

1998

Set No. 1

18P/210/23

Total No. of Printed Pages : 23

Question Booklet No

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

Roll No.

--	--	--	--	--	--	--	--	--	--

Roll No. (Write the digits in words).....

2018

Serial No. of OMR Answer Sheet

Centre Code No.

--	--	--	--

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.
3. A separate OMR Answer Sheet is given. It should not be folded or mutilated. A second OMR Answer Sheet shall not be provided. Only the OMR Answer Sheet will be evaluated.
4. Write all entries by blue/black pen in the space provided above.
5. On the front page of the OMR Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, write the Question Booklet Number, Centre Code Number and the Set Number wherever applicable in appropriate places.
6. No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR Answer sheet and Roll No. and OMR Answer 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 OMR Answer Sheet.
9. For each question, darken only one circle on the OMR 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. On completion of the Test, the candidate must handover the OMR Answer Sheet to the Invigilator in the examination room/hall. However, candidates are allowed to take away Test Booklet and copy of OMR Answer Sheet with them.
13. Candidates 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 may be determined by the Board.

ROUGH WORK

रफ़ कार्य

18P/210/23 (1)

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.

1. Milk sugar is called

- (1) Glucose (2) Lactose (3) Sucrose (4) Galactose

2. The z-DNA helix

- (1) Is the primary form in living organisms
(2) Is favoured by an alternating G-C sequence
(3) Is inhibited by the methylation of the bases
(4) Is a permanent conformation of DNA

3. Which of the following is a characteristic of mitochondria ?

- (1) The inner membrane forms cristae and contains small spheres attached by stalks on the inner surface
(2) Mitochondria have no role in apoptosis
(3) Mitochondrial DNA is similar to nuclear DNA in size and shape
(4) Only the outer membrane has transmembrane systems for translocation of metabolites

18P/210/23 (1)

4. Sorbitol is a
- (1) Reducing sugar (2) Sugar alcohol
(3) Sugar ester (4) Glycoside
5. Chromosomes having equal or almost equal arms are known as
- (1) Metacentric (2) Acrocentric
(3) Concentric (4) Telocentric
6. The pentose sugar present in DNA is
- (1) Ribose (2) Ribulose
(3) Sucrose (4) Deoxyribose
7. Which of the following cell organelle is considered to be rich in hydrolytic enzymes ?
- (1) Endoplasmic reticulum (2) Lysosomes
(3) Golgi bodies (4) Mitochondria
8. Ribosomes are the centers for
- (1) Respiration (2) Photosynthesis
(3) Protein synthesis (4) Lipid synthesis
9. HDL is synthesized and secreted from
- (1) Liver (2) Muscle
(3) Kidney (4) Pancreas

18P/210/23 (1)

10. Xanthine oxidase is inhibited by

- | | |
|-----------------|----------------|
| (1) Aspirin | (2) Probenecid |
| (3) Allopurinol | (4) Colchicine |

11. Osmosis is opposite to

- | | |
|---------------|-----------------|
| (1) Diffusion | (2) Effusion |
| (3) Affusion | (4) Coagulation |

12. A lipid bilayer is permeable to

- | | |
|-------------|---------------|
| (1) Urea | (2) Potassium |
| (3) Glucose | (4) Fructose |

13. rRNA in mammalian cells is produced mainly in the

- | | |
|--------------|---------------------------|
| (1) Nucleus | (2) Nucleolus |
| (3) Ribosome | (4) Endoplasmic reticulum |

14. The constituent unit of inulin is

- | | |
|-------------|---------------|
| (1) Glucose | (2) Fructose |
| (3) Mannose | (4) Galactose |

15. Osazones are not formed with

- | | |
|-------------|--------------|
| (1) Glucose | (2) Fructose |
| (3) Sucrose | (4) Lactose |

18P/210/23 (1)

16. The active site of an enzyme

- (1) Binds competitive inhibitors
- (2) Is directly involved in binding of allosteric inhibitors
- (3) Is formed after addition of a substrate
- (4) Resides in a few adjacent amino acid residues in the primary sequence of the protein

17. Lactate dehydrogenase is

- (1) Ligase
- (2) Lyase
- (3) Isomerase
- (4) Oxidoreductase

18. Carbonic anhydrase is an example of

- (1) Lipoprotein
- (2) Phosphoprotein
- (3) Chromoprotein
- (4) Metalloprotein

19. The milk protein casein is

- (1) Nucleoprotein
- (2) Phosphoprotein
- (3) Glycoprotein
- (4) Chromoprotein

20. Renin converts casein to paracasein in presence of

- (1) Ca^{++}
- (2) Mg^{++}
- (3) Na^+
- (4) K^+

18P/210/23 (1)

21. Pepsinogen is converted to pepsin by

- | | |
|----------------------|------------------|
| (1) HCl | (2) Bile salts |
| (3) Ca^{++} | (4) Enterokinase |

22. The immunoglobulin having the longest half-life is

- | | | | |
|---------|---------|---------|---------|
| (1) IgA | (2) IgM | (3) IgG | (4) IgE |
|---------|---------|---------|---------|

23. Complement fixation reaction can be activated by binding of antigen to

- | | | | |
|---------|---------|---------|---------|
| (1) IgA | (2) IgD | (3) IgM | (4) IgE |
|---------|---------|---------|---------|

24. Histidine is converted into histamine by

- | | |
|-------------------|---------------------|
| (1) Carboxylation | (2) Decarboxylation |
| (3) Methylation | (4) Hydroxylation |

25. NH_3 is detoxified in brain as

- | | |
|----------------|---------------|
| (1) Urea | (2) Uric acid |
| (3) Creatinine | (4) Glutamine |

26. Which of the following protein is rich in cystine ?

- | | |
|-------------|--------------|
| (1) Keratin | (2) Collagen |
| (3) Elastin | (4) Fibrin |

18P/210/23 (1)

27. Rancidity is due to the presence of

- | | |
|---------------------|------------------------|
| (1) Cholesterol | (2) Vitamin E |
| (3) Lipid peroxides | (4) Phenolic compounds |

28. Dietary fibres are rich in

- | | |
|---------------|-------------------|
| (1) Cellulose | (2) Starch |
| (3) Glycogen | (4) Proteoglycans |

29. Lipid stores are mainly present in

- | | |
|-------------|---------------------|
| (1) Liver | (2) Brain |
| (3) Muscles | (4) Adipose tissues |

30. α -oxidation of fatty acids occur mainly in

- | | |
|-------------|---------------------|
| (1) Liver | (2) Brain |
| (3) Muscles | (4) Adipose tissues |

31. Hypocholesterolemia can occur in

- | | |
|------------------------|--------------------------|
| (1) Hyperthyroidism | (2) Diabetes mellitus |
| (3) Nephrotic syndrome | (4) Obstructive Jaundice |

32. Hippuric acid is formed from

- | |
|---------------------------------|
| (1) Benzoic acid and alanine |
| (2) Benzoic acid and glycine |
| (3) Glucuronic acid and alanine |
| (4) Glucuronic acid and glycine |

18P/210/23 (1)

33. Ketone bodies are synthesized in

- | | |
|-----------|---------------|
| (1) Liver | (2) Kidney |
| (3) Heart | (4) Intestine |

34. Which of the following is not an essential fatty acid ?

- | | |
|----------------------|--------------------|
| (1) Linoleic acid | (2) Linolenic acid |
| (3) Arachidonic acid | (4) Oleic acid |

35. The key regulatory enzyme in cholesterol biosynthesis is

- | | |
|-------------------------|-----------------------|
| (1) HMG CoA synthetase | (2) HMG CoA reductase |
| (3) Squalene synthetase | (4) Mevalonate kinase |

36. The most active metabolite of vitamin D is

- (1) 25-hydroxycholecalciferol
- (2) 1,25-dihydroxycholecalciferol
- (3) 24,25-dihydroxycholecalciferol
- (4) 1,25,26-trihydroxycholecalciferol

37. Vitamin K is found in

- | | |
|----------------------------|----------|
| (1) Green leafy vegetables | (2) Meat |
| (3) Fish | (4) Milk |

18P/210/23 (1)

38. Tocopherols prevent the oxidation of

- | | |
|---------------|---------------|
| (1) Vitamin A | (2) Vitamin C |
| (3) Vitamin D | (4) Vitamin K |

39. Retinoic acid is involved in the synthesis of

- | | |
|--------------------|-------------------|
| (1) Rhodopsin | (2) Iodopsin |
| (3) Porphyrinopsin | (4) Glycoproteins |

40. Folate deficiency causes

- | | |
|----------------------------|--------------------------|
| (1) Microcytic anemia | (2) Hemolytic anemia |
| (3) Iron deficiency anemia | (4) Megaloblastic anemia |

41. Which of the following ion activates salivary amylase activity ?

- | | |
|--------------|-----------------|
| (1) Sodium | (2) Potassium |
| (3) Chloride | (4) Bicarbonate |

42. Mitochondrial membrane is freely permeable to

- | | |
|------------------|--------------|
| (1) Pyruvate | (2) Malate |
| (3) Oxaloacetate | (4) Fumarate |

43. The source of all the carbon atoms of cholesterol is

- | | |
|------------------|-------------------|
| (1) Acetyl CoA | (2) Bicarbonate |
| (3) Succinyl CoA | (4) Propionyl CoA |

18P/210/23 (1)

44. The enzyme hexokinase is a
- | | |
|-----------------|--------------------|
| (1) Hydrolase | (2) Oxidoreductase |
| (3) Transferase | (4) Ligase |
45. Lactate dehydrogenase is a
- | | |
|--------------|-------------|
| (1) Monomer | (2) Dimer |
| (3) Tetramer | (4) Hexamer |
46. An allosteric inhibitor of pyruvate dehydrogenase is
- | | |
|----------------|--------------|
| (1) Acetyl CoA | (2) AIP |
| (3) NADH | (4) Pyruvate |
47. Which of the following carbohydrates would be most abundant in the diet of strict vegetarians ?
- | | |
|---------------|-------------|
| (1) Amylose | (2) Lactose |
| (3) Cellulose | (4) Maltose |
48. Which of the following antibody can cross the placenta ?
- | | |
|---------|---------|
| (1) IgA | (2) IgE |
| (3) IgG | (4) IgM |
49. The immunoglobulins are classified on the basis of
- | | |
|--------------------------|------------------------------|
| (1) Light chains | (2) Heavy chains |
| (3) Carbohydrate content | (4) Electrophoretic mobility |

18P/210/23 (1)

50. The trace element catalyzing hemoglobin synthesis is

- | | |
|---------------|---------------|
| (1) Manganese | (2) Magnesium |
| (3) Copper | (4) Selenium |

51. A nonspecific intracellular antioxidant is

- | | |
|--------------|---------------|
| (1) Chromium | (2) Magnesium |
| (3) Nickel | (4) Selenium |

52. During an overnight fast, the major source of blood glucose is

- (1) Gluconeogenesis
- (2) Hepatic glycogenolysis
- (3) Muscle glycogenolysis
- (4) Dietary glucose from the intestine

53. Pantothenic acid is a constituent of the coenzyme involved in

- | | |
|-----------------|---------------------|
| (1) Acetylation | (2) Decarboxylation |
| (3) Oxidation | (4) Reduction |

54. An amino acid required for porphyrin synthesis is

- | | |
|-------------|---------------|
| (1) Proline | (2) Glycine |
| (3) Serine | (4) Histidine |

18P/210/23 (1)

55. Iron is transported in blood in the form of

- | | |
|-----------------|------------------|
| (1) Ferritin | (2) Haemosiderin |
| (3) Transferrin | (4) Haemoglobin |

56. Specific Dynamic Action (SDA) of protein is about

- | | | | |
|--------|---------|---------|---------|
| (1) 5% | (2) 13% | (3) 20% | (4) 30% |
|--------|---------|---------|---------|

57. The principal cation of extracellular fluid is

- | | | | |
|-------------------|------------------|------------------|----------------------|
| (1) Na^+ | (2) K^+ | (3) H^+ | (4) Ca^{++} |
|-------------------|------------------|------------------|----------------------|

58. A hormone used for the detection of pregnancy is

- | | |
|--------------|----------------------------|
| (1) Estrogen | (2) Progesterone |
| (3) Oxytocin | (4) Chorionic gonadotropin |

59. Somatotropin is secreted by

- | | |
|-------------------------|------------------------|
| (1) Hypothalamus | (2) Anterior pituitary |
| (3) Posterior pituitary | (4) Thyroid gland |

60. Insulin stimulates

- | | |
|----------------------------|--------------------------|
| (1) Hepatic glycogenolysis | (2) Hepatic glycogenesis |
| (3) Lipolysis | (4) Gluconeogenesis |

18P/210/23 (1)

61. A hormone which cannot cross the blood brain barrier is

- | | |
|-----------------|-----------------|
| (1) Epinephrine | (2) Aldosterone |
| (3) ACTH | (4) TSH |

62. Which of the following compound serves as a primary link between the citric acid cycle and the urea cycle ?

- | | |
|--------------|---------------|
| (1) Malate | (2) Succinate |
| (3) Fumarate | (4) Citrate |

63. Which of the following is a coenzyme ?

- | | |
|-------------------------|-----------------|
| (1) Glucose-6-phosphate | (2) Calcium ion |
| (3) Lipoic acid | (4) UDP-glucose |

64. The major source of extracellular cholesterol for human tissues is

- (1) Low density lipoproteins
- (2) Very low density lipoproteins
- (3) High density lipoproteins
- (4) Albumin

65. Purine nucleotide biosynthesis can be inhibited by

- (1) Adenosine monophosphate
- (2) Uridine monophosphate
- (3) Adenosine triphosphate
- (4) Guanosine triphosphate

18P/210/23 (1)

66. The direction of a chemical reaction is best predicted by

- (1) Enthalpy change
- (2) Entrophy change
- (3) Free energy change
- (4) Energy of activation change

67. The cell theory is not applicable to

- (1) Bacteria
- (2) Algae
- (3) Virus
- (4) Fungi

68. Extranuclear DNA is found in

- (1) Nucleus
- (2) Ribosome
- (3) Chloroplast
- (4) Endoplasmic reticulum

69. Prokaryotic cells does not possess

- (1) Cell wall
- (2) Cytoplasm
- (3) Nuclear membrane
- (4) Plasma membrane

70. Plasma membrane is composed of

- (1) Protein
- (2) Lipids
- (3) Cellulose
- (4) Protein and lipids

18P/210/23 (1)

71. Ribosomes help in

- | | |
|-----------------------|--------------------|
| (1) Protein synthesis | (2) Photosynthesis |
| (3) Lipid synthesis | (4) Respiration |

72. All of the following classes of lipids are components of biological membranes except

- | | |
|-----------------|----------------------|
| (1) Cholesterol | (2) Phospholipids |
| (3) Glycolipids | (4) Triacylglycerols |

73. The main function of centrosome is

- (1) Secretion
- (2) Osmoregulation
- (3) Protein synthesis
- (4) Formation of spindle fibre

74. Fungus without mycelium is

- | | |
|-------------------|--------------|
| (1) Puccinia | (2) Rhizopus |
| (3) Saccharomyces | (4) Mucor |

75. Double fertilization is found in

- | | |
|-----------------|-------------------|
| (1) Bryophytes | (2) Angiosperms |
| (3) Gymnosperms | (4) Pteridophytes |

18P/210/23 (1)

76. Xanthophyll is a pigment containing

- | | |
|------------------|-----------------|
| (1) Yellow color | (2) Green color |
| (3) Red color | (4) Blue color |

77. Peroxisomes and glyoxisomes are

- | | |
|------------------------|------------------------------|
| (1) Energy transducers | (2) Membrane-less organelles |
| (3) Microbodies | (4) Basal bodies |

78. Dictyosome is also known as

- | | |
|---------------------|----------------|
| (1) Golgi apparatus | (2) Ribosome |
| (3) Lysosome | (4) Peroxisome |

79. The vitamin which is essential for blood clotting is

- | | |
|---------------|---------------|
| (1) Vitamin A | (2) Vitamin B |
| (3) Vitamin C | (4) Vitamin K |

80. Kupffer cells are present in

- | | |
|--------------|---------------------|
| (1) Liver | (2) Small intestine |
| (3) Pancreas | (4) Thyroid gland |

81. Retroviruses have

- (1) Only RNA as genetic material
- (2) Only DNA as genetic material
- (3) Both DNA and RNA as genetic material
- (4) Genes on nucleoprotein complexes as genetic material

18P/210/23 (1)

82. A prominent prebiotic substance is

- | | |
|------------|---------------------------|
| (1) Starch | (2) Cellulose |
| (3) Pectin | (4) Fructooligosaccharide |

83. Which one of the following is a cobalt containing vitamin ?

- | | |
|----------------------------|-----------------------------|
| (1) Vitamin B ₂ | (2) Vitamin B ₃ |
| (3) Vitamin B ₆ | (4) Vitamin B ₁₂ |

84. E.coli bacteria are beneficial to human because they

- (1) Convert pepsinogen to pepsin
- (2) Absorb water from the large intestine
- (3) Produce vitamins and amino acids
- (4) Synthesize urea from the breakdown of amino acids

85. The specificity of an antibody against an antigen is determined by

- (1) The amino acid loops in its variable domain
- (2) The amino acid loops in its constant domain
- (3) The concentration of antibodies and antigens
- (4) The Y-shaped structure of immunoglobulins

86. α -amanitin inhibits

- | | |
|----------------------|-----------------------|
| (1) RNA polymerase I | (2) RNA polymerase II |
| (3) DNA polymerase I | (4) DNA polymerase II |

18P/210/23 (1)

- 87. Hydroxylation of proline and lysine in collagen molecule requires**
- | | |
|---------------|---------------|
| (1) Vitamin D | (2) Vitamin K |
| (3) Vitamin C | (4) Vitamin E |
- 88. Sick cell anemia occurs due to**
- | | |
|-----------------------|-------------------------|
| (1) Silent mutation | (2) Missense mutation |
| (3) Nonsense mutation | (4) Frameshift mutation |
- 89. Enzyme required to release the tension imposed by uncoiling of DNA strand is**
- | | |
|------------------|------------------|
| (1) DNA helicase | (2) DNA ligase |
| (3) DNA gyrase | (4) Endonuclease |
- 90. If the DNA sequence is ATG, the sequence of bases in anticodon t-RNA would be**
- | | | | |
|---------|---------|---------|---------|
| (1) CAU | (2) AUG | (3) TAC | (4) UAC |
|---------|---------|---------|---------|
- 91. The non-reducing sugar is**
- | | |
|-------------|-------------|
| (1) Glucose | (2) Sucrose |
| (3) Lactose | (4) Maltose |
- 92. All of the following polysaccharides contain glucose, except**
- | | |
|--------------|---------------|
| (1) Glycogen | (2) Starch |
| (3) Inulin | (4) Cellulose |

18P/210/23 (1)

93. All of the following are amphipathic molecule except

- | | |
|-------------------|----------------------|
| (1) Cholesterol | (2) Glycolipids |
| (3) Phospholipids | (4) Triacylglycerols |

94. Which one of the following molecule act as local hormone ?

- | | |
|---------------------------|--------------------|
| (1) Essential fatty acids | (2) Prostaglandins |
| (3) Cholesterol | (4) Phospholipids |

95. Which region of mRNA contains Shine-Dalgarno sequence ?

- | | |
|----------------------------|----------------------------|
| (1) 5' untranslated region | (2) 3' untranslated region |
| (3) Protein coding region | (4) Promotor region |

96. α -D glucose and β -D glucose are

- | | |
|---------------------|-------------------------|
| (1) Epimers | (2) Anomers |
| (3) Optical isomers | (4) Keto-aldose isomers |

97. Photosynthesis is a

- (1) Reductive, endergonic and catabolic process
- (2) Reductive exergonic and anabolic process
- (3) Reductive, endergonic and anabolic process
- (4) Reductive, exergonic and catabolic process

18P/210/23 (1)

98. Which one of the following proteins are associated with DNA structure ?

- | | |
|--------------|---------------|
| (1) Albumins | (2) Globulins |
| (3) Collagen | (4) Histones |

99. The natural reservoir of Ebola virus is

- | | |
|---------------|-----------|
| (1) Fruit bat | (2) Dog |
| (3) Pig | (4) Sheep |

100. The Southern blot technique is used for

- (1) The detection of RNA fragments on membranes by specific radioactive antibodies
- (2) The detection of DNA fragments on membranes by a radioactive DNA probe
- (3) The detection of proteins on membranes using a radioactive DNA probe
- (4) The detection of DNA fragments on membranes by specific radioactive antibodies

101. Digestive enzymes are

- | | |
|------------------|----------------|
| (1) Transferases | (2) Hydrolases |
| (3) Lyases | (4) Ligases |

102. Cholecalciferol is synthesized in the skin by photolysis from

- | | |
|-----------------|--------------------------|
| (1) Ergosterol | (2) Lanosterol |
| (3) Cholesterol | (4) 7-dehydrocholesterol |

18P/210/23 (1)

103. Biotin takes part in

- | | |
|------------------------------|-------------------------------|
| (1) Transamination reactions | (2) Decarboxylation reactions |
| (3) Carboxylation reactions | (4) Deamination reactions |

104. The main function of superoxide dismutase is to

- (1) Catalyze the conversion of O_2 to H_2O_2 and O_2
- (2) Create superoxides by oxidizing heme
- (3) Convert H_2O_2 to water and O_2
- (4) Remove H_2O_2 by oxidizing glutathione and producing water

105. In the biosynthesis of c-DNA, the joining enzyme ligase requires

- | | | | |
|---------|---------|---------|---------|
| (1) AIP | (2) GTP | (3) CTP | (4) UTP |
|---------|---------|---------|---------|

106. Heparin is a

- | | |
|------------------------------|----------------------------------|
| (1) Lipopolysaccharide | (2) Glycated lipopolysaccharide |
| (3) Sulphated polysaccharide | (4) Sulphated lipopolysaccharide |

107. Fish can survive inside a frozen lake because

- (1) Fish hibernate in ice
- (2) Fish are warm blooded animals
- (3) Ice is a good conductor of heat
- (4) Water near the bottom does not freeze

18P/210/23 (1)

108. Asparaginase is used as an

- | | |
|-------------------------|-----------------------------|
| (1) Anti-tumor agent | (2) Anti-tuberculosis agent |
| (3) Anti-malarial agent | (4) Anti-diabetic agent |

109. Which of the following enzyme does not require a primer ?

- (1) RNA dependent DNA polymerase
- (2) DNA dependent DNA polymerase
- (3) DNA dependent RNA polymerase
- (4) Taq DNA polymerase

110. Glycosylation of proteins occurs in the

- | | |
|------------------|---------------------------|
| (1) Mitochondria | (2) Endoplasmic reticulum |
| (3) Lysosome | (4) Peroxisome |

111. Which of the following amino acids is coded by maximum number of codons ?

- | | |
|----------------|-------------|
| (1) Alanine | (2) Leucine |
| (3) Tryptophan | (4) Valine |

112. Telomeric DNA does not contain

- | | |
|-----------------------|----------------------|
| (1) AT rich sequences | (2) G-rich sequences |
| (3) T and D loops | (4) Quadruplex |

18P/210/23 (1)

113. The double-helical Watson-Crick structure of DNA was first obtained from

- (1) X-ray diffraction from single crystals
- (2) Diffraction from single crystals and molecular modeling
- (3) Fiber diffraction only
- (4) Fiber diffraction and molecular modeling

114. Genes related through descent from a common ancestral gene are called

- (1) Homologous
- (2) Heterologous
- (3) Orthologous
- (4) Paralogous

115. Competitive inhibition of an enzyme by a competitive inhibitor can be overcome by simply

- (1) Increasing the concentration of substrate
- (2) Decreasing the concentration of substrate
- (3) Increasing the temperature of reaction
- (4) Decreasing the temperature of reaction

116. Which one of the following receptors perceives blue light in plants ?

- (1) Phytochrome
- (2) Cryptochrome
- (3) Phototropin
- (4) Photopsin

18P/210/23 (1)

117. Warburg effect is characterized by

- | | |
|---------------------------|------------------------------|
| (1) Increased glycolysis | (2) Decreased glycolysis |
| (3) Absence of glycolysis | (4) Malfunctional glycolysis |

118. Deoxy UMP is converted to TMP by

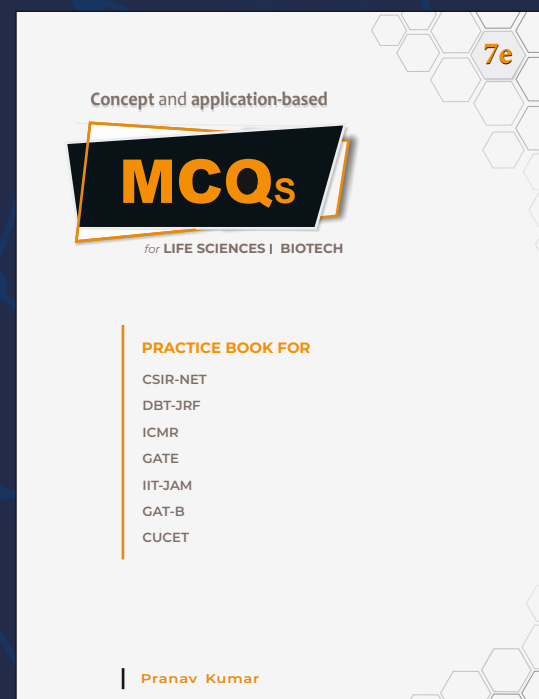
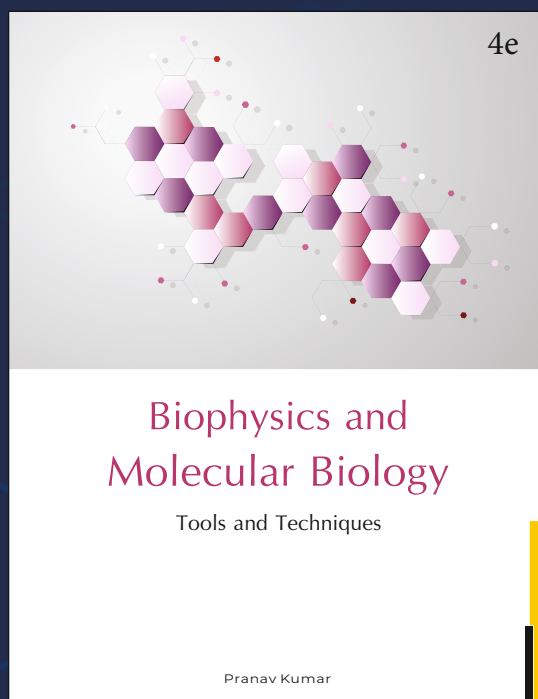
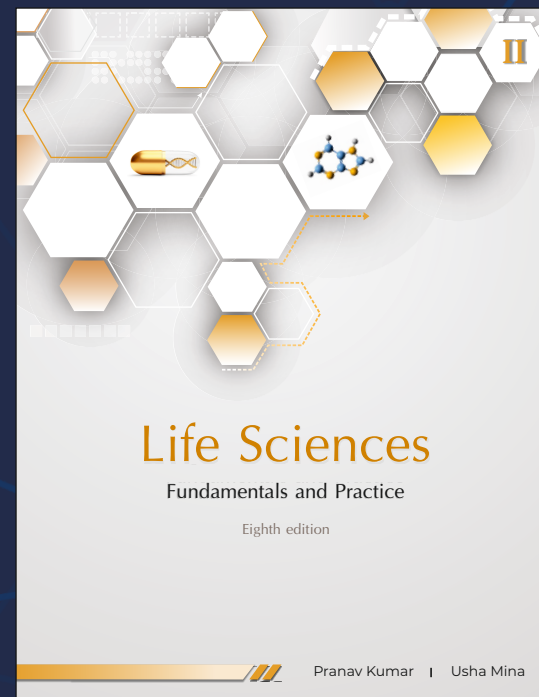
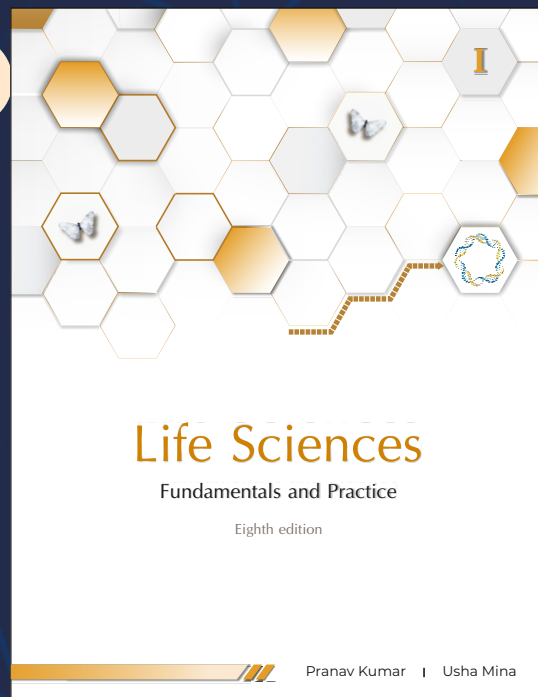
- | | |
|---------------------|-------------------|
| (1) Methylation | (2) Carboxylation |
| (3) Decarboxylation | (4) Deamination |

119. Opsonization process is involved with

- | | |
|-----------------|-----------------|
| (1) T cells | (2) B cells |
| (3) Neutrophils | (4) Macrophages |

120. In a gel filtration chromatography

- (1) The small protein will be eluted first
- (2) The large protein will be eluted first
- (3) Both large and small will elute at the same time
- (4) The small protein with high charge will be eluted first



MSc

Entrance Exam Combo Set

Biotechnology & Life Sciences



<https://www.amazon.in/Pathfinder-Academy-Biotechnology-Sciences-Entrance/dp/8190642766>



<https://www.flipkart.com/pathfinder-academy-m-sc-biotechnology-life-sciences-entrance-exam-combo-set/p/itmeqchtfm9nkytk?>

Pathfinder Academy

pathfinderacademy.in | 9818063394

ROUGH WORK

रफ़ कार्य

अभ्यर्थियों के लिए निर्देश

<https://pathfinderacademy.in/>

(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 प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लायें।
3. ओ.एम.आर. उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा ओ.एम.आर. उत्तर-पत्र नहीं दिया जायेगा। केवल ओ.एम.आर. उत्तर-पत्र का ही मूल्यांकन किया जायेगा।
4. सभी प्रविष्टियाँ प्रथम आवरण-पृष्ठ पर नीली/काली पेन से निर्धारित स्थान पर लिखें।
5. ओ.एम.आर. 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, केन्द्र कोड नम्बर तथा सेट का नम्बर उचित स्थानों पर लिखें।
6. ओ.एम.आर. उत्तर-पत्र पर अनुक्रमांक संख्या, प्रश्न-पुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्न-पुस्तिका पर अनुक्रमांक संख्या और ओ.एम.आर. उत्तर-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 ओ.एम.आर. 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 सम्बन्धित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. यह कार्य के लिए प्रश्न-पुस्तिका के मुखपृष्ठ के अन्दर वाला पृष्ठ तथा उत्तर-पुस्तिका के अंतिम पृष्ठ का प्रयोग करें।
12. परीक्षा की समाप्ति के बाद अभ्यर्थी अपना ओ.एम.आर. उत्तर-पत्र परीक्षा कक्ष/हाल में कक्ष निरीक्षक को सौंप दें। अभ्यर्थी अपने साथ प्रश्न पुस्तिका तथा ओ.एम.आर. उत्तर-पत्र की प्रति ले जा सकते हैं।
13. अभ्यर्थी को परीक्षा समाप्त होने से पहले परीक्षा भवन में बाहर जाने की अनुमति नहीं होगी।
14. यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है तो उसे परीक्षा से हटा दिया जायेगा। <https://pathfinderacademy.in/>