

## LIFE SCIENCE

1. Which of the following is **not** directly associated with regulation of eukaryotic gene expression?
  - (A) Acetylation of histones
  - (B) Methylation of DNA
  - (C) Alternative splicing
  - (D) Activation of Caspases
  
2. miRNA based silencing of genes is a type of
  - (A) transcription gene silencing
  - (B) post-transcription gene silencing
  - (C) translation gene silencing
  - (D) post-translation gene silencing
  
3. Solar energy is the source of energy for
  - (A) Green plants
  - (B) Photosynthetic autotrops
  - (C) Heterotropic organisms
  - (D) All of the above
  
4. The nucleotide sequence of DNA involved in binding to a transcription factor can be determined by
  - (A) DNA footprinting
  - (B) S1 nuclease treatment
  - (C) DNA fingerprinting
  - (D) Northern hybridization
  
5. Water content of active protoplasm is
  - (A) 10%
  - (B) 40%
  - (C) 70%
  - (D) 90%
  
6. The ribosome is involved in all of the following, **except**
  - (A) peptide bond formation
  - (B) aminoacylation of tRNA
  - (C) binding of protein factors during elongation
  - (D) binding of aminoacyl tRNA to mRNA

7. Specificity of transcription by RNA polymerases holoenzyme in *E. coli* is altered by changing the
- (A) Alpha subunit
  - (B) Sigma subunit
  - (C) Beta subunit
  - (D) Beta prime subunit
8. The number of enzyme units per ml of protein is known as
- (A) Molecular activity
  - (B) Specific activity
  - (C) Turnover number
  - (D) Mole's activity
9. The amorphous, dark coloured partially decomposed organic matter in the soil is called
- (A) Loam
  - (B) Humus
  - (C) Silt
  - (D) Muck
10. Pseudoautosomal gene is present on
- (A) both X- and Y- chromosomes
  - (B) both X- and autosomes
  - (C) both Y- and autosomes
  - (D) autosomes only
11. Which of the following is a widely found metal cofactor?
- (A)  $Mg^{2+}$
  - (B)  $Al^{3+}$
  - (C)  $Ni^{2+}$
  - (D)  $Ca^{2+}$
12. In mitosis, the various phases are in the order
- (A) Prophase-Metaphase-Telophase-Anaphase-Interphase
  - (B) Metaphase-Prophase-Interphase-Telophase-Anaphase
  - (C) Interphase- Prophase- Metaphase-Anaphase-Telophase
  - (D) Telophase-Prophase-Metaphase-Anaphase-Interphase

13. The homologous chromosomes follow the process of synopsis in the stage
- (A) Leptotene
  - (B) Zygotene
  - (C) Pachytene
  - (D) Diplotene
14. In animals, circadian rhythm is controlled by the
- (A) Pituitary gland
  - (B) Medulla
  - (C) Suprachiasmatic nucleus
  - (D) Cerebral cortex
15. Sexually Transmitted Disease (STD) caused by *Treponema pallidum* is
- (A) Syphilis
  - (B) Genital herpes
  - (C) Gonorrhoea
  - (D) AIDS
16. Number of chromosomes in wheat is
- (A) 20
  - (B) 30
  - (C) 40
  - (D) 42
17. Which is the most abundant immunoglobulin?
- (A) IgA
  - (B) IgD
  - (C) IgG
  - (D) IgM
18. When population of a plant species are located adjacent to one another because of abrupt changes in soil conditions, they are called
- (A) Allopolyploid
  - (B) Autopolyploid
  - (C) Sympatric
  - (D) Parapatric

19. Infertility is overcome by a technique known as
- (A) *In vitro* fertilization
  - (B) *In vivo* fertilization
  - (C) Both (A) and (B)
  - (D) None of the above
20. A membrane-lined system of channels present throughout the cytoplasm is
- (A) Endoplasmic reticulum
  - (B) Golgi apparatus
  - (C) Microtubules
  - (D) Both (B) and (C)
21. The rapid growth of pollen tube is restricted to the
- (A) Basal region
  - (B) Middle region
  - (C) Apical region
  - (D) Zone behind the apical region
22. Genetic drift occurs when a few individuals of a species colonize an island. This particular phenomenon is known as
- (A) the bottleneck effect
  - (B) the founder effect
  - (C) assortative mating
  - (D) random mating
23. The movements in the gut wall are known as
- (A) Metachronal
  - (B) Diastole
  - (C) Systole
  - (D) Peristalsis
24. The symptoms of ammonia intoxication include
- (A) blurring of vision
  - (B) constipation
  - (C) mental confusion
  - (D) diarrhea

25. A molecule that produces an immune response is
- (A) Antigen
  - (B) Antibody
  - (C) Mutagen
  - (D) Carcinogen
26. The hormone from the hypothalamus that stimulates release of FSH from the anterior pituitary is
- (A) Gonadotropin
  - (B) Oxytocin
  - (C) Luteinizing hormone
  - (D) Progesterone
27. The process that sperm undergoes in female genital tract of mammals before fertilization is called
- (A) Decapacitation
  - (B) Deactivation
  - (C) Activation
  - (D) Capacitation
28. Most important insect vector of plant viruses is
- (A) Aphids
  - (B) Leaf hoppers
  - (C) Bugs
  - (D) Thrips
29. The blood group that has both 'A' and 'B' antigens, but no antibodies is
- (A) A
  - (B) O
  - (C) AB
  - (D) B
30. Hay fever is caused due to
- (A) Hepatitis
  - (B) Allergy
  - (C) Dengue
  - (D) Helper T-cells

31. An endemic species is
- (A) one found in many different geographic areas
  - (B) one that has been introduced to a new geographic area
  - (C) one found only on islands
  - (D) one found naturally in just one geographic area
32. Which of the following human genetic disorder is sex-linked?
- (A) Haemophilia
  - (B) PKU
  - (C) Cystic fibrosis
  - (D) Sickle cell disease
33. The accumulation of one of the following causes seed dormancy
- (A) Cytokinin
  - (B) Auxin
  - (C) ABA
  - (D) Gibberellins
34. Which of the following diseases is **not** because of chromosomal abnormalities?
- (A) Achondroplasia
  - (B) Myeloid leukaemia
  - (C) Cri-du-chat disease
  - (D) Patau's syndrome
35. Which plant hormone has anti-ageing effects?
- (A) Gibberellins
  - (B) Cytokinins
  - (C) Auxins
  - (D) Ethylene
36. The heart forms from
- (A) Dorsal ectoderm
  - (B) Lateral plate mesoderm
  - (C) Endoderm
  - (D) Mesenchyme

37. The Eastern boundary of the Indomalaya is known as
- (A) Bendan line
  - (B) Wallace line
  - (C) Bear line
  - (D) None of the above
38. Bundle sheath chloroplasts of  $C_4$ -plants are
- (A) Large and Agranal
  - (B) Large and Granal
  - (C) Small and Granal
  - (D) Small and Agranal
39. In a trisomic individual, the number of chromosomes is
- (A)  $2n - 1$
  - (B)  $2n + 2$
  - (C)  $2n + 3$
  - (D)  $2n + 1$
40. A method to detect whether two mutations are located on the same gene or different genes is
- (A) generalized transduction
  - (B) complementation analysis
  - (C) Hfr mapping
  - (D) Karyotyping
41. Which is known as 'Fire algae' due to the phosphorescence activity?
- (A) *Notiluca*
  - (B) *Gonyaulax*
  - (C) *Plasmodium*
  - (D) *Blastodinium*
42. Which is the only gaseous hormone?
- (A) Abscisic acid
  - (B) Cytokinins
  - (C) Auxins
  - (D) Ethylene

43. The maximum biodiversity in India occurs at
- (A) Western Himalayas
  - (B) North-East Himalayas
  - (C) Western Ghats
  - (D) Eastern Ghats
44. Which of the following is a living fossil?
- (A) *Spirogyra*
  - (B) *Cycas*
  - (C) *Moss*
  - (D) *Saccharomyces*
45. A person with Klinefelter's syndrome is considered a
- (A) Monosomic
  - (B) Triploid
  - (C) Trisomic
  - (D) Deletion heterozygote
46. The infectious substance of prions is
- (A) Protein
  - (B) Glycophosphate
  - (C) RNA
  - (D) DNA
47. Which one of the following diseases is communicable?
- (A) Rickets
  - (B) Amoebiasis
  - (C) Diabetes
  - (D) Cancer
48. In mammals, the brain is surrounded by an outer fibrous membrane called
- (A) Diameters
  - (B) Neuromates
  - (C) Myomates
  - (D) Duramaters



49. After clotting of blood, the fluid residue from a clot is called
- (A) Vaccine
  - (B) Antigen
  - (C) Blood protein
  - (D) Serum
50. The national herbarium of India is located in
- (A) Mumbai
  - (B) Kolkata
  - (C) Chennai
  - (D) Delhi
51. Chilka lake harbours high biodiversity of
- (A) Pisces
  - (B) Aves
  - (C) Reptiles
  - (D) Mammals
52. All the organisms that occur in the redwood community
- (A) make up a single population
  - (B) use the redwoods for food
  - (C) have identical geographic distributions
  - (D) have niches that overlap
53. Which one of the following pathogens does not have the ability to survive within macrophages?
- (A) *Schistosoma mansoni*
  - (B) *Mycobacterium tuberculosis*
  - (C) *Listeria monocytogenes*
  - (D) *Leishmania donovani*
54. The statistical study of populations is called
- (A) Density
  - (B) Fecundity
  - (C) Dispersion
  - (D) Demography

55. Shotgun approach is used for the construction of
- (A) cDNA library
  - (B) Genomic library
  - (C) Both (A) and (B)
  - (D) None of the above
56. A cloning vector consisting of cos site inserted in a plasmid, used to clone DNA fragments of lambda phage is
- (A) phagemid
  - (B) cosmid
  - (C) plasmid
  - (D) YAC
57. Who among the following is renowned for his leading role in India's Green Revolution programme?
- (A) Norman Borlaug
  - (B) Verghese Kurien
  - (C) M S Swaminathan
  - (D) H G Khorana
58. Which one of the following ecosystems is unique to India?
- (A) Mangroves
  - (B) Cold deserts
  - (C) Myristica swamps
  - (D) Riparian forest
59. What is the nature of India's indigenous COVID-19 vaccine?
- (A) It is an mRNA vaccine(for expression of viral spike protein)
  - (B) It is a preparation of inactivated whole virus
  - (C) It is a preparation of attenuated SARS-Cov-2virus
  - (D) It is a recombinant, chimpanzee adenovirus vector encoding the SARS-CoV-2 Spike (S) glycoprotein
60. Animal cell culture is quite popular in raising
- (A) hormones
  - (B) enzymes
  - (C) bacteria
  - (D) vaccines

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61. What is the pattern of cleavage of fertilized egg observed in mammals?
- (A) Radial
  - (B) Spiral
  - (C) Rotational
  - (D) Bilateral
62. Which of the following is the causative agent of filariasis?
- (A) *Francisella tularensis*
  - (B) *Brugiya malayi*
  - (C) *Cryptococcus neoformans*
  - (D) *Listeria monocytogenes*
63. Inhibin from Sertoli cells of testes selectively inhibits
- (A) Luteinizing hormone
  - (B) Follicle stimulating hormone
  - (C) Thyroid stimulating hormone
  - (D) Growth hormone
64. Which of the following plant groups evolved during the Silurian period?
- (A) Bryophyta
  - (B) Lycopphyta
  - (C) Psilophyta
  - (D) Spherophyta
65. Which of the following processes does not take place in the 5' → 3' direction?
- (A) DNA replication
  - (B) Transcription
  - (C) Nick translation
  - (D) RNA editing
66. Which of the following vitamins does not play a role in helping the plants combat pathogen intruders?
- (A) Vitamin A
  - (B) Vitamin E
  - (C) Vitamin B group
  - (D) Vitamin D

67. Z-DNA has a double helix pattern in
- (A) Left-handed
  - (B) Right-handed
  - (C) Both left and right-handed
  - (D) Yet to be estimated
68. How many isomers of glucose are there?
- (A) 4
  - (B) 16
  - (C) 18
  - (D) 8
69. Which of the following subunits of RNA polymerase has its catalytic activity?
- (A)  $\beta'$  (156 kDa)
  - (B)  $\beta$  (151kDa)
  - (C)  $\alpha$  (37kDa)
  - (D)  $\sigma 70$  (70kDa)
70. Purine or pyrimidine base + sugar + phosphorous is related to
- (A) A nucleotide
  - (B) A nucleoside
  - (C) An amino acid
  - (D) A DNA molecule
71. Cell wall is rigid due to the presence of
- (A) Lipids and proteins
  - (B) Ketone bodies
  - (C) Cellulose
  - (D) Endoplasmic reticulum and actin filaments
72. It was seen that the fruit fly *Drosophila melanogaster* sperm contains four chromosomes. How many chromatids would be there at the metaphase I of meiosis?
- (A) 2
  - (B) 4
  - (C) 8
  - (D) 16

73. Chiasmata are the points where crossing-over takes place. In which phase of the cell cycle are the chiasmata visible?
- (A) Prophase
  - (B) Prophase-I
  - (C) Prophase-II
  - (D) Interphase
74. How many haploid nuclei are found in female gametophyte of *Arabidopsis thaliana*?
- (A) 2
  - (B) 4
  - (C) 8
  - (D) 7
75. How many kinds of  $F_1$  gametes,  $F_2$  genotypes, and  $F_2$  phenotypes would be expected from the AA BB x aa bb cross?
- (A) 4, 9, 4
  - (B) 2, 4, 2
  - (C) 8, 17, 8
  - (D) 1, 2, 1
76. The total collection of all the alleles of all the genes of a crop species is called
- (A) Herbarium
  - (B) Protoplasm collection
  - (C) Germplasm collection
  - (D) None of the above
77. Farmers use crop rotation to increase
- (A) Organic content of the soil
  - (B) Nitrogenous content of soil
  - (C) Soil fertility
  - (D) All of the above
78. Which of the following fungi produces aflatoxin?
- (A) *Aspergillus flavus*
  - (B) *Rhizoctonia solani*
  - (C) *Candida albicans*
  - (D) *Claviceps purpurea*

79. In bryophytes, embryonic development of zygote takes place in the
- (A) antheridium
  - (B) sporogonium
  - (C) capsule
  - (D) archegonium
80. Agar, which is the solidifying agent in many bacterial culture media, is part of the cell wall of
- (A) Chlorophyta
  - (B) Chrysophyta
  - (C) Pyrrophyta
  - (D) Rhodophyta
81. Sugarcane is a
- (A) Bryophyte
  - (B) Heliophyte
  - (C) Sciophyte
  - (D) Pteridophyte
82. Which hormone leads to gluconeogenesis in the liver, if a person is under prolonged starvation?
- (A) TSH
  - (B) Thyroxine
  - (C) Glucagon
  - (D) Insulin
83. What is the net gain in ATP when glucose is converted to pyruvate?
- (A) 1 ATP+1 GTP
  - (B) 4 ATP
  - (C) 1 ATP
  - (D) 2 ATP
84. Which occurs only in eukaryotes, but not in prokaryotes?
- (A) Replication
  - (B) Transcription
  - (C) Splicing
  - (D) Translation

85. If the Adenine content in the genome of a species is 15%, what is the % content of Cytosine?
- (A) 15%
  - (B) 35%
  - (C) 45%
  - (D) 85%
86. Which is the active form of thyroid hormone?
- (A) T3
  - (B) T4
  - (C) rT3
  - (D) None of the above
87. *Mycobacterium tuberculosis* is resistant to the first-line antibiotics
- (A) Isoniazid and ciprofloxacin
  - (B) Isoniazid and Rifampin
  - (C) Rifampin and ciprofloxacin
  - (D) Rifampin and streptomycin
88. Which of the following cells produce antibodies?
- (A) T-Cells
  - (B) Plasma cells
  - (C) Memory cells
  - (D) B cells
89. Which among the following is the key structural polysaccharide in the cell wall of fungi and in the exoskeleton of arthropods?
- (A) Starch
  - (B) Glycogen
  - (C) Cellulose
  - (D) Chitin
90. Although cellulose and starch are composed of glucose units, what is the structural difference between them?
- (A) Starch has a linear structure, while cellulose is branched
  - (B) Starch has alpha 1,4-glycosidic linkages, while cellulose has beta 1,4-glycosidic linkages
  - (C) Starch is found in animals while cellulose is found in plants
  - (D) Starch is a storage polysaccharide while cellulose is a structural polysaccharide



91. Which type of bond is responsible to maintain the primary structure of a protein?
- (A) Peptide bond
  - (B) Hydrogen bond
  - (C) Disulfide bonds
  - (D) Synthetic bond
92. Hemoglobin is an example of a protein that functions as a
- (A) Transport protein
  - (B) Structural protein
  - (C) Catalytic protein
  - (D) Hormone
93. Which of the following techniques is mainly used to determine the 3D structure of proteins?
- (A) NMR spectroscopy
  - (B) Infrared spectroscopy
  - (C) Chromatography
  - (D) Mass spectroscopy
94. 'Down syndrome' in humans is caused by an extra chromosome, that is Chromosome
- (A) 1
  - (B) 5
  - (C) 21
  - (D) 15
95. Which among the following is not a molecular marker?
- (A) *Taq* DNA Polymerase
  - (B) Single nucleotide polymorphism
  - (C) Amplified polymorphic sequence
  - (D) Simple sequence length polymorphism
96. Which pathogens cause 'white powdery' substances on the leaves as a disease symptom?
- (A) Bacterial
  - (B) Fungal
  - (C) Nematodal
  - (D) Viral

97. How many bones constitute the human ankle?
- (A) 6
  - (B) 7
  - (C) 8
  - (D) 9
98. The large number of narrow tubes found in lungs are
- (A) Trachea
  - (B) Bronchi
  - (C) Bronchioles
  - (D) Alveoli
99. What is the pH of saliva?
- (A) 6
  - (B) 6.8
  - (C) 7
  - (D) 7.2
100. Blastocyst implantation occurs in
- (A) Ovary
  - (B) Cervix
  - (C) Fallopian tube
  - (D) Endometrium
101. Sperm releases a hydrolytic enzyme called
- (A) Hyaluronidase
  - (B) Androgamone
  - (C) Acrosome
  - (D) Ligase
102. Wolffian duct forms
- (A) Ejaculatory duct
  - (B) Urethra
  - (C) Epididymis
  - (D) Oviduct

103. Spindle fibres are made up of
- (A) Flagella
  - (B) Tubulin
  - (C) Spermidine
  - (D) Humulin
104. Which of the following arrests cell division at metaphase?
- (A) Ampicillin
  - (B) Colchicine
  - (C) Pantoprazole
  - (D) NaCl
105. During which phase of cell division does centriole replication take place?
- (A) Prophase
  - (B) Anaphase
  - (C) Telophase
  - (D) Interphase
106. Synthesis of urea takes place in
- (A) Muscles
  - (B) Liver
  - (C) Pancreas
  - (D) Kidney
107. Blue green algae are generally used as biofertilizers, as they are
- (A) Surrounded by mucilage
  - (B) Growing everywhere
  - (C) Photosynthetic
  - (D) Capable of fixing nitrogen
108. Which among the following is **not** considered as a direct greenhouse gas?
- (A) Oxygen ( $O_2$ )
  - (B) Nitrous oxide ( $N_2O$ )
  - (C) Methane ( $CH_4$ )
  - (D) Carbon dioxide ( $CO_2$ )

109. In global warming, the temperature of
- (A) Troposphere increases
  - (B) Stratosphere increases
  - (C) Mesosphere increases
  - (D) Ionosphere increases
110. Belching gas is primarily released to environment by
- (A) Grazing animals
  - (B) Fishes
  - (C) Aquatic plants
  - (D) Lions
111. In mRNA processing, 7-methylguanosine cap is added at the ..... end of the transcript
- (A) 3' and 5' end
  - (B) 3' end
  - (C) 2' end
  - (D) 5' end
112. The human genome approximately contains
- (A)  $3 \times 10^9$  base pairs
  - (B)  $4 \times 10^9$  base pairs
  - (C)  $5 \times 10^9$  base pairs
  - (D)  $135 \times 10^9$  base pairs
113. The genomic study used for the identification of drugs is called
- (A) Pharmacogenomics
  - (B) Pharmacogenetics
  - (C) Pharmacology
  - (D) Pharmaceutics
114. The tool used to find the homology and similarity between two biological sequences is called
- (A) BLAST
  - (B) SWISS-PROT
  - (C) ENSEMBLE
  - (D) PROSPECT

115. In Klinefelter syndrome, the phenotypical males are having ..... genotype
- (A) XXY
  - (B) XXX
  - (C) XYY
  - (D) XO
116. The coordinated unit of gene expression in bacteria is called
- (A) Lac operon
  - (B) Tryptophan operon
  - (C) Operon
  - (D) None of the above
117. How many lobes are there in thyroid gland?
- (A) 1
  - (B) 2
  - (C) 3
  - (D) 4
118. Which of the following is NOT a hereditary disease?
- (A) Haemophilia
  - (B) Cretinism
  - (C) Cystic fibrosis
  - (D) Thalassemia
119. Which of the following elements is most useful for plant root growth?
- (A) Phosphorous
  - (B) Nitrogen
  - (C) Boron
  - (D) Calcium
120. Vegetable science is otherwise called as
- (A) Olericulture
  - (B) Sericulture
  - (C) Aquaculture
  - (D) Pot culture

121. Which of the following involves the usage of a polymer chain reaction?
- (A) Making the RAPD maps
  - (B) Finding a transgene in a living being
  - (C) Enhancing the target gene
  - (D) All of the above
122. Which of the following vitamins contains metal atoms?
- (A) Riboflavin
  - (B) Vitamin B12
  - (C) Vitamin B6
  - (D) Vitamin A
123. How many vitamins constitute the commonly used Vitamin B Complex?
- (A) 6
  - (B) 8
  - (C) 10
  - (D) 12
124. Which of the following hormones would be released quickly, if a man is being chased by a dog?
- (A) Epinephrine
  - (B) Prolactin
  - (C) Somatostatin
  - (D) Somatotropin
125. Which among the following is a commercial product made from genetically altered bacteria?
- (A) Thyroxine
  - (B) Testosterone
  - (C) Human insulin
  - (D) Penicillin
126. Genetic drift is a change of
- (A) Gene frequency in the same generation
  - (B) The appearance of recessive genes
  - (C) Gene frequency from one generation to the next
  - (D) None of the above

127. Who was a predecessor of Darwin and developed the theory of acquired characteristics?
- (A) Weismann
  - (B) Mendel
  - (C) Malthus
  - (D) Lamarck
128. Human beings belong to the species
- (A) *Homo erectus*
  - (B) *Homo habilis*
  - (C) *Homo sapiens*
  - (D) Hominidae
129. The transfer of the single-stranded DNA between two live bacteria i.e. from a donor bacterium to a recipient bacterium, through the cytoplasmic bridges is known as
- (A) Electroporation
  - (B) Conjugation
  - (C) Transduction
  - (D) Transformation
130. If a pyrimidine is replaced by a purine, the resulting mutation is termed as
- (A) point mutation
  - (B) transition
  - (C) transversion
  - (D) frameshift mutation
131. Incomplete dominance is also termed as
- (A) Partial dominance
  - (B) Half dominance
  - (C) Co-dominance
  - (D) Multiple allele
132. Termination of replication is triggered by
- (A) DNA polymerase
  - (B) Helicase
  - (C) SSB
  - (D) Tus protein

133. DNA polymerase synthesizes
- (A) DNA in 5'-3' direction
  - (B) DNA in 3'-5' direction
  - (C) mRNA in 3'-5' direction
  - (D) mRNA in 5'-3' direction
134. The newly collected substitute specimen used, when the original type material is missing in a herbarium is termed as
- (A) Holotype
  - (B) Neotype
  - (C) Lectotype
  - (D) Isotype
135. tRNA attaches amino acids to its
- (A) 5' end
  - (B) 3' end
  - (C) Anticodon
  - (D) Loop
136. Cell-cell communication in plants occurs via
- (A) Nucleus
  - (B) Endoplasmic reticulum
  - (C) Plasmodesmata
  - (D) Stomata
137. Which among the following is **not** a cloning vector?
- (A) pUC19
  - (B) SV40
  - (C) EST
  - (D) M13
138. CRISPR–Cas9 was discovered by
- (A) Emmanuelle Charpentier and Jennifer Doudna
  - (B) Stanley Cohen and Herbert Boyer
  - (C) Gottlieb Haberlandt
  - (D) Herbert Boyer and Stanley Cohen



139. Which of the following organs is most sensitive to progesterone?
- (A) Brain
  - (B) Uterus
  - (C) Mammary gland
  - (D) Ovary
140. Genetic differences between cells arise from
- (A) Mitosis
  - (B) Meiosis
  - (C) Both (A) and (B)
  - (D) None of the above
141. The development of several embryos within the same ovule is common among
- (A) Gymnosperms
  - (B) Angiosperms
  - (C) Pteridophytes
  - (D) Bryophytes
142. Cells of immune system that cause pore formation in the antigen are
- (A) Helper T-cells
  - (B) Killer T-cells
  - (C) Suppressor T-cells
  - (D) B-cells
143. Glucose is converted into glycogen in liver and stored in
- (A) liver and spleen
  - (B) liver and muscle
  - (C) liver
  - (D) spleen and muscles
144. Cross pollination within species (this may be in vertical) is called
- (A) Autogamy
  - (B) Xenogamy
  - (C) Allogamy
  - (D) Geitonogamy

145. The immunoglobulin found in a mother's milk is
- (A) IgM
  - (B) IgA
  - (C) IgE
  - (D) IgG
146. Which of the following wavelengths of light would stimulate seed germination?
- (A) 450 nm
  - (B) 540 nm
  - (C) 660 nm
  - (D) 730 nm
147. Which one engulfs foreign materials?
- (A) Macrophages
  - (B) Plasma cells
  - (C) Mast cells
  - (D) Lymphocytes
148. Carbon dioxide joins the photosynthetic pathway during
- (A) PS-I
  - (B) PS-II
  - (C) Light reaction
  - (D) Dark reaction
149. The largest unit within which gene flow can readily occur is a
- (A) Population
  - (B) Species
  - (C) Genus
  - (D) Phylum
150. The primary ecological factor determining the distribution of deserts is
- (A) Windiness
  - (B) Elevation
  - (C) Moisture
  - (D) Temperature

## ANSWER KEY

**Subject Name: 611 LIFE SCIENCE**

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