

Class: 12

1.)Egg apparatus consists of

- a.)Egg b.)Egg and polar Nuclei c.)Egg and synergids d.)Egg and antipodal cells

2.)In angiosperms, the pollen grain liberate their male gamete into the

- a.)Central Cell b.)Antipodal Cell c.)Egg Cell d.)Synergids

3.)Pollen grains are able to withstand extremes of temperature and desiccation because their exine is composed of

- a.)Cutin b.)Suberin c.)Sporopollenin d.)Callose

4.)Chiopterophily means

- a.)Pollination through insects b.)Pollination through wind c.)Pollination through bats d.)Pollination through snails

5.)Male gametes in angiosperms are formed by the division of

- a.)Generative cell b.)Vegetative cell c.)Microspore Mother cell d.)Microspore

6.)Double fertilization is the process in plants that includes

- a.) Syngamy and triple fusion b.)Only triple fusion c.)Development of antipodal cells d.)None of these

7.)What does the filiform apparatus do at the entrance into ovule

- a.) It brings about opening of the pollen tube b.) It guides pollen tube from a synergid to egg
c.) It helps in the entry of pollen tube into a synergid d.) It prevents entry of more than one pollen tube into the embryo sac

8.)Seedless banana is

- a.)Parthenocarpic Fruit b.)Multiple fruit c.)Drupe fruit d.) True Fruit

9.)In a mature embryo sac the central cell is

- a.) Single nucleate b.)Binucleate c.)Four Nucleate d.) Eight Nucleate

10.) Embryo is to ovuleis to an anther

- a.) Stamen b.)Filament c.)Pollen Grain d.)Androecium

11.)The outermost and innermost wall layers microsporangium in an anther are respectively

- a.)Endothecium and Tapetum b.)Epidermis and endodermis c.)Epidermis and middle layers d.)Epidermis and tapetum

12.)Choose the correct option for female gametophyte

i.)It is 8-nucleate and 7- celled at maturity ii.)It is free nuclear during development

iii.)It is situated inside the integument but outside the nucellus.

iv.)It has an egg apparatus situated at the chalazal end

- a.) (i) and (iv) b.)(ii) and (iii) c.)(i) and (ii) d.)(ii) and (iv)

13.) The phenomenon wherein the ovary develops into a fruit without fertilization is called:

- a. Parthenocarpy b. Apomixis c. Asexual reproduction d. Sexual reproduction

14.) Wind pollinated flowers are

- a. Small producing nectar and dry pollen c. Small brightly colored producing large number of pollen grains
b. small producing large no. of pollen grains d. Large producing abundant nectar and pollen.

15.) Transfer of pollen grains from anther to the stigma of another flower on the same plant is called

- (a) Autogamy (b)Xenogamy © Geitonogamy (d) Karyogamy

16.) Exine in pollen grain is made of

- a.) Pectocellulase b.) Lignocellulos c.)Sporopollenin d) Pollen kit

17.) In double fertilization

- a.) Two male gametes fuse with two eggs
b.) One male gamete fuses with the egg and the other fuses with secondary nucleus
c.) One male gamete fuses with egg and the other fuses with antipodal
d.) One male gamete fuses with antioodal and the other fuses with diploid nuclues

18.) Synergids are

- a.) Haploid b.) Diploid c.) Triploid d.) Tetraploid

19.) What is the function of germ pore?

- a.) Emergence of Radicle b.) Absorption of water for seed germination
c.) Initiation of pollen tube d.) Release of male gametes

20.) Advantage of cleistogamy is

- a.) More vigorous offspring b.) No dependence on pollinators c.) Vivipary d.) Higher genetic Variability

21.) The number of chromosomes in a mature gamete mature halved during

- a.) Formation of first polar body b.) Formation of second polar body

c.) Meiosis II d.) Division of secondary oocyte and spermatocyte

22.) The extra structure that provides nutrition to the embryo is

a.) Umbilicus b.) Amnion c.) Chorion d.) Placenta

23.) Sertoli cells are regulated by the pituitary hormone known as

a.) LH b.) FSH c.) GH d.) Prolactin

24.) Layers of an ovum from outside to inside are

a.) Corona radiata, zona pellucida, and vitelline membrane b.) Zona pellucida, Corona Radiata and vitelline membrane
c.) Vitelline membrane, zona pellucida and corona radiata d.) Zone pellucida, Vitelline membrane and corona radiata

25.) Which layer develops first during embryonic development?

a.) Ectoderm b.) Mesoderm c.) Endoderm d.) Both (b) and (c)

26.) Spermatids are transformed into spermatozoa by

a.) Spermiation b.) Spermatogenesis c.) Spermiogenesis d.) Spermatosis

27.) In the male reproductive system, sperms are concentrated in the

a.) Rete testis b.) Epididymis c.) Vas deferens d.) Seminal Vesicle

28.) Seminal Plasma in humans is rich in

a.) Fructose and certain enzymes but poor in calcium b.) Fructose, calcium and certain enzymes
c.) Fructose and calcium but no enzymes d.) Glucose and certain enzymes but has no calcium

29.) Identify the odd one from the following

a.) Labia minora b.) Fimbriae c.) Infundibulum d.) Isthmus

30.) Vasa efferentia are the ductules leading from

a.) Epididymis to urethra b.) Testicular lobules to rete testis c.) Rete testis to vas deferens d.) Vas deferens to epididymis

31.) Sertoli cells are found in

a.) Pancreas and secrete cholecystokinin b.) Ovaries and secrete progesterone
c.) Adrenal cortex and secrete adrenaline d.) Seminiferous tubules and provide nutrition to germ cells

32.) The part of the fallopian tube closest to the ovary is

a.) Ampulla b.) Isthmus c.) Infundibulum d.) Cervix

33.) Hormone responsible for the secretion of milk after parturition is

a.) ICSH b.) Prolactin c.) ACTH d.) LH

34.) What is present in the middle piece of sperm?

a.) Acrosome b.) Mitochondria c.) Nucleus d.) Proximal centriole

35.) In the absence of acrosome, the sperm

a.) Cannot get food b.) Cannot swim c.) Cannot penetrate the egg d.) Cannot get energy

36.) The secretions of one of the following are rich in fructose, calcium and some enzymes.

a.) Uterus b.) Liver c.) Male accessory glands d.) Salivary glands

37.) The testis in humans are situated outside the abdominal cavity inside a pouch called scrotum.

a.) Maintaining the scrotal temperature lower than the internal body temperature
b.) Escaping any possible compression by the visceral organs.
c.) Providing more space for the growth of epididymis d.) Providing a secondary sexual feature for exhibiting the male sex

38.) Menstrual flow occurs due to lack of

a.) FSH b.) Oxytocin c.) Vasopressin d.) Progesterone

39.) The main function of mammalian corpus luteum is to produce

a.) Estrogen only b.) Progesterone c.) Human chorionic gonadotropin d.) Relaxin only

40.) The leydig cells found in the human body are the secretory source of

a.) Progesterone b.) Intestinal mucus c.) Glucagon d.) Androgens

41.) Amniocentesis is a process to

a.) Determine any disease of heart b.) Determine any hereditary disease of the embryo
c.) Know about the disease of brain d.) Grow cell on culture medium

42.) The correct surgical procedure as a contraceptive method is :

a.) Ovariectomy b.) Hysterectomy c.) Vasectomy d.) Castration

43.) Cu ions released from the copper releasing Intra Uterine Devices (IUDs)

a.) Prevent ovulation b.) Make uterus unsuitable for implantation
c.) Increase phagocytosis sperms d.) Suppress sperm motility

44.) The permissible use of the technique amniocentesis is for

a.) Detecting any genetic abnormality b.) Detecting sex of the unborn foetus
c.) Artificial Insemination d.) Transfer of embryo into the uterus of a surrogate mother

45.) Cu-T prevents pregnancy by preventing

a.) Fertilization b.) Ovulation c.) Implantation of fertilized egg d.) None of these

46.) Medical Termination of Pregnancy (MTP) is considered safe up to how many weeks of pregnancy?

- a.) 8 weeks b.) 12 weeks c.) 18 weeks d.) 6 weeks

47.) The technique called Gamete Intra Fallopian Transfer (GIFT) is recommended for those females

- a.) Who cannot produce an ovum b.) Who cannot retain the foetus inside uterus
c.) Whose cervical canal is too narrow to allow passage for the sperms
d.) Who cannot provide suitable environment for fertilization

48.) Tubectomy is the method of sterilization in which :

- a.) Small part of the fallopian tube is removed or tied up. b.) Ovaries are removed surgically
c.) Small part of vas deferens is removed or tied up d.) Uterus is removed surgically

49.) Artificial insemination means

- a.) Transfer of sperms of husband to a test tube containing ova
b.) Artificial introduction of sperms of a healthy donor into vagina
c.) Introduction of sperms of a healthy donor directly into the ovary
d.) Transfer of sperms of a healthy donor to a test tube containing ova

50.) Oral contraceptives pills help in birth control by

- a.) Killing sperms b.) Killing ova c.) Preventing ovulation d.) Forming a barrier between sperms and ova

51.) Crossing over occurs between two homologous chromosomes in

- a.) Leptotene b.) Diplotene c.) Pachytene d.) Zygotene

52.) When a cluster of genes show linkage behaviour they

- a.) Do not show independent assortment b.) Do not show a chromosome map
c.) Show recombination during meiosis d.) Induce cell division

53.) Male and female Sex chromosomes are also called

- a.) Polytene b.) Autosomes c.) Holandric d.) Allosomes

54.) Lack of Independent assortment of two genes A and B in a fruit fly *Drosophila* is due to

- a.) Recombination b.) Linkage c.) Crossing over d.) Repulsion

55.) Turner syndrome is

- a.) XO b.) XXY c.) XXX d.) XYY

56.) Down Syndrome occurs as a result of

- a.) Trisomy b.) Tetrasomy c.) Autopolyploidy d.) Allopolyploidy

57.) Sex chromosomes in female bird are represented by

- a.) XO b.) XX c.) XY d.) ZZW

58.) Sickle - Cell anemia is

- a.) caused by substitution of valine by glutamic acid in the beta globin chain of haemoglobin
b.) Caused by a change in a single base pair of DNA
c.) Characterised by elongated sickle like RBCs with a nucleus.
d.) An autosomal linked dominant trait.

59.) Point mutation involves

- a.) Change in single base pair b.) Duplication c.) Deletion d.) Insertion

60.) Test Cross is a cross between

- a.) Hybrid X dominant parent b.) Hybrid X Recessive parent
c.) Hybrid X Hybrid parent d.) Two distantly related species

61.) ABO blood groups in humans is controlled by a gene I. It has three alleles - $I_{(a)}$, $I_{(b)}$ and i . Since there are three different alleles, six different genotypes are possible. How many phenotypes can occur.

- a.) Two b.) Three c.) One d.) Four

62.) Which of the following conditions is called monosomics?

- a.) $2n+1$ b.) $2n+2$ c.) $n+1$ d.) $2n-1$

63.) Mutations can be induced with

- a.) Infra red radiations b.) IAA c.) Ethylene d.) Gamma radiation

64.) Which of the following conditions of the zygote would lead to the birth of a normal human female child?

- a.) Two X chromosomes b.) Only one Y chromosome c.) Only one X chromosome d.) One X one Y chromosome

65.) Which of the following is a wrong statement regarding mutations?

- a.) deletion and insertion of base pairs causes frame shift mutations
b.) Cancer cells commonly show chromosomal aberrations.
c.) UV and gamma Rays are mutagens. d.) Change in a single base pair of DNA does not cause mutations.

66.) When both alleles of a pair are fully expressed in a heterozygote, they are called

- a.) Lethals b.) Co-dominants c.) Semi - dominants d.) Recessive allele.

67.) Which is correct for Turner's Syndrome?

- a.) It is a case of monosomy b.) It causes sterility in males c.) Absence of bar body d.) All of the above

68.) The incorrect statement with regard to haemophilia is

- a.) It is a recessive disease
b.) It is dominant disease
c.) A single protein involved in the clotting of blood is affected.
d.) It is a sex linked disease.

69.) A man whose father was a colour blind marries a woman who had a color blind mother and normal father. What percentage of male children of this couple will be color blind?

- a.) 25% b.) 0% c.) 50% d.) 75%

70.) In angiosperms, functional megaspore develops into

- a.) embryo sac b.) ovule c.) endosperm d.) pollen ssa

71.) Initiator (starting) codon in eukaryotes is

- a.) AUG b.) AAG c.) CCU d.) GGC

72.) Nucleoside is

- a.) Nitrogenous base + Sugar b.) Nitrogenous base + sugar + phosphate
c.) Sugar + phosphate d.) Nitrogenous base + phosphate

73.) During splicing, the exons are joined and the enzyme which catalyzes this reaction is

- a.) RNA ligase b.) RNA catalase c.) RNA permease d.) RNA polymerase

74.) Which of the following is important for transcription ?

- a.) DNA methylase b.) CAAT box c.) Promoter d.) DNA polymerase

75.) Anticodon site is located on

- (a) DNA (b) tRNA (c) rRNA (d) mRNA

76.) A gene of operon which synthesizes a repressor protein is

- a.) Regulator gene b.) Operator gene c.) Structure gene d.) Promotor gene

77.) tRNA consisting of three unpaired bases constitute

- a.) Codon b.) Anticodon c.) Clover-leaf mode d.) Acceptor loop

78.) During the replication of DNA, the synthesis of DNA as lagging strand takes place in segments, these segments are called

- a.) Double helix segment b.) Satellite segments c.) Komberg segments d.) Okazaki segments

79.) DNA sequence that code for Protein are known as

- a.) Introns b.) Exons c.) Control regions d.) Intervening sequences

80.) mRNA directs the building of proteins through a sequence of

- a.) Exons b.) Introns c.) Codons d.) Anticodons

81.) Removal of introns and joining the exons in a defined order in a transcription unit is called

- a.) Tailing b.) Transformation c.) Clapping d.) Splicing

82.) Which of the following are the functions of RNA?

- a.) It is a carrier of genetic information from DNA to ribosomes synthesizing polypeptides.
b.) It carries amino acids to ribosomes. c.) It is a constituent component of ribosomes .d.) All of the above

83.) The lac operon consists of

- a.) four regulatory genes only b.) one regulatory and 3 structural genes
c.) two regulatory genes and 2 structural genes d.) three regulatory genes and three structural genes.

84.) In lac operon I gene codes for :

- a.) inducer of lac operon b.) repressor of lac operon c.) hydrolysis of disaccharide d.) permease

85.) Which of the following sequences will be produced as a result of transcription of the DNA sequence - CGATTACAG

- a.) GCUAAUGUC b.) CGUAAUCUG c.) GCTAATGTC d.) GCUAATCTG

86.) Nitrogenous bases present in DNA

- a.) Adenine Guanine Cytosine, Thiamine b.) Adenine Guanine Cytosine Uracil
c.) Adenine Thiamine Uracil d.) Guanine and Uracil

87.) If the total amount of adenine and thiamine in a double stranded DNA is 45%, the amount of guanine in this DNA will be

- a.) 22-5% b.) 27-5% c.) 45% d.) 55%

88.) Okazaki is known for his contribution to the understanding of

- a.) transcription b.) translation c.) DNA replication d.) Mutation

89.) Restriction endonucleases are enzymes which

- a.) Remove nucleotides from ends of DNA molecule b.) make cuts at specific positions within the DNA molecule
c.) recognise a specific nucleotide sequence for binding of DNA ligase d.) restrict the action of enzyme DNA polymerase.

90.) Ribosomal RNA is actively synthesized in

- a.) Lysosomes b.) Nucleolus c.) Nucleoplasm d.) Ribosomes

91.) Galapagos islands are associated with the name of

- a.) Wallace b.) Malthus c.) Darwin d.) Lamarck

92.) Lamarck's theory of evolution is also called

- a.) Survival of the fittest b.) Special creation theory c.) Inheritance of acquired characters d.) None of these

93.) The closest primate to humans is

- a.) Gorilla b.) Orangutan c.) Lemur d.) Rhesus monkey

94.) Evolutionary development of a species can be best studied by

- a.) DNA analysis b.) Finding age by carbon dating c.) Studying fossils of this species d.) All the above

95.) Darwin's theory states that

- a) Characters are acquired through inheritance b) Nature selects species which can adapt
c) Species change morphologically with nature d) Affect of environment on evolution

96.) Fossils are generally found in:

- a.) Sedimentary rocks b.) Igneous rocks c.) Metamorphic rocks d.) Any type of rock

97.) The most accepted line of descent in human evolution is:

- a.) Australopithecus Ramapithecus → Homo sapiens homo habilis
b.) Homo erectus → Homo habilis → Homo sapiens
c.) Ramapithecus Homo habilis → Homo erectus → Homo sapiens
d.) Australopithecus Ramapithecus → Homo erectus Homo habilis Homo sapiens.

98.) Variations during mutations of meiotic recombinations are:

- a.) random and directionless b.) random and directional c.) random and small d.) random, small and directional

99.) Darwin's finches are a good example of

- a.) convergent evolution b.) industrial melanism c.) connecting link d.) Adaptive radiation

100.) According to Darwin, evolution is

- a.) a slow, sudden and discontinuous process .b.) a slow and discontinuous process.
c.) a sudden but discontinuous process .d.) A slow, gradual and continuous process.

101. Which of the following is an infectious disease?

- A. Cancer B. Diabetes C. Malaria D. Hypertension

102. Vaccination works by providing:

- A. Passive immunity B. Active immunity C. Natural immunity D. No immunity

103. Which antibody is found in colostrum?

- A. IgA B. IgG C. IgM D. IgE

104. AIDS is caused by:

- A. Protozoa B. Virus C. Bacterium D. Fungus

105. Which cells are destroyed in HIV infection?

- A. B-cells B. RBCs C. Helper T-cells D. Cytotoxic T-cells

106. Ringworm is caused by:

- A. Virus B. Fungus C. Bacterium D. Nematode

107. Which barrier provides the first line of defense?

- A. Antibodies B. Skin and mucosa C. T-cells D. B-cells

108. Which is not an autoimmune disease?

- A. Myasthenia gravis B. Rheumatoid arthritis C. AIDS D. Addison's disease

109. Typhoid fever is caused by:

- A. Salmonella typhi B. Clostridium botulinum C. Plasmodium vivax D. Ascaris lumbricoides

110. Alcohol addiction primarily damages:

- A. Kidney B. Lungs C. Liver D. Stomach

111. The drug used to reduce pain is:

- A. Cocaine B. Morphine C. Heroin D. LSD

112. Allergy is caused due to excessive release of:

- A. Dopamine B. Histamine C. Insulin D. Melanin

113. The disease spread by Aedes mosquito:

- A. Malaria B. Dengue C. Plague D. Typhoid

114. Antibodies are produced by:

- A. Helper T-cells B. B-lymphocytes C. RBCs D. Platelets

115. Cancer cells multiply uncontrollably due to:

- A. Contact inhibition B. Immunity C. Loss of contact inhibition D. High oxygen level

116. Which is NOT a sexually transmitted infection?

- A. Syphilis B. Gonorrhoea C. Trichomoniasis D. Cholera

117. Which organ is affected in filariasis?

- A. Liver B. Lymphatic vessels C. Heart D. Brain

118. Interferons are:

A. Antibodies against parasites B. Proteins that prevent viral replication C. Hormones D. Bacterial toxins

119. Which microorganism is used in curd formation?

A. Rhizobium B. Lactobacillus C. Penicillium D. Saccharomyces

120. Which bacterium is responsible for the "Swiss cheese" holes?

A. Lactobacillus bulgaricus B. Streptococcus thermophiles
C. Propionibacterium shermanii D. Clostridium butyricum

121. Citric acid is commercially produced by:

A. Penicillium notatum B. Aspergillus niger C. Saccharomyces cerevisiae D. Lactobacillus acidophilus

122. Which microbe is used for alcoholic fermentation?

A. Lactobacillus B. Aspergillus C. Yeast (Saccharomyces cerevisiae) D. Rhizobium

123. The first antibiotic discovered was:

A. Streptomycin B. Tetracycline C. Penicillin D. Erythromycin

124. Which of the following is a biofertilizer?

A. Escherichia coli B. Rhizobium C. Candida albicans D. Plasmodium

125. Rhizobium forms symbiotic association with:

A. Cereals B. Leguminous plants C. Bryophytes D. Gymnosperms

126. Biogas mainly contains:

A. CO₂ B. H₂S C. CH₄ D. NN

127. Methanogens are present in:

A. Milk B. Human intestine C. Cow's rumen D. Skin

128. SCP stands for:

A. Single Cell Protein B. Single Chemical Protein C. Synthetic Cell Protein D. Single Cytoplasmic Protein

129. Cheese flavor is due to activity of:

A. Yeast B. Fungi C. Bacteria D. Virus

130. Which of the following is used in the production of citric acid?

A. Trichoderma B. Aspergillus niger C. Aspergillus fumigatus D. Saccharomyces

131. The process of converting milk to curd increases:

A. Milk fat B. Nutritional value C. Hormones D. Water content

132. Which organism is used in biocontrol?

A. Trichoderma B. E. coli C. Aspergillus D. Clostridium

133. Bt toxin is produced by:

A. Bacillus thuringiensis B. Bacillus subtilis C. Rhizobium D. Azotobacter

134. Activated sludge is rich in:

A. Viruses B. Bacteria + fungi C. Sand D. Parasites

135. The enzyme that cuts DNA at specific sites is called:

A. DNA ligase B. Restriction endonuclease C. DNA polymerase D. Exonuclease

136. The ends produced by EcoRI are:

A. Blunt ends B. Sticky ends C. Circular ends D. Double ends

137. The first discovered restriction enzyme was:

A. EcoRI B. Hind II C. BamH I D. Sal I

138. Separation of DNA fragments is done by:

A. Centrifugation B. Gel electrophoresis C. PCR D. Autoradiography

139. Agarose used in electrophoresis is extracted from:

A. Algae B. Fungi C. Bacteria D. Plants

140. PCR stands for:

A. Polymerase Chain Reaction B. Protein Coding Reaction
C. Polymeric Cloning Reaction D. Precursor Catalytic Reaction

141. Taq polymerase is obtained from:

A. Rhizobium B. Thermus aquaticus C. E. coli D. AgrAgrobacterium

142. The region where foreign DNA is inserted in a plasmid vector:

A. Ori B. Selectable marker C. Cloning site D. Reporter gene

143. A selectable marker is used to:

A. Cut plasmid B. Identify transformed cells C. Join DNA fragments D. Replicate DNA

144. The most common selectable marker in plasmids:

A. Ampicillin resistance gene B. Ori C. Lac operon D. Leucine gene

145. The process of introducing DNA into host cells is called:

A. Ligation B. Transformation C. Transcription D. Isolation

146. The linking of DNA fragments is done by:

- A. DNA polymerase B. DNA ligase C. Endonuclease D. RNA polymerase
- 147. Restriction enzymes recognize:**
A. Codons B. Palindromic sequences C. Ribosomes D. Promoters
- 148. Microinjection introduces DNA into:**
A. Plant cells B. Bacteria C. Animal cells D. Viruses
- 149. The step in which DNA is cut by restriction enzymes:**
A. Isolation of DNA B. Fragmentation of DNA C. Ligation D. Transformation
- 150. The first genetically modified crop was:**
A. Tomato B. Cotton C. Tobacco D. Potato
- 151. Bt cotton contains a gene from:**
A. Bacillus subtilis B. Bacillus thuringiensis C. Agrobacterium tumefaciens D. Pseudomonas putida
- 152. Bt toxin is effective against:**
A. Bacteria B. Lepidoptera C. Fungi D. Nematodes
- 153. Which of the following is a biofortified crop?**
A. Golden rice B. Bt cotton C. Herbicide-resistant soybean D. Hybrid maize
- 154. RNA interference (RNAi) is used to:**
A. Increase protein synthesis B. Silence specific genes C. Activate transcription D. Promote mutation
- 155. RNAi technology was first demonstrated in:**
A. Wheat B. Tobacco C. Rice D. Caenorhabditis elegans
- 156. Insulin produced by rDNA technology is called:**
A. Bioinsulin B. Synthetic insulin C. Humulin D. Pro-insulin
- 157. The vector used for producing human insulin in bacteria:**
A. Ti plasmid B. pBR322 C. Cosmid D. BAC
- 158. The technique used for early detection of cancer:**
A. PCR B. ELISA C. X-ray D. MRI
- 159. Cry genes code for:**
A. Anti-fungal proteins B. Insecticidal proteins C. Antibodies D. Antitoxins
- 160. The technique used to produce transgenic animals:**
A. Somatic hybridization B. Microinjection C. Tissue culture D. Gel electrophoresis
- 161. Cry1Ac and Cry2Ab genes protect cotton from:**
A. Stem borers B. Bollworms C. Nematodes D. Bacterial wilt
- 162. Golden rice is enriched in:**
A. Vitamin C B. Vitamin A C. Iron D. Zinc
- 163. Transgenic animals can help in studying:**
A. Colour patterns B. Complex diseases like cancer C. Migration behavior D. Pollination
- 164. Herbicide-resistant crops have genes from:**
A. Wild plants B. Bacteria C. Viruses D. Animals
- 165. The study of interactions among organisms and their environment is called:**
A. Physiology B. Ecology C. Evolution D. Genetics
- 166. The two major abiotic factors that affect organisms are:**
A. Light and temperature B. Food and water C. Soil and nutrients D. Water and predators
- 167. Eurythermal organisms can tolerate:**
A. Narrow temperature range B. Very high temperature only
C. Very low temperature only D. Wide temperature range
- 168. The zone of tolerance for a species is called:**
A. Niche B. Biome C. Ecotype D. Tolerance range
- 169. Organisms that maintain constant body temperature are:**
A. Osmotherms B. Homeotherms C. Poikilotherms D. Regulators
- 170. Migration in birds is a response to:**
A. Temperature B. Photoperiod C. Water availability D. Soil quality
- 171. Example of a commensalism relationship:**
A. Lichen B. Cuscuta on host C. Orchid on mango tree D. Tiger and deer
- 172. The logistic growth curve is:**
A. J-shaped B. S-shaped C. U-shaped D. Linear
- 173. The parasitic plant Cuscuta derives food from:**
A. Leaves of host B. Roots of host C. Stem of host D. Flowers of host
- 174. The fitness of organism is measured by:**
A. Growth rate B. Mortality C. Reproductive success D. Longevity

175. The organism with highest reproductive rate is:

- A. Birds B. Bacteria C. Mammals D. Reptiles
- 176. Age pyramid with broad base indicates:**
- A. Declining population B. Stable population C. Expanding population D. Negative growth rate

177. The removal of individuals from a population is called:

- A. Immigration B. Natality C. Emigration D. Growth

178. Populations interacting in a habitat form a:

- A. Biome B. Community C. Species D. Ecosystem

179. The functional unit of nature is called:

- A. Biome B. Biosphere C. Ecosystem D. Community

180. In an ecosystem, the main source of energy is:

- A. Water B. Sunlight C. Soil D. Producers

181. Producers in an ecosystem include:

- A. Fungi B. Bacteria C. Green plants D. Animals

182. The pyramid of numbers in a grassland ecosystem is:

- A. Inverted B. Spindle-shaped C. Upright D. Irregular

183. The largest amount of biomass is found in:

- A. Primary producers B. Primary consumers C. Secondary consumers D. Tertiary consumers

184. The rate of formation of new organic matter is called:

- A. Standing crop B. Productivity C. Decomposition D. Assimilation

185. Which factor does NOT affect decomposition?

- A. Temperature B. Moisture C. Oxygen D. Colour of leaves

186. The major reservoir of phosphorus is:

- A. Ocean B. Atmosphere C. Rocks D. Soil

187. Which nutrient is added to the atmosphere during decomposition?

- A. Nitrogen B. Phosphorus C. Potassium D. Magnesium

188. The pyramid of energy is always:

- A. Inverted B. Upright C. Linear D. Irregular

189. Standing crop is measured in:

- A. Number of organisms B. Biomass or energy C. Units of productivity D. Energy of decomposers

190. Decomposition releases:

- A. Inorganic nutrients B. Glucose C. DNA D. Lipids

191. The incorrect match is:

- A. Lichen – pioneer on rocks B. Hydrosere – water body succession
C. Grassland – scorching community D. Climax community – stable community

192. Nitrogen is returned to the atmosphere by:

- A. Nitrogen fixation B. Ammonification C. Nitrification D. Denitrification

193. An example of a detritivore:

- A. Earthworm B. Fungi C. Bacteria D. Algae

194. Energy flow in an ecosystem is:

- A. Cyclic B. Reversible C. Unidirectional D. Bidirectional

195. Who proposed the “Rivet Popper Hypothesis”?

- A. Robert May B. Paul Ehrlich C. Norman Myers D. David Tilman

196. All the genes in a given area constitute:

- A. Species pool B. Gene pool C. Biomass D. Guild

197. Sacred groves are especially important for:

- A. Ex-situ conservation B. In-situ conservation C. Captive breeding D. Gene bank maintenance

198. Which one shows maximum species diversity?

- A. Temperate forests B. Tropical forests C. Tundra D. Grasslands

199. Which of the following is an ex-situ method of conservation?

- A. Biosphere reserves B. National parks C. Cryopreservation D. Sacred groves

200. Which of the following is a major cause of biodiversity loss?

- A. Overfishing B. Habitat loss and fragmentation
C. Climate stability D. Formation of protected areas

12TH CLASS BIOLOGY MCQ ANSWER KEY

1	C	26	C	51	C	76	A	101	C	126	C	151	B	176	C
2	D	27	B	52	A	77	A	102	B	127	C	152	B	177	C
3	C	28	B	53	D	78	D	103	A	128	A	153	A	178	B
4	C	29	B	54	B	79	B	104	B	129	A	154	B	179	C
5	A	30	C	55	A	80	C	105	C	130	B	155	D	180	B
6	C	31	D	56	A	81	D	106	B	131	B	156	C	181	C
7	A	32	C	57	B	82	D	107	B	132	A	157	B	182	C
8	A	33	B	58	B	83	B	108	C	133	A	158	B	183	A
9	B	34	B	59	A	84	B	109	A	134	B	159	B	184	B
10	C	35	C	60	B	85	B	110	C	135	B	160	B	185	D
11	D	36	C	61	B	86	D	111	B	136	B	161	B	186	C
12	C	37	A	62	D	87	B	112	B	137	A	162	B	187	A
13	A	38	D	63	D	88	C	113	B	138	B	163	B	188	B
14	B	39	B	64	A	89	B	114	B	139	A	164	B	189	B
15	A	40	D	65	D	90	D	115	C	140	A	165	B	190	A
16	C	41	B	66	B	91	C	116	D	141	B	166	A	191	C
17	B	42	C	67	A	92	C	117	B	142	C	167	D	192	D
18	A	43	C	68	B	93	B	118	B	143	B	168	D	193	A
19	C	44	A	69	B	94	D	119	B	144	A	169	B	194	C
20	D	45	C	70	B	95	B	120	C	145	B	170	B	195	D
21	A	46	B	71	A	96	D	121	B	146	B	171	C	196	B
22	D	47	B	72	B	97	C	122	C	147	B	172	B	197	B
23	B	48	A	73	A	98	A	123	C	148	C	173	C	198	B
24	B	49	B	74	C	99	D	124	B	149	B	174	C	199	C
25	A	50	C	75	B	100	D	125	B	150	C	175	B	200	B