

1. Which taxonomic scheme best describes the relationship of animals by a common descent?
 - (b) Phylogenetic
2. Which of these is a reason for classifying animals?
 - (d) All of the above
3. Animal taxonomists are guided by a set of rules established by the
 - (a) International Committee on Zoological Nomenclature
4. What is the basic unit of classification?
 - (a) Species
5. --- is observed when naming animals
 - (c) Law of Priority
6. The following is not correct:
 - (a) Parazoa are multicellular
7. Cleavage is termed when an entire egg cell divides:
 - (a) Holoblastic
8. The infolding of cells in gastrulation is called:
 - (a) Invagination
9. In organogeny, ectoderm produces:
 - (d) All of the above
10. Histology is categorized into:
 - (c) Special and Microscopic
11. In ---- microscope, the higher voltage stream electron produces a non-visible image:
 - (d) Electron
12. Which group does not represent methods of studying living tissues:
 - (a) Exteriorization and transillumination
13. Which of these does not characterize the ideal histologist's method:
 - (d) One of the above
14. --- reveals the function of the cell:
 - (d) All of the above
15. --- is used for the detection of DNA:
 - (b) Fuelgent reaction
16. Characteristics of Pseudo-stratified epithelium do not include:
 - (b) Cells attached to the basement membrane

17. The matrix of fluid connective is:
- (c) Blood
18. The following is false:
- (a) Striated muscles are multinucleated
19. --- elaborates a thick lipid coating around the nerve:
- (a) Schwann cell
20. Amphioxus is an example of:
- (a) Cephalochordates
21. Which of these is false?
- (a) Amphibians live all their lives on land
22. Amphibians are found on every continent except:
- (b) Antarctica
23. The major environmental factor that promotes hibernation is:
- (d) Temperature
24. Which of these is false?
- (d) Hind toes are not webbed in amphibians
25. The term for cold-blooded nature is:
- (a) Poikilothermy
26. Which of these is false in amphibians?
- (d) Amphibian eggs may have a gelatinous covering
27. Vertebrates that do not breed in water are collectively called:
- (c) Amniota
28. Why do reptiles in temperate climates hibernate during winter?
- (b) They are ectothermic.
29. Excretion of waste nitrogen in the form of uric acid is for:
- (b) Water conservation.
30. Which of these reptiles shows the most parental care?
- (c) Tortoises.
31. Which of these is out of place?
- (d) Geckos.
32. Which of these vertebrates has the highest number of species?
- (d) Aves.

33. Which of these will you consider the most characteristic feature of fishes? Possession of:
- (b) Gills.
34. Which of these is false?
- (d) None of the above.
35. The gonopodium is a modification of the:
- (a) Anal fin.
36. Which of these is false about birds?
- (c) Presence of epidermal scales.
37. Which of the following are placental mammals?
- (d) Eutheria.
38. Which of these mammals is the most widely distributed group?
- (d) Eutheria.
39. A floristic study involving collections and subsequent classification from a limited range of herbarium specimens is called:
- (b) Systematic phase.
40. ---- observed that life would become strange and chaotic if it were possible to abandon the use of names for identification:
- (c) Clive.
41. A statement of characters that constitute the description of a taxon is:
- (b) Diagnosis.
42. The production of a logical system of categories, each containing any number of organisms for easy reference is called:
- (b) Classification.
43. Scientific names are preferable to common names because:
- (a) Different common names may be used for the same species.
44. The application of names to plants was derived from:
- (c) Age-long utilization of plants.
45. An acid to indicate the ranks to which a taxon belongs between division and subtribe is generally provided with:
- (d) Characteristic ending.
46. The early recognition of useful and harmful plants marked the beginning of:
- (c) Plant Science.
47. One of these is not a taxonomic fundamental:

- (d) Sorting.

48. If a classification is based upon a few characters, it is best described as:

- (b) Artificial.

49. One of these is not an aim of Taxonomy:

- (d) For result interpretation.

50. --- deals with the study and description of the variation of organisms:

- (d) Taxonomy.

51. Taxonomy as a course that has no data of its own can be described as --- science:

- (b) Lagging.

52. The characteristic ending of division is:

- (a) Phyta.

53. The characteristic ending of class is:

- (b) Ales.

54. All are types of classification except:

- (d) Phylogenetic.

55. Alpha taxonomy is equivalent to:

- (a) Exploratory and Systematic phase.

56. The study of the vegetation of any given area is:

- (c) Floristic.

57. The anatomy of the plant is the area of morphology that deals with one of the following:

- (d) Both the internal and external structures.

58. In plant development, the whole course of development during the individual's life history is called:

- (b) Ontogeny.

59. A structural and physiological unit of a living organism is called:

- (a) Cell.

60. The plant materials formed by the unions of cells, which may be similar in character (simple tissue) or varied (complex tissue) is called:

- (d) Tissue.

61. The distinct and visibly differentiated part of plants such as root, stem, leaf, and parts of the flower is called:

- (c) Organ.

62. The cells are polygonal in outline and not lignified. They are called:

- (b) Collenchyma.

63. The outermost covering of the plant body, which is mostly uniseriate but may be multiseriate and mostly uniformly shaped cells is called:

- (c) Epidermis.

64. Most of the plant body is occupied by tissues generally referred to as:

- (c) Ground tissue.

65. The xylem vessels are noted for one

of the following:

- (d) Support and Water conductor.

66. The organization of different elements within the vascular bundle is called bicollateral when:

- (b) Xylem cells placed on both sides of the phloem within the bundle.

67. The phloem is a complex tissue consisting of more than one cell but does not consist of one of the following:

- (b) Tracheids.

68. In germination of seeds, the cotyledons are seen to be pushed upwards by the rapid elongation of the hypocotyls. This is known as:

- (a) Epigeal germination.

69. One of the following is not one of the external conditions necessary for the germination of seeds:

- (d) Mature embryo.

70. The fusion of two dissimilar sexual reproductive units called gametes is called:

- (c) Fertilization.

71. Due to their abundance along rocky seacoasts, multicellular algae are often called:

- (c) Seaweeds.

72. Generally, plants are grouped into two main groups, namely:

- (a) Cryptogams and phanerogams.

73. All are examples of fungi except:

- (a) Proteus.

74. All are subdivisions of cryptogams except:

- (d) Spermatophytes.

75. Which of these is not an example of brown algae?

- (a) Corallina.

76. Lichen is a combination of:

- (a) Algae and Fungi.

77. Which of these is not an example of Bryophyte:

- (a) Fern.

78. Non-vascular plants with a very small body structure and deficient in definite organs like roots, stems, and leaves are known as:

- (d) Thallophytes.

79. All but one is not an example of green algae:

- (b) Polysiphonia.

80. All are typical structures of brown algae except:

- (d) Blade.

81. The brownish coloration of brown algae is due to the presence of:

- (a) Fucoxanthin.

82. Algae are grouped into based on their coloration due to pigments in their chloroplasts:

- (b) 3.

83. Another name for seed-bearing plants is:

- (b) Spermatophytes.

84. In Pteridophytes, the heart-shaped structure that bears the sex organs is called:

- (b) Gametophyte.

85. Biomolecules include the following except:

- (b) Ethane.

86. Alkaline hydrolysis of simple lipids is called:

- (d) Saponification.

87. One reagent used in saponification is:

- (b) Sodium hydroxide.

88. During saponification test, the sample is usually boiled for:

- (c) 2 hours.

89. A reagent used for the determination of the presence of vitamin A is:

- (a) Sulphuric acid.

90. In the Drummond test, drops of chloroform are added to the test sample:

- (c) 3.

91. Sudan IV test is used for the determination of the presence of:

- (c) Lipids.

92. Starch reacts with to give a characteristic blue-black color:
- (b) Iodine.
93. Two important reagents in the Biuret test are:
- (a) CuSO_4 and NaOH .
94. The Biuret test is for the determination of the presence of:
- (b) Proteins.
95. The Millon test is for the determination of the presence of:
- (c) Proteins.
96. Molisch reagent is composed of:
- (a) 1 g of Naphthol in 100ml of 95% ethanol.
97. Test for the presence of reducing sugars is carried out with the use of:
- (b) Benedict test.
98. An example of a disaccharide is:
- (d) Starch.
99. The part labeled "a" is called:
- (c) Flagellum.
100. The diagram "x" above represents the external features of:
- (b) Chlamydomonas.
101. The part of diagram "x" labeled "l" is called
- (c) Contractile vacuole
102. The part of the diagram labeled "E" is called
- (a) Eye spot
103. The part labeled "G" is called
- (d) Contractile vacuole

Diagram Y

104. The above diagram "Y" represents the external features of
- (d) Chlamydomonas
105. The part labeled "a" represents
- (b) Capsule
106. The part labeled "c" represents
- (c) Rhizoid

107. The part labeled "d" is called

- (d) Calyptra

108. The part labeled "f" is called

- (c) Capsule

Diagram Z

109. The diagram "Z" above represents the external features of

- (a) Diatom

110. The part labeled "b" is called

- (c) Nucleus

111. The part labeled "f" is called

- (b) Pyrenoid

112. The part labeled "d" is called

- (c) Spiral chloroplast

113. The part labeled "a" is called

- (b) Cell wall

114. During phage multiplication, the time period in which complete viral particles cannot be seen or detected is known as the

- (a) Eclipse period

115. The time between the phage attachment and release from the host cell is known as the -----time

- (c) Burst

116. Bacteriophages or phages are viruses that infect

- (d) Bacteria

117. Viruses are said to be acellular because they

- (a) Have no cellular structure

118. The protein coat of a virus is referred to as

- (a) Capsid

119. The viral capsid is composed of protein subunits called

- (a) Capsomeres

120. Based on their capsid architecture, the following are morphological types of viruses except

- (c) Enveloped shape

121. The study of viruses is called

- (b) Virology

122. Viruses are normally visualized using microscope

- (c) Electron

123. An unidentified arthropod with no antennae and eight pairs of legs could be closely related to

- (c) Trilobites

124. The phylum of the simplest animal to have a blood-filled circulatory system is

- (c) Arthropoda

125. The hollow larvae produced by a sponge is called

- (a) Amphiblastula

126. Which class of sponge has spicules of calcium carbonate

- (a) Calcareae

127. Which phylum is strictly marine with no freshwater or terrestrial forms

- (c) Cnidaria

128. Poriferans are

- (b) Filter feeders

129. Protozoans are measured in

- (a) Micrometers

130. The following structure is exclusive to protozoa

- (c) Pseudopodium

131. The nervous system of most flatworms can be correctly described as

- (b) Nerve ladder

132. For excretion, flatworms use

- (b) Flame cell

133. Spermathecae of earthworm are on segments

- (b) 12 to 13

134. Which of the following is not a ciliate?

- (d) Saprodinium

135. Animals that have a brain with a ventral nerve cord, a complete gut, and a circulatory system that is usually closed belong to which phylum?

- (a) Annelida

136. Animals that have a brain with a ventral nerve cord, a complete gut, and a circulatory system that is usually closed belong to which phylum?

- (a) Annelida
137. Respiration in arthropods occurs through
- (d) All of the above
138. In humans, the infective stage of the liver fluke is the
- (d) Metacercaria
139. Which of the following groups of diseases is not vectored by mosquitoes?
- (d) All of the above
140. Carbohydrates contain carbon, oxygen, and hydrogen in the ratio of
- (c) 2:1:2
141. Reducing sugars confirm to identification reactions for
- (b) Aldehyde & Ketones
142. Iodine test is specific for
- (a) Monosaccharides
143. Iodine solution reacts with starch to give a characteristic
- (c) Blue-black color
144. Which of the materials listed below is not used in the iodine test
- (d) Water baths
145. Fehling's test is positive for
- (c) Reducing sugars
146. A positive result for Fehling's test gives a
- (d) Red/Orange precipitate
147. A mixture of equal volumes of Fehling solution A and B is in color
- (a) Deep blue
148. Which of the following products will likely give a positive result for Fehling's test?
- (c) Glucose D
149. Which of the following samples will give a positive result for the iodine test?
- (a) Beans
150. Fehling's and Benedict's reagent
- (b) Oxidizes Copper(II) oxide to Copper (I) oxide
151. Which of the materials listed below is NOT used in the Fehling's test
- (c) Mortar and pestle
152. Benedict's test confirms the presence of

- (a) Reducing sugars

153. Which is not a component of Benedict's solution

- (d) Sodium citrate

154. Which of the materials listed below is NOT used in Benedict's test

- (d) Sulfuric acid

155. Which of the materials listed below is NOT used in the Molish test

- (d) NaOH

156. Which of the following food products will give a negative result to the Molish test

- (d) Rice

157. A positive result for Biuret test gives a colored complex

- (c) Purple

158. Which qualitative test confirms the presence of proteins or peptides

- (c) Biuret test

159. The purple-colored complex in Biuret test is formed between the amide group in proteins and

- (b) Copper(II) ions

160. Which two compounds make up the Biuret reagent?

- (c) $\text{CuSO}_4 + \text{NaOH}$

161. Which of the materials listed below is not used in the Biuret test?

- (

d) Test sample

162. Which is a characteristic test for amino acids containing amino acids?

- (c) Drummond's test

163. Which of the following will give a negative result to the Biuret test?

- (b) Rice

164. Conc H_2SO_4 is used in the test for vitamin A as

- (c) Dehydrating agent

165. Carbohydrates are basically polyhydroxyl

- (b) Aldehyde & Ketones

166. Iodine reagent is a mixture of

- (a) Sodium iodide and iodine

167. Which of these would not give a positive result with Fehling's solution?

- (a) Sucrose

168. Fehling's solution A is made up of

- (c) 68.92g of CuSO_4 in 1 Ltr H_2O

169. In Benedict's test, what color confirms the presence of reducing sugar?

- (c) Yellowish green

170. Which of these chemicals is not required in Molish test?

- (c) H_2SO_4

171. A positive Molish's test gives a color

- (d) Purple

172. Positive Molisch test gives a final color on heating

- (d) Brown

173. Which of these is not required in Drummond's test

- (d) NaOH

174. Indoforol test is for the identification of vitamin

- (c) E

175. All these are non-polar solvents except

- (d) Water

176. Another name for vitamin E is

- (b) Tocopherol

177. All are subdivisions of Cryptogams except

- (b) The spermatophytes

178. Lichen is a combination of

- (c) Algae and fungi

179. All are examples of Bryophytes except

- (d) Ferns

180. Plants with very small body structures and non-vascular but deficient in definite organs such as roots, stems, and leaves are called

- (a) Thallophytes

181. All are examples of brown algae except

- (d) Fucoxanthin

182. The typical structures of brown algae include all except

- (d) Fucoxanthin

183. The brown algae belongs to the division
- (a) Phaeophyta
184. The classification of plants is based on their
- (c) Morphological differences
185. All are examples of green algae except
- (d) Polysiphonia
186. All are examples of fungi except
- (d) Proteus
187. Trypanosoma gambiense belongs to the order
- (a) Kinetoplastida
188. Which of the following is not a common characteristic of Aurelia and Medusa of Obelia
- (c) Marginal tentacle
189. Male and female Ascaris lumbricoides
- (a) Size
190. Which of the following describes the body division of Diplodia
- (b) Cephalothorax and abdomen
191. The intermediate host of Fasciola hepatica is
- (c) Bulinus forskalii
192. The following is not an economic importance of earthworm
- (d) All of the above
193. Which class of Mollusca consists of segmented animals?
- (c) Gastropoda
194. Protozoa are classified based on
- (d) All of the above
195. Which of these stains is used exclusively to stain ciliary structures?
- (a) Silver
196. Which is not a characteristic of nematodes?
- (a) Asexual reproduction
197. Which of these is not a characteristic of Echinoderms?
- (a) No excretory system
198. In the life cycle of Plasmodium, sexual reproduction takes place in
- (b) Mosquito

199. The diagram represents the morphological features of
- (a) Chlorella
200. The part labeled "x" is called
- (d) Pyrenoid
201. ____ and ____ are known as micronutrients.
- (c) Vitamins and Minerals
202. Carbohydrates have the empirical formula
- (b) $(CH_2O)_n$
203. n in 201 above can be
- (c) = 2
204. The sugar erythrose is an example of a
- (b) Tetrose sugar
205. Which is NOT a hexose sugar
- (a) Ribose
206. The disaccharide sucrose is made up of
- (c) 1 fructose and 1 glucose unit
207. ____ is NOT an example of a polysaccharide.
- (d) Glycogen
208. Amino acids combine through bonds to form proteins. Which type of bonds?
- (c) Peptides
208. Which element is NOT part of the composition of amino acids?
- (b) Iron
210. ____ is NOT an example of a globular protein.
- (a) Keratin
211. ____ is NOT an example of a conjugated protein.
- (c) Chromoproteins
212. ____ are enzymes that catalyze the addition of a group to double bonds.
- (c) Transferases
213. Organisms that feed on soluble non-living organic matter are known as
- (c) Saprophytic organisms
214. What are the 3 stages of tissue respiration?
- (d) Glycolysis - TCA cycle - Electron transport chain
215. Glycolysis takes place in the

- (a) Cytoplasm

216. ____ is the last product of the glycolytic pathway.

- (b) Pyruvic acid

217. The TCA cycle takes place in

- (c) Mitochondria

218. In the Krebs cycle, acetyl CoA condenses with ____ to form citric acid.

- (b) Pyruvic acid

219. Citric acid is a ____ carbon tricarboxylic acid.

- (c) 5

220. The equation: $\text{CO}_2 + \text{H}_2\text{O} + \text{Light} \rightarrow (\text{CH}_2\text{O}) + \text{O}_2$ summarizes

- (b) Photosynthesis

221. The final electron acceptor in the electron transport chain of photosystem reaction I is:

- (a) O_2

222. The pigment molecule associated with photosynthesis is:

- (c) P700

223. The photosynthetic pathway by which CO_2 is reduced to carbohydrate in the presence of ATP and NADPH is:

- (b) Dark reaction phase

224. Which molecule is common to both the glycolytic pathway and the Calvin-Benson cycle?

- (b) Phosphoglycerate

225. In the light reaction, DPGA accepts electrons and forms NADP.

- (c) NADPH

226. In order to produce 1 molecule of fructose biphosphate, the Calvin-Benson cycle must go around ____ times.

- (b) 4

227. ____ is NOT a phase in the Calvin-Benson cycle.

- (c) Glycolytic reverse phase

228. $\text{Citrate} \rightarrow \text{Cis-aconitate} \rightarrow \text{Isocitrate}$ is the ____ step of the citric acid cycle.

- (b) 2nd

229. All enzymes of the glycolytic pathway are formed in the

- (d) Cytosol

230. The first stable intermediate in the Calvin pathway is

- (d) Lactic acid

231. Iodine reagent is prepared by dissolving KI and iodine in a molar ratio of ____ in 1 liter of distilled water.

- (c) 2:1

232. In the iodine test, a water bath is used if there is no color change after ____.

- (b) 3 minutes

233. ____ is NOT a reducing sugar.

- (b) Dihydroxyacetone

234. Fehling's solution A contains

- (b) Copper sulfate crystals dissolved in alcohol

235. Fehling's solution B contains:

- (a) Sodium tartrate and NaOH

236. Antonie Van Leeuwenhoek observed living cells in a drop of lake water with a special magnifying lens in the year:

- (a) 1672

237. The name nucleus was given by:

- (b) Robert Brown

238. The term "cellular" was first used by:

- (a) Robert Hook

239. ____ is the site of assembling amino acids in protein synthesis:

- (d) Ribosome

240. In ____, two daughter cells are found, and they contain exactly the same number of chromosomes as the parent cell:

- (d) Mitosis

241. Kollicker introduced the term "cytoplasm" in:

- (c) 1864

242. The development of idioplasts and the origin of vessels are aspects of:

- (a) Anatomy

243. Microbodies contain enzymes that break down hydrogen peroxide associated with oxidation reactions.

- (a) Microbodies

244. The pairing of homologous chromosomes at the centromere is known as:

- (c) Synapsis

245. The study of cells and tissues is called:

- (a) Histology

246. Which of these takes place in metaphase in mitosis?

- (b) Chromatids separate at the centromere

247. After Gram staining and under oil immersion objective, gram-positive bacteria appear in color while gram-negative ones appear:

- (b) Purple and pink/red

248. The following are examples of gram-negative bacteria except:

- (a) Staphylococcus species

249. Gram-positive bacteria include the following except:

- (c) E. Coli

250. The vegetative structure of a fungus is called a:

- (c) Thallus

251. What is the shape of yeast cells?

- (a) Oval/Spherical

252. Yeasts reproduce asexually through the method of:

- (c) Budding and Transverse fission

253. A mold thallus consists of long filaments of cells called:

- (b) Hyphae

254. Coenocytic fungi are non-septate with a number of nuclei.

- (a) Septa

255. The phenomenon whereby some fungi, especially the pathogenic ones exist in two forms of growth (either as yeast or mold) is called:

- (a) Dimorphism

256. Bacterial cells can exist in the following shapes except:

- (e) Square

257. Spiral-shaped bacteria include the following shapes except:

- (c) Streptococcus

258. The following structures are found in bacterial cells except:

- (a) Mitochondria

259. Bacteria is divided into two broad groups, namely:

- (b) Gram-positive and gram-negative

260. Food is made up of basic chemical constituents referred to as:

- (d) Nutrients

261. Examples of macromolecules include:

- (c) Polysacchar

ides

262. Carbohydrates are made up of the following basic elements:

- (d) All of the above

263. Example of disaccharide is:

- (d) Sucrose

264. Lactose is composed of:

- (a) Glucose and galactose

265. The basic unit of a protein molecule is:

- (d) Amino acids

266. Examples of a non-essential amino acid is:

- (d) Alanine

267. Protein molecule made up of non-amino acid residue is referred to as:

- (b) Conjugate protein

268. Which of the following is not a conjugate protein molecule:

- (c) Albumin

269. Simple lipids are esterifications of:

- (a) Alcohols and fatty acids

270. Energy stored in food substances is released during the process of:

- (b) Tissue respiration

271. One of the following groups is not a member of the phanerogams:

- (d) Cryptogams

272. One of the following groups is not a member of the non-flowering or seedless plants:

- (a) Cycads

273. The algae are not known by one of the following characters:

- (c) Non-vascular

274. The body of algae is known as:

- (d) Thallus

275. One of the following groups is not a member of the algae:

- (b) Phytophthora

276. The Bryophyte sporophyte does not have one of the following features:

- (b) It is conspicuous

277. The leaves of the liverworts are not one of the following:

- (a) Arranged in three to five rows

278. The sporophyte generation of the pteridophytes does not have one of the following characteristics:

- (c) Much more differentiated than the gametophyte generation

279. One of the following is not part of the life cycle of the pteridophytes:

- (c) Conidium

280. One of the following is not an economic importance of the green algae:

- (b) Are decomposers

281. The development of living organisms from the embryonic stage to the adult stage is called:

- (d) Development

282. In hydra, nerve cells are located at:

- (d) Base of the gastrodermis

283. Ascolex is:

- (a) The anterior attachment organ of a tapeworm

284. In humans, the infective stage of the liver fluke is the:

- (d) Metacercaria

285. Advantages of Platyhelminthes over the radial phyla does not include:

- (c) Multicellular arrangement

286. S.O. Mast stated that the movement in amoeba is the result of changes within:

- (a) Collodial protoplasm

287. In protozoa, saprophytic nutrition involves subsisting:

- (c) By absorption of dissolved nutrients

288. The most common method of sexual reproduction in protozoa is by:

- (a) Conjugation

289. Which of the following is not a function of cysts for protozoa:

- (d) All of the above may be a function of cysts of protozoa

290. Bivalves lack which of the following molluscan features:

- (b) Head

291. The animal phylum that contains the greatest number of named species is:

- (b) Arthropoda

292. This is a major contributor to the study of genetics:

- (c) Gregor Mendel

294. Which of these plants did the father of genetics use for his initial research:

- (a) Garden pea

295. Which of the following is a conclusion from the monohybrid of the father of genetics:

- (c) Genes sort independently

296. Which of these is homozygous:

- (c) TTRMM

297. Double recessive is when an organism is:

- (c) Homozygous for a recessive gene

298. Which of these are allelomorphic characters?

- (a) Tallness and dwarfness

299. Which of these provides an answer to the law of segregation?

- (c) Meiosis

300. Which of these is not a congenital disease?

- (d) Hemophilia

Sure, here are the answers to the biology questions:

****301. The genotype in a dihybrid cross will be approximately in one of these ratios:****

- (c) 9:3:3:1

****302. Which of these represents the genotype for albinism?****

- (a) aa

****303. Which of these is not a blood group?****

- (d) O

****304. In one of these chromosome mutations, the X chromosome is missing:****

- (a) Turner's syndrome

****305. Which of these suggested the inheritance of acquired characteristics?****

- (d) Lamarck

****306. Who wrote a paper on the theory of evolution by natural selection?****

- (c) Charles Darwin

****307. Tried to explain variation and evolution in terms of transmission of acquired characters:****

- (d) Lamarck

308. The theory of evolution in terms of transmission of acquired characters was put forward in:

- (c) 1809

309. Charles Darwin sailed around the world in a ship called:

- (c) HMS Beagle

310. Darwin co-authored "A Theory of Evolution by Natural Selection" with:

- (a) Alfred Wallace

311. Which of these best describes Darwin's theory of evolution?

- (b) Natural selection

312. Which of these shows a smooth gradation through the population?

- (a) Continuous variation

313. The emergence of new forms by natural selection is what Darwin saw as the origin of:

- (b) Species

314. The branch of biology concerned with fossils is known as the study of:

- (c) Paleontology

315. Which of these is the commonest source of fossils?

- (a) Sedimentary rock

316. Which of these is not a congenital disease?

- (c) HIV

317. A male transmits his sex-linked traits to his grandchildren via his daughters because:

- (a) X chromosome is usually genetically empty

318. Examples of sex-linked traits in man include the following except:

- (d) HIV

319. Hemophilia is carried on a:

- (c) Recessive gene on the X chromosome

320. The ABO blood group system is controlled by:

- (b) Three alleles

321. Which of the following blood groups are universal donors:

- (a) Group O

322. What is the genotype of blood group O:

- (d) OO

****323. Epidermal cells are NOT interrupted by one of the following:****

- (a) Xylem

****324. ... are animals with the body cavity not derived from mesoderm:****

- (a) Acoelomates

****325. A floristic study involving collections and classification from a limited range of herbarium specimens is:****

- (c) Exploratory phase

****326. Organogeny implies the laying down of in the body:****

- (c) Tissue, organ, and system

****327. ... Is the branch of science which deals with the development of animals:****

- (a) Embryology

****328. Which of these is not an amphibian order:****

- (c) Squamata

****329. Anatomy is the area of Plant Science that treats of the:****

- (c) Internal Structure

****330. The portion of the axis lying immediately above the cotyledons elongating to push the plumule upwards is called:****

- (b) The epicotyle

****331. Which of these is pelvic intromittent organ in fish:****

- (c) Clasper

****332. Thick-walled, polygonal but non-lignified cells are associated with one of the following:****

- (b) Collenchyma

****333. Which of these is wrongly spelled:****

- (d) Poikilothermic

****334. The lacteal from the small intestine opens into:****

- (a) Lymphatic system

****335. ... Is the dye molecule that carries a negative charge on the colored part of the molecule:****

- (b) Acid dye

****336. Which of these is false:****

- (a) Sharks have dentinal placoid scales

****337. Imagined how strange and chaotic life would become if it were possible to abandon the use of names for the identification of everything we see, make, or handle:****

- (c) Radford

****338. The application of names to plants was derived from:****

- (b) Uses of plants

****339. Most part of the plant body is occupied by one of the following:****

- (c) Ground tissue

****340. The following is not a grade of organization of animals:****

- (a) Bacteria

****341. ... Depends on the selective absorption of wavelength in the spectrum of electromagnetic radiation:****

- (a) Autoradiography

****342. Parental care is rare in reptiles except:****

- (c) Tuatara

****343. Which of the following is not a reason for classifying animals:****

- (d) To predict new species

****344. The central cavity of blastula is called:****

- (b) Blastocoel

****345. Taxonomic fundamentals include all except:****

- (b) Sorting

****346. In taxonomy, scientific names are preferable to common names because:****

- (a) Common names are sometimes ambiguous

****347. Parenchymatous cells that contain chloroplasts are called one of the following:****

- (d) Chlorenchyma

****348. ... Established the system which became the origin of modern classification:****

- (d) Linnaeus

****349. Which of these is false about reptiles:****

- (a) The brains of modern reptiles resemble those of birds

****350. An aid to indicating the ranks to which a taxon belongs ranks between the levels of division and subtribe are generally provided with:****

- (b) Characteristic ending

****351. The following is lacking in an unfertilized human egg:****

- (a) Centrosome

****352. A statement of character which constitutes the description of a taxon is:****

- (a) Diagnosis

****353. Amphibians survive the dry season by:****

- (a) Aestivation

****354. ... Is not a type of egg cleavage:****

- (d) Determinate

****355. ... Deals with the study and description of the variation of organisms, the investigation of the causes and consequences of the variation:****

- (a) Biosystematics

****356. Taxonomy as a lagging science:****

- (a) Has data of its own

****357. Where is the sense of hearing best developed in reptiles:****

- (b) Crocodiles

****358. The upper hemisphere of blastula is called:****

- (a) Animal hemisphere

****360.**

What is the meaning of the acronym ICZN:**

- (b) International Committee on Zoological Nomenclature

****361. The area of science concerned with form, structure, and development of a plant is called:****

- (c) Morphology

****362. Another name for archenteron is:****

- (c) Blastopore

****363. The anal fin in fish may be modified to an intromittent organ called:****

- (b) Gonopodium

****364. Conducting tissues occur in groups as one of the following:****

- (c) Vascular bundles

****365. One of the following cells of phloem is dead:****

- (c) Sieve elements

****366. In histochemistry, ---- Is used in the identification of carbohydrates:****

- (a) Periodic acid-Schiff reaction

****367. A classification based upon a few convenient characters for the purpose of sorting is called:****

- (c) Artificial

****368. Which of the following is not an adaptation of amphibians for terrestrial life:****

- (a) Possession of fins

****369. Thin-walled parenchymatous cells that exist as one or two cell layers are called:****

- (b) Xylem

****370. Moulting is a usual characteristic of:****

- (d) All of the above

****371. The practice of modern taxonomy utilizes intellectual approaches such as many:****

- (c) Analytical and Experimental

****372. Which of these is not an example of class Chondrichthyes:****

- (d) Cyclostomes

****373. The phloem tissue does not contain one of the following:****

- (a) Epidermis

****374. The production of a logical system of categories, each containing any number of organisms for easier reference is called:****

- (b) Taxon

****375. Waste nitrogen in reptiles is largely excreted as:****

- (d) Uric acid

****376. A structural and physiological unit of a living organism is called:****

- (c) Cell

****377. Which of these is not a fish scale:****

- (a) Gadoid

****378. ... is not used in the study of living tissues:****

- (d) None of the above

****379. Which of these is not true of fishes:****

- (a) No allantoic bladder

****380. The most abundant amphibians are:****

- (a) Frogs and toads

****381. The characteristic ending of division is:****

- (b) -ceae

****382. The organized living unit of a single cell is called:****

- (b) Protoplast

****383. All are types of classification except:****

- (d) Phylogenetic

****384. A fairly simple uniform cells that may be uniseriate or multiseriate make up the:****

- (a) Epidermis

****385. The early recognition of useful and harmful plants marked the beginning of:****

- (c) Systematic botany

****386. The plant life of any given area is:****

- (a) Flora

****387. The xylem tissue is not made up of one of the following cells:****

- (a) Tracheids

****388. Which of these is false about sensory organs in fish:****

- (d) None of the above

****389. The process by which a dormant embryo grows out of the seed coat into a seedling is called:****

- (b) Germination

****390. In animal taxonomy, the relationship of animals by common descent is expressed in:****

- (b) A phylogenetic scheme

****391. The union of cells may be described as:****

- (c) Tissue

****392. All are aims of taxonomy except:****

- (c) Detect evolution at work

****393. The development of form and structure in plant ontogeny or regeneration is called:****

- (a) Morphogenesis

****394. The disease condition, Dracontiasis is associated with:****

- (c) Guinea worm

****395. Two factors responsible for egg development in Arcari are ----- and -----****

- (c) Food availability and Temperature

****396. The Mollusca has a blood system consisting of the following except:****

- (d) Two lateral auricles

****397. The respiratory pigment of the Mollusca is called:****

- (a) Haemocyanin

****398. In Gastropod, the twisting of the body behind the head to 180° clockwise is referred to as:****

- (a) Torsion

****399. A marine gastropod larva is called:****

- (b) Veliger

****400. Brown algae belong to the division:****

- (c) Phaeophyta