

1. Ribosome is formed of
 - A) DNA and RNA
 - B) RNA and proteins
 - C) Proteins only
 - D) DNA and proteins
2. Fluid mosaic model of membrane was proposed by:
 - A) Robertson
 - B) Schleiden
 - C) Garnier
 - D) Nicolson
3. Cytoskeleton is made up of
 - A) Cytoplasm and mitochondria
 - B) Microtubules and microfilaments
 - C) Microtubules and Endoplasmic reticulum(ER)
 - D) Nuclear pore and microtubules
4. Chiasma formation occurs during
 - A) Pachytene
 - B) Diplotene
 - C) Leptotene
 - D) Zygotene
5. Dictyosomes are involved in
 - A) Secretion
 - B) Assimilation
 - C) Autolysis
 - D) Oxidation
6. The term chromosome was coined by
 - A) Benda
 - B) Hofmeister
 - C) Waldeyer
 - D) Strasburger
7. DNA differs from RNA in having
 - A) Uracil but no Thymine
 - B) Thymine but no Cytocene
 - C) Thymine but no Uracil
 - D) Cytocine but no Guanine
8. The sequence specificity of bases during DNA replication is determined by
 - A) Restriction endonuclease
 - B) DNA Polymerase I
 - C) The template strand
 - D) DNA Polymerase III
9. Most of the membrane lipids are synthesized in
 - A) Lysozomes
 - B) Endoplasmic Reticulum
 - C) Golgi apparatus
 - D) Mitochondria
10. Which one of the following is absent in a Prokaryotic chromosome
 - A) Collagen
 - B) Phycobilin
 - C) Elastin
 - D) Histone
11. Ultramicrotome cut tissue sections for
 - A) Light microscopic observations
 - B) Electron microscopic observations
 - C) Confocal microscopic observations
 - D) Scanning microscopic observations

12. The term cytosol refers to
 A) Membraneous cell organelles in the dissolved form
 B) Semifluid substance in which cytoplasmic organelles are suspended
 C) Nuclear and the cytoplasmic cell fractions together in dissolved form
 D) Nucleic acid and other nuclear cell fractions together
13. The segment of DNA molecule that determines the amino acid sequence of protein is
 A) Operator Gene
 B) Regulator Gene
 C) Structural Gene
 D) Modifier Gene
14. Which one of the following is the largest chromosome?
 A) Polytene chromosome
 B) X-chromosome
 C) Supernumerary chromosome
 D) Lampbrush chromosome
15. During G₂ phase of cell division
 A) Cell synthesizes proteins and grows in size
 B) DNA synthesis ceases and prepares for division
 C) Cell divides into two daughter cells
 D) Each chromosome carries a duplicate set of genes
16. Which one of the following is tightly bound to cell membrane?
 A) Ribonuclease
 B) cAMP
 C) Adenylate cyclase
 D) ATP
17. Who discovered microtubules?
 A) Robert Hooke and Schwann
 B) De Robertis and Franchi
 C) Boveri and van Beneden
 D) Danielli and Davson
18. ELISA stands for
 A) Electron-Linked Immuno Secretory Assay
 B) Enzyme-Linked Immunosorbant Assay
 C) Epitope-Linked Immunosorbant Assay
 D) Enzyme Like Immunofluorescence Assay
19. Plasmids are
 A) Viral material
 B) Extrachromosomal genetic element of bacteria
 C) A new microorganism
 D) Chromosomal genetic material of bacteria
20. Waksman got Nobel Prize for the discovery of
 A) Chloromycetin
 B) Streptomycin
 C) Neomycin
 D) Penicillin
21. Which one of the following are Archaeobacteria?
 A) Actinomycetes
 B) Pseudomonas
 C) Rickettsiae
 D) Methanogens

22. Ultracentrifugation technique was devised by
A) F. Sanger B) H. Khorana
C) M. Kunitz D) T. Swedberg
23. Substance movement across cell membrane from lower to higher concentration utilizing energy is designated as
A) Osmosis B) Facilitated transport
C) Piniocytosis D) Active transport
24. Polymerase Chain reaction (PCR) Technique was developed by
A) Watson and Crick B) Kary Mullis
C) Rosalyn Yalow D) Van Benden
25. Peroxisomes are bounded by
A) Triple membrane B) Double membrane
C) Single membrane D) No membrane
26. Cell organelle that stores fat are known as
A) Aleuroplasts B) Elaioplasts
C) Amyloplasts D) Leucoplasts
27. SDM is acronym for
A) Selected density measurement
B) Site-directed mutagenesis
C) Semi-directed mutagenesis
D) Sensitive diameter measurement
28. Barr bodies are
A) Euchromatin B) Constitutive heterochromatin
C) Heterochromatin D) Facultative heterochromatin
29. Chromosome get stained with
A) Safranin B) Eosine
C) Acetocarmine D) Borax carmine
30. A nucleotide is
A) Sugar + Phosphate B) Base + Sugar + Water
C) Base + Sugar + Phosphate D) (Base + Sugar + Phosphate)_n
31. Which of the following enzymes has isoenzymes?
A) Hexokinase B) Citrate synthetase
C) Lactic dehydrogenase D) Aldolase
32. Bile Juice helps in the digestion and absorption of fat as it contains
A) Lipase enzyme B) Cholesterol
C) Bile pigments D) Bile salts

33. Which one of the following is metabolized in the cell for liberating energy?
 A) Nucleotides B) Fatty acids
 C) Vitamins D) Cholesterol
34. Light receptor pigment is
 A) Haemoglobin B) Rhodopsin
 C) Melanin D) Haemocyanin
35. Vitamin E is known to be
 A) Anti-inflammatory B) An anti-oxidant
 C) An important Co-enzyme D) Anti-hypertensive
36. Decreased levels of Estrogens and Progesterone causes
 A) Growth and dilation of myometrium
 B) Release of ovum from the ovary
 C) Constriction of uterine blood vessels and sloughing of endometrium
 D) Growth of endometrium
37. Characteristic protein of vertebrate horny parts as feather, hair and nail is
 A) Cartilage B) Cuticle
 C) Keratin D) Spicule
38. Study of skin is referred to as
 A) Chiology B) Ecology
 C) Epidemiology D) Dermatology
39. Tendon is structure that connects
 A) A muscle with a bone B) A nerve fibre with muscle
 C) Skin with underlying parts D) A bone with another bone
40. Mammalian Cervical Vertebrae are
 A) Seven in number B) Twelve in number
 C) Nine in number D) Ten in number
41. Vitamin K is involved in
 A) Blood clotting
 B) Phosphorus and Calcium metabolism
 C) Respiration
 D) Protein metabolism
42. Islets of Langerhans houses
 A) Insulin secreting glands
 B) Thyroxin secreting glands
 C) Juvenile hormone secreting glands
 D) Progesterone secreting glands

43. The largest gland of human body is
 A) Pancreas B) Thyroid
 C) Adrenal D) Liver
44. Starch is a polysaccharide made of many units of
 A) Amino acid B) Glycerol
 C) Fatty acids D) Simple sugar
45. Obstructive jaundice is caused by
 A) Non-removal of bile from the blood
 B) Defective pancreas
 C) Gall stone
 D) Defective liver function
46. Tricarboxylic acid cycle was discovered by
 A) Watson and Crick B) Melvin Calvin
 C) Krebs D) Meyrhoff
47. Respiration is controlled by
 A) Cerebellum B) Medulla oblongata
 C) Olfactory Lobe D) Cerebrum
48. Function of WBC is to
 A) Produce enzymes B) Help blood clotting
 C) Distribute heat in the body D) Destroy bacteria
49. Mammalian Intestinal Lacteals helps in absorption of
 A) Glucose and vitamins B) Lactic acid
 C) Amino acids D) Fatty acids and glycerol
50. The state of increasing blood sugar above normal level is denoted as
 A) Glycolysis B) Hyperglycemia
 C) Glucosuria D) Hypoglycemia
51. A person with blood group A has
 A) Antigen A in plasma B) Antigen A on RBC
 C) Antibody A on RBC D) No antigen in Plasma
52. Neurogenic heart is characteristic of
 A) Humans B) Lower Vertebrates
 C) Rabbit D) Rat
53. In mammals the chief nitrogenous waste is
 A) Amino acid B) Ammonia
 C) Urea D) Uric acid
54. Excretory organs of earthworm are
 A) Kidneys B) Nephridia
 C) Solenocytes D) Green glands

55. Semicircular canals of internal ear is involved in
 A) Balancing the sound in hearing
 B) Transmitting sound vibrations to auditory nerves
 C) Maintaining body balance while the body is imbalanced
 D) Sensing atmospheric pressure change
56. Melatonin is secreted by
 A) Anterior pituitary lobe B) Posterior pituitary lobe
 C) Pineal gland D) Hypothalamus
57. Fusion of gametes is called
 A) Sexual reproduction B) Fertilization
 C) Sporulation D) Gametogenesis
58. Shortest gestation period is observed in
 A) Elephant B) Cat
 C) Man D) Mouse
59. Rh factor was discovered by
 A) William Harvey B) James Watson
 C) Lansteiner Carl D) Robert Hook
60. E.C.G. Records
 A) Potential difference during working of heart
 B) Rate of heart beat
 C) Blood volume pumped by heart
 D) Heart diseases
61. Normal range of blood glucose level is
 A) 100-120 mg per 100 ml B) 50 to 160 mg per 100 ml
 C) 80-120 mg per 100 ml D) 100-150 mg per 100 ml
62. Which of the following do not have an open circulatory system?
 A) Sepia B) Prawn
 C) Frog D) Cockroach
63. Juvenile hormone is not present in
 A) Fishes B) Moths
 C) Crustaceans D) Bugs
64. Cholera is caused by
 A) Bacteria B) Virus
 C) Fungi D) Protozoan
65. Antibodies are produced by
 A) RBC B) T-lymphocytes
 C) B-Lymphocytes D) Granulocytes

76. Pesticide concentration required to kill 50% of pest is called
 A) LD₅₀ B) LC₅₀
 C) LB₅₀ D) LE₅₀
77. Pheromones are:
 A) Fumigants B) Repellants
 C) Sex attractants D) Herbicides
78. Fish used in biological control of mosquito is
 A) Gambusia B) Gold fish
 C) Hilsa ilisha D) Ophiocephalus
79. Lac insect secretes lac through its
 A) Sinus glands B) Skin glands
 C) Salivary glands D) Accessory glands
80. Bombycol is
 A) An insect hormone B) A Crustacean enzyme
 C) A Rodent poison D) An Insect pheromone
81. Spider belongs to the Class
 A) Insecta B) Onychophora
 C) Myriapoda D) Arachnida
82. Chondrichthyes are
 A) Cartilaginous fishes B) Bony fishes
 C) Cat fishes D) Flat fishes
83. Sort out the Deepest diver bird
 A) Kormorant B) Penguin
 C) Aptenodytes D) Corvus
84. Scientific name of domestic cat is
 A) Canis familiaris B) Eqquscabalus
 C) Felix domesticus D) Bos indicus
85. Peritrophic membrane is associated with
 A) Periplaneta B) Nereis
 C) Brain covering D) Vertebrate ear
86. Human Colour blindness genes are located in
 A) Both the chromosomes
 B) Y-chromosome only
 C) X-chromosome only
 D) Either X-chromosome or Y-chromosome
87. One gene one enzyme theory was mooted by
 A) Beadle and Morgan B) Watson and Crick
 C) Beadle and Tatum D) Robert and Phillips

88. The largest protozoan is
 A) Actinonyx
 B) Pelomyxa
 C) Echinococcus
 D) Gordius
89. Eugenics refers to
 A) Application of laws of Genetics for improving human race
 B) Selection of undesired characters to eliminate the desired human characters
 C) Inheritance of beneficial characters in organisms
 D) None of the above
90. Condition of sex chromosome in a male child with Down's syndrome will be
 A) XXY
 B) XO
 C) XY
 D) XX
91. Silver fish is
 A) Ophiocephalus
 B) Lepisma
 C) Astacus
 D) Carassius
92. Marine National Park is in:
 A) The State of Goa at Panaji
 B) The State of Kerala at Cochin
 C) The Andaman and Nicobar islands
 D) The Laccadive islands
93. Eutrophication means
 A) Low production in a terrestrial ecosystem
 B) High production in an aquatic ecosystem
 C) Steady production in a terrestrial eco system
 D) Less production in aquatic ecosystem
94. Sex of a child is determined by
 A) The size of the sperm during fertilization
 B) Male chromosome
 C) Female chromosome
 D) Size of the egg
95. When heterozygous tall plant Tt crossed with a dwarf plant tt assuming complete dominance, the offspring will be
 A) All tall
 B) All dwarf
 C) None of these
 D) Some tall and some dwarf
96. Identical twins are produced when
 A) One sperm fertilizes 2 eggs
 B) One egg is fertilized by 2 sperms
 C) One fertilized egg divided into two blastomeres and separate
 D) Both the eggs are fertilized and separated

97. Prokaryotic genes houses
 A) DNA and histones B) Only DNA and no histones
 C) Neither DNA nor histones D) Only histones and no DNA
98. A man carrying a sex-linked gene on the Y-chromosome transmits this to
 A) All his sons B) All his daughters
 C) Half of his daughters D) Half of his sons
99. Unborn Mammalian sex can be predicted by
 A) Placental biopsy B) Amniocentesis
 C) Examining chorion D) Testing mother's blood
100. Genetic code was deciphered by
 A) Beadle and Tatum B) Watson and Crick
 C) Nirenberg D) Gregor Mendel
101. Genome refers to
 A) All Set of genes expressed in a cell
 B) Total gene number in a diploid set of chromosomes
 C) Total number of genes present in any one chromosome
 D) Total number of genes in a haploid set of chromosome
102. DNA polymerase enzyme was discovered by
 A) Arthur Kornberg B) Frederick Griffith
 C) Harigovind Khorana D) Mc Clung
103. The word Ecosystem was coined by
 A) Salim Ali B) A.G.Tansely
 C) A. I Oparin D) H.C. Urey
104. Biological equilibrium refers to equilibrium among
 A) The Producers and Decomposers
 B) The Primary Consumers
 C) The Decomposers and Producers
 D) The Producers, Consumers and Decomposers
105. Species that occur in different geographical regions separated by special barrier are
 A) Autogenic
 B) Sympatric
 C) Allogenic
 D) Allopatric
106. Recapitulation theory was proposed by
 A) Ernst Haeckel
 B) Hugo de Vries
 C) Herbert Spencer
 D) Jean Baptiste de Lamarck

107. Point mutation refers to
- Alteration in morphological features resulting from organisms within
 - Inheritance of acquired characters in any organism
 - Alteration in chemistry of DNA eliciting phenotypic effect
 - A variation appearing in an organism during a prolonged period
108. The correct chronological sequence of geological times is
- Devonian, Carboniferous, Cretaceous, Eocene
 - Carboniferous, Devonian, Cretaceous, Eocene
 - Eocene, Cretaceous, Devonian, Carboniferous
 - Cretaceous, Devonian, Eocene, Carboniferous
109. B.O.D. is a measure of Polluting organic matter in
- Soil
 - Air
 - Water
 - Mud at the bottom of pond
110. Keystone species in an ecosystem refers to
- Those which are found in maximum numbers
 - Those that attain the maximum size
 - Those contributing to ecosystem properties
 - Those at the verge of extinction
111. Nidification is the behaviour pattern of
- Territory building
 - Nest building
 - Food finding
 - Mate finding
112. Chronobiology is the term referring to
- Biologists listed in chronological sequence
 - Periodicity occurring in living organisms
 - Animal transformation rate at definite time scale
 - Life table of living organisms
113. The abbreviation IPCC denotes
- International Panel on Climate Change
 - Intergovernmental Panel on Climate Change
 - Indian Panel on Climate Change
 - Interdisciplinary Panel on Climate Change
114. Which one of the following is a species?
- | | |
|---------------|--------------|
| A) Pisces | B) Herbivore |
| C) Familiaris | D) Dipnoi |
115. Maximum solar energy is trapped by
- | | |
|------------------------|----------------|
| A) Primary consumers | B) Producers |
| C) Secondary consumers | D) Decomposers |

116. Direct ancestral human race is
A) Peking man B) Java man
C) Cro-magnon man D) Neanderthal man
117. Lotka Volterra Hypothesis is a model that explains
A) Host – parasite interaction B) Prey – predator interaction
C) Pest – plant interaction D) Animal – plant interaction
118. ‘Cambrian Explosion’ refers to
A) Origin of Life B) Origin of Man
C) Origin of Phyla D) Extinction of Dinosaurs
119. A species number when considerably reduced and is at the verge of extinction is called:
A) Vulnerable B) Endangered
C) Threatened D) Rare
120. Indian Rhinoceros is being protected in
A) Ranthambore National Park B) Gir National Park
C) Bandipur National Park D) Kaziranga National Park

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