

BIOTECHNOLOGY

1. The term 'Cell' is not used to describe the following living system
 - (A) Algae
 - (B) Bacteria
 - (C) Virus
 - (D) Fungi
2. Developing GM Brinjal in India had the objective of
 - (A) Microbial resistance
 - (B) Salinity resistance
 - (C) Insect resistance
 - (D) Drought resistance
3. For which of the following health conditions was gene therapy tried first?
 - (A) Rheumatoid arthritis
 - (B) Diabetes mellitus
 - (C) Lupus
 - (D) ADA deficiency
4. The excised part of plant and animal used for *in vitro* culture is called
 - (A) Explant
 - (B) Embryoid
 - (C) Callus
 - (D) Teratoma
5. The insecticidal protein synthesised by *Bacillus thuringiensis* brings about its action
 - (A) Being toxic during insect ingestion
 - (B) By creating unfavourable environment
 - (C) By binding and destroying midgut epithelial cells in insect
 - (D) By triggering enzymatic modifications in insect

6. EDTA is used for *in vitro* subculturing of animal cells, since it
- (A) chelates the metal ions that participate in cell adhesion
 - (B) destroys cell to cell glycol proteins
 - (C) helps in floating the cells
 - (D) digests cell membrane associated proteins
7. Expression systems available for large-scale recombinant protein production in mammalian systems include
- (A) Baculovirus
 - (B) Salmonella
 - (C) T4 Phage
 - (D) Agrobacterium
8. Which type of culture can be used to get virus-free plants?
- (A) Micropropagation
 - (B) Meristem culture
 - (C) Callus culture
 - (D) Haploid culture
9. Tritiated antibodies are used in
- (A) Enzyme Linked Immunosorbent Assay
 - (B) Radio Immuno Assay (RIA)
 - (C) Radial Immunodiffusion Assay
 - (D) All of the above
10. Second line of defense in providing immunity includes
- (A) Macrophages
 - (B) Cilia
 - (C) Skin
 - (D) Stomach acid
11. Urea denatures the proteins by
- (A) weakening the intermolecular bonds
 - (B) changing the hydrodynamics of the solvent
 - (C) None of the above
 - (D) Both (A) and (B)

12. 5S, 16S and 23S RNA molecules are seen in
- (A) Eukaryotic rRNA
 - (B) Eukaryotic miRNA
 - (C) Prokaryotic rRNA
 - (D) Prokaryotic tRNA
13. First genetically-engineered model plant was
- (A) Antibiotic resistant tobacco
 - (B) Insect resistant tobacco
 - (C) Antibiotic resistant tomato
 - (D) Insect resistant tomato
14. The genes coding 'opine synthesising enzymes' are present in
- (A) Ti plasmid
 - (B) R plasmid
 - (C) Ti and R plasmids
 - (D) Z plasmid
15. Klenow fragment of DNA polymerase I retains
- (A) 5' → 3' polymerase activity
 - (B) 3' → 5' polymerase activity
 - (C) 5' → 3' exonuclease activity
 - (D) All the three activities
16. Fermentation system in which fresh medium is delivered at a constant rate and cells and spent medium overflow at that same rate is
- (A) Chemostat
 - (B) Cryostat
 - (C) Thermostat
 - (D) Turbidostat
17. The key regulatory enzyme of TCA cycle among the following is
- (A) Aconitase
 - (B) Malate dehydrogenase
 - (C) Isocitrate dehydrogenase
 - (D) Aldolase

18. Among the following, which is used to break the vortex formation in the fermentation vessel
- (A) Baffle
 - (B) Agitator
 - (C) Sparger
 - (D) Jacket
19. β -oxidation in eukaryotes takes place inside
- (A) Cytosol
 - (B) Endoplasmic reticulum
 - (C) Lysosome
 - (D) Mitochondrion
20. Prokaryotic translation Initiation requires energy as
- (A) ATP
 - (B) GTP
 - (C) CTP
 - (D) UTP
21. Hydrophobic component of Electron Transport Chain includes
- (A) Cytochrome
 - (B) Ferredoxin
 - (C) Ubiquinone
 - (D) Cytochrome Oxidase
22. Rotor which avoids “wall effect” during centrifugation is
- (A) Swinging Bucket
 - (B) Vertical
 - (C) Fixed angle
 - (D) Zonal
23. The relationship given by Beer-Lambert law is
- (A) Energy absorption and concentration
 - (B) Energy absorption and reflected radiation
 - (C) Energy absorption and scattering
 - (D) Transmittance and reflection

24. Salk vaccine for polio was manufactured first using
- (A) Microbial cells
 - (B) HeLa cells
 - (C) CHO cells
 - (D) BHK cells
25. Vesicular-arbuscular mycorrhiza (VAM) is formed by the symbiotic association between
- (A) Fungi and angiosperm roots
 - (B) Fungi and monocot roots
 - (C) Bacteria and angiosperm roots
 - (D) Virus and dicot roots
26. *Chinchilla* is a species of
- (A) Primate
 - (B) Rodent
 - (C) Reptile
 - (D) Fish
27. Total number of bones in a neonatal baby is
- (A) 270
 - (B) 206
 - (C) 300
 - (D) 200
28. Which organ secretes trypsin?
- (A) Salivary glands
 - (B) Stomach
 - (C) Pancreas
 - (D) Duodenum
29. Deficiency of protein can lead to
- (A) Beri Beri
 - (B) Scurvy
 - (C) Osteoporosis
 - (D) Kwashiorkor

30. Which is the antihaemorrhagic vitamin essential for coagulation of blood?
- (A) Vitamin D
 - (B) Vitamin B
 - (C) Vitamin E
 - (D) Vitamin K
31. The digestive enzyme, Ptyalin is a
- (A) Protease
 - (B) Lipase
 - (C) Salivary amylase
 - (D) Elastase
32. Exchange of bicarbonate (HCO_3^-) and chloride (Cl^-) across the membrane of red blood cells (RBCs) is
- (A) Chloride Shift
 - (B) Ammonium Shift
 - (C) Bicarbonate shift
 - (D) Haemoglobin shift
33. Sphygmomanometer is used to measure
- (A) Blood pressure
 - (B) Blood Glucose level
 - (C) Blood Calcium level
 - (D) Heart rate
34. Tube feet are locomotory organs in
- (A) Aschelminthes
 - (B) Arthropoda
 - (C) Echinodermata
 - (D) Mollusca
35. Torpedology is the study of
- (A) Birds
 - (B) Sharks
 - (C) Amphibians
 - (D) Insects

36. The receptors in fishes responding to water currents are

- (A) olfactoreceptors
- (B) rheoreceptors
- (C) gustoreceptors
- (D) chemoreceptors

37. Chills and rigors in malaria is caused by

- (A) Haemoglobin
- (B) Oxy-haemoglobin
- (C) Hemozoin
- (D) Haemolysis

38. Which organelle in amoeba regulates osmotic pressure in the cell?

- (A) Cytosol
- (B) Mitochondria
- (C) Golgi bodies
- (D) Vacuole

39. Movement of paramecium in an electric field is

- (A) Galvanotaxis
- (B) Chemotaxis
- (C) Phototaxis
- (D) Gravitaxis

40. Tears are produced from

- (A) Parotid Glands
- (B) Penial Glands
- (C) Lacrymal Glands
- (D) Cornea

41. Ink glands in Sepia produce

- (A) Melatonin
- (B) Melanin
- (C) Plasminogen
- (D) Serotonin

42. Galacturonic acid is the building block of
- (A) Cellulose
 - (B) Hemicellulose
 - (C) Pectin
 - (D) Chitin
43. The water-conducting element in Xylem is
- (A) Tracheids
 - (B) Companion cells
 - (C) Bast
 - (D) Sieve tube
44. Elements that are responsible for transporting sugars throughout the plant are
- (A) Tracheary elements
 - (B) Sieve tubes
 - (C) Vessel elements
 - (D) Sieve plates
45. Which plant is mainly used for biodiesel production?
- (A) Jackfruit
 - (B) Mangifera
 - (C) Jatropha
 - (D) Ixora
46. Which element's deficiency in soil supports the growth of insectivorous plants?
- (A) Sodium
 - (B) Carbon
 - (C) Nitrogen
 - (D) Calcium
47. Actively dividing cells found between xylem and phloem tissues in plants is
- (A) Tracheids
 - (B) Companion cells
 - (C) Cambium
 - (D) Pith

48. The theory, "Active site of an enzyme is precisely shaped to hold the substrate" was proposed by
- (A) Induced-fit hypothesis
 - (B) Substrate strain theory
 - (C) Lock and Key theory
 - (D) All of the above
49. Oxygen-carrier found in the Nitrogen-fixing root nodules of leguminous plants is
- (A) Chlorophyll
 - (B) Haemoglobin
 - (C) Leghaemoglobin
 - (D) Carotenoids
50. Heterotrophic plants with no chlorophyll include
- (A) Saprophytes
 - (B) Epiphytes
 - (C) Hemiparasites
 - (D) None of the above
51. Which is a growth inhibitor?
- (A) Absciscic acid
 - (B) Auxin
 - (C) Cytokinins
 - (D) Gibberellin
52. L-carnitine occurs in
- (A) Chloroplast
 - (B) Mitochondria
 - (C) Ribosomes
 - (D) Nucleus
53. Light independent reaction in photosynthesis is responsible for
- (A) Reducing power
 - (B) Oxygen Evolution
 - (C) ATP generation
 - (D) All of the above

54. First stable compound formed in both C4 and CAM pathways in plants is

- (A) Malate
- (B) Oxaloacetate
- (C) Phosphoglycerate
- (D) Glucose

55. Amphibians of plant kingdom include

- (A) Bryophytes
- (B) Pteridophytes
- (C) Gymnosperms
- (D) Saprophytes

56. The plant hormone produced during chilling is

- (A) Auxin
- (B) Gibberellin
- (C) Kinetin
- (D) Vernalin

57. Germination of a seed below the ground is termed

- (A) Hypogeal
- (B) Epigeal
- (C) Exogeal
- (D) None of the above

58. Plant variety produced by selective breeding is

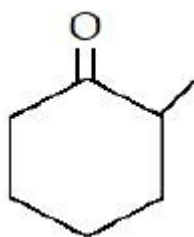
- (A) Cultivar
- (B) Hybrid
- (C) Mutant
- (D) Pure line

59. Algal bloom leads to

- (A) Oxygen depletion from the aquatic ecosystem
- (B) Secreting toxins in the aquatic ecosystem
- (C) Both (A) and (B)
- (D) None of the above

60. Anaerobic digestion of organic waste generates
- (A) Methane
 - (B) Ethane
 - (C) Acetone
 - (D) Acetic acid
61. “No two electrons can have all the four quantum numbers to be the same”, is the basis of
- (A) Dalton’s Atomic theory
 - (B) Bohr’s Atomic theory
 - (C) Pauli’s exclusion principle
 - (D) Hund’s rule of maximum multiplicity
62. Penetrating power and ionisation capacity of α , β and γ rays are
- (A) $\alpha > \beta > \gamma$ and $\alpha < \beta < \gamma$ respectively
 - (B) $\alpha < \beta < \gamma$ and $\alpha > \beta > \gamma$ respectively
 - (C) $\alpha < \beta < \gamma$ and $\alpha \geq \beta > \gamma$ respectively
 - (D) $\alpha < \beta \leq \gamma$ and $\alpha > \beta > \gamma$ respectively
63. How long will it take for a 40 gram I^{131} (half-life = 8.040 days) to decay to 1/100 its original mass?
- (A) 5.34 days
 - (B) 56.2 days
 - (C) 53.4 days
 - (D) 50.6 days
64. Fluid’s internal resistance and friction is described by
- (A) Viscosity
 - (B) Surface tension
 - (C) Osmotic pressure
 - (D) Permeability
65. “Tears of Wine” phenomenon is due to
- (A) similar surface tensions of water and ethanol
 - (B) differing viscosity of water and ethanol
 - (C) differing surface tensions of water and ethanol
 - (D) similar viscosity of water and ethanol

66. Electronegativity of an atom can be measured by
- (A) AFM
 - (B) SEM
 - (C) Both (A) and (B)
 - (D) None of the above
67. What is the molarity of 5.00 g of NaOH in 750.0 mL of solution?
- (A) 150 M
 - (B) 15 M
 - (C) 0.167 M
 - (D) 1.67 M
68. How many enolic forms can arise by tautomerism in the below ketone?



- (A) 1
 - (B) 0
 - (C) 3
 - (D) 2
69. Degree of polarisation depends on
- (A) Charge Density of cations
 - (B) Charge Density of anions
 - (C) Number of electrons
 - (D) None of the above
70. Deep sea dives use oxygen with added helium, why?
- (A) To reduce acute oxygen toxicity in deep water
 - (B) To reduce nitrogen necrosis
 - (C) To reduce decompression sickness
 - (D) All of the above

71. Cis-trans Isomerism is exhibited by
- (A) α -Ketoglutaric acid and Glutamic acid
 - (B) Maleic acid and Fumaric acid
 - (C) Maleic acid and Succinic acid
 - (D) Aspartic acid and Glutamic acid
72. Hydronium ion is
- (A) a hydrated proton
 - (B) dissociation product of water in solution
 - (C) with a structure H_3O^+
 - (D) All of the above
73. Pharmacokinetics and pharmacodynamics are the effects of
- (A) Drug on the body; body on drug respectively
 - (B) Drug on a drug; body on drug respectively
 - (C) Drug on the body; drug on drug respectively
 - (D) Body on drug; body on drug respectively
74. "DNA from any cell of any organism should have 1:1 ratio of pyrimidine and purine bases" is the basis of
- (A) Wobble hypothesis
 - (B) Chargaff's rule
 - (C) Semiconservative replication
 - (D) Hayflick Limit
75. Which of the following is the cofactor for Succinate Dehydrogenase?
- (A) NADP
 - (B) NAD
 - (C) FAD
 - (D) FMN
76. Prokaryotic and Eucaryotic flagella are driven by
- (A) ATP
 - (B) Proton
 - (C) Proton and ATP respectively
 - (D) ATP and Proton respectively

77. Bacterial genome is protected from its own endonucleases by
- (A) Methylation at restriction sites
 - (B) Immune mechanism
 - (C) Nuclease resistant genome
 - (D) not much effective on bacterial genome
78. The most striking example of an unique point mutation is found in the disease
- (A) Night blindness
 - (B) Thalassemia
 - (C) Down syndrome
 - (D) Sickle-cell anaemia
79. Proteins absorb UV radiation at 280 nm maximally due to the presence of
- (A) Tryptophan
 - (B) Tyrosine
 - (C) Phenylalanine
 - (D) All of the above
80. Which one of the following does not have coenzyme activity?
- (A) Vitamin E
 - (B) Thiamine
 - (C) Biotin
 - (D) Riboflavin
81. Active transport
- (A) releases energy
 - (B) requires energy
 - (C) produces energy
 - (D) produces toxic material
82. The general name for an enzyme that transfers phosphate groups from ATP to a protein is
- (A) Protein kinase
 - (B) Phosphorylase
 - (C) Phosphatase
 - (D) ATPase

83. TATA boxes and Pribnow boxes are components of
- (A) Operators
 - (B) Promoters
 - (C) Enhancers
 - (D) Activators
84. Which of these molecules or complexes has a greater oxidizing potential than oxygen?
- (A) Photosystem I (P700+)
 - (B) Photosystem II (P680+)
 - (C) NADP+
 - (D) Plastiquinone
85. The relationship between legumes and *Rhizobium* is
- (A) Mutualistic
 - (B) Parasitic
 - (C) Competitive
 - (D) Commensalism
86. A biological cycle with a period of about 24 hours is called
- (A) Thigmotropism
 - (B) Circadian rhythm
 - (C) Photoperiod
 - (D) Abscission
87. Both photosynthesis and respiration require
- (A) chloroplasts
 - (B) sunlight
 - (C) mitochondria
 - (D) cytochrome
88. Ribozyme is made up of
- (A) RNA
 - (B) Oligosaccharides
 - (C) Phospholipids
 - (D) Monosaccharides

89. The stage of meiosis where cells become haploid
- (A) Prophase I
 - (B) Prophase II
 - (C) Anaphase I
 - (D) Anaphase II
90. The excreta of lizards is rich in
- (A) urea
 - (B) uric acid
 - (C) guanidine
 - (D) allantoin
91. Who demonstrated that genes are located on chromosomes?
- (A) Morgan
 - (B) Meselson and Stahl
 - (C) Chargaff
 - (D) Franklin
92. Genetically engineered male sterile crop plants have been produced by inserting
- (A) Viral coat protein gene
 - (B) Chitinase gene
 - (C) Barnase gene
 - (D) Opaque Z-gene
93. An open reading frame is one that has
- (A) No start and stop codon
 - (B) A start and stop codon
 - (C) No start but stop codon
 - (D) A start but no stop codon
94. Which of the following restriction enzymes produces blunt end DNA fragments?
- (A) EcoR I
 - (B) EcoR II
 - (C) Bam H1
 - (D) EcoR V

95. A high BOD value in an aquatic environment is indicative of
- (A) a pollution free system
 - (B) a highly polluted system due to excess of nutrients
 - (C) a highly polluted system due to abundant heterotrophs
 - (D) a highly pure water with abundance of autotrophs
96. 'Green house' gases absorb the light of wavelength
- (A) 200 nm
 - (B) 300 nm
 - (C) 350 nm
 - (D) 450 nm
97. Western blotting is a technique for hybridization of
- (A) Antigen-Antibody
 - (B) DNA-cDNA
 - (C) Polyamines
 - (D) Monosaccharides
98. Female gametophyte develops within
- (A) Ovule
 - (B) Seed
 - (C) Stamen
 - (D) Anther
99. Cyclins are proteins involved in the regulation of
- (A) Membrane circulation via exocytosis and endocytosis cell-cycle protein kinases
 - (B) Mircadian rhythms
 - (C) Synthesis of cAMP
 - (D) Cell-cycle protein kinases
100. The major site of attack by HIV on immune system is
- (A) MHC
 - (B) B- Lymphocytes
 - (C) T- Lymphocytes
 - (D) Macrophages

101. Photochemical smog always contains
- (A) Ozone
 - (B) Methane
 - (C) CO
 - (D) None of the above
102. Development of fruit without fertilization is
- (A) Parthenocarpy
 - (B) Pathenogenesis
 - (C) Sporogamy
 - (D) Autogamy
103. Which among the following is a sterilizing agent?
- (A) Ethylene oxide
 - (B) Oxygen
 - (C) Nitrogen
 - (D) Carbon tetrachloride
104. 'Shine-Dalgarno sequence' in bacterial mRNA is near
- (A) AUG codon
 - (B) UAA codon
 - (C) UAG codon
 - (D) UGA codon
105. Which among the following is not a universal stop codon?
- (A) UAA
 - (B) UGA
 - (C) UAC
 - (D) UAG
106. The condition 'albinism' in man is linked to deficiency of the enzyme
- (A) Glucose-6-phosphate dehydrogenase
 - (B) Arginase
 - (C) Tyrosinase
 - (D) Xanthin oxidase

107. Which of the following anti-tumor agents acts by impairing *de novo* purine synthesis?
- (A) Cytosine arabinoside
 - (B) 5-fluorouracil
 - (C) Methotrexate
 - (D) Hydroxyurea
108. rRNA originates from
- (A) Nucleus
 - (B) Nucleolus
 - (C) Cytoplasm
 - (D) ER
109. All of the following are proteins within the core nucleosome particle, EXCEPT
- (A) H1
 - (B) H2A
 - (C) H2B
 - (D) H3
110. Which of the following chromosomal alterations would you expect to have the most drastic consequences?
- (A) Inversion
 - (B) Duplication
 - (C) Translocation
 - (D) Deletion
111. Holiday Junction is observed during
- (A) Mitosis
 - (B) Interphase
 - (C) Recombination
 - (D) DNA Repair
112. Huntington's disease is an example of a genetic disorder caused by
- (A) A late acting lethal dominant allele
 - (B) A non-lethal dominant allele
 - (C) A late acting recessive allele
 - (D) Homozygous recessive alleles

113. In a Sephadex gel filtration column, a mixture of albumin, lysozyme and thymidine was loaded; In what sequence these will be eluted from the column
- (A) Albumin > Lysozyme > Thymidine
 - (B) Lysozyme > Thymidine > Albumin
 - (C) Thymidine > Albumin > Lysozyme
 - (D) Thymidine > Lysozyme > Albumin
114. The consensus sequence of 5' and 3' splice junctions in eukaryotic mRNA contains
- (A) GU-GA
 - (B) GU-AG
 - (C) AG-GU
 - (D) CG-AG
115. If total concentration of A = T is 56%, what will be the percentage concentration of Cytosine in the genome?
- (A) 56
 - (B) 23
 - (C) 44
 - (D) 22
116. The difference between the molecular weight of sucrose and that of the sum of the molecular weights of its constituents (glucose and fructose) is
- (A) 0
 - (B) 1
 - (C) 16
 - (D) 18
117. Hybridomas are employed for
- (A) Synthesis of antibiotics
 - (B) Killing cancer cells
 - (C) Synthesis of monoclonal antibodies
 - (D) Production of somatic hybrids
118. Which of the following plant hormones hastens apple ripening?
- (A) Auxins
 - (B) Gibberellin
 - (C) Absciscic acid
 - (D) Ethylene

119. In Bioinformatics, BLAST stands for
- (A) Basic Local Alignment Search Tool
 - (B) Bioinformatics Local Alignment Search Test
 - (C) Biological Logarithmic Alignment Search Tool
 - (D) Basic Local Alignment Software Throughput
120. Which one of the following pairs is not correctly matched?
- (A) Vitamin B12 - Pernicious anaemia
 - (B) Vitamin B6 - Loss of appetite
 - (C) Vitamin B1 - Beri-beri
 - (D) Vitamin B2 - Pellagra
121. Mitochondrion and chloroplast carry out oxidative phosphorylation and photo-phosphorylation, respectively, by means of
- (A) Conformational coupling
 - (B) Chemiosmotic coupling
 - (C) High energy intermediate coupling
 - (D) Sliding filaments
122. The first antibody synthesized by the foetus is
- (A) IgG
 - (B) IgA
 - (C) IgM
 - (D) IgE
123. When CO₂ concentration in blood increases, breathing becomes
- (A) shallower and slow
 - (B) there is no effect on breathing
 - (C) slow and deep
 - (D) faster and deeper
124. 'The Ramachandran Plot' is relevant in the study of
- (A) DNA structures
 - (B) RNA structures
 - (C) Protein structures
 - (D) Carbohydrate structures

125. Which of the following compounds is an end product of beta-oxidation?

- (A) Pyruvic acid
- (B) Acetyl CoA
- (C) Oxaloacetate
- (D) Alanine

126. One of the following is an example for an inter-specific hybrid

- (A) Donkey
- (B) Horse
- (C) Mule
- (D) Hare

127. Conversion of a floral organ to leaf-like structure is known as

- (A) Phyllody
- (B) Petalody
- (C) Emody
- (D) Staminody

128. An agent that causes phyllody is

- (A) Bacteria
- (B) Fungi
- (C) Virus
- (D) Phytoplasma

129. The scientist who won Nobel Prize for the discovery of an Enzyme is

- (A) T.H. Morgan
- (B) E. Buchner
- (C) Venkata Ramakrishnan
- (D) K. Landsteiner

130. Opines are small molecules that serve as food for

- (A) *Agrobacterium* sp.
- (B) *Bacillus* sp.
- (C) *Pseudomonas* sp.
- (D) *Staphylococcus* sp.

131. Which one of the following is a natural auxin?
- (A) Gibberellin
 - (B) Ethylene
 - (C) Indole acetic acid
 - (D) Zeatin
132. Insulin is secreted by
- (A) Pituitary gland
 - (B) Hypothalamus
 - (C) Pancreas
 - (D) Thymus
133. Mycelium refers to the vegetative body of a/an
- (A) fungus
 - (B) alga
 - (C) bacterium
 - (D) zoospore
134. Pasteur effect refers to slowing down of the rate of glucose metabolism in *Saccharomyces cerevisiae* cells in the presence of
- (A) Carbon dioxide
 - (B) Nitrogen
 - (C) Argon
 - (D) Oxygen
135. The evolutionary process by which an organism becomes better suited to its habitat is known as
- (A) Homeostasis
 - (B) Stability
 - (C) Adaptation
 - (D) Reproduction
136. The element essential for the functioning of thyroxine is
- (A) Copper
 - (B) Iodine
 - (C) Zinc
 - (D) Molybdenum

137. Gram stain is used to distinguish different types of
- (A) Bacteria
 - (B) Fungi
 - (C) Yeast
 - (D) Mycoplasma
138. Which one is an epimer of D-glucose?
- (A) D-Galactose
 - (B) D-Fructose
 - (C) D-Ribose
 - (D) D-Xylose
139. The instrument used to make thin sections of processed tissue sample for microscopic study is
- (A) Microtome
 - (B) Centrifuge
 - (C) Vacuum dryer
 - (D) Kitchen knife
140. Prion is a
- (A) DNA
 - (B) RNA
 - (C) Fatty acid
 - (D) Protein
141. Dengue is caused by
- (A) Bacteria
 - (B) Fungus
 - (C) Viruses
 - (D) Amoeba
142. Watson and Crick are associated with
- (A) Protoplasm theory
 - (B) Cell theory
 - (C) DNA double-helix
 - (D) Fluid Mosaic Model

143. Pyridoxine is otherwise known as
- (A) Vitamin B1
 - (B) Vitamin B6
 - (C) Vitamin B9
 - (D) Vitamin B12
144. Photorespiration is a process in which RuBisco fixes
- (A) Carbon dioxide
 - (B) Oxygen
 - (C) Nitrogen
 - (D) Sulphur
145. Ornithine is a
- (A) Non-protein amino acid
 - (B) Non-protein carbohydrate
 - (C) Non-protein fatty acid
 - (D) Non-protein nucleotide
146. Enzyme that transcribes RNA into DNA is known as
- (A) ligase
 - (B) endonuclease
 - (C) kinase
 - (D) reverse transcriptase
147. Which one of the following crops has its centre of origin in India?
- (A) Wheat
 - (B) Potato
 - (C) Brinjal
 - (D) Sunflower
148. The high energy molecule produced by substrate level phosphorylation in TCA cycle is
- (A) ADP
 - (B) TTP
 - (C) GTP
 - (D) CTP

149. The radiation used to find bone density is

- (A) Gamma ray
- (B) UV ray
- (C) X-ray
- (D) Radio wave

150. The suicidal bag of a cell is

- (A) Golgi complex
- (B) Mitochondrion
- (C) Nucleoli
- (D) Lysosome

Only for reference. Do not copy

ANSWER KEY**Subject Name: 601 BIOTECHNOLOGY**

SI No.	Key	SI No.	Key	SI No.	Key	SI No.	Key	SI No.	Key
1	C	31	C	61	C	91	A	121	B
2	C	32	A	62	B	92	C	122	C
3	D	33	A	63	C	93	B	123	D
4	A	34	C	64	A	94	D	124	C
5	C	35	B	65	C	95	B	125	B
6	A	36	B	66	C	96	D	126	C
7	A	37	C	67	C	97	A	127	A
8	B	38	D	68	D	98	A	128	D
9	B	39	A	69	A	99	D	129	B
10	A	40	C	70	D	100	C	130	A
11	D	41	B	71	B	101	A	131	C
12	C	42	C	72	D	102	A	132	C
13	A	43	A	73	A	103	A	133	A
14	C	44	B	74	B	104	A	134	D
15	A	45	C	75	C	105	C	135	C
16	A	46	C	76	C	106	C	136	B
17	C	47	C	77	A	107	C	137	A
18	A	48	C	78	D	108	B	138	A
19	D	49	C	79	D	109	A	139	A
20	B	50	A	80	A	110	D	140	D
21	C	51	A	81	B	111	C	141	C
22	D	52	B	82	A	112	A	142	C
23	A	53	D	83	B	113	A	143	B
24	B	54	B	84	B	114	B	144	B
25	A	55	A	85	A	115	D	145	A
26	B	56	D	86	B	116	D	146	D
27	C	57	A	87	D	117	C	147	C
28	C	58	A	88	A	118	D	148	C
29	D	59	C	89	C	119	A	149	C
30	D	60	A	90	B	120	D	150	D