

GPLUS EDUCATION

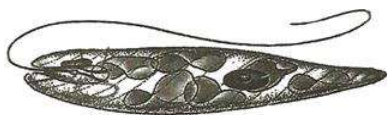
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BIOLOGY

BIOLOGICAL CLASSIFICATION

Single Correct Answer Type

- Osmoregulation in *Paramecium* is a function of
a) Contractile vacuole b) Trichocysts c) Cytopyge d) Cytostome
- Fungi imperfecti includes
a) *Aspergillus* and *Penicillium* b) *Alternaria* and *Trichoderma*
c) *Ustilago* and *Puccinia* d) *Alternaria* and *penicillium*
- Which of the following is a non-hyphal unicellular fungus?
a) Yeast b) *Puccinia* c) *Ustilago* d) *Alternaria*
- Auxospores and homocysts are formed, respectively by
a) Several diatoms and a few cyanobacteria b) Several cyanobacteria and several diatoms
c) Some diatoms several cyanobacteria d) Some cyanobacteria and many diatoms
- HIV is classified as a retrovirus because its genetic information is carried in
a) DNA instead of RNA b) DNA c) RNA instead of DNA d) Protein coat
- Consider the following statements
I. Mycelium is branched and septate
II. The asexual spores are generally not formed
III. Vegetative reproduction takes place by fragmentation
IV. Sex organs are absent but sexual reproduction takes place by somatogamy
V. Karyogamy and meiosis takes place in basidium to form haploid four basidiospores
VI. Basidia are arranged in fruiting bodies called basidiocarp
The above statements are assigned to
a) Sac fungi b) Bracket fungi c) Imperfecti fungi d) Club fungi
- Aristotle classified the plants on the basis of their morphological characters and categorised them into
a) Tree, shrubs and herbs
b) Algae, bryophytes, pteridophytes, gymnosperms and angiosperms
c) Embryophytes and tracheophytes
d) Algae and embryophytes
- Citrus canker is a
a) Viral disease b) Bacterial disease c) Fungal disease d) Protozoan disease
- Which is correct?
a) RNA is genetic material of bacteria b) RNA is genetic material of all virus
c) DNA is genetic material of some organism d) Some virus has RNA as genetic material
- African sleeping sickness is caused by
a) *Trypanosoma* b) *Leishmania* c) *Latimeria* d) *Plasodium*
- Read the following statement about bacteria and select the correct option
a) Bacteria are simple in structure but complex in behavior b) Bacteria are complex in structure but simple in behavior
c) Bacteria are simple in both structure and behavior d) Bacteria are complex in both structure and behavior
- Which of the following is a Gram negative bacterium?
a) *Escherichia coli* b) *Bacillus subtilis*



- a) Dinoflagellates b) Protozoans c) Slime mould d) Euglenoids
29. State whether the given statements are true or false
 I. Five kingdom system of classification did not differentiated between the heterotrophic group, fungi and the autotrophic green plants, through they showed a characteristic difference in their walls composition.
 II. Fungi wall contains chitin, while the green plants has a cellulosic cell wall
Codes
 a) I is true, but II is false b) I is false, but II is true
 c) I and II are true d) I and II are false
30. Under favourable conditions slime moulds form
 a) *Protonema* b) *Plasmodium* c) Mycelium d) Fruiting bodies
31. Which of the following class of fungi helps in mineral cycling?
 a) Deuteromycetes b) Basidiomycetes
 c) Ascomycetes d) Phycomycetes
32. Teichoic acid is present in
 a) Cell wall of Gram positive bacteria b) Cell wall of Gram negative bacteria
 c) Capsid of virus d) Protoplasm of mycoplasma
33. Red tide in warm coastal water is caused due to the rapid multiplications of
 a) Euglena b) Diatoms c) *Gonyaulax* d) *Paramecium*
34. Which of the following groups are placed under the kingdom-Protista?
 a) Crysophytes b) Dianoflagellate and euglenoids
 c) Slime moulds and protozoans d) All of the above
35. Which of the following statements is correct with respect to *Colletotrichum falcatum*?
 a) The conidia and conidiophores are aseptate mycelium and setae are septate
 b) The conidia, conidiophores, mycelium and setae are septate
 c) The conidia are aseptate conidiophores, mycelium and setae septate
 d) The mycelium is septate conidia, conidiophores and setae are aseptate
36. Ainsworth put *Rhizopus* in
 a) Zygomycotina b) Mastigomycotina c) Myxomycotina d) Ascomycotina
37. The disease caused by virus which is 42 nm in size and contains double stranded DNA is
 a) Hepatitis-A b) AIDS c) Hepatitis-B d) Leprosy
38. The disease caused by *Trypanosoma* is
 a) Yellow fever b) Sleeping sickness c) Kala azar d) Hey fever
39. In which animal, dimorphic nucleus is found?
 a) *Amoeba* b) *Trypanosoma gambiense*
 c) *Plasmodium vivax* d) *Paramecium caudatum*
40. Kingdom-Monera consists of
 a) Unicellular eukaryotes b) Multicellular eukaryotes
 c) Bacteria d) Both (a) and (c)
41. Slimy mass of protoplasm with many nuclei and an *Amoeba* –like thalloid body is a characteristic feature of
 a) Ascomycetes b) Actinomycetes c) Phycomycetes d) Myxomycetes
42. The bacteria that can reside in extreme salty areas are called as
 a) Halophiles b) Methanogens c) Basophiles d) Thermoacidophiles
43. In which of the following patterns of viral replication, viruses enter a cell, replicate and then cause the cell to burst, releasing new viruses?
 a) Lytic b) Lysogenic c) Repreogenic d) Both (a) and (b)
44. Potato leaf roll or leaf curl of papaya are caused by

- a) Fungi b) Viruses c) Bacteria d) Nematodes
45. The given statements describes a group of organism
 I. Instead of a cell wall, they have a protein rich layer called pellicle which makes their body flexible
 II. They have two flagella a short and a long one
 III. They are photosynthetic in the presence of sunlight, when deprived of sunlight they behave like heterotrophs by predateding on other smaller organism
 Which of the following group is referred here?
 a) Slime moulds b) Dinoflagellates c) Euglenoids d) Protozoans
46. In the light of recent classification of living organisms into three domains of life (bacteria, archaea and eukarya), which one of the following statement is true about archaea?
 a) Archaea resemble eukarya in all respects
 b) Archaea have some noble features that are absent in other prokaryotes and eukaryotes
 c) Archaea completely differ from both prokaryotes and eukaryotes
 d) Archaea completely differ from prokaryotes
47. The sexual stages of pathogens of blast of rice and red rot of sugarcane are named respectively as
 a) *Magnaporthe grisea* and *Colletotrichum falcatum*
 b) *Colletotrichum falcatum* and *Pyricularia oryzae*
 c) *Glomerella tucmanensis* and *Magnaporthe grisea*
 d) *Magnaporthe grisea* and *Glomerella tucmanensis*
48. Substances secreted by bacteria are
 a) Proteins b) Toxins c) Interferons d) Antibiotics
49. Which of the following statement is correct?
 a) Viruses are obligate parasites b) All fungi are pathogenic
 c) All algae are eukaryotes d) Bacteria are always harmful to mankind
50. In five kingdom system of classification of R H Whittaker, how many kingdoms contain eukaryotes?
 a) Four Kingdoms b) One Kingdom c) Two Kingdoms d) Three Kingdoms
51. *Contagium vivum fluidum* concept of virus was proposed by
 a) DJ Ivanowsky b) MW Beijerinck c) Stanley d) Robert Hooke
52. Heterothallism was discovered by
 a) Blakeslee b) Bessey c) Butler d) A Flemming
53. A place was rocky and barren but now there is a green forest, the sequence of origin is
 a) Lichen, moss, herbs, shrubs b) Moss, lichen, herbs, shrubs
 c) Lichen, moss, shrubs, herbs d) Shrubs, herbs, moss, lichen
54. The asexual spores formed by *Colletotrichum falcatum*, *Sphaerotheca* and *Rhizopus stolonifer* are
 a) Many called b) One called c) Pyriform in shape d) Rod shaped
55. Read the following statements regarding archaebacteria and select the correct option
 I. Archaebacteria differs from other bacteria in having different cell wall structure
 II. Their cell wall is made up of cellulose and contains high amount of unsaturated fatty acid, which is responsible for their survival in extreme conditions
 III. Thermoacidophiles have dual ability to tolerate high temperature as well as high acidity
 a) I and II are true b) I and III are true c) II and III are true d) I, II and III are true
56. In addition to absence of chlorophyll, what is the other difference between fungi and higher plants?
 a) Type of nutrition and composition of cell wall b) Cell type
 c) Nucleus d) Reproduction
57. Identify from the following examples, a fungus, which is of medicinal importance
 a) *Agaricus* b) *Saccharomyces* c) *Penicillium* d) *Cercospora*
58. Which one of the following pathogens causes citrus canker disease?
 a) *Meloidogyne incognita* b) *Anguina tritici*
 c) *Xanthomonas citri* d) *Pseudomonas rubilineans*
59. Kingdom-Protista includes

- a) Life cycle showing sporic meiosis
 c) Life cycle showing gametic meiosis
- b) Life cycle showing zygotic meiosis
 d) Both (b) and (c)
60. What is common about *Trypanosoma*, *Noctiluca Monocystis* and *Giardia*?
 a) These are all unicellular protists
 c) They produce spores
 b) They have flagella
 d) These are all parasites
61. Analyse the following statements and identify the correct options given below
 I. Two kingdom system of classification did not distinguish between the eukaryotes and prokaryotes, unicellular and multicellular organism and green algae and fungi.
 II. The two kingdom classification used for a long time was found inadequate
 a) I is true, but II is false b) I is false, II is true c) I and II are true d) I and II are false
62. Slime moulds in the division-Myxomycota (true slime moulds) have
 a) Pseudoplasmodia
 b) Spores that develop into free living amoeboid cells
 c) Spores that develop into flagellated warm cells
 d) Feeding stages consisting of solitary individual cells
63. The protein coat of a virus/is known as
 a) Nucleoid b) Capsid c) Capsomere d) Outer envelope
64. In *Amoeba*, which controls the cytoplasmic osmality?
 a) Nucleus b) Ectoplasm c) Biurets d) Contractile vacuole
65. The fungus without mycelium is
 a) *Puccinia* b) *Phytophthora* c) *Rhizopus* d) *Saccharomyces*
66. Viroids have
 a) ssRNA not enclosed by protein coat
 c) dsDNA enclosed by protein coat
 b) ssDNA not enclosed by protein coat
 d) dsRNA enclosed by protein coat
67. Which one of the following organisms is scientifically incorrectly named and incorrectly described
 a) *Plasmodium falciparum*-A protozoan pathogen causing the most serious type of malaria
 b) *Trypanosoma gambiense*-The parasite of sleeping sickness
 c) Diatoms-Very good pollution indicators
 d) *Noctiluca*-A Chrysophyte, which shows bioluminescence
68. Which one of following has haplontic life cycle?
 a) *Funaria* b) *Polytrichum* c) *Ustilago* d) Wheat
69. Analyse the following statements about class-Ascomycetes
 I. Mycelium is branched and septate
 II. The asexual spores are conidia, produced on the special mycelium called conidiophores
 III. Sexual spores are called ascospores which are produced in sac like asci. These asci are arranged in same types of fruiting bodies called ascocarps
 Which of the statements given above are correct
 a) I and II b) I and III c) II and III d) I, II and III
70. Which of the given statement best describes the gametophytic in the alternation of generation life cycle?
 a) Generation that produces the gametes
 c) Generation that has xylem and phloem
 b) Generation that produces the spores
 d) The diploid generation
71. Which of the following does not belong to the kingdom-Protista?
 a) Chrysophytes b) Euglenoids c) Ascomycetes d) Dinoflagellates
72. Microphagial nutrition occurs in
 a) *Amphioxus* b) Insects c) *Paramecium* d) *Hydra*
73. Which of the following organisms completely lack cell wall, they are the smallest living cells known and can survive without oxygen?
 a) Mycoplasma b) Euglenoids c) Slime moulds d) All of these
74. Bacteriophage are
 a) Bacteria that attacks viruses
 b) Viruses that attacks bacteria

IV. Viruses do not contains proteins DNA and RNA

Code

- a) I, II and III b) II, III and IV c) I, III and IV d) I, II, III and IV
85. During unfavorable conditions, *Amoeba* reproduces through
a) Binary fission b) Sporulation c) Multiple fission d) Conjugation
86. Lomasomes are found in
a) Algal cell b) Fungal cell c) Bacterial cell d) Cyanobacterial cell
87. The genetic material of viruses consists of
a) *ds* of ss DNA only b) *ds* or ss RNA only
c) DNA or RNA (both *ds* and ss) d) ssDNA or ssRNA and
88. Which one of the following is having ssRNA?
a) TMV b) T₂ –bacteriophage c) Reovirus d) CMV
89. F-factor in bacteria is
a) plasmid b) Episome c) Colicin factor d) None of these
90. Viruses have
a) Living characteristics b) Non-living characteristics
c) Both living and non-living characteristics d) Parasitic characteristics
91. If sexual reproduction takes place between the filament of *Rhizopus* of different strains, one with 80 nuclei and another with 24 nuclei, what would be the total number of spores of different strains put together?
a) 24 b) 48 c) 96 d) 114
92. Which of the following kingdoms have no well defined boundaries?
a) Plantae b) Protista c) Monera d) Algae
93. In Deuteromycetes, the mycelium is
a) Septate and branched b) Septate and unbranched
c) Coenocytic d) Multinucleated
94. Consider the following statements
I. All prokaryotic organism were grouped together under kingdom-Monera
II. The unicellular eukaryotic organism were placed in kingdom-Protista
III. *Chlorella* and *Chlamydomonas*, both were having cell walls
IV. *Paramecium* and *Amoeba* lack cell walls
V. Kingdom-Protista has brought together *Chlamydomona*, *Chlorella* with *Paramecium* and *Amoeba*
Which of the statements give above are correct?
a) I, II, III and IV b) II, III, IV and V c) I, II, III and IV d) I, II III, IV and V
95. Regarding sexual reproduction in fungi. Which of the following statement is correct?
a) Plasmogamy followed by karyogamy
b) Karyogamy followed by plasmogamy
c) Karyogamy and plasmogamy occur together
d) Sexual reproduction is absent in fungi
96. Which of the following bacteria plays a main role in recycling the nutrients like nitrogen, phosphorus, iron and sulphur?
a) Chemoheterotrophic bacteria b) Chemosynthetic autotrophic bacteria
c) Parasitic bacteria d) Saprophytic bacteria
97. Bacteria differ from plants in that they do not have
a) DNA b) RNA
c) Cell wall d) A well define nucleus
98. Among rust, smut and mushroom, all the three
a) Are pathogens b) Are saprobes c) Bearascocarps d) Bear basidiocarps
99. All the given fungi belongs to Deuteromycetes, except
a) *Alternaria* b) *Colletotrichum* c) *Trichoderma* d) *Ustilago*

100. The body of a fungus is made up of a number of elongated, tubular filaments called
 a) Hyphae b) Woronin bodies c) Mycelium d) Thallus
101. All monerans
 a) Contains DNA and RNA
 b) Demonstrate a long circular strand of DNA not found enclosed in a nuclear membrane
 c) Are bacteria
 d) All of the above
102. Which of the following is not the locomotory organ of protozoa?
 a) Cilia b) Flagella c) Parapodia d) Pseudopodia
103. Slime moulds are dependent on
 a) Water plants b) Dead and decaying organic matter
 c) Plants d) Weeds
104. Which of the following is a bacteriophage?
 a) Bacteria infecting viruses b) Vibrio bacteria
 c) Virus inhabiting in bacteria d) Cyanobacteria
105. Fungi show sexual reproduction by all of the following processes except
 a) Oospores b) Ascospores c) Basidiospores d) Zoospores
106. Black rust of wheat is caused by a species of the genus
 a) *Mucor* b) *Rhizopus* c) *Aspergillus* d) *Puccinia*
107. Red tides in warm coastal water develops due to the presence of
 a) Dinoflagellates b) Euglenoid farms c) Diatoms and desmids d) Slime moulds
108. Black rust of wheat is a fungal disease caused by
 a) *Melampusora lint* b) *Claviceps purpurea*
 c) *Albugo candida* d) *Puccinia graminis tritici*
109. Bacterium having flagella with all over body is known as
 a) Peritrichous b) Amphitrichous c) Monotrichous d) None of these
110. In some fungi, two haploid cells results in diploid cells. In some cases, dikaryon stage occurs in which two nuclei are present within a cell. This phase is known as
 a) Monokaryophase b) Dikaryophase c) Plasmogamy d) karyogamy
111. Reproduction in most of the bacteria is by a process known as
 a) Binary fission b) Budding c) Sexual d) Sporulation
112. What are episomes?
 a) Hereditary DNA of bacterial cell
 b) Extrachromosomal hereditary material of bacteria associated with nucleoid
 c) Modification of the cell membrane performing respiration
 d) None of the above
113. Identify the correct pair that shows the double stranded RNA among the following
 a) Cauliflower mosaic virus and dahlia mosaic virus
 b) Polio virus and wound tumour virus
 c) Wound tumour virus and reovirus
 d) Tobacoo mosaic virus and reovirus
114. All of the following statements concerning the actinomycetous filamentous soil bacterium *Frankia* are correct, except that *Frankia*
 a) Can induce root nodules on many plant species
 b) Can fix nitrogen in the free-living state
 c) Like *Rhizobium*, it usually infects its host plant through root hair deformation and stimulates cell proliferation in the host's cortex
 d) Forms specialized vesicles, in which the nitrogenase is protected from oxygen by a chemical barrier involving triterpene hopanoids
115. Soft-rot disease of sweet potato is caused by

- c) Annelida– segmentation
d) Monera – eukaryote
150. Who proposed five kingdom classification and named kingdoms as Monera, Protista, Fungi, Plantae and Animalia?
a) Herbert Copeland b) R H Whittaker c) Carl Woese d) Carolus Linnaeus
151. Analyse the following statements regarding cyanobacteria and identify the correct option given below
I. The cyanobacteria are unicellular, colonial or filamentous, marine or terrestrial algae
II. The colonies of cyanobacteria are generally surrounded by gelatinous sheath
Codes
a) Only I b) Only II c) I and II d) None of these
152. Some bacteria utilises inorganic substances like nitrate, nitrite, ammonia, etc., for the oxidation and release of energy for ATP production. These are known as
a) Cyanobacteria b) Chemosynthetic autotrophic bacteria
c) Heterotrophic bacteria d) Saprophytic bacteria
153. VAM is
a) Symbiotic bacteria b) Saprophytic bacteria
c) Saprophytic fungi d) Symbiotic fungi
154. Ascomycetes is commonly known as
a) Toad stool b) Sac fungi
c) Imperfect fungi d) Bracket fungi
155. Protozoans are
a) Heterotrophs b) Autotrophs c) Producer d) Saprophytes
156. The parthenospores of *Rhizopus* are
a) Uninucleate b) Binucleate c) Trinucleate d) Multinucleate
157. Bacteria do not have
a) Ribosome b) Protein synthesizing apparatus
c) Mitochondria d) Cell wall
158. Viruses and viroids are the non-cellular organisms, which are not characterised in the classification of
a) Whittaker b) Aristotle c) Linnaeus d) Watson
159. Which of the following is correct matched?
a) Humus – Abiotic component b) *Rhizobium* – Free-living nitrogen fixer
c) Phosphorus cycle – Sedimentary d) *Shorea robusta* – Tropical deciduous forest
160. Which of these best describes the saprophytic generation in plant's life cycle?
a) The haploid generation b) Generation that produces the gametes
c) Generation that produces spores d) Generation that has xylem and phloem
161. The type of nutrition, where organisms engulf food materials, is?
a) Saprozoic b) Autotrophic c) Holozoic d) Saprophytic
162. Fruiting body of *Penicillium* is
a) Cleistothecium b) Pycniophysis c) Sterigmata d) None of these
163. Which statement is correct for bacterial transduction?
a) Transfer of some genes from one bacteria to another bacteria through virus
b) Transfer of genes from one bacteria to another bacteria by conjugation
c) Bacteria obtain DNA directly
d) Bacteria obtain DNA from other external source
164. Contractile vacuole is absent in
a) Sporozoa b) Sarcodina c) Zooflagellate d) Slime moulds
165. Mycorrhiza are mutualistic and have symbiotic associations between
a) Fungi and vascular plants
b) fungi and non-vascular plants
c) Fungi and roots of higher plants
d) Fungi and bryophytes

166. Lichen are mutualistic and have symbiotic associations between
 a) Fungi and virus
 b) Fungi and algae
 c) Fungi and root of higher plants
 d) Fungi and mosses
167. An eukaryote, which causes disease comes under
 a) Moneran
 b) Fungus
 c) Virus
 d) None of these
168. Curing of tea is brought about by the activity of
 a) Bacteria
 b) Mycorrhiza
 c) Viruses
 d) Fungi
169. The first attempt to classify organisms on scientific basis was done by
 a) Copeland
 b) Aristotle
 c) Linnaeus
 d) Whittaker
170. Plants have a/an..... in their life cycle
 a) Sexual phase only
 b) Asexual phase only
 c) Alternation of generations
 d) Haplontic
171. Bacterial flagella is made up of
 a) Protein
 b) Amines
 c) Lipids
 d) Carbohydrates
172. Consider the following statements and place them into true and false category
 I. The fungi constitutes a unique kingdom of heterotrophic organisms
 II. The common mushroom and toad stools are fungi
 III. White spots seen on mustard leaves are due to presence of parasitic fungus
 IV. Some unicellular fungi (*Ustilago*) are used to make bread and beer
 V. *Puccinia graminis tritici* is responsible for yellow rust of wheat
 VI. *Penicillium* yields the antibiotic penicillin
- | True | False | | |
|----------------|-----------|-------------------|----------------|
| a) I, II, III | IV, V, VI | b) I, II, III, VI | IV, V |
| c) II, III, VI | I, IV, V | d) IV, V | I, II, III, VI |
173. There exists a close association between the alga and the fungus within a lichen. The fungus
 a) Fixes the atmospheric nitrogen for the alga
 b) Provides protection, anchorage and absorption for the alga
 c) Provides food for the alga
 d) Releases oxygen for the alga
174. Which is false for nutrition in *Amoeba*?
 a) Omnivorous
 b) Pseudopodia feeder
 c) Holozoic nutrition
 d) Photoautotroph
175. Bacterial flagella do not show ATPase activity and 9+2 organization. These are chemically formed of
 a) Flagellin
 b) Pilin
 c) Tubulin
 d) Bacterin
176. Viruses did not find a place in classification since
 a) They are not truly living
 b) They are non-cellular
 c) They are obligate parasite
 d) They are pathogenic
177. Certain bacteria living in the soil poor in oxygen, convert nitrates into nitrites and then to free nitrogen and such bacteria are termed as
 a) Nitrogen fixing bacteria
 b) Denitrifying bacteria
 c) Ammonifying bacteria
 d) Saprophytic bacteria
178. All are the viral diseases except
 a) AIDS and mumps
 b) Smallpox and herpes
 c) Influenza
 d) Anthrax
179. give the name virus, which means venom or poisonous fluid
 Fill in the blank
 a) Pasteur
 b) MW Beijerinck
 c) Stanley
 d) Robert Hook
180. Which is correct?
 a) Slime moulds are haploid.
 b) Protozoans lack cell wall.
 c) Dinoflagellates are immotile.
 d) Pellicle is absent in *Euglena*.
181. Which one of the following does not grow in artificial media?

- a) TMV b) Bacteria c) Yeast d) *Rhizopus*
182. Silica gel is obtained by
a) Red algae b) Diatoms c) *Euglena* d) Mycoplasma
183. Which pair of the following belongs to Basidiomycetes?
a) Birds nest fungi and puffballs b) Puffballs and *Claviceps*
c) *Peziza* and stink horns d) *Morchella* and mushrooms
184. In which of the following kingdoms, diatoms are placed?
a) Plantae b) Fungi c) Protozoa d) Protista
185. The wall of bacteria consist of
a) N-acetylglucosamine b) N-acetyl muramic acid
c) Both (a) and (b) d) Cellulose
186. I. *Noctiluca* is a colourless dinoflagellates, which is an important constituent of coastal plankton of both temperate and tropical seas
II. The cellular slime moulds have the characters of both plants and animals
Which of the statements given above is/ are correct?
a) Only I b) Only II c) I and II d) None of the above
187. VAM is useful for
a) Phosphate nutrition b) Breaking of dormancy
c) Decrease in diseases d) Retarding flowering
188. Which of the following group always produce an infectious spore like stage in their life cycle?
a) Amoebiod protozoans b) Ciliated protozoans
c) Flagellated protozoans d) Sporozoans
189. Which mushroom contains muscarine?
a) *Agaricus bisporus* b) *Volvariella volvacea*
c) *Pleurotus sojar* d) *Amanita virosa*
190. Consider the following statements
I. Fruce discovered that the parasite of sleeping sickness is transmitted by tse-tse fly
II. Sleeping sickness of *Trypanosoma gambiens* is also called Gambian trypanoomiasis, which is found in western and central parts of Africa
III. *Trichomonas vaginalis* inhabits vagina of women and causes the disease leucorrhoea
IV. *Entamoeba histolytica* resides in the upper part of the human large intestine and cause the disease known as amoebic dysentery
Which of the statements given above are correct?
a) I, II and III b) II, III and IV c) I, II and IV d) All of these
191. Protozoans are divided into..... groups. Most suitable word to fill the blank is
a) Three b) Four c) Two d) Eight
192. Fungi differs from slime moulds by lacking of
a) Flagellated spores b) Ascospores c) Basidiospores d) Zygosporoes
193. Isogamous means
a) Similar in morphology
b) Similar in anatomy
c) Similar in morphology female gamete is bigger than male gamete
d) Similar in morphology male gamete is bigger than male gamete
194. Viruses posses
a) DNA only b) Nucleic acid, DNA or RNA
c) Protein only d) Nucleic acid and protein
195. Members of Ascomycetes are
a) Sporophytic b) Decomposers
c) Parasitic or coprophilous d) All of these
196. A bacterium is capable of with standing extreme heat, dryness and toxic chemicals. This indicates that it is

211. Consider the following statements

I. Biological classification is the scientific ordering of organisms in a hierarchical series of groups on the basis of their relationships, *i. e.*, morphological, evolutionary and others

II. Whittaker classified organisms on the basis of autotrophic and heterotrophic mode of nutrition

III. In five kingdom system of classification, living organisms can be divided into prokaryotic and eukaryotic cells on the basis of cell structure

Which of the statements given above are correct?

- a) I and II b) I and III c) II and III d) I, II and III

212. ds RNA is found in

- a) Reovirus b) TMV c) $\phi \times 174$ d) None of these

213. Fungi in a forest ecosystem is

- a) Producer b) Decomposer c) Top consumer d) Autotroph

214. Lysozyme that is present in saliva and tears destroys

- a) Certain fungi b) Certain types of bacteria
c) All viruses d) Most virus infected cells

215. Which of the following statement is correct?

- a) In *Cycas*, megasporophyll produce pollen grains
b) In *Agaricus*, gills produce basidiospores
c) In *Aspergillus*, fruiting body is perithecium
d) In *Funaria*, capsule represents gametophytic generation

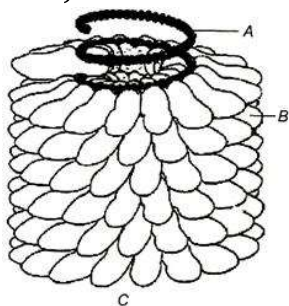
216. Which of the following are the commonly known forms of Basidiomycetes?

- a) Mushrooms b) Puffball c) Bracket fungi d) All of these

217. Fungus/lichen, which grows on wood is

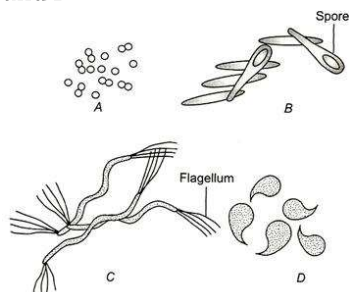
- a) Terricolous b) Saxicolous c) Lignicolous d) Corticolous

218. Given below is the diagram of a virus. In which one of the options, all the three *A, B* and *C* (name of the virus) are correct?



- a) A-RNA, B-Capsomere, C-TMV b) A-DNA, B-Capsid, C-Bacteriophage
c) A-RNA, B-Capsid, C-Tobacco mosaic virus d) A-DNA, B-Capsid, C-Bacteriophage

219. Bacteria are grouped under four categories based on their shape. Study the given figure and identify *A, B, C* and *D*

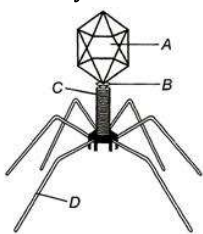


- a) A-Vibrio, B-Cocci, C-Bacilli, D-Spirilla b) A- Cocci, B-Bacilli, C-Spirilla, D-Vibrio
c) A-Bacilli, B-Spirilla, C-Vibrio, D-Cocci d) A-Spirilla, B-Vibrio, C-Cocci, D-Bacilli

220. Which of the following fungus is used extensively in biochemical and genetic work?

- a) *Neurospora* b) *Mucor* c) *Rhizopus* d) *Aspergillus*

221. Which is the hereditary material in bacteria?
 a) Nucleic acid
 b) Nucleic acid and cytoplasm
 c) Nucleic acid and histone
 d) None of the above
222. Which statement is incorrect?
 a) Plant virus contains RNA
 b) Animal virus contains DNA
 c) T₄ contains dsDNA
 d) TMV contains dsRNA
223. Identify the fungus, which produces chlamydospores from dikaryotic mycelium.
 a) *Sphacelotheca sorghii*
 b) *Rhizops stolonifer*
 c) *Pyricularia oryzae*
 d) *Colletotrichum falcatum*
224. Litmus is obtained from
 a) Bacteria
 b) Fungi
 c) Algae
 d) Lichen
225. Genophore term was coined by Hans Ris for
 a) Genetic material of virus
 b) Stack on which spore originated
 c) Bacterial chromosome
 d) Fungal chromosome
226. Identify the label A, B, C and D in the following figures



Codes

- a) A-Head, B-collar, C-Sheath, D-Tail fibres
 b) A-Collar, B-Head, C-Sheath, D-Tail fibres
 c) A-Head, B-Collar, C-Tail fibres, D-Sheath
 d) A-Collar, B-Tail fibres, C-Head, D-Sheath
227. Cell wall of fungi is made up of
 a) Fungal cellulose
 b) Hemicellulose
 c) Fungal chitin
 d) Both (a) and (c)
228. The cell wall of bacterium is made up of
 a) Cellulose
 b) Hemicellulose
 c) Lignin
 d) Peptidoglycan
229. Which of the following do not secrete toxins during the storage conditions of crop plants?
 a) *Aspergillus*
 b) *Penicillium*
 c) *Fusarium*
 d)
230. Which of the following processes needs bacteriophage?
 a) Transduction
 b) Translation
 c) Transformation
 d) Conjugation
231. Bacteria are found in
 a) Soil
 b) Hot springs
 c) Desert and snow
 d) Everywhere
232. Eubacteria have rigid cell wall made up of
 a) Murein
 b) Peptidoglycan
 c) Cellulose
 d) Chitin
233. Cell wall of Gram positive bacteria is made up of
 a) Murein
 b) Cellulose
 c) Lipid and protein
 d) Cellulose and lipid
234. Which of the following are symbiotic bacteria?
 a) *Rhizobium*
 b) *Azotobacter*
 c) *Clostridium*
 d) *Streptomyces*
235. Bacterium which reduces nitrates in soil to nitrogen is
 a) *Nitrosomonas*
 b) *Pseudomonas*
 c) *Rhizobium*
 d) *Clostridium*
236. Nitrifying bacteria are able to
 a) Convert atmospheric nitrogen into soluble forms
 b) Convert ammonia to nitrate

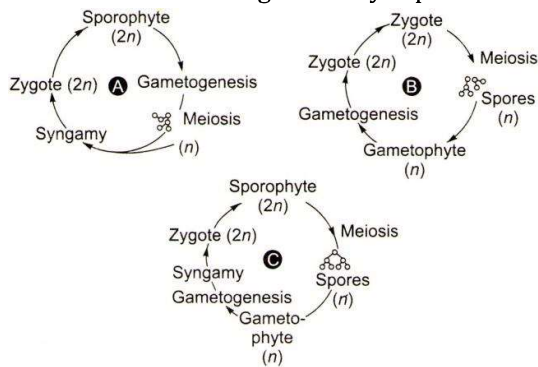
- a) Plasmid b) Capsid c) Vector d) Genome
251. Which of the following is not matched correctly
 a) *Anabaena* – Cyanobacteria b) *Amoeba* – Protozoa
 c) *Gonyaulax* – Dinoflagellated d) *Albugo* –Chrysophytes
252. Which of the following unicellular organism has a macro-nucleus for trophic function and one or more micro-nuclei for reproduction?
 a) *Euglena* b) *Amoeba* c) *Paramecium* d) *Trypanosoma*
253. In Phycomycetes, asexual reproduction takes place by zoospores or by aplanospores. Regarding these spores, consider the following statements and choose the correct option
 I. Zoospores are motile and aplanospores are non-motile in nature
 II. These spores are endogenously produced in sporangium
 Which of the statements are true and false?
 a) I is true, but II is false b) I is false, but II is true c) I and II are true d) I and II are false
254. Dikaryophase of fungus occurs in
 a) Ascomycetes and Basidiomycetes b) Phycomycetes and Acomycetes
 c) Phycomycetes and Basidiomycetes d) Basidiomycetes and Deuteromycete
255. The infective stage of *Entamoeba histolytica*, is
 a) Trophozoite stage b) Binucleated cyst stage
 c) Tetranucleated cyst stage d) None of the above
256. Which of the following class consists of coenocytic, multinucleate and aseptate mycelium?
 a) Basidiomycetes b) Ascomycetes c) Phycomycetes d) Deuteromycetes
257. The basic unit of chitin is
 a) N-acetylglucosamine b) Glucose c) Galactose d) Fructose
258. Heterotrophic bacteria are dependent on other organism for
 a) Excretion b) Nutrition c) Digestion d) Fission
259. Sexual reproduction is present in all fungi classes, except
 a) Ascomycetes b) Phycomycetes
 c) Basidiomycetes d) Deuteromycetes
260. Free living, aerobic, non-photosynthetic, nitrogen fixing bacterium is
 a) *Azotobacter* b) *E. coli* c) *Nostoc* d) *Salmonella*
261. Kingdom-Animalia includes
 a) Heterotrophic organisms b) Eukaryotic organisms
 c) Multicellular organism d) All of these
262. Black stem rust of wheat is caused by
 a) Fungi b) Protozoa c) Algae d) Bacteria
263. Which one is wrong pairing for the disease and its casual organism?
 a) Late blight of potato – *Alternaria solani* b) Black rust of wheat – *Puccinia graminis*
 c) Loose smut of wheat – *Ustilago nuda* d) Root knot of vegetables – *Meloidogyne* sp.
264. A 'T-series bacteriophage' can be recognized by its
 a) Tadpole shape b) Rounded shape c) Irregular shape d) Rhomboidal shape
265. Which of the following is a bacterial disease?
 a) Rust of wheat b) Potato leaf roll c) Sugarcane mosaic d) Brown rot of potato
266. Slime moulds are
 a) Phathogenic b) Parasite c) Saprophytic protists d) Autotrophic
267. Mode of feeding in free living protozoan, is
 a) Holozoic b) Saprozoic c) Both (a) and (b) d) None of these
268. The protein coat of virus is called capsid, which is made up of small sub-units called ...A... which protects the ...B...
 Identify A and B and complete the given statement
 a) A-capsomeres, B-nucleic acid b) A-collar, B-cytoplasm

- c) A-outer envelope, B-nucleus
 d) A-inner envelope, B-nucleic acid
269. In Whittaker's system of classification prokaryotes are placed in the kingdom
 a) Protista b) Monera c) Plantae d) Animalia
270. Which of the following animals is having longitudinal binary fission?
 a) *Euglena* b) *Plasmodium* c) *Planaria* d) *Paramecium*
271. Select the incorrect match
 a) Morels and truffle – Phycomycetes
 b) Mushrooms and puffballs – Basidiomycetes
 c) Smut and rust – Basidiomycetes
 d) Bread mould – Phycomycetes
272. Chloromycetin is obtained from
 a) *Saccharomyces cerevisiae* b) *Streptomyces venezualae*
 c) *Streptomyces griseus* d) *Streptomyces erythraeus*
273. I. Commonly known as sac-fungi
 II. Mycelium is branched and septate
 III. Conidiophore produces conidia exogenously in chain
 IV. The fructifications are edible and considered delicacies
 V. *Neurospora crassa* is often employed in studies conducted in experimental genetics
 The above statements are assigned to
 a) Ascomycetes b) Phycomycetes c) Basidiomycetes d) Deuteromycetes
274. Sac fungi includes
 a) *Penicillium* and yeast b) *Ustilago* and *Puccinia*
 c) *Alternaria* and *Trichoderma* d) *Colletotrichum* and yeast
275. An example for plant growth promoting rhizobacterium, which produces iron chelating substances, is
 a) *Pseudomonas putida* b) *Rhizobium japonicum*
 c) *Aspergillus flavus* d) *Azospirillum*
276. The protistan cell body contains
 I. a well defined nucleus
 II. membrane bound cell organelles
 III. flagella or cilia
 Correct statement among those written above is
 a) I and II b) I and III c) II and III d) I, II and III
277. Membrane-bound organelles are absent in
 a) *Saccharomyces* b) *Streptococcus* c) *Chlamydomonas* d) *Plasmodium*
278. Lactic acid formation is a two steps anaerobic process. Both steps are carried at one stage by
 a) *Streptococcus* b) *Rhizopus* c) *Lactobacillus* d) *Aspergillus*
279. In protozoans like *Ameoba* and *Paramecium*, which of the following organelle is found for osmoregulation?
 a) Contractile vacuole b) Mitochondria c) Nucleus d) Food vacuole
280. Severe Acute Respiratory Syndrome (SARS)
 a) Is caused by a variant of *Pneumococcus pneumoniae*
 b) Is caused by a variant of the common cold virus (corona virus)
 c) Is an acute form of asthma
 d) Affects non-vegetarians much faster than the vegetarians
281. Type of sexual reproduction in protists, bearing diploid chromosome is
 a) Zygotic meiosis b) Binary fission
 c) Cyst formation d) Gametangial meiosis
282. Which is responsible for recycling of material?
 a) Bacteria b) Algae c) Protista d) Virus
283. Which is correct for the structure of cell wall of bacteria and fungi?

- a) Both are made up of cellulose
 b) Both have mucopolysaccharide
 c) Both are made up of N-acetylglucosamine
 d) None of the above
284. Some hyperthermophilic organisms that grow in highly acidic (pH2) habitats belong to the two groups
 a) Eubacteria and archaea
 b) Cyanobacteria and diatoms
 c) Protists and mosses
 d) Liverworts and yeasts
285. In plants, mosaic formation, leaf rolling and curling yellowing and vein clearing are the symptoms of
 a) Viral diseases
 b) Bacterial diseases
 c) Protozoan diseases
 d) Fungal diseases
286. Early leaf spot disease in *Arachis hypogea* is caused due to infection of
 a) *Cercospora personata*
 b) *Gibberella fujikuroi*
 c) *Agrobacterium tumefaciens*
 d) *Phytophthora infestans*
287. Which of the following are correct to describe viruses?
 I. Simple and unicellular organism.
 II. Contain DNA or RNA and enclosed by protein coat.
 III. Possess own metabolic system and respond to stimuli.
 IV. Maintain genetic continuity and undergo mutations.
 The correct combination is

- a) I and II b) II and IV c) II and III d) I and III

288. Which of the following correctly represents the type of life cycle patterns from the options given?



- a) A-Diplontic B-Haplodiplontic C-Haplontic
 b) A-Haplodiplontic B-Haplontic C-Diplontic
 c) A-Haplontic B-Diplontic C-Haplodiplontic
 d) A-Diplontic B-Haplontic C-Haplodiplontic

289. *Plasmodium* is a
 a) Ciliated protozoans
 b) Sporozoan
 c) Flagellated protozoans
 d) Amoeboid protozoans
290. Life cycle of *Plasmodium* is
 a) Monogenetic b) Digenetic c) Trigenetic d) Polygenetic
291. Contractile vacuole in protozoan *Amoeba* is meant for
 a) Respiration b) Excretion c) Locomotion d) Osmoregulation
292. Some bacteria thrive extreme environment conditions such as absence of oxygen, high salt concentration, high temperature and acidic pH. Identify the type of bacteria
 a) Cyanobacteria b) Eubacteria c) Archaeobacteria d) Mycobacteria
293. *Trypanosoma* causes
 a) Sleeping sickness b) Cholera c) Malaria d) Food poisoning
294. Secondary mycelium of mushroom produces umbrella like structure called as
 a) Primary mycelium b) Tertiary mycelium c) Pileus d) Gills
295. Assign the following substances to the cell wall, flagella, 'S' layer and pilli of bacteria in correct sequence.
 I. Glycoprotein II. Fimbrilin
 III. Teichoic acid IV. Flagellin

- The correct sequence is
 a) III, I, IV, II b) III, IV, I, II c) II, IV, III, I d) III, IV, II, I
296. Covered smut of barley is caused by
 a) *Ustilago hordei* b) *Tilletia caries*
 c) *Ustilago nuda* d) *Colletotrichum falcatum*
297. The latest view for the origin of viruses is
 a) These have arisen from nucleic acid and protein found in primitive soup
 b) These arose from some bacteria as a result of the loss of cell wall, ribosome, etc
 c) These arose from some bacteria, which had developed a nucleus only
 d) These are modified plasmids, which are in fact the fragments of the nucleic acids of the host
298. Mesosome in a bacterial cell is
 a) Plasmid b) Connection between two cells
 c) Plasma membrane infolded for respiration d) None of the above
299. Provirus is
 a) A free virus b) Primitive virus
 c) Integrated viral genome d) A free DNA
300. *Cuscuta* is a
 a) Parasite b) Pathogen c) Saprophytic d) Fungus
301. Single stranded nucleic acid is found in
 a) *E. coli* b) $\phi \times 174$ c) λ d) T₄
302. Mushroom belongs to
 a) Ascomycetes b) Basidiomycetes c) Phycomycetes d) Zygomycetes
303. In cyanobacteria, which of the following is present?
 a) Chlorophyll-*c* b) Chlorophyll-*b* c) Chlorophyll-*a* d) Chlorophyll-*c*₁
304. Which of the following group is considered to be primitive relatives of animals?
 a) Chrysophytes b) Protozoans c) Euglenoids d) Slime moulds
305. Which is not related with N₂-fixation?
 a) *Anabaena* b) *Rhizobium* c) *Pseudomonas* d) *Nostoc*
306. *Plasmodium*
 a) Is a malarial parasite b) Is a filarial parasite
 c) Causes sleeping sickness d) Causes food poisoning
307. Bakanae disease is caused by
 a) Fungus b) Alga c) Bacterium d) Virus
308. The common nitrogen-fixer in paddy fields is
 a) *Rhizobium* b) *Azospirillum* c) *Oscillatoria* d) *Frankia*
309. Man in the life cycle of *Plasmodium*, is
 a) Primary host b) Secondary host c) Intermediate host d) None of these
310. Fungi show asexual reproduction by all of the following kinds of spores except
 a) Conidia b) Oospore c) Sporangiospore d) Zoospores
311. The genome of bacteriophage can be
 a) DNA only b) RNA only
 c) Both DNA and RNA d) Either DNA or RNA
312. Mycorrhiza promotes plant growth by
 a) Absorbing inorganic ions from soil
 b) Helping the plant in utilizing atmospheric nitrogen
 c) Protecting the plant from infection
 d) Serving as plant growth regulator
313. Ergot of rye is caused by a species of
 a) *Phytophthora* b) *Uncinula* c) *Ustilago* d) *Claviceps*
314. Flagellate protozoans are

- a) Filtration of oils
c) Polishing
- b) Filtration syrups
d) Gobar gas production
381. Fungal spores produced extremely at the top of hyphae are
a) Conidia b) Oidia c) Aplanospore d) Sporangiphore
382. Which is a fungal disease?
a) Athlete's foot b) Kala-azar c) Typhus fever d) Chicken pox
383. The free living thalloid body of the slime mould is known a
a) *Protonema* b) *Plasmodium* c) *Fruiting body* d) *Mycelium*
384. Which of the following statement is not true for retroviruses?
a) DNA is not present at any stage in the life cycle of retroviruses
b) Retroviruses carry gene for RNA dependent DNA polymerase
c) The genetic material in mature retroviruses is RNA
d) Retroviruses are causative agents for certain kinds of cancer in man
385. Chrysophytes are
a) Planktons b) Nektons
c) Benthic organisms d) Active organism
386. Among plants 'pheromones' are secreted by the cells of the following plants for given function
a) All plants for growth and development b) Yeast for facilitating mating
c) All fungi for sexual reproduction d) *Rhizopus* for formation of zygospore
387. *Amoeba* differs form *Entamoeba* in having
a) Contractile vacuole b) Pseudopodia c) Ectoplasm d) Cytostome
388. Single-celled eukaryotes are included in
a) Protista b) Fungi c) Archaea d) Monera
389. Plasmids are mostly found in
a) Virus b) Bacteria c) Fungi d) Viroid
390. Consider the following statements about sexual reproduction
I. In class-Phycomycetes, sexual reproduction produces a resting diploid spore called zygospore
II. Zygospores are formed by the fusion of two gametes
III. These gametes are similar in morphology or dissimilar
Which of the statements given above are correct?
a) I and II b) I and III c) II and III d) I, II and III
391. O₂ does not evolved in photosynthesis of
a) BGA b) Green algae c) Bacteria d) Autotrophic plant
392. Fungi that absorbs soluble organic matter from dead substrates are called
a) Saprophytes b) Parasites c) Obligate parasite d) Lichens
393. *Nif* genes occur in
a) *Rhizobium* b) *Aspergillus* c) *Penicillium* d) *Streptococcus*
394. A free living nitrogen fixing cyanobacterium which can also form symbiotic association with the water fern *Azolla* is
a) *Tolypothrix* b) *Chlorella* c) *Nostoc* d) *Anabaena*
395. Which is correct for the structure of cell wall of bacteria and fungi?
a) Both are made up of cellulose b) Both have mucopeptide
c) Both are made up of N-acetylglucosamine d) None of the above
396. Consider the following statements about Deuteromycetes
I. Some members are saprophytes or parasites
II. A large number of members are decomposers of litter and help in mineral cycling
III. *Alternaria*, *Colletotrichum*, *Cercospora* and *Trichoderma* are examples of Deuteromycetes
Which of the above are correct?
a) I and II b) I and III c) II and III d) I, II and III
397. Smut and rust belongs to class

- a) Basidiomycetes b) Deuteromycetes c) Phycomycetes d) Ascomycetes
398. The advantage of fungus in lichen is
a) Food b) Shelter c) Mineral absorption d) Both (b) and (c)
399. Find out the pairs, which are correctly matched?
I. Cyanobacteria – Biopesticides
II. Mycorrhiza – Solubilization of phosphate
III. *Bacillus thuringiensis* – cry protein
IV. Single cell protein – Rhizobia
a) I and II b) II and III c) III and IV d) I and III
400. Which type of DNA is found in bacteria?
a) Helical DNA b) Membrane bound DNA
c) Straight DNA d) Circular free DNA
401. Fungi are divided into four classes on the basis of
a) Morphology of the mycelium b) Mode of spore formation
c) Fruiting bodies d) All of the above
402. Infectious proteins are present in
a) Gemini viruses b) Prions c) Viroids d) Satellite viruses
403. In Phycomycetes, asexual reproduction takes place by
a) Zoospores b) Aplanospores c) Both (a) and (b) d) Conidia
404. *Thermococcus*, *Methanococcus* and *Methanobac – terium* exemplify
a) Archaeobacteria that contain protein homologous to eukaryotic core histones
b) Archaeobacteria that lack any histones resembling those found in eukaryotes but whose DNA is negatively supercoiled
c) Bacteria whose DNA is relaxed or positively supercoiled but, which have a cytoskeleton as well as mitochondria
d) Bacteria that contain a cytoskeleton and ribosomes
405. Alexander Fleming in 1929 discovered
a) Penicillin b) Streptomycin c) Tetracyclin d) Chloromycetin
406. Transverse binary fission is found in
a) *Paramecium* b) *Amoeba* c) *Hydra* d) *Euglena*
407. Virus was discovered by whom?
a) Stanley b) Ivanowski c) Herelle d) Beijerinck
408. VAM are
a) Saprophytic bacteria b) Saprophytic fungi c) Symbiotic fungi d) Symbiotic bacteria
409. What are the successive structure formed in course of sexual reproduction of *Rhizopus*?
a) Zygosporangium, progametangium, gametangium, zygosporangium
b) Progametangium, zygosporangium, gametangium, zygosporangium
c) Progametangium, gametangium, zygosporangium, zygosporangium
d) Zygosporangium, progametangium, gametangium, zygosporangium
410. Consider the following statement about plants
I. Kingdom-Plantae includes eukaryotic autotrophic, chlorophyll containing organisms
II. It includes algae, bryophytes, pteridophytes, gymnosperms but not angiosperms
III. Plants shows alternation of generation [between haploid gametophytic (*n*) phase and diploid sporophytic (*2n*) phase]
Which of the statements given above are correct?
a) I and II b) I and III c) II and III d) I, II and III
411. Branched, aseptate, coenocytic mycelium present in
a) *Aspergillus* b) *Albugo* c) *Penicillium* d) *Erysiphe*
412. The structure in *Amoeba* functionally similar to human kidney is
a) Nucleus b) Plasmodesmata c) Plasma membrane d) Contractile vacuole

413. Which one is the most abundant microorganism?
 a) Algae b) Viruses c) Protists d) Bacteria
414. The process which cannot take place in the absence of virus is
 a) Transformation b) Conjugation c) Translocation d) Transduction
415. Parasexuality was first discovered in
 a) Bacteria b) Virus c) Fungi d) None of these
416. Viroids differ from viruses in having
 a) Naked RNA molecules only b) Naked DNA molecules only
 c) Naked DNA packed with viral genome d) Satellite RNA packed with viral genome
417. Consider the following statements about mycoplasma
 I. It is pleuomorphic bacteria, which lacks cell wall
 II. Mycoplasma is the smallest living organism
 III. They can not survive without oxygen
 IV. Many mycoplasma are pathogenic in animals and plants
 Which of the statements given above are correct?
 a) I, II and III b) II, III and IV c) I, II and IV d) I, II, III and IV
418. Which one of the following does not belong to kingdom-Monera?
 a) Mycoplasma b) Achaebacteria c) Slime mould d) Eubacteria
419. Which of the following causes disease in human beings?
 a) *Rhizopus* b) *Puccinia* c) *Aspergillus* d) *Cystopus*
420. Pasteurization temperature is
 a) 72°C for 20 minutes b) 63°C for 15 seconds c) 67°C for 15 seconds d) 65°C for 30 minutes
421. AIDS in human is caused by
 a) Virus b) Bacteria c) Protozoan d) Bacteriophage
422. Cell wall of all fungi are composed of
 a) Chitin + polysaccharides b) Cellulose + chitin
 c) Pectin + starch d) Silica + lipids
423. Prions are
 a) Infectious nucleic acids b) Infectious lipids
 c) Infectious proteins d) Infectious nucleoproteins
424. You might find methanogens
 a) In a cow's stomach b) In marshy area
 c) Both (a) and (b) d) In sulphur spring
425. Which of the following group of diseases is caused by viruses?
 a) Mumps, smallpox, herpes, influenza b) AIDS, diabetes, herpes, tuberculosis
 c) Anthrax, cholera, tetanus, tuberculosis d) Cholera, tetanus, smallpox, influenza
426. The cyanobacteria are
 a) Unicellular b) Colonial c) Filamentous d) All of these
427. Which one of the following is correctly matched?
 a) National Institute of Virology – Pune
 b) National Institute of Communicable Diseases – Lucknow
 c) Central Drug Research Institute – Kasauli
 d) National Institute of Nutrition – Mumbai
428. Which of the following groups of organisms are placed under the group chrysophytes?
 a) Diatoms only b) Desmids only
 c) Diatoms and golden algae d) Desmids and Paramecium
429. The association mycorrhiza is
 a) Relationship of algae and fungi b) Relationship of fungi and higher plants
 c) Relationship of algae and higher plants d) None of these
430. Who proposed two kingdom system of classification and named kingdoms as Plantae and Animalia?

- a) Carolus Linnaeus b) RH Whittaker c) Carl Woese d) Herbert Copeland
431. Consider the following statements about slime moulds
 I. *Plasmodium* is found in acellular slime moulds
 II. Pseudoplasmodium is found in cellular slime moulds
 Which of the statements given above is/are correct?
 a) Only I b) Only II c) I and II d) None of these
432. Which of the following options describes the coenocytic condition in fungus?
 a) Uninucleate hypha without septum
 b) Multinucleate hypha without septum
 c) Multicellular hypha
 d) Multiciliate hypha
433. Parasexuality is involved with fusion of
 a) Gamete and protoplast b) Male gamete with secondary nucleus
 c) Protoplast d) Male and female gamete
434. Consider the following statements about class-Oomycetes?
 I. Member may be obligate parasite on plants
 II. The mycelium is aseptate and coenocytic
 III. Asexual reproduction involves the formation of spore containing sac or sporangia. In aquatic conditions, the sporangia produces zoospores
 Which of the statements given above are correct?
 a) I and II b) I and III c) II and III d) I, II and III
435. Which one of the following is a characteristics feature of Chrysophytes?
 a) They are parasitic forms which cause diseases in animals
 b) They have a protein rich layer called pellicle
 c) They have indestructible wall layer deposited with silica
 d) They are commonly called dinoflagellates
436. In microbial genetics, which one is referred to as Griffith effect?
 a) Conjugation b) Transduction c) Transformation d) Sexduction
437. Potato spindle tuber diseases is caused by a
 a) Nematode b) Virus c) Bacterium d) Viroid
438. Viruses are no more 'alive' than isolated chromosomes because
 a) They both require oxygen for respiration
 b) Both require the environment of a cell to replicate
 c) They require both RNA and DNA
 d) They both need food molecules
439. Fungi causing hair loss are
 a) Keratophilous b) Pyrophilous c) Coprophilous d) None of these
440. The hyphae of *Rhizopus* are
 a) Unbranched, aseptate and uninucleate b) Branched, aseptate and multinucleate
 c) Branched, septate and uninucleate d) Unbranched, septate and coenocytic
441. Deuteromycetes is also known as
 a) Sac fungi b) Club fungi c) Imperfect fungi d) Bracket fungi
442. Retroviruses have genetic material
 a) DNA only b) RNA only
 c) DNA or RNA only d) Either DNA or RNA only
443. Bacteriophages kill
 a) Fungi b) Parasites c) Bacteria d) Viruses
444. Asexual reproduction in fungi occurs by
 a) Ascospores b) Conidia c) Basidiospores d) Oospores
445. Lichens show

- a) Mutualism b) Commensalism c) Parasitism d) Saprophytism
446. Ringworm in humans is caused by
a) Bacteria b) Fungi c) Nematodes d) Viruses
447. Which of the following are the examples of insectivorous plant?
a) Bladder wort b) Venus fly trap c) *Nepenthes* d) All of these
448. Which of the following characters served as the criteria for five kingdom system of classification as used by Whittaker?
a) Cell structure b) Body organization and mode of nutrition
c) Reproduction and phylogenetic relationships d) All of the above
449. Some of the cyanobacteria blue green algae can fix atmospheric nitrogen in specialised cells called
a) Akinetes b) Heterocyst c) Endospores d) Homocyst
450. Eubacteria is also known as
a) False bacteria b) True bacteria
c) Archaeobacteria d) Heterotrophic bacteria
451. Basidiospores are produced by
a) Yeasts b) Diatoms c) *Agaricus* d) Bacteria
452. Which of the following in the correct sequence of three steps in the sexual cycle of fungi?
a) Mitosis → fusion of two nuclei → meiosis
b) Meiosis → fusion of two nuclei → fusion of protoplasts
c) Fusion of two nuclei → meiosis → fusion of protoplasm
d) Fusion of protoplasm → fusion of two nuclei → meiosis
453. *Nostoc* and *Anabaena* belongs to
a) Eubacteria b) Archaeobacteria c) Cyanobacteria d) Coccibacteria
454. Cyanobacteria is also known as
a) Blue-green algae
b) Heterotrophic bacteria
c) Chemosynthetic autotrophic bacteria
d) Chemosynthetic bacteria
455. Size of TMV is
a) 300 nm long and 18 nm diameter b) 100 nm long and 20 nm diameter
c) 50 nm long and 10 nm diameter d) 500 nm long and 300 nm diameter
456. Specialized cells called heterocysts are present in
a) Dinoflagellates b) Chrysophytes c) Euglenoids d) Cyanobacteria
457. Cellulose is the major component of cell wall of
a) *Pythium* b) *Xanthomonas* c) *Pseudomonas* d) *Saccharomyces*
458. *Claviceps* is a member of
a) Ascomycetes b) Basidiomycetes c) Zygomycetes d) Phycomycetes
459. Mycorrhiza is found in
a) Oligotrophic soil b) Eutrophic soil c) Both (a) and (b) d) None of these
460. Which of the following is a flagellated protozoan?
a) *Amoeba* b) *Entamoeba* c) *Plasmodium* d) *Trypanosoma*
461. Smallest bacteria is
a) *Spirosoma* b) *Hemophilus* c) *Dialister* d) *Desulfovibrio*
462. Slipper animalcule is
a) *Paramecium* b) *Trypanosoma* c) *Entamoeba* d) Protozoa
463. A female *Anopheles* mosquito can be recognized by
a) Proboscis and palpi are long and more or less of equal length
b) Proboscis long and palpi short
c) Proboscis short and palpi long
d) Both proboscis and palpi are short

464. Highest number of antibiotics are produced by
 a) *Bacillus* b) *Penicillium* c) *Streptomyces* d) *Cephalosporum*
465. Who proposed five kingdom classification and named kingdoms as Monera, Protista, Fungi, Plantae and Animalia?
 a) Herbert Copeland b) R H Whittaker c) Carl Woese d) Carolus Linnaeus
466. Which one the following is a red dinoflagellate?
 a) *Euglena* b) Diatoms c) *Gonyaulax* d) *Plasmodium*
467. Phytotoxins are secreted by plants in response to fungal reaction. These compounds are generally
 a) Proteins b) Glycoproteins c) Phenolic compounds d) Lipids
468. In many bacteria, the cell membrane becomes invaginated and folded to form
 a) Pili b) Cristae c) Fimbriae d) Mesosomes

469. *Paramecium*

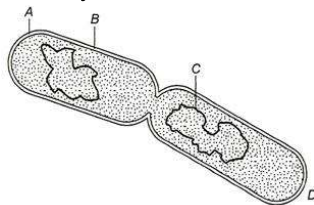
I. is a ciliated protozoan

II. has a cavity that opens to the outside the cell surface

III. shows water current maintained by cilia which helps the food to be steared into gullet

Which of the statement given above are correct?

- a) I and II b) I and III c) II and III d) I, II and III
470. Identify the label A, B, C and D in the following figures



- a) A-Plasma membrane, B-Cell wall, C-RNA, D-Spore b) A-Cell wall, B-Cell membrane, C-DNA, D-Binary fission
- c) A-Mucilaginous, B-Cell membrane, C-RNA, D-Conjugation d) A-Plasma membrane, B-Mucilaginous, C-DNA, D-Transformation

471. Select the false statement

- a) Scientists who study and contribute to the classification of organisms are known as systematic
 b) Carolus Linnaeus developed the first scientific system of naming species
 c) A five kingdom arrangement of organisms was introduced by R H Whittaker
 d) Phycomycetes are called club fungi because of a club-shaped end of mycelium known as basidium

472. The respiratory process of yeast is

- a) Rarely anaerobic b) Anaerobic c) Purely aerobic d) Both (a) and (b)

473. Viruses that infect bacteria, multiply and cause their lysis are

- a) Lysozymes b) Lipolytic c) Lytic d) Lysogenic

474. The fungus used for the commercial production of SCP is

- a) *Pentadiplandra brazzeana* b) *Fusarium graminearum*
 c) *Brassica napus* d) *Bacillus thuringiensis*

475. In *Vorticella*, the total number of micronuclei formed at the end of pre-zygotic nuclear division in female gamete is

- a) 4 b) 6 c) 8 d) 5

476. Consider the following statement about kingdom-Animalia

I. They are heterotrophic, eukaryotic, multicellular organisms

II. Cells do not have cell walls

III. Mode of nutrition is holozoic

Which of the statements given above are correct?

- a) I and II b) I and III c) II and III d) I, II and III

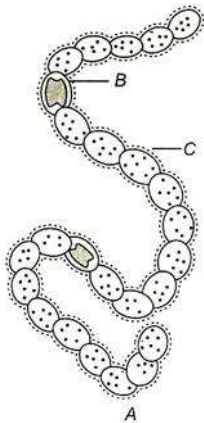
477. Consider the following statements

- I. Kingdom-Protista forms a link between monerans and the other organisms like plants, animal and fungi
- II. Protists reproduce asexually and sexually by a process involving cell fusion and zygote formation
- III. Being eukaryotes, the protistan cell body contains a well defined nucleus and other membrane-bound organelles

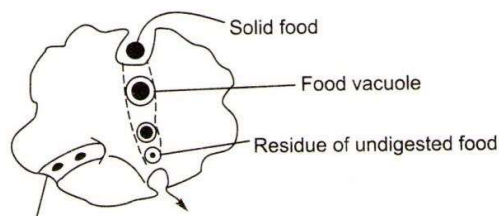
Which of the statements given above are correct?

- a) I and II b) I and III c) II and III d) I, II and III
478. Cyanobacterium is an
- a) Alga having blue-green pigment b) Alga having red pigment
c) Alga having brown pigment d) Alga having yellow-brown pigment
479. Which will you look for the sporozoites of the malarial parasite?
- a) Red blood corpuscles of human suffering from malaria
b) Spleen of infected humans
c) Salivary glands of freshly moulted female *Anopheles* mosquito
d) Saliva of infected female *Anopheles*
480. During unfavorable conditions, *Amoeba* reproduces through
- a) Binary fission b) Sporulation c) Multiple fission d) Conjugation
481. The 'witches broom' is caused by a
- a) Virus b) Mycoplasma c) Bacterium d) Fungus
482. Deuteromycetes reproduce only by asexual spores known as
- a) Conidia b) Endospores c) Zoospores d) Heterocyst
483. Lichens are composite organisms consisting of a fungus and a photosynthetic partner (algae), growing together in a symbiotic relationship
- Consider the following statements about lichens
- I. Lichens are very good air pollution indicators
 - II. Algal partner and fungal partner live mutually
 - III. Algae prepares food for fungi
 - IV. Fungi provides shelter and absorbs water and minerals for algal partner
- Which of the statements given above are correct?
- a) I, II and III b) II, III and IV c) I, II and IV d) I, II, III and IV
484. Mycorrhiza is an example of
- a) Symbiosis b) Parasitism c) Saprophytism d) None of these
485. Murein is not found in the cell wall of
- a) *Nostoc* b) Eubacteria c) Cyanobacteria d) Diatoms
486. Which one of the following forms of the bloom is present in polluted water?
- a) Blue-green algae b) Red algae c) Blue algae d) Brown algae
487. Which of the following is a parasitic fungi of mustard?
- a) *Rhizopus* b) *Albugo* c) *Agaricus* d) *Neurospora*
488. Which of the following protists release toxins that may even kill fishes and other marine animals?
- a) *Euglena* b) *Gonyaulax* c) *Paramecium* d) *Plasmodium*
489. *Triatoma infestans* is the intermediate host in the life cycle of
- a) *Leishmania donovani* b) *Trypanosoma cruzi*
c) *Leishmania tropica* d) *Schistosoma haematobium*
490. Members of Phycocyanobacteria are found
- I. In aquatic habitats
 - II. on decaying wood
 - III. in moist and damp places
 - IV. as obligate parasite on plants
- Which of the statements given above are correct?
- a) I and II b) I, II and III c) II, III and IV d) I, II, III and IV
491. Outer covering of virus made up of protein is

- a) Capsid b) Coat c) Virion d) Viriod
492. *Plasmodium* is an
 a) Endoparasite b) Ectoparasite c) Intercellular parasite d) Both (a) and (b)
493. In which year, Ronald Ross found malaria parasite infection in mosquito?
 a) 1897 b) 1850 c) 1835 d) 1859
494. *Mucor* and *Rhizopus* are included in class
 a) Ascomycetes b) Phycomycetes c) Basidiomycetes d) Deuteromycetes
495. On the basis of their shape, bacteria are grouped under...categories
 a) Three b) Four c) Five d) Six
496. Plasmogamy is the fusion of
 a) Two haploid cells including their nuclei
 b) Two haploid cells without nuclear fission
 c) Sperm and egg
 d) Sperm with two polar nuclei
497. Given figure is of a filamentous blue-green algae. Identify the algae name *A*, *B* and *C* in the following figures



- a) *A-Gelidium*, B-Vegetative cell, C-Heterocyst
 b) *A-Volvox*, B-Somatic cell, C-Mucilaginous sheath
 c) *A-Chara*, B-Mucilaginous sheath, C-Heterocyst
 d) *A-Nostoc*, B-Heterocyst, C-Mucilaginous sheath
498. Diatoms and desmids are found in
 a) Freshwater b) Marine environments
 c) Both (a) and (b) d) Terrestrial environments
499. In *Plasmodium*, ookinete is formed by
 a) Trophozoite b) Zygote c) Sporozoite d) Merozoite
500. Late blight of potato is caused by
 a) *Cystopus* b) *Phytophthora* c) *Alternaria* d) *Ustilago*
501. *Paramecium* is an aquatic and actively moving organism due to the presence of
 a) Pseudopodia b) False feet c) Thousands of cilia d) Flagella
502. Phage genome site on bacterial chromosome resulted in the structure
 a) Nucleic acid b) Heterocyst c) Prophage d) None of these
503. Enveloped virus enters into host cells by
 a) Injecting own nucleic acid inside host cells b) By contact with cell receptor and endocytosis
 c) By phagocytosis d) Fusion with the plasma membrane of host
504. In the diagram, which of the following process is/are shown in *Amoeba*?



- Molecules in solutions
- a) Exocytosis b) Phagocytosis c) Pinocytosis d) All of these
505. What is haemozoin?
 a) Undigested part of blood in trophozoite of *Plasmodium*. b) Blood pigment of *Anopheles*
 c) Decomposed blood in merozoites. d) Granules in the blood of infected person.
506. *Euglena* is found in
 a) Fresh and running water b) Fresh and stagnant water
 c) Marine water d) Both (a) and (c)
507. Five kingdom classification was given by
 a) Huxley b) Hooker c) Whittaker d) Linnaeus
508. The bacteria *Pseudomonas* is useful because of its ability to
 a) Transfer genes from one plant to another b) Decompose variety of organic compounds
 c) Fix atmospheric nitrogen in the soil d) Produced a wide variety of antibiotics
509. In fungi, the fusion of two nuclei is called
 a) Plasmogamy b) Karyogamy c) Plasmokinesis d) Cytokinesis
510. Euglenoid species that have chlorophyll are
 a) Facultative autotrophs b) Facultative heterotrophs
 c) Obligate heterotrophs d) Obligate autotrophs
511. Where the members of Basidiomycetes are grown
 a) In soil b) On logs
 c) On tree stumps and in living plant bodies d) All of the above
512. Plasmids occur in
 a) Viruses b) Chromosomes c) Bacteria d) Chloroplasts
513. The fruiting body formed from a filamentous heterotrophic organism, which is known for its nutritive value for the humanity, is
 a) Cremocarp b) Acervulus c) Basidiocarp d) Akinete
514. Phycomycetes is a class in kingdom
 a) Protista b) Fungi c) Plantae d) Animalia
515. Viral genome, incorporated and integrated with bacterial genome is referred to as
 a) Prophages b) RNA c) DNA d) Both (a) and (c)
516. The slime moulds are characterized by the presence of
 a) Elaters b) Pseudoelaters c) Capillitium d) Capitulum
517. Spirochaetes is/are
 a) A class of insects b) A class of viruses c) Bacteria d) Fungi
518. Which one is correctly matched?
 a) Oncogenes – ageing b) Replication fork – mRNA
 c) AIDS virus – reverse transcriptase d) Initiation factors – amino acid activation
519. Myxomycetes are
 a) Saprobies or parasites having mycelia, asexual reproduction by fragmentation and sexual reproduction by fusion of gametes
 b) Slimy mass of multinucleate protoplasm, having pseudopodia like structures for engulfing food, reproduction through fragmentation or zoospores
 c) Prokaryotic organisms, cellular or acellular, saprobies or autotrophic, reproduce by binary fission
 d) Eukaryotic, single-celled or filamentous, saprobies or autotrophic, asexual reproduction by division of

532. Fungi shows vegetative reproduction by all of the following except
 a) Fragmentation b) Fission c) Budding d) Akinetes
533. Most abundant bacteria are
 a) Chemosynthetic bacteria b) Heterotrophic bacteria
 c) Heterotrophic decomposers d) Archaeobacteria
534. The replacement of two kingdom grouping by five kingdom classification was proposed in the year
 a) 1859 b) 1758 c) 1862 d) 1969
535. Which part of an animal virus is not reproduced in multiple copies?
 a) Capsid b) Proteins c) Envelope d) Ribosomes
536. How many young amoebae hatch out from a cyst of *E. histolytica*?
 a) One b) Two c) Four d) Six
537. Difference between virus and viroid is
 a) Absence of protein coat in viroid and its presence in viruses
 b) Presence of low molecular weight RNA in virus but absent in viroid
 c) Both (a) and (b)
 d) None of the above
538. The thalloid body of a slime mould (Myxomycetes) is known as
 a) Protonema b) Plasmodium c) Fruiting body d) Mycelium
539. Powdery mildews of crops are caused by
 a) Basidiomycetes b) Phycomycetes c) Ascomycetes d) Eucomycetes
540. Galic acid used in making ink is obtained with the help of
 a) *Aspergillus niger* b) *Penicillium purpurogenum*
 c) *Streptococcus lactis* d) *Lactobacillus bulgarius*
541. Enzymes are absent in
 a) Algae b) Plants c) Virus d) Bacteria
542. Virion is a
 a) Bacterium b) Blue-green algae c) Simple virus particle d) None of these
543. Which of the following is an edible 'fungi'?
 a) *Mucor* b) *Penicillium* c) *Agaricus* d) *Rhizopus*
544. Halophilic archaeobacterium, *eg, Halobacterium salinarum* found in great salt lake and dead sea cannot live in
 a) Less than 3M NaCl concentration b) Less than 5M NaCl concentration
 c) More than 4M NaCl concentration d) More than 3M NaCl concentration
545. Cosmid is
 a) Extragenetic material in mycoplasma
 b) Circular DNA in bacteria
 c) Extra DNA in bacteria
 d) Fragment of DNA inserted in bacteria for forming copies
546. Name the fungus that is edible.
 a) *Penicillium* b) *Mucor* c) *Rhizopus* d) *Morchella*
547. T O Diener discovered a
 a) Free infectious RNA b) Free infectious DNA c) Infectious protein d) Bacteriophage
548. All eubacteria have
 a) Rigid cell wall b) Flagellum c) Silica d) Both (a) and (b)
549. Which of the following plant virus has DNA in it?
 a) Tobacco mosaic virus b) Potato mosaic virus
 c) Tomato mosaic virus d) Cauliflower mosaic virus
550. Regarding plants, choose the correct statement
 a) All are eukaryotes chlorophyll containing organism b) All are unicellular prokaryotes chlorophyll containing organism

- c) All are multicellular eukaryotes that are photosynthetic heterotrophs
 d) All are unicellular prokaryotes that are photosynthetic heterotrophs
551. During conjugation in *Paramecium*
 a) Out of the four micronuclei formed, three degenerate
 b) Out of six macronuclei formed, four degenerate
 c) Zygote nucleus undergoes eight successive division in each conjugant
 d) Out of 16 nuclei, only 4 degenerate
552. Identify the edible and delicate Ascomycetes members
 a) *Agaricus* and *Puccinia*
 b) Morels and truffles
 c) Puffball and *Agaricus*
 d) Puffball and mushrooms
553. Clamp connections are found in
 a) Phycomycetes b) Ascomycetes c) Basidiomycetes d) Deuteromycetes
554. Carriers of *Entamoeba histolytica* are
 a) Mosquito of genus-*Anopheles*
 b) Cattle
 c) *Musca domestica* (housefly)
 d) Healthy human host
555. Nutrition of *Entamoeba* is
 a) Sporophytic b) Autotrophic c) Chemotrophic d) Parasitic
556. Chlorophyll- α absent, in which of the following photosynthetic organisms?
 a) Cyanobacteria b) Red algae c) Brown algae d) Bacteria
557. Name the class of the Mycota which is commonly called 'fungi imperfecti'?
 a) Deuteromycota b) Ascomycota c) Zygomycota d) Basidiomycota
558. Yeast and *Penicillium* are the example of class
 a) Phycomycetes b) Ascomycetes c) Deuteromycetes d) Basidiomycetes
559. A plasmid
 a) Cannot replicate b) Can replicate independently
 c) Shows independent assortment d) Lies together with chromosomes
560. include blue-green algae, which have chlorophyll-*a* similar to green plants.
 Complete the given sentence with an appropriate option
 a) Chemosynthetic autotrophic bacteria b) Photosynthetic autotrophic bacteria
 c) Protista d) Saprophytic
561. When a freshwater protozoan, possessing a contractile vacuole, is placed in a glass containing marine water, the vacuole will?
 a) Increase in number b) Disappear c) Increase in size d) Decrease in size
562. A kingdom common to unicellular animals and plants is
 a) Monera b) Plantae c) Fungi d) Protista
563. The given statements describes a group of organisms
 I. The pellicle is composed of fibrous elastic protein lipid or carbohydrates and maintains a definite shape
 II. They have two flagella, short and a long one. Each flagellum arises from a basal granule
 III. They are connecting link between plants and animals
 Which of the following group is referred here?
 a) Euglenoids b) Diatoms c) Slime moulds d) Protozoans
564. Plant like nutrition is present in
 a) *Amoeba* b) *Paramecium* c) *Euglena* d) *Plasmodium*
565. Which of the following statement is false?
 a) TMV has a double-stranded RNA molecule
 b) Most plant viruses are RNA viruses
 c) The bacteriophage has a double-stranded DNA molecule
 d) Most animal viruses are DNA viruses
566. The main difference between Gram positive and Gram negative bacteria is
 a) Cell membrane b) Cell wall c) Ribosome d) Mitochondria

- a) Protista b) Monera c) Fungi d) Plantae
585. Heterocysts present in *Nostoc* are specialised for
a) Photosynthesis b) Food storage c) Nitrogen fixation d) Fragmentation
586. A peculiar odour that prevails in marshy areas and cow-sheds is on account of a gas produced by
a) Mycoplasma b) Archaeobacteria c) Slime moulds d) Cyanobacteria
587. 'Foolish seedling disease' of rice in Japan was caused by
a) The deficiency of nitrogen b) A bacterium
c) A fungus d) A virus
588. HIV virus affect In AIDS patient.
a) Cytotoxic T-cell b) M-N cell c) Suppressor cell d) Helper T-Cells
589. Which of the following diseases are caused by bacteria?
I. Flu II. Cholera
III. Typhoid IV. Tetanus
- Codes**
a) I, II and III b) II, III and IV c) I, III and IV d) I, II, III and IV
590. Botanical name of species, which causes white rust of crucifers?
a) *Peronospora parasitica* b) *Puccinia graminis*
c) *Pythium debarganum* d) *Albugo candida*
591. Fungi that absorbs nutrients directly from the living host cytoplasm are called
a) Saprophytes b) Parasites c) Symbionts d) Mycorrhiza
592. Which of the following is a slime mould?
a) *Rhizopus* b) *Physarum* c) *Thiobacillus* d) *Anabaena*
593. Analyse the following statements and identify the correct option given below.
I. Viruses that infects plants have single-stranded RNA and viruses that infects animals have either single or double-stranded RNA or double stranded DNA
II. Bacterial viruses or bacteriophage are usually single-stranded RNA viruses
- Codes**
a) I is true, but II is false b) I is false, but II is true
c) I and II are true d) I and II are false
594. Lichen is the pioneer vegetation on which succession?
a) Hydrosere b) Lithosere c) Psammosere d) Xerosere
595. Which of the following conditions would be favoured by thermoacidophiles?
a) Hot and alkaline b) Snow and acidic
c) Hot and sulphur spring d) Gut of cows