

Roll No.

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(Write Roll Number from left side exactly as in the Admit Card)

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Signature of Invigilator

Question Booklet Series

X

Subject Code : 14

PAPER-II

Question Booklet No.

(Identical with OMR Answer Sheet Number)

LIFE SCIENCES

Time : 2 Hours

Maximum Marks: 200

Instructions for the Candidates

1. Write your Roll Number in the space provided on the top of this page as well as on the OMR Sheet provided.
2. At the commencement of the examination, the question booklet will be given to you. In the first 5 minutes, you are requested to open the booklet and verify it:
 - (i) To have access to the Question Booklet, tear off the paper seal on the edge of this cover page.
 - (ii) Faulty booklet, if detected, should be got replaced immediately by a correct booklet from the invigilator within the period of 5 minutes. Afterwards, neither the Question Booklet will be replaced nor any extra time will be given.
 - (iii) Verify whether the Question Booklet No. is identical with OMR Answer Sheet No.; if not, the full set is to be replaced.
 - (iv) After this verification is over, the Question Booklet Series and Question Booklet Number should be entered on the OMR Sheet.
3. This paper consists of One hundred (100) multiple-choice type questions. All the questions are compulsory. Each question carries *two* marks.
4. Each Question has four alternative responses marked: **(A) (B) (C) (D)**. You have to darken the circle as indicated below on the correct response against each question.

Example: **(A) (B) (C) (D)**, where **(C)** is the correct response.
5. Your responses to the questions are to be indicated correctly in the OMR Sheet. If you mark your response at any place other than in the circle in the OMR Sheet, it will not be evaluated.
6. Rough work is to be done at the end of this booklet.
7. If you write your Name, Roll Number, Phone Number or put any mark on any part of the OMR Sheet, except in the space allotted for the relevant entries, which may disclose your identity, or use abusive language or employ any other unfair means, such as change of response by scratching or using white fluid, you will render yourself liable to disqualification.
8. Do not tamper or fold the OMR Sheet in any way. If you do so, your OMR Sheet will not be evaluated.
9. You have to return the Original OMR Sheet to the invigilator at the end of the examination compulsorily and must not carry it with you outside the Examination Hall. You are, however, allowed to carry question booklet and duplicate copy of OMR Sheet after completion of examination.
10. **Use only Black Ball point pen.**
11. **Use of any calculator, mobile phone, electronic devices/gadgets etc. is strictly prohibited.**
12. **There is no negative marks for incorrect answer.**

LIFE SCIENCES

PAPER II

1. Identify the incorrect statement regarding lipid raft.
 - (A) Lipid rafts are organized membrane microdomains.
 - (B) Lipid rafts are primarily composed of cholesterol and sphingolipids.
 - (C) Lipid rafts are involved in important cellular processes including endocytosis, signal transduction and cholesterol trafficking.
 - (D) Membrane proteins are totally absent in the lipid raft regions.

2. Why are the haploid plants induced through pollen culture technique suited for mutation research?
 - (A) They have short life span
 - (B) They possess lesser number of chromosomes in somatic cells
 - (C) They allow immediate expression of recessive mutations
 - (D) They are obtained in high number

3. Tetrazolium test in pollen viability is based on the activity of which one of following enzymes?
 - (A) Esterase
 - (B) Dehydrogenase
 - (C) Catalase
 - (D) Peroxidase

4. 'Red rust of tea', a common disease, is caused by which of the following?
 - (A) *Cephaleuros virescens*
 - (B) *Trentepohlia aurea*
 - (C) *Puccinia thwaitesii*
 - (D) *Puccinia striiformis*

5. Succinate dehydrogenase converts succinate to fumarate. Which one of the following is true when the competitive inhibitor malonate is added to the reaction mixture?
 - (A) Both K_m and V_{max} increase
 - (B) Both K_m and V_{max} decrease
 - (C) K_m increases and V_{max} remains unchanged
 - (D) K_m increases and V_{max} decreases

6. In an enzyme catalyzed reaction, the competitive inhibition by an inhibitor is mediated when it
 - (A) binds at several sites of an enzyme
 - (B) binds reversibly at the active site of enzyme
 - (C) binds only to the ES complex
 - (D) binds covalently to the enzyme

7. Where does amino acid catabolism predominantly occur?
 - (A) Spleen
 - (B) Kidney
 - (C) Liver
 - (D) Adipose tissue

8. The full form of MALT is
 - (A) Mucosa Attached Lymphoid Tissue
 - (B) Mucosa Associated Lymphoid Tissue
 - (C) Mucosa Acquired Lymphoid Tissue
 - (D) Mucosa Altered Lymphoid Tissue

9. The large granular, bone-marrow derived, non-phagocytic lymphocytes capable of recognizing and killing virally-infected and neoplastic cells are
 - (A) Helper T cells
 - (B) NK cells
 - (C) Dendritic cells
 - (D) Cytotoxic T cells

10. Each individual antigenic determinant of the variable region of the antibody is referred to as
 - (A) Paratope
 - (B) Epitope
 - (C) Agretope
 - (D) Idiotope

11. Numerical taxonomy which involves the numerical evaluation of the similarity between taxonomic units and ordering of these units into taxa on the basis of their similarity was coined by

- (A) Lederberg and Zinder
- (B) Sokal and Sneath
- (C) Benda and Sokal
- (D) Emerson and Arnold

12. The genome of rotaviruses consists of

- (A) (+)-single-stranded RNA
- (B) (-)-single-stranded RNA
- (C) Double stranded DNA
- (D) Double stranded RNA

13. The symbiotic association of N_2 -fixing prokaryotes with higher plants often result in nodule formation. Which of the following associations represents an exception?

- (A) *Frankia* — *Alnus*
- (B) *Rhizobium* — *Sesbania*
- (C) *Anabaena* — *Azolla*
- (D) *Frankia* — *Casuarina*

14. When growing on agar, most members of which group of bacteria form colonies with 'fried egg' appearance?

- (A) α -proteobacteria
- (B) Bacteroides
- (C) γ -proteobacteria
- (D) Mollicutes

15. Highly repetitive DNA sequences are normally concentrated in eukaryotic chromosome near

- (A) Euchromatic region
- (B) Centromeric region
- (C) Nucleolar organiser region
- (D) Both euchromatic and heterochromatic regions

16. Which of the following pair of proteins regulate production of anterior structure in *Drosophila* embryo?

- (A) Bicoid and Nanos
- (B) Bicoid and Hunchback
- (C) Caudal and Nanos
- (D) Caudal and Hunchback

17. Which one of the following components is not engaged in association of actin filaments with z-disc during muscle contraction?

- (A) Alpha (α)-actinin
- (B) Desmin
- (C) Vimentin
- (D) Vinblastine

18. During synchronous contraction of cardiac muscle cells, electrical impulse is transmitted through

- (A) Gap junction
- (B) Tight junction
- (C) Desmosomes
- (D) Hemidesmosomes

19. Vinblastine, an important alkaloid, is extracted from which of the following plants?

- (A) *Rauwolfia vomitoria*
- (B) *Vitex negundo*
- (C) *Vanda tessellata*
- (D) *Catharanthus roseus*

20. Evolutionary changes in one species prompt corresponding changes in other species with which the former interacts ecologically. This process is known as

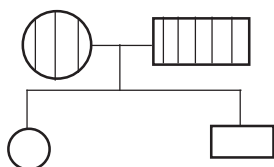
- (A) Coevolution
- (B) Genetic drift
- (C) Parallel evolution
- (D) Microevolution

21. Porogamy refers to as
- Fertilization in which pollen tube enters the ovule through integument
 - Fertilization without the involvement of pollen grains
 - Fertilization in which pollen tube enters the ovule through chalaza
 - Fertilization in which pollen tube enters the ovule through micropyle

22. Following are four considerable modes of inheritance for the given pedigree:

- (a) X-linked recessive (b) X-linked dominant
(c) Autosomal dominant (d) Autosomal recessive

Which of the above modes of inheritance can explain the pedigree shown below?



- (a) and (c)
- (b) and (d)
- (c)
- (d)

23. Deamination of guanine produces
- Uracil
 - Xanthine
 - Hypoxanthine
 - 5-Methylcytosine

24. Which one of the following enzymes dissociates HCO_3^- ions into CO_2 and an OH^- (hydroxyl) ion in pulmonary capillaries?

- Bicarbonate decarboxylase
- Bicarbonate hydrogenase
- Pulmonary decarboxylase
- Carbonic anhydrase

25. Consider a bacterial cell performs anaerobic respiration. If the bacterial cell had access to 20 molecules of glucose, how many molecules of ATP will be produced?

- 20
- 32
- 36
- 40

26. Phosphatidyl serine, an important component of the biological membrane is located in

- the outer leaflet but flip flops to inner leaflet at specific conditions
- both the leaflets
- middle of the bilayer
- the inner leaflet but flip flops to outer leaflet at specific conditions

27. Configuration of a protein can only be altered by breaking

- Hydrogen bond
- Disulfide bond
- Hydrophobic interaction
- Ionic interaction

28. Pollination of flower by bat is termed as

- Chiropterophily
- Melittophily
- Myophily
- Anemophily

29. Which of the following hormones initiates biological actions by crossing the plasma membrane and then binding to a receptor?

- Glucagon
- Estradiol
- Norepinephrine
- Insulin

30. The process by which a cell secretes macromolecules by fusing vacuole membrane to the plasma membrane is called
- (A) Endocytosis
 - (B) Exocytosis
 - (C) Pinocytosis
 - (D) Phagocytosis
31. Colchicine is an inhibitory chemical which prevents
- (A) Microtubule polymerization
 - (B) Microtubule depolymerization
 - (C) Functioning of centriole
 - (D) Attachment of spindle fibre with kinetochore
32. Which of the following plants are snail pollinated?
- (A) Aroides
 - (B) Grasses
 - (C) Palms
 - (D) Aquatic plants
33. 'Nori', a highly priced algal food, is obtained from
- (A) *Porphyra*
 - (B) *Eucheuma*
 - (C) *Laminaria*
 - (D) *Fucus*
34. Woods of cycads mostly belong to which of the following types?
- (A) Polyxylic and Pycnoxylic
 - (B) Monoxylic and Manoxylic
 - (C) Polyxylic and Manoxylic
 - (D) Monoxylic and Pycnoxylic
35. In which of the following years APG-IV has been published?
- (A) 2015
 - (B) 2016
 - (C) 2017
 - (D) 2018
36. Alternative name of 'albuminous cell' is
- (A) Malpighian cell
 - (B) Myrosin
 - (C) Strassburger cell
 - (D) Silica cell
37. Which of the following is NOT part of the endocrine system?
- (A) The thymus
 - (B) The acini of the pancreas
 - (C) The pineal gland
 - (D) The posterior pituitary
38. Collagen instability and connective tissue abnormalities are caused due to the absence of
- (A) Vitamin A
 - (B) Vitamin C
 - (C) Vitamin D
 - (D) Vitamin H
39. The protein products encoded by two homologous genes that are found in different species are called
- (A) Orthologs
 - (B) Paralogs
 - (C) Homologs
 - (D) Analogs
40. Frameshift mutation is caused by the agent
- (A) Nitrous acid
 - (B) 5-Bromouracil
 - (C) Proflavin
 - (D) Ethyl methane sulfonate

41. A chromosome locus is represented by two alleles 'A' and 'a'. The frequency of 'A' allele in a population of 200 individuals is 0.3. The expected number of heterozygotes in this population will be

- (A) 18
- (B) 42
- (C) 84
- (D) 98

42. If the husband carries an X-linked dreadly disease and wife is homozygous normal, select the correct option from the following:

- (A) They will have 50% chance of having the affected male child
- (B) They can safely go for only female child
- (C) They can safely go for only male child
- (D) They should not plan to have a child

43. Which one of the cranial nerves has both sensory and motor functions?

- (A) Facial
- (B) Auditory
- (C) Trochlear
- (D) Abducens

44. In testes and sperm cells, fructose is transported through the transporter

- (A) GLUT 2
- (B) GLUT 3
- (C) GLUT 4
- (D) GLUT 5

45. Which fish species does perform catadromous migration?

- (A) *Tenulosa ilisha*
- (B) *Oncorhynchus mykiss*
- (C) *Anguilla anguilla*
- (D) *Sardinella longiceps*

46. Chloroquine is used as an antimalarial drug against the malaria caused by protist *Plasmodium falciparum*. Resistance against chloroquine occurs in the protist due to

- (A) amplification of gene encoding ABC transporter that pumps out the drug from cytoplasm
- (B) amplification of gene encoding ABC transporter that accumulates the drug into cytoplasm
- (C) decrease in the coding of ABC transporter gene that accumulates the drug into cytoplasm
- (D) formation of a hydrolase that breaks down the drug in cytoplasm

47. A tautomeric shift causing the substitution of one purine for a pyrimidine is called

- (A) Transversion
- (B) Translocation
- (C) Transition
- (D) Inversion

48. Which of the following agents stimulates the heart and inhibits the ability of the heart directly to relax?

- (A) Sympatholytic
- (B) Sympathomimetic
- (C) Parasympatholytic
- (D) Parasympathomimetic

49. Which of the following proteins links the actin to intermediate filaments in a cell?

- (A) Tau
- (B) Spectrin
- (C) Filamin
- (D) Plectin

50. The smallest three dimensional volume of soil which gives full representation of horizontal variability is called

- (A) Soil horizon
- (B) Pedon
- (C) Topography
- (D) Topology

51. Which of the following statements about *Giardia lamblia* is NOT correct?

- (A) It has both trophozoite and cyst stages in its life cycle
- (B) It is transmitted by the faecal oral route
- (C) It causes haemolytic anaemia
- (D) It can be diagnosed by the string test

52. An antibacterial antibiotic that binds to plasma membrane and disrupts its structure and permeability properties is

- (A) Tetracycline
- (B) Bacitracin
- (C) Vancomycin
- (D) Polymyxin B

53. Which of the following inhibitors of electron transport system is a secondary metabolite of *Streptomyces* sp.?

- (A) Rotenone
- (B) Amobarbitol
- (C) Antimycin A
- (D) Cyanides

54. The agitator or impeller in a stirred fermenter do not carry out the function of

- (A) bulk fluid and gas-phase mixing
- (B) dispersion of air
- (C) transfer of O₂
- (D) mechanical foam breaker

55. Which of the following antibiotics resemble penicillin in terms of their structure and mode of action?

- (A) Tetracyclines
- (B) Streptomycin
- (C) Cephalosporins
- (D) Chloramphenicol

56. Which of the following pairs of immunoglobulin isotypes have characteristic 'J' chain to form the polymeric structure?

- (A) IgG and IgA
- (B) IgM and IgA
- (C) IgG and IgM
- (D) IgD and IgA

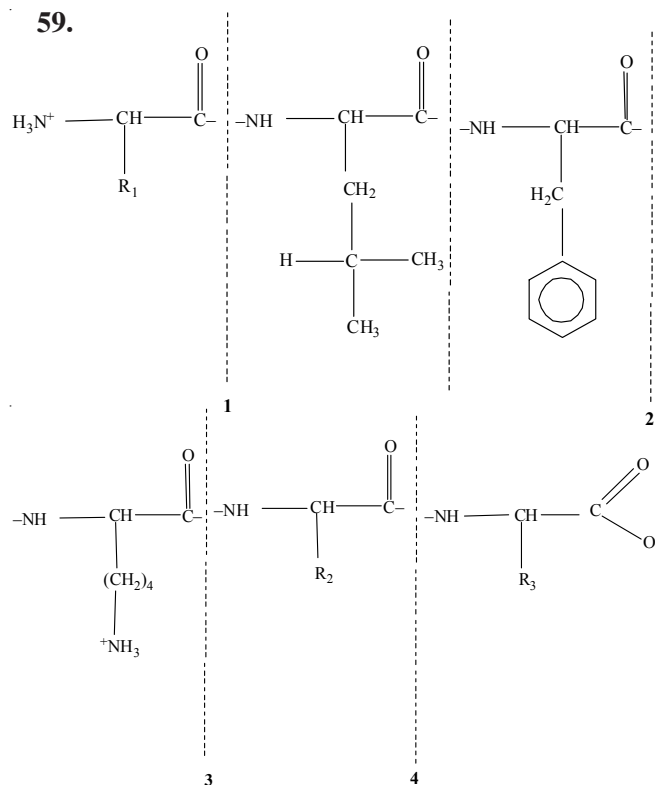
57. Macrophages express MHC class II after getting activated by interferon gamma secreted from which one of the following?

- (A) CD8 cytotoxic T cells
- (B) Plasma cells
- (C) Polymorphonuclear neutrophils
- (D) Dendritic cells

58. A molecular cloning vector should have all of the following except:

- (A) Multiple cloning site
- (B) Autonomously replicating sequence
- (C) Antibiotic resistance marker sequence
- (D) Reverse transcriptase

59.



Aminopeptidase catalyzes the hydrolysis of amino acids from the N-terminal end of a protein, while carboxypeptidase catalyzes the hydrolysis of amino acids from the C-terminal end of a protein. Chymotrypsin catalyzes the hydrolysis of peptide bonds following aromatic amino acids, while trypsin catalyzes the hydrolysis of peptide bonds following lysine and arginine. Select the correct order from the following:

- (A) 1-Aminopeptidase, 2-Chymotrypsin, 3-Trypsin, 4-Carboxypeptidase
 (B) 1-Chymotrypsin, 2-Trypsin, 3-Aminopeptidase, 4-Carboxypeptidase
 (C) 1-Chymotrypsin, 2-Trypsin, 3-Carboxypeptidase, 4-Aminopeptidase
 (D) 1-Aminopeptidase, 2-Trypsin, 3-Chymotrypsin, 4-Carboxypeptidase

60. In eukaryotic cells, the assemblage of ribosomal subunits take place in

- (A) Nucleoli
 (B) Golgi complex
 (C) Endoplasmic reticulum
 (D) Peroxisomes

61. The most suitable *in vitro* technique considered for production of genetically stable clones of plants is

- (A) shoot meristem culture
 (B) callus mediated organogenesis
 (C) callus mediated somatic embryogenesis
 (D) androgenesis

62. Heterokaryons generated through protoplast fusion can be quickly detected by

- (A) Calcafluor white
 (B) Acridine orange
 (C) Fluorescein isothiocyanate
 (D) Triphenyl tetrazolium chloride

63. In particle gun direct gene transfer technique, the size of the microprojectile gold particle ranges from:

- (A) 0.2 – 0.4 μ
 (B) 1 – 3 μ
 (C) 5 – 10 μ
 (D) 10 – 12 μ

64. What is the minimum loss of original habitat which is necessary to designate a region as 'biodiversity hotspot'?

- (A) 50%
 (B) 60%
 (C) 70%
 (D) 80%

65. Which one of the following is the limitation of liposome based drug delivery system?

- (A) They are biocompatible
 (B) They can entrap both hydrophobic and hydrophilic drugs
 (C) They undergo structural changes over time during storage and leads to leakage of drug molecules
 (D) They can tolerate extreme pH conditions

66. Which of the following statements is NOT true regarding the plant growth hormone brassinosteroids?

- (A) Brassinosteroids promote cell elongation and cell division
- (B) They facilitate differentiation of xylem tissue
- (C) They inhibit leaf abscission
- (D) They often induce dwarfism in plants

67. In analysis of variance (ANOVA) one way model, if the observed value of the F-statistics is less than 1, then the null hypothesis is

- (A) accepted
- (B) rejected
- (C) rejected with probability 0.05
- (D) accepted with probability 0.05

68. If the mean of Poisson distribution is 5, then the standard deviation of the distribution is

- (A) 2.5
- (B) $\sqrt{5}$
- (C) 5
- (D) 10

69. *Latimeria* acts as a connecting link between

- (A) Annelida and Arthropoda
- (B) Reptile and Bird
- (C) Fish and Amphibia
- (D) Annelida and Porifera

70. In which of the following animals secondary palate is NOT found?

- (A) Amphibians
- (B) Reptiles
- (C) Birds
- (D) Mammals

71. Select the correct match of larval forms with their groups from the following:

- (A) Brachiolaria – Trochophore; Cysticercus – Cestoda; Planula – Jelly fish; Asteroidea – Polycheta
- (B) Brachiolaria – Asteroidea; Cysticercus – Cestoda; Planula – Jelly fish; Trochophore – Polycheta
- (C) Brachiolaria – Cestoda; Cysticercus – Asteroidea; Planula – Polycheta; Trochophore – Jelly fish
- (D) Brachiolaria – Asteroidea; Cysticercus – Jelly fish; Planula – Cestoda; Trochophore – Polycheta

72. Glycogen synthase, the key regulatory enzyme for glycogenesis, is inactivated by

- (A) Acetylation
- (B) Carboxylation
- (C) Phosphorylation
- (D) Oxidation

73. Which part of renal tubule does not reabsorb water?

- (A) Decending loop of Henle
- (B) Ascending loop of Henle
- (C) The collecting duct
- (D) Ureter

74. Protamines, small arginine rich proteins, are characteristically

- (A) large sized DNA fragments
- (B) sequences of DNA that are unique in nature
- (C) histone like proteins found in fish sperm
- (D) moderately repeated DNA sequence

75. Which of the following is a moss lacking peristome teeth?

- (A) *Funaria*
- (B) *Sphagnum*
- (C) *Pogonatum*
- (D) *Entodon*

76. Heterocysts commonly found in Cyanobacteria are associated with
- (A) vegetative reproduction
 - (B) nitrogen fixation
 - (C) stress management
 - (D) photosynthesis
77. Activity of which of the following pairs of plant hormones are similar in delaying senescence?
- (A) Auxin and gibberellin
 - (B) Auxin and cytokinin
 - (C) Cytokinin and ethylene
 - (D) Gibberellin and cytokinin
78. Guide-RNA dependent insertion of uridylyate residue during RNA editing requires all the enzymes, except
- (A) Endonuclease
 - (B) TUTase
 - (C) 3'-U-Exonuclease
 - (D) RNA Ligase
79. Xeroderma pigmentosum is an autosomal recessive mutation that affects the mechanism of repair of UV-induced thymine dimer formation in DNA. Which of the following enzymes is most likely to be defective?
- (A) DNA pol I
 - (B) DNA pol II
 - (C) Endonuclease
 - (D) Exonuclease
80. Sickle cell anaemia is a heritable disorder where at least one β -globin subunit of haemoglobin-A is replaced forming haemoglobin-S. This demonstrates
- (A) aneuploidy
 - (B) chromosomal translocation
 - (C) autosomal recessive pattern of inheritance
 - (D) X-linked inheritance pattern
81. In the RNAi regulatory pathway, the DICER enzyme cleaves
- (A) RNA polymerase into non-functional pieces
 - (B) ssDNA into repetitive sequences
 - (C) ds RNA into short strands
 - (D) mRNA into short strands
82. Which of the following proteins have not been used in genome editing?
- (A) ZFN
 - (B) TALENS
 - (C) CRISPR-Cas 9
 - (D) MHC
83. The term protein splicing refers to
- (A) removal of intervening sequences between genes
 - (B) splicing out introns from RNA
 - (C) removal of intervening protein sequences termed as 'intein' from translated protein
 - (D) joining of two different gene products to generate a novel protein
84. Human hair and rhinoceros horn differ in tensile strength and rigidity though both the structures are made up of α -keratin protein. The extra strength of rhinoceros horn is due to the presence of excess number of
- (A) hydrogen bonds
 - (B) hydrophobic interaction
 - (C) peptide bonds
 - (D) disulfide bonds
85. Processing and modification of rRNA needs a class of small RNAs, called
- (A) siRNA
 - (B) snoRNA
 - (C) micro RNA
 - (D) satellite RNA

86. The CRISPR sequences are recognized by
- (A) Zinc Finger domains
 - (B) Guide RNA
 - (C) Leucine Zippers
 - (D) TALE repeats
87. How many DNA duplexes will be obtained from one DNA duplex after 5 cycles of PCR?
- (A) 5
 - (B) 10
 - (C) 16
 - (D) 32
88. Initiation of protein synthesis from most eukaryotic mRNA requires:
- (A) 3' poly-A tail
 - (B) 5' poly-A tail
 - (C) 3' cap
 - (D) Both poly A tail and 5' cap
89. In hybridization experiments, high stringency washing means, washing in presence of
- (A) low salt concentration and high temperature
 - (B) high salt concentration and low temperature
 - (C) high salt concentration and high temperature
 - (D) only water
90. Dicentric and ring like chromosomes may appear after the cells are exposed to
- (A) UV-radiation
 - (B) Infrared radiation
 - (C) Microwave radiation
 - (D) Gamma-radiation
91. In bacterial taxonomy which one of the following serves as the 'golden standard' for identification and determination of evolutionary relationship?
- (A) DNA base composition analysis
 - (B) 16S rRNA gene sequence analysis
 - (C) Analysis of cell surface antigens
 - (D) Phage typing
92. In bacteriophage lambda the factor acting as a repressor that allows the establishment of lytic cycle is
- (A) CI
 - (B) N
 - (C) CIII
 - (D) Cro
93. Anthracene 9-carboxylic acid is used in studying the disorder myotonia congenita. It acts as a
- (A) Beta blocker
 - (B) Ca²⁺-channel blocker
 - (C) K⁺-channel blocker
 - (D) Cl⁻-channel blocker
94. Which of the following plant families is characterized by the presence of 'Pappus'?
- (A) Fabaceae
 - (B) Asteraceae
 - (C) Poaceae
 - (D) Cucurbitaceae
95. Proteomics technique used to analyse the characteristics of molecular protein network involved in living cell is termed as
- (A) Functional proteomics
 - (B) Expression proteomics
 - (C) Structural proteomics
 - (D) Protein mining
96. Identify the experiment that is unable to detect the lateral diffusion of membrane proteins.
- (A) Fluorescence recovery after photobleaching
 - (B) Fluorescence loss in photobleaching
 - (C) Human-mouse hybridoma cell (heterokaryon) formation
 - (D) X-ray diffraction

97. Suppose a new drug has been developed to treat diabetes. Now, it is needed to examine upon the same group of subjects whether the drug is more effective before or after taking a meal. The statistical test that is needed to perform in this scenario is

- (A) Kruskal Wallis test
- (B) ANOVA
- (C) Paired t-test
- (D) Unpaired t-test

98. During gel electrophoresis experiment, a protein at a particular pH, that matches its isoelectric point will

- (A) move towards cathode only
- (B) move towards anode only
- (C) move towards both cathode and anode
- (D) be immobilized

99. Beta-barrel structures cannot be predicted by hydropathy plot analysis. Choose the most appropriate reason behind this phenomenon.

- (A) Presence of a stretch of hydrophobic amino acids in its linear sequence
- (B) Absence of hydrophobic amino acids in the secondary structure of beta-barrel
- (C) Presence of alternating hydrophilic and hydrophobic amino acid residues in the primary sequence of beta-barrel
- (D) Presence of alternating *cis* and *trans* amino acid residues in its primary sequence

100. During protein sequencing experiments, the peptide bond contributed by the carbonyl group of methionine residue is cleaved by:

- (A) Fluorodinitro benzene
 - (B) Cyanogen bromide
 - (C) Pepsin
 - (D) Trypsin
-

14-II

X-14

ROUGH WORK

X-15

14-II

ROUGH WORK

14-II

X-16

ROUGH WORK