Abzyme
100. One of the foilowing is true
(1) Apoenzyme - coenzyme = holoenzyme
(2) Apoenzyme $=$ holoenzyme
(3) Apoenzyme + coenzyme = holoenzyme
(4) Coenzyme = holoenzyme
101. The disease developed due to deficiency of VitB3 is
(1) Beri-Beri
(2) Pellagra
(3) Recketsia
(4) Color blindness
102. DNA gyrase is also called as
(1) Topoisomerse I
(2) Helicase
(3) Topoisomerase II
(4) Replicase
103. The offsprings obtain how much genes from father
(1) $50 \%$
(2) $75 \%$
(3) $25 \%$
(4) $100 \%$
104. A child with IQ 140 belongs to which category
(1) Average
(2) Superior
(3) Most superior
(4) Genius
105. Mutations are so often
(1) Dominant
(2) Always silent
(3) Always dominant
(4) Silent
106. AIDS virus contains
(1) Two strands of RNA
(2) Double stranded RNA
(3) Double stranded DNA
(4) Single strand of DNA
107. Interferrons are
(1) Anticancer protein
(2) Antifungal proteins
(3) Antiviral proteins
(4) Antibacterial proteins
108. Filariasis is caused by
(1) Protozoa
(2) Helminths
(3) Virus
(4) Bacteria
109. In ascariasis disease, one of the following is used
(1) Mustard oil
(2) Camphor
(3) Chloroquine
(4) Chenopodium oil
110. Honey primarily contains
(1) Calcium
(2) Lipids
(3) Glucose and fructose
(4) Proteins
111. One of the following is not an enzyme
(1) Renin
(2) Trypsin
(3) Amylose
(4) Lipase
112. If your gums are bleeding, you are deficient in
(1) Vit C
(2) Trace metals
(3) Protein
(4) Carbohydrates
113. Haptens are
(1) Inclusion bodies
(2) Large molecules
(3) Medium size molecules
(4) Small molecules
114. Deamination of cytosine leads to production of
(1) Guanosine
(2) Uracil
(3) Thymidine
(4) Adenosine
115. The number of release factors involved in prokaryotic translation are
(1) 1
(2) 2
(3) 3
(4) 4
116. Peptidyl transferase are associated to
(1) Smaller subunit of ribosomes
(2) Larger subunit of ribosomes
(3) Golgibody
(4) Endoplasmic reticulum
117. Chaperonins are
(1) Heat-shock proteins
(2) Involved in protein folding
(3) Both of the above
(4) None of the above
118. More than one codon can specify the same amino acid. This is called
(1) Continuity
(2) Regeneracy
(3) Universality
(4) Degeneracy
119. RNA polymerase II is localized into
(1) Endoplasmic reticulum
(2) Nucleolus
(3) Cytoplasm
(4) Nucleus
120. DNA pol $\alpha$ functions is involved into replication of
(1) Plastid DNA
(2) Chromosomal DNA
(3) Nuclear DNA
(4) Mitochondrial DNA
121. Tricuspid valve exists between
(1) Both ventricles
(2) Both auricles
(3) Right auricle and ventricle (4) Left auricle and ventricle
122. Oral rehydration therapy is associated with
(1) Cholera
(2) Salmonella
(3) Meningitis
(4) Leprosy
123. The percentage of protein into HDL is
(1) $10 \%$
(2) $50 \%$
(3) $20 \%$
(4) $35 \%$
124. Lysosomes contain
(1) Lytic enzymes
(2) Carbohydrates
(3) Lipids
(4) Nucleic acids
125. Mendel did his experiments on pea whereas Kolreuter did on
(1) Pea
(2) Tobacco
(3) Eggplant
(4) Chick pea
126. The presence of $\mathrm{CO}_{2}$ in bio gas
(1) Increases its calorific value
(2) Makes it liquid
(3) Does not influence its calorific value
(4) Decreases its calorific value
127. On spot treatment of environment pollutant is known as
(1) Local
(2) Ex situ
(3) In situ
(4) Transported
128. Hybridoma cells are
(1) Fused lymphocytes and malignant cells
(2) Fused lymphocytes and myeloma cells
(3) Fused lymphocytes and malignant myeloma cells
(4) Fused erythrocytes and malignant myeloma cells
129. Endorphin is a
(1) Protein
(2) Lipid
(3) Carbohydrate
(4) Nucleic acid
130. The loss or addition of one or more chromosomes is known as
(1) Polyploidy
(2) Aploidy
(3) Euploidy
(4) Aneuploidy
131. Alkeptonuria is a
(1) Syndrom
(2) Inborn error of metabolism
(3) Disease
(4) Symptom of a disease
132. The science of improving human stock is known as
(1) Genetics
(2) Eugenics
(3) Biology
(4) Animal science
133. A DNA has $2.1 \times 10^{5}$ nucleotides in its coding strand. The number of codons are
(1) $7 \times 10^{4}$
(2) $6 \times 10^{3}$
(3) $7 \times 10^{3}$
(4) $4 \times 10^{3}$
134. Collagen is rich in
(1) Histidine
(2) Hydroxyproline
(3) Tryptophan
(4) Alanine
135. Measles is caused by
(1) Bacteria
(2) Puccinia virus
(3) Rubeola virus
(4) Fungi
136. Any gene that is placed into a plasmid is called
(1) Small plasmid
(2) Insert
(3) DNA
(4) Trans gene
137. A single stranded DNA or RNA molecule used to detect the presence of a complementary nucleic acid is called
(1) Insert
(2) Sensor
(3) Probe
(4) Detector
138. Competent cells are used for
(1) Cloning
(2) Capsduction
(3) Transformation
(4) Transduction
139. Oxidative stress is caused due to
(1) Production of excessive free radicals
(2) Indigestion
(3) Production of excessive HCl in stomach
(4) Low BMR
140. The antibodies that are able to catalyze specific chemical reactions are called as
(1) Abzymes
(2) Ribozymes
(3) Enzymes
(4) Isozymes
141. Confinement of the enzyme molecules to a distinct phase is known as
(1) Absorption
(2) Purification
(3) Adsorption
(4) Immobilisation
142. Some synthetic polymers possessing enzyme activities are called as
(1) Coenzymes
(2) Suicidal enzymes
(3) Synzymes
(4) Extremozymes
143. Which of the following antibiotic inhibits the translation in eukaryotes
(1) Tetracyclin
(2) Penicillin
(3) Puromycin
(4) Chloromycetin
144. Chewing gum is the latex, obtained from the bark of
(1) Ficus hispida
(2) Cincona
(3) Achras sapota
(4) Plumeria rubra
145. The order of reaction for radioactive decay is
(1) Zero
(2) Second
(3) Third
(4) First
146. The sugar present in DNA belong to a configuration
(1) L
(2) 1
(3) D
(4) d
147. Starch after boiling with diluted HCl gives
(1) Glucose
(2) Mannose
(3) Fructose
(4) Lactose
148. The transition element present in vitamin $B_{12}$ is
(1) Pb
(2) Ni
(3) Cr
(4) Co
149. A potential antioxidant present in turmeric is
(1) Curcumin
(2) Lycpene
(3) Catechine
(4) Rasvertrol
150. Dicer acts like a
(1) Nucleic acid
(2) Enzyme
(3) Complex carbohydrate
(4) Antibiotic

## अभ्यर्थियों के लिए निर्देश

(इर पुस्तिका के प्रथम आवरण-पृष्ट 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 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 क़ोई भी खुला कागज साथ में न लायें।
3. उत्तर-पत्र अलग़ 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 निर्धीरित स्थान पर लिंखें।
5. उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृतों को गढ़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें।
6. ओ॰ एम० आर० पत्र पर अनुक्रमांक संख्या, प्रश्न-पुस्तिका संख्या व सेट संख्या (यद् कोई हो) तथा प्रश्न-पुस्तिका पर अनुक्रमांक सं० और ओ० एम० आर० पत्र संख्या की प्रबिष्टियों 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 आपदो उत्तर-पत्र की सम्बन्धित पंत्कि के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निदेगों के अनुसार पेन से गढा करना हैं।
9. प्रत्येक प्रश्न के उत्तर के लिये केवलं 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 दे कि एक बार स्याही द्वारा अंकित उत्तर बदला नहीं जा सकता हैं।'यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो सम्बन्धित पंक्ति के सामने दिये गये सभी वृतों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।

11 एक कार्य के लिये इस-पुस्तिका के मुखपृष्ठ के अंदर वाला पृष्ठ तथा अंतिम खाली पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त प्रश्न-पुस्तिका एवं 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 श्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का/की भागी होगा / होगी।

