

1. Which of the following is known as the powerhouse of a cell?
 - A. Mitochondria
 - B. Cytoplasm
 - C. Lysosome
 - D. Nuclei

2. DNA is stored in which of the following cell organelle?
 - A. Cell wall
 - B. Cell Membrane
 - C. Nucleus
 - D. Cytoplasm

3. Which of the following is not a prokaryote?
 - A. Bacteria
 - B. Fungi
 - C. Archaea
 - D. Cyanobacteria

4. In which organelle does the Krebs cycle occur?
 - A. Golgi apparatus
 - B. Endoplasmic reticulum
 - C. Chloroplast
 - D. Mitochondria

5. Which of the following is the primary structural component of the cell membrane?
 - A. Proteins
 - B. Phospholipids
 - C. Carbohydrates
 - D. Nucleic acids

6. What is the function of ribosome in a cell?
 - A. DNA replication
 - B. ATP production
 - C. Lipid synthesis
 - D. Protein synthesis

7. Which phase of the cell cycle is the longest?
 - A. G1 phase
 - B. S phase
 - C. G2 phase
 - D. M phase

8. What is the basic unit of heredity?
- A. Chromosome
 - B. Gene
 - C. RNA
 - D. Protein
9. is not a type of RNA?
- A. mRNA
 - B. tRNA
 - C. rRNA
 - D. dRNA
10. In DNA, adenine (A) pairs with:
- A. Cytosine (C)
 - B. Guanine (G)
 - C. Thymine (T)
 - D. Uracil (U)
11. Which enzyme is responsible for DNA replication?
- A. RNA polymerase
 - B. DNA ligase
 - C. DNA polymerase
 - D. Reverse transcriptase
12. The primary function of the large intestine is:
- A. Digestion of proteins
 - B. Absorption of water
 - C. Production of bile
 - D. breakdown of fats
13. The main storage polysaccharide in animals is:
- A. Cellulose
 - B. Starch
 - C. Glycogen
 - D. Chitin
14. What is the monomer unit of proteins?
- A. Nucleotides
 - B. Amino acids
 - C. Monosaccharides
 - D. Fatty acids

15. links amino acids in a protein?
- A. Hydrogen bond
 - B. Glycosidic bond
 - C. Peptide bond
 - D. Phosphodiester bond
16. is a example of disaccharide?
- A. Glucose
 - B. Sucrose
 - C. Fructose
 - D. Galactose
17. Which of the following is NOT a lipid?
- A. Cholesterol
 - B. Triglyceride
 - C. Phospholipid
 - D. Glycogen
18. The primary structure of a protein is determined by:
- A. The sequence of amino acids
 - B. The folding of the protein
 - C. The number of polypeptide chains
 - D. The interaction of R-groups
19. is NOT a function of proteins
- A. Enzymatic activity
 - B. Energy storage
 - C. Structural support
 - D. Transport of molecules
20. Which nitrogenous base is found in RNA but not in DNA?
- A. thymine (T)
 - B. adenine (A)
 - C. uracil (U)
 - D. guanine (G)
21. The enzyme responsible for breaking down starch into maltose is:
- A. Lipase
 - B. Amylase
 - C. Protease
 - D. Cellulase

22. The main goal of animal biotechnology in the following is:
- A. Conservation of wildlife
 - B. Genetic modification for improved traits
 - C. Study of animal behavior
 - D. Preservation of fossils
23. Which technique is used to create genetically identical animals?
- A. Hybridization
 - B. Mutation breeding
 - C. Gene therapy
 - D. Cloning
24. The full form of PCR in biotechnology is
- A. Polymerase Chain Reaction
 - B. Protein Coding Reaction
 - C. Polypeptide Chromosome Replication
 - D. Prokaryotic Cell Reproduction
25. is an example of transgenic animal technology
- A. Selective breeding
 - B. Artificial insemination
 - C. Inserting foreign genes into animals
 - D. Crossbreeding of different species
26. The first successfully cloned mammal was:
- A. A cow
 - B. A sheep
 - C. A dog
 - D. A rabbit
27. Which enzyme is used to cut DNA at specific sites?
- A. Restriction endonuclease
 - B. DNA polymerase
 - C. Ligase
 - D. Helicase
28. What is the purpose of animal cell culture?
- A. Studying cell growth
 - B. Producing vaccines
 - C. Testing drugs
 - D. All of the above

29. The process of transferring a nucleus from one cell to another is called:
- A. Somatic cell nuclear transfer (SCNT)
 - B. Gene knockout
 - C. Cell fusion
 - D. Recombinant DNA technology
30. Which of the following is a biotechnological application in animal reproduction?
- A. In-vitro fertilization (IVF)
 - B. Artificial Insemination (AI)
 - C. Embryo Transfer (ET)
 - D. All of the above
31. is the main goal of plant biotechnology
- A. Conservation of endangered plant species
 - B. Study of plant ecology
 - C. Preservation of fossil plants
 - D. Genetic modification for improved traits
32. technique is commonly used for plant genetic transformation.
- A. Electroporation
 - B. Agrobacterium-mediated transfer
 - C. Microinjection
 - D. All of the above
33. Which of the following is a commonly used vector for plant transformation?
- A. Retrovirus
 - B. Tumor-inducing (Ti) plasmid
 - C. Lambda phage
 - D. Bacteriophage
34. The first genetically modified (GM) plant reported in 1983, was:
- A. Cotton
 - B. Tobacco
 - C. Potato
 - D. Corn
35. Which of the following is a key advantage of genetically modified crops?
- A. Higher susceptibility to pests
 - B. Increased yield and resistance to pests
 - C. Reduced shelf life of the crops
 - D. Increased water consumption

36. Which of the following techniques is used for plant tissue culture?
- A. Micropropagation
 - B. Somatic embryogenesis
 - C. Organogenesis
 - D. All of the above
37. What is the role of auxins in plant tissue culture?
- A. Root formation
 - B. Shoot development
 - C. Seed germination
 - D. Fruit ripening
38. Which plant hormone is mainly used for shoot regeneration in tissue culture?
- A. Auxin
 - B. Cytokinin
 - C. Gibberellin
 - D. Ethylene
39. What is somaclonal variation?
- A. Genetic or epigenetic changes that arise in vitro
 - B. Variation due to sexual reproduction
 - C. Hybridization between two species
 - D. Variation caused by polyploidy
40. is known as the "Father of Microbiology"
- A. Robert Koch
 - B. Louis Pasteur
 - C. Antonie van Leeuwenhoek
 - D. Alexander Fleming
41. Which of the following is a prokaryotic microorganism?
- A. Protozoa
 - B. Algae
 - C. Fungi
 - D. Bacteria
42. What is the function of bacterial endospores?
- A. Reproduction
 - B. Defense against viruses
 - C. Movement
 - D. Survival under harsh conditions

43. Which staining technique is used to differentiate between Gram-positive and Gram-negative bacteria?
- A. Acid-fast stain
 - B. Endospore stain
 - C. Gram stain
 - D. Capsule stain
44. The bacterial cell wall is primarily composed of:
- A. Cellulose
 - B. Chitin
 - C. Peptidoglycan
 - D. Lipopolysaccharides
45. are an obligate intracellular parasite?
- A. Viruses
 - B. Bacteria
 - C. Fungi
 - D. Algae
46. Which microorganism is used in the production of antibiotics?
- A. Escherichia coli
 - B. Clostridium
 - C. Staphylococcus
 - D. Streptomyces
47. What is the primary method of bacterial reproduction?
- A. Binary fission
 - B. Budding
 - C. Mitosis
 - D. Sporulation
48. Which of the following diseases is caused by a virus?
- A. Tuberculosis
 - B. Cholera
 - C. Influenza
 - D. Anthrax
49. Which of the following is the primary function of plasmids in bacteria?
- A. Protein synthesis
 - B. Energy production
 - C. Antibiotic resistance
 - D. Cell wall synthesis

50. Which of the following refers to the Medical biotechnology:
- A. Study of plant genetics
 - B. Development of medical treatments and diagnostics
 - C. Conservation of endangered species
 - D. Improvement of agricultural yields
51. is a biotechnological method used in the diagnosis of genetic diseases?
- A. Polymerase Chain Reaction (PCR)
 - B. Western Blot
 - C. Gram Staining
 - D. Endoscopy
52. The production of human insulin using recombinant DNA technology involves:
- A. *Escherichia coli*
 - B. *Staphylococcus aureus*
 - C. *Clostridium botulinum*
 - D. *Bacillus subtilis*
53. is an example of gene therapy?
- A. Treating cancer with chemotherapy
 - B. Replacing a defective gene with a healthy one
 - C. Using antibiotics to treat bacterial infections
 - D. Performing organ transplantation
54. CRISPR-Cas9 is widely used for:
- A. Use in horticulture
 - B. Gene editing
 - C. Protein synthesis
 - D. Cloning
55. Monoclonal antibodies are primarily used for:
- A. Vaccination
 - B. Cancer treatment and diagnostics
 - C. Antibiotic production
 - D. Food preservation
56. Which of the following is an example of a live attenuated vaccine?
- A. Polio vaccine (Sabin)
 - B. Hepatitis B vaccine
 - C. Inactivated Rabies vaccine
 - D. Tetanus toxoid vaccine

57. The first recombinant DNA-based vaccine approved for human use was for:
- A. COVID-19
 - B. Hepatitis B
 - C. Influenza
 - D. Polio
58. The purpose of stem cell therapy in medical biotechnology is to:
- A. Repair damaged tissues
 - B. Improve digestion
 - C. Increase antibody production
 - D. Prevent bacterial infections
59. Which of the following is an application of nanobiotechnology in medicine?
- A. Targeted drug delivery
 - B. Food preservation
 - C. Soil fertility improvement
 - D. Pest control
60. Industrial Biotechnology is:
- A. The use of biotechnology in industrial processes
 - B. The study of plant genetics
 - C. The conservation of endangered species
 - D. The study of microorganisms in soil
61. Which microorganism is commonly used for ethanol production?
- A. *Escherichia coli*
 - B. *Saccharomyces cerevisiae*
 - C. *Staphylococcus aureus*
 - D. *Bacillus subtilis*
62. The main advantage of using industrial biotechnology?
- A. Reduced environmental impact
 - B. Increased use of fossil fuels
 - C. Higher production costs
 - D. Limited application in industries
63. is a major product of industrial biotechnology?
- A. Biofuels
 - B. Synthetic fertilizers
 - C. Plastics from petroleum
 - D. Heavy metals

64. Which enzyme is used in the detergent industry for stain removal?
- A. Amylase
 - B. Lipase
 - C. Protease
 - D. All of the above
65. What is the role of microorganisms in bioremediation?
- A. Cleaning up pollutants from the environment
 - B. Producing antibiotics
 - C. Fermenting dairy products
 - D. Enhancing plant growth
66. Which microorganism is commonly used in antimicrobial food packaging to enhance shelf life?
- A. *Lactobacillus acidophilus*
 - B. *Escherichia coli*
 - C. *Saccharomyces cerevisiae*
 - D. *Clostridium botulinum*
67. What is the main raw material for bioethanol production out of the following?
- A. Wood and plant biomass
 - B. Plastic waste
 - C. Fossil fuels
 - D. Heavy metals
68. The main function of fermentation in industrial biotechnology from the following is to:
- A. Convert organic matter into useful products
 - B. Preserve microorganisms
 - C. Kill bacteria
 - D. Synthesize DNA
69. Which industrial product is obtained using *Aspergillus niger*?
- A. Citric acid
 - B. Ethanol
 - C. Insulin
 - D. Antibiotics
70. Recombinant DNA Technology?
- A. Combining genes from different species
 - B. Studying DNA sequencing
 - C. Breaking down DNA into fragments
 - D. Cloning whole organisms

71. Which enzyme is widely used in the textile industry?
- A. Amylase
 - B. Protease
 - C. Laccase
 - D. All of the above
72. Who is known as the Father of Genetic Engineering?
- A. Gregor Mendel
 - B. James Watson
 - C. Paul Berg
 - D. Francis Crick
73. What is the purpose of biopolishing in the textile industry?
- A. To improve color fading resistance
 - B. To give fabric a glossy finish
 - C. To remove fuzz and pills from fabrics
 - D. To increase fabric thickness
74. Plasmid is a.....
- A. A type of chromosome
 - B. A small circular DNA molecule found in bacteria
 - C. A protein that cuts DNA
 - D. A viral genome
75. Which of the following is NOT a step in recombinant DNA technology?
- A. Isolation of DNA
 - B. Gene splicing
 - C. Natural mutation
 - D. Transformation into a host
76. Which organism is commonly used as a host in genetic engineering?
- A. *Saccharomyces cerevisiae*
 - B. *Escherichia coli*
 - C. *Pseudomonas aeruginosa*
 - D. *Bacillus anthracis*
77. Which method is commonly used for inserting foreign DNA into bacteria?
- A. Polymerase Chain Reaction (PCR)
 - B. Gel Electrophoresis
 - C. Transformation
 - D. Northern Blotting

78. Which enzyme is used to convert RNA into complementary DNA (cDNA)?
- A. DNA polymerase
 - B. Reverse transcriptase
 - C. RNA polymerase
 - D. Helicase
79. Which of the following is a genetically modified crop?
- A. Golden rice
 - B. Hybrid maize
 - C. Organic wheat
 - D. Traditional potatoes
80. Molecular Genetics is the
- A. Study of genetic variation in populations
 - B. Study of DNA, RNA, and protein synthesis at the molecular level
 - C. Study of plant breeding techniques
 - D. Study of ecological interactions
81. discovered the double helix structure of DNA?
- A. Gregor Mendel
 - B. Watson and Crick
 - C. Rosalind Franklin
 - D. Hershey and Chase
82. Which process is most commonly used in DNA forensics to compare genetic samples?
- A. Polymerase Chain Reaction (PCR)
 - B. Gene Cloning
 - C. Photosynthesis
 - D. DNA Sequencing
83. In which direction does DNA replication occur?
- A. 5' to 3' direction
 - B. 3' to 5' direction
 - C. Randomly in both directions
 - D. Only on the leading strand
84. Which enzyme is responsible for unwinding the DNA helix during replication?
- A. Helicase
 - B. Ligase
 - C. Primase
 - D. Topoisomerase

85. What is the function of RNA polymerase?
- A. Synthesizing DNA from RNA
 - B. Transcribing DNA into RNA
 - C. Breaking down mRNA
 - D. Translating RNA into proteins
86. Codon is
- A. A segment of DNA
 - B. A three-nucleotide sequence in mRNA that codes for an amino acid
 - C. A protein structure
 - D. A type of mutation
87. Which of the following is a start codon?
- A. UAA
 - B. UAG
 - C. AUG
 - D. UGA
88. What is the function of tRNA in protein synthesis?
- A. Carrying genetic information
 - B. Transporting amino acids to ribosomes
 - C. Synthesizing RNA
 - D. Unwinding DNA
89. What is the process of synthesizing proteins from mRNA called?
- A. Transcription
 - B. Translation
 - C. Replication
 - D. Mutation
90. Immunology is the
- A. Study of viruses and bacteria
 - B. Study of the immune system and its responses
 - C. Study of plant defense mechanisms
 - D. Study of antibiotics
91. Which of the following is a primary lymphoid organ?
- A. Spleen
 - B. Lymph nodes
 - C. Thymus
 - D. Tonsils

92. What type of immunity is acquired after infection or vaccination?
- A. Innate immunity
 - B. Passive immunity
 - C. Active immunity
 - D. Artificial immunity
93. Which type of immune cells produce antibodies?
- A. T cells
 - B. B cells
 - C. Macrophages
 - D. Natural killer cells
94. Which immunoglobulin (Ig) is the most abundant in the human body?
- A. IgA
 - B. IgE
 - C. IgG
 - D. IgM
95. Which type of T cell is responsible for killing virus-infected cells?
- A. Helper T cells (CD4+)
 - B. Cytotoxic T cells (CD8+)
 - C. Regulatory T cells
 - D. B cells
96. Which of the following is part of the innate immune system?
- A. Antibodies
 - B. Memory B cells
 - C. Macrophages
 - D. Plasma cells
97. What is the role of the complement system?
- A. Neutralizing toxins
 - B. Enhancing phagocytosis and destroying pathogens
 - C. Producing antibodies
 - D. Suppressing immune response
98. Which of the following is a characteristic of adaptive immunity?
- A. Immediate response
 - B. Non-specific defense
 - C. Memory formation
 - D. Physical barriers

99. Which type of hypersensitivity reaction is involved in allergies?
- A. Type I
 - B. Type II
 - C. Type III
 - D. Type IV
100. Environmental Biotechnology is
- A. The study of microorganisms in food production
 - B. The use of biotechnology to solve environmental problems
 - C. Genetic engineering of animals
 - D. The study of human genetics
101.is an application of environmental biotechnology?
- A. Bioremediation
 - B. DNA sequencing
 - C. Animal cloning
 - D. Plant hybridization
102. Bioremediation is a process of
- A. Using microorganisms to clean up environmental pollutants
 - B. Creating genetically modified organisms
 - C. Increasing plant growth through biotechnology
 - D. Producing biofertilizers
103. Which microorganisms are commonly used in bioremediation?
- A. *E. coli* and *Salmonella*
 - B. *Pseudomonas* and *Bacillus*
 - C. *Plasmodium* and *Trypanosoma*
 - D. *Streptococcus* and *Staphylococcus*
104. What is the role of biofertilizers in agriculture?
- A. To provide chemical nutrients to plants
 - B. To improve soil fertility using microorganisms
 - C. To kill pests
 - D. To enhance plant hybridization
105.is an example of a biofertilizer?
- A. NPK fertilizer
 - B. Rhizobium bacteria
 - C. Glyphosate herbicide
 - D. DDT pesticide

106. Phytoremediation is the process of
- A. Using plants to remove pollutants from the environment
 - B. Using bacteria to degrade toxic substances
 - C. Using fungi for industrial applications
 - D. Using insects for pest control
107. is commonly used in phytoremediation?
- A. Sunflower
 - B. Tomato
 - C. Wheat
 - D. Cactus
108. What is bioaugmentation?
- A. The addition of specialized microbes to enhance pollutant degradation
 - B. The increase in biomass production
 - C. The genetic modification of plants
 - D. The reduction of carbon dioxide emissions
109. Which of the following is a greenhouse gas?
- A. Oxygen
 - B. Nitrogen
 - C. Carbon dioxide
 - D. Sodium chloride
110. What is Nano Biotechnology?
- A. The study of plant cells using nanotechnology
 - B. The application of nanotechnology in biological and medical fields
 - C. The use of bacteria for making nanoparticles
 - D. The study of atomic structures
111. What is the size range of nanoparticles used in nanobiotechnology?
- A. 1–100 nm
 - B. 100–1000 nm
 - C. 1–10 μm
 - D. 10–100 μm
112. Which of the following is a key advantage of using nanoparticles in medicine?
- A. High toxicity
 - B. Large size for better visibility
 - C. Targeted drug delivery with minimal side effects
 - D. Decreased solubility in biological fluids

113. Which nanomaterial is commonly used in drug delivery applications?
- A. Gold nanoparticles
 - B. Silver nanoparticles
 - C. Copper nanoparticles
 - D. Lead nanoparticles
114. What is the role of liposomes in nanomedicine?
- A. To enhance bacterial growth
 - B. To deliver drugs to specific cells
 - C. To degrade toxins in the environment
 - D. To act as an antibiotic
115. Which technique is used to synthesize nanoparticles biologically?
- A. Chemical vapor deposition
 - B. Green synthesis using microorganisms
 - C. Electrolysis
 - D. Plasma spraying
116. What is the main advantage of using biological methods for nanoparticle synthesis?
- A. High energy consumption
 - B. Eco-friendliness and biocompatibility
 - C. Production of toxic byproducts
 - D. Requires high temperatures
117. Which of the following is NOT a method of nanoparticle synthesis?
- A. Top-down approach
 - B. Bottom-up approach
 - C. Biogenic synthesis
 - D. Reverse osmosis
118. What property of nanoparticles makes them suitable for targeted cancer therapy?
- A. Small size and large surface area
 - B. Ability to emit harmful radiation
 - C. Heavy metal composition
 - D. High electrical conductivity
119. Which type of nanoparticles are used for imaging in medical diagnostics?
- A. Gold and quantum dots
 - B. Iron and silver
 - C. Aluminum and magnesium
 - D. Lead and mercury

120. What is Molecular Genetics?
- A. Study of genetic variation in populations
 - B. Study of DNA, RNA, and protein synthesis at the molecular level
 - C. Study of plant breeding techniques
 - D. Study of ecological interactions
121. Which of the following is a key application of marine biotechnology?
- A. Development of biofuels from microalgae
 - B. Production of synthetic plastics
 - C. Extraction of minerals from deep-sea mining
 - D. Creation of artificial satellites
122. Which marine organism is commonly used for the production of antibiotics and pharmaceuticals?
- A. Cyanobacteria
 - B. Jellyfish
 - C. Coral
 - D. Starfish
123. What is the primary purpose of regulatory affairs in biotechnology?
- A. To promote the sale of biopharmaceuticals
 - B. To ensure compliance with legal and safety regulations
 - C. To conduct market research
 - D. To reduce production costs
124. Which organization regulates pharmaceuticals and biotechnology products in India?
- A. FDA
 - B. EMA
 - C. CDSCO
 - D. WHO
125. Which of the following is the role of the FDA (Food and Drug Administration)?
- A. Approving new drugs and medical devices
 - B. Conducting pharmaceutical marketing
 - C. Manufacturing biopharmaceuticals
 - D. Importing medical equipment
126. What does GMP stand for in regulatory affairs?
- A. Good Marketing Practice
 - B. General Manufacturing Process
 - C. Good Manufacturing Practice
 - D. Government Medical Policy

127. Which phase of clinical trials tests the safety of a drug in healthy volunteers?
- A. Phase I
 - B. Phase II
 - C. Phase III
 - D. Phase IV
128. Which regulatory authority is responsible for approving drugs in Europe?
- A. CDSCO
 - B. EMA
 - C. WHO
 - D. FDA
129. What is a Biologics License Application (BLA)?
- A. A request for approval to sell a biological product in the U.S.
 - B. A research grant application
 - C. A patent for a new drug
 - D. A drug import certificate
130. Pharmacovigilance is
- A. The development of new vaccines
 - B. The monitoring of drug safety and adverse effects
 - C. The study of drug mechanisms
 - D. The marketing of pharmaceutical products
131. Which document is required for the international trade of pharmaceuticals in the format recommended by the World Health Organization (WHO)?
- A. The Certificate of Pharmaceutical Product (CPP)
 - B. Import License
 - C. Drug Discovery Report
 - D. Clinical Trial Approval
132. What is the purpose of an Investigational New Drug (IND) application?
- A. To apply for a new drug patent
 - B. To begin human clinical trials
 - C. To sell a drug in the market
 - D. To manufacture a drug
133. What is Intellectual Property (IP)?
- A. Physical assets like machinery and land
 - B. Creations of the mind, such as inventions and artistic works
 - C. The legal right to import drugs
 - D. Ownership of pharmaceutical companies

134. Which of the following is NOT a type of Intellectual Property Right?
- A. Patent
 - B. Trademark
 - C. Copyright
 - D. Import License
135. How long does a patent typically last?
- A. 10 years from the date of grant for design patents
 - B. 15 years from the date of filling the patent
 - C. 20 years from the date of filling the patent
 - D. 25 years from the date of grant for design patents
136. The main purpose of a patent is
- A. To provide an exclusive right to the inventor
 - B. To allow free use of an invention
 - C. To encourage competition
 - D. To register a business name
137. What does a trademark protect?
- A. A company's financial records
 - B. A brand name, logo, or symbol
 - C. A new scientific discovery
 - D. A production method
138. Which international agreement governs global intellectual property rights?
- A. TRIPS Agreement
 - B. Kyoto Protocol
 - C. Paris Agreement
 - D. Geneva Convention
139. What is a geographical indication (GI)?
- A. A patent for an invention
 - B. A mark used to indicate the origin of a product
 - C. A copyright for literary work
 - D. A regulatory license for drugs
140. What is the purpose of copyright protection?
- A. To protect inventions
 - B. To protect original literary, artistic, and musical works
 - C. To protect business names
 - D. To regulate industrial production

141. The term "patent infringement" mean
- A. Applying for a new patent
 - B. Unauthorized use of a patented invention
 - C. Selling a product legally
 - D. Renewing a patent
142. Which organization oversees patent protection worldwide?
- A. World Trade Organization (WTO)
 - B. World Intellectual Property Organization (WIPO)
 - C. United Nations (UN)
 - D. European Union (EU)
143. What is Bioinformatics?
- A. The study of plant biology
 - B. The application of computational tools to analyze biological data
 - C. The study of human anatomy
 - D. The process of chemical synthesis
144. is a major application of bioinformatics?
- A. Drug discovery
 - B. Crop cultivation
 - C. Weather forecasting
 - D. Space exploration
145. Which biological macromolecule is mainly analyzed in bioinformatics?
- A. Carbohydrates
 - B. Lipids
 - C. Nucleic acids (DNA/RNA)
 - D. Vitamins
146. What does the term "Genomics" refer to?
- A. The study of proteins
 - B. The study of entire genomes
 - C. The study of small molecules
 - D. The study of ecosystems
147. Which database is used to store DNA sequences?
- A. PDB
 - B. GenBank
 - C. Swiss-Prot
 - D. PubMed

148. What is the full form of NCBI?
- A. National Center for Biotechnology Information
 - B. National Council for Biological Investigations
 - C. New Computational Biology Institute
 - D. National Code for Bioinformatics
149. In bioinformatics, BLAST used for:
- A. To predict protein folding
 - B. To search for sequence similarities
 - C. To analyze metabolic pathways
 - D. To synthesise proteins
150. What is the purpose of the FASTA format in bioinformatics?
- A. To store 3D protein structures
 - B. To store DNA and protein sequences
 - C. To analyze enzyme reactions
 - D. To model population genetics
151. Complete the sentences-
Tenzing Norgay and Edmund Hillary were the first to _____ the summit of Mount Everest.
- A. be reaching
 - B. have reached
 - C. reach
 - D. reaching
152. Pick out the correct option for the incorrect sentences
- A. these days people are rare benign
 - B. rare people are benign these days
 - C. benign people are rare these days
 - D. people are benign rare these days.
153. Select the suitable antonyms of the word from the given choices.
Antagonising
- A. mollify
 - B. irritate
 - C. humiliate
 - D. succumb
154. Select the suitable antonyms of the word from the given choices.
Approached
- A. gone
 - B. receded
 - C. went
 - D. scarce

155. Select suitable synonyms from the given choices for the following words.

Predicament

- A. spot
- B. care
- C. spotlight
- D. reckless

156. Select suitable synonyms from the given choices for the following words.

Fiscal

- A. money
- B. insurance
- C. taxation
- D. ambiguous

157. Choose the correct option for the following blanks.

(i). Humans have a tendency to _____.

- A. alienate
- B. procrastinate.
- C. reverberate
- D. captivate

158. Choose the correct option for the following blanks.

Sporadic rainfall occurs _____

- A. spontaneously
- B. occasionally
- C. Simultaneously
- D. Dormantly

159. Correct the sentence given below.

Wow great day it was

- A. It was a great day wow.
- B. A great day it was, wow.
- C. Wow! It was a great day.
- D. A great day it was wow.

160. Fill in the blank with a suitable words/word.

Mohin _____ devastated.

- A. seems to be
- B. surely
- C. behaved
- D. will be

161. Complete the sentence.
Sulekha is a _____ girl, she saves a lot of money.
- A. thrifty
 - B. sober
 - C. kind hearted
 - D. reckless
162. Complete the sentence.
Relay race is most _____
- A. Neck -in- neck
 - B. nail biting
 - C. promising
 - D. rewarding
163. Give synonym :
Brilliant-
- A. superb
 - B. sober
 - C. dextrous
 - D. neat
164. Find the error :
Television was inventoried by Philo Taylor Franceworth.
- A. Philo
 - B. Taylor
 - C. was
 - D. Inventoried
165. Find the error :
People of Finland had been called Finns.
- A. Finns
 - B. Have
 - C. been
 - D. had been
166. Fill in the blank :
Mowgli, _____ was an excellent movie.
- A. Jungle legend
 - B. Junglee legend
 - C. Legend of the jungle
 - D. Jungle story

167. Choose the correct pronoun to complete the sentence: "The teacher gave _____ homework to the students."
- A. his
 - B. her
 - C. their
 - D. its
168. Which sentence is grammatically correct?
- A. He don't like ice cream.
 - B. They doesn't want to go.
 - C. She doesn't like coffee.
 - D. We don't likes the movie.
169. Select the correct preposition to complete the sentence: "The cat is hiding _____ the table."
- A. in
 - B. on
 - C. under
 - D. between
170. Identify the correct tense to complete the sentence: "By next year, she _____ graduated from college."
- A. has
 - B. will have
 - C. had
 - D. will has
171. Which sentence uses the correct subject-verb agreement?
- A. The team of players is arriving.
 - B. The team of players are arriving.
 - C. The team of players were arriving.
 - D. The team of players have arriving.
172. Identify the correct form of the adverb to complete the sentence: "He ran _____ than his friend."
- A. fast
 - B. faster
 - C. fastest
 - D. more fast

173. Statement: Water boils at 100°C.
Reason: Water molecules gain enough energy to break free from the liquid state and become gas at this temperature.
- A. Both the statement and the reason are correct, and the reason is the correct explanation for the statement.
 - B. Both the statement and the reason are correct, but the reason is not the correct explanation for the statement.
 - C. The statement is correct, but the reason is incorrect.
 - D. Both the statement and the reason are incorrect.
174. Statement: The human heart is located in the left part of the chest.
Reason: The left lung is smaller than the right lung to accommodate the heart.
- A. Both the statement and the reason are correct, and the reason is the correct explanation for the statement.
 - B. Both the statement and the reason are correct, but the reason is not the correct explanation for the statement.
 - C. The statement is correct, but the reason is incorrect.
 - D. Both the statement and the reason are incorrect.
175. Statement: Plants release oxygen during photosynthesis.
Reason: During photosynthesis, plants convert carbon dioxide and water into glucose and oxygen using sunlight.
- A. Both the statement and the reason are correct, and the reason is the correct explanation for the statement.
 - B. Both the statement and the reason are correct, but the reason is not the correct explanation for the statement.
 - C. The statement is correct, but the reason is incorrect.
 - D. Both the statement and the reason are incorrect.
176. નીચે આપેલા પૈકીનો કયો શબ્દ 'ચંદ્ર' શબ્દનો સમાનાર્થી શબ્દ નથી ?
- A. સુધાકર
 - B. વિધુ
 - C. ઇન્દુ
 - D. કૌમુદી
177. નીચે આપેલા શબ્દોમાંથી 'સામુદાયિક' શબ્દનો વિરોધાર્થી શબ્દ કયો છે?
- A. સામુહિક
 - B. સાંયોગિક
 - C. વૈયક્તિક
 - D. વિભક્ત

178. શબ્દસમૂહ માટે એક શબ્દ આપો : સરકારશ્રી તરફથી ખેતી માટે આપવામાં આવતા નાણાં

- A. લવાદ
- B. તકાજો
- C. તગાવી
- D. થાપણ

179. ગોળના પાણીએ નાહવું - આ રૂઢિપ્રયોગનો અર્થ આપો

- A. છેતરાઈ જવું
- B. ખુબ સુખી હોવું
- C. ધનના ભંડાર ભરેલા હોવા
- D. કોઈને છેતરવા

180. નીચેના પૈકી સાચી જોડણી ધરાવતો શબ્દ શોધો

- A. પરિચિત
- B. પરીચીત
- C. પરિચીત
- D. પરીચિત

181. નીચેના પૈકી પ્રત્યક્ષ શબ્દની સાચી સંધિ કઈ છે?

- A. પ્રતિ + અક્ષ
- B. પ્ર + ત્યક્ષ
- C. પ્રતી + અક્ષ
- D. પ્રતી + યક્ષ

182. નીચે આપેલા પૈકીનો કયો શબ્દ 'પાણી' શબ્દનો સમાનાર્થી શબ્દ નથી ?

- A. સલિલ
- B. વારિ
- C. તોચ
- D. ધુનિ

183. નીચે આપેલા શબ્દોમાંથી 'પૂર્વગ' શબ્દનો વિરોધાર્થી શબ્દ કયો છે?

- A. અનુગામી
- B. અનુગ
- C. ઉત્તરાર્ધ
- D. પ્રારબ્ધ

184. શબ્દસમૂહ માટે એક શબ્દ આપો : આંખ આગળ ખડું થઈ જાય તેવું

- A. અકલ્પનિય
- B. અતુલ્ય
- C. આબેહૂબ
- D. અસંભવિત

185. દાંતે તરણું લેવું - આ રૂઢિપ્રયોગનો અર્થ આપો

- A. હાર કબૂલવી
- B. ભારે વિરોધ કરવો
- C. વિશ્વાસથી કંઈ કહેવું
- D. ખુબ ચિંતા થવી

186. નીચેના પૈકી સાચી જોડણી ધરાવતો શબ્દ શોધો

- A. પ્રતિનિધિ
- B. પ્રતિનિધી
- C. પ્રતીનીધી
- D. પ્રતિનીધી

187. નીચેના પૈકી મનોબળ શબ્દની સાચી સંધિ કઈ છે?

- A. મ+નો+બળ
- B. મન: + બળ
- C. મનો + બળ
- D. ઉપરમાંથી એક પણ નહિ

188. દૂઝણી ગાયની લાત પણ સારી - આ કહેવત નો સાચો અર્થ કયો છે?

- A. દૂઝણી ગાય કોઈ ને નુકસાન પહોંચાડતી નથી
- B. જાહેર વસ્તુઓ સૌના ભલા માટે હોય છે
- C. દૂઝણી ગાય દૂધ આપતી નથી
- D. ફાયદો કરાવનારના દોષ પણ સહી લેવા યોગ્ય હોય છે

189. ઘરના મુખ્ય ઓરડાની બાજુની ઓરડી - આ શબ્દ સમૂહ માટે એક શબ્દ નીચે આપેલા વિકલ્પોમાંથી શોધીને લખો

- A. આંગણું
- B. દીવાનખંડ
- C. ગજાર
- D. વરંડો

190. આ તળપદા શબ્દનો શિષ્ટ શબ્દ નીચે આપેલા વિકલ્પોમાંથી શોધીને લખો - દાંડાઈ

- A. નફફટ
- B. ઉદ્ગતાઈ
- C. ખરાબ
- D. નાલાયક

191. નીચે આપેલા પદો પૈકી ઉભયાન્વયી પદને ઓળખાવો

- A. તેની પાસે અખૂટ સંપત્તિ છે
- B. વૃક્ષ પરથી પાંદડા ખર્યા
- C. મારા તરફ નજર તો કરો
- D. રામ, સીતા અને લક્ષ્મણ વનમાં ગયા

192. 'ભજનકીર્તન' શબ્દનો સમાસ જણાવો

- A. બ્રંહ સમાસ
- B. તત્પુરુષ સમાસ
- C. મધ્યમપદલોપી સમાસ
- D. ઉપપદ સમાસ

193. નીચે આપેલા વિકલ્પો પૈકી સાચો વિરોધી શબ્દ ધરાવતો વિકલ્પ શોધો

- A. ક્ષણિક x શાશ્વત
- B. ઠોઠ x નબળો
- C. દેવું x કરજ
- D. ઉમંગ x હર્ષ

194. નીચે આપેલા શબ્દો પૈકી કયા શબ્દની જોડણી ખોટી છે?

- A. આત્મસિદ્ધિ
- B. જડીબુટ્ટી
- C. પિયકારી
- D. મહાશીવરાત્રી

195. ઘણો પોકાર કરવા છતાં કોઈ ન સાંભળે તેવું - આ શબ્દ સમૂહ માટે એક શબ્દ નીચે આપેલા વિકલ્પોમાંથી શોધીને લખો

- A. અરણ્યરુદન
- B. ચિત્કાર
- C. બળાપો
- D. આર્તનાદ

196. આકાશકુસુમવત - શબ્દનો સાચો અર્થ ધરાવતો શબ્દ નીચે આપેલા વિકલ્પોમાંથી શોધો

- A. અસ્વસ્થ
- B. અસંભવિત
- C. અત્યંત આકર્ષક
- D. આકૃતિહીન

197. નીચે આપેલા શબ્દો પૈકી વિશેષણ દર્શાવતો શબ્દ શોધો

- A. આરંભ
- B. પુસ્તક
- C. નિત્ય
- D. પાર્શિવ

198. નીચે આપેલા વાક્યમાંથી સર્વનામ દર્શાવતો શબ્દ શોધો :
'કમલ અને શીતલ સૌપ્રથમ ખેતરમાં ગયા અને ત્યારપછી તેઓ મીઠી શેરડી ખાવા બેઠા'
- A. મીઠી
B. ત્યારપછી
C. ખેતર
D. તેઓ
199. 'બંને વ્યક્તિઓ સરખા' - આ અર્થ નીચે આપેલ પૈકી કઈ કહેવતનો છે?
- A. ઘર કી મુર્ગી દાલ બરાબર
B. ચોરનો ભાઈ ઘંટીચોર
C. ધોબીનો ફૂતરો નહિ ધરનો નહિ ઘાટનો
D. નાદાનની દોસ્તી જીવનું જોખમ
200. નીચે આપેલા શબ્દો પૈકી તત્પુરુષ સમાસ ધરાવતો શબ્દ ઓળખો
- A. સુખઃ દુઃખ
B. આડું અવળું
C. ઋણમુક્ત
D. આગ ગાડી

ROUGH WORK

ROUGH WORK

ROUGH WORK