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ALLEN CAREER INSTITUTE KOTA (RAJASTHAN)

path to success

PRE-MEDICAL

BOTANY

ENTHUSIAST | LEADER | ACHIEVER

EXERCISE

Diversity in the living world

ENGLISH MEDIUM

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EXERCISE-I (Conceptual Questions) — Build Up Your Understanding

NOMENCLATURE, CLASSIFICATION, SPECIES CONCEPT

1. Mayr proposed which type of concept of species:-
(1) Taxononic concept
(2) Biological concept
(3) Taxonomic and Biological concept
(4) Genetic concept

DL0001

2. Artificial system of classification classifies plants on the basis of :-
(1) One or two characters
(2) Phylogenetic trends
(3) Many naturally existing characters
(4) None of the above

DL0002

3. The term systematics was introduced by :-
(1) Mayr (2) Bentham
(3) Hutchinson (4) Linnaeus

DL0003

4. Group of organisms that closely resemble each other and freely interbreed in nature, constitute a:-
(1) Species (2) Genus
(3) Family (4) Taxon

DL0004

5. ICBN was first published in :-
(1) 1961 (2) 1964 (3) 1975 (4) 1753

DL0005

6. The term taxon refers to :-
(1) Name of a species
(2) Name of genus
(3) Name of family
(4) A taxonomic group of any rank

DL0006

7. The scientific naming of plants began with publication of Linnaeus book :-
(1) *Genera plantarum* (2) *Systema naturae*
(3) *Species plantarum* (4) Charaka samhita

DL0007

8. Which book most impressed the opinion of taxonomists ?
(1) Enquiry into plants
(2) Origin of life
(3) Genera plantarum
(4) Origin of species

DL0008

9. The basic smallest unit of classifications is :-
(1) Genus (2) Species
(3) Order (4) All of the above

DL0009

10. Plant nomenclature means :-
(1) To give names to plants without any rules
(2) Nomenclature of plants under the international rules
(3) Nomenclature of plants in local language
(4) Nomenclature of plants in english language

DL0010

11. Taxonomy term was given by :-
(1) Linnaeus (2) Mayr
(3) Haeckel (4) A.P. de. Candolle

DL0011

12. Which of the following is a correct name ?
(1) *Solanum tuberosum*
(2) *Solanum Tuberosum*
(3) *Solanum tuberosum* Linn.
(4) All the above

DL0012

13. Systematics deals with :-
(1) Classification
(2) Nomenclature
(3) Identification
(4) All of these

DL0013

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14. Scientific name of Mango plant is *Mangifera indica* Linn. in the above name Linn. refers to :-
(1) Variety of Mango
(2) A taxonomist who proposed the present nomenclature in honour of Linnaeus
(3) A scientist who for the first time described Mango plant
(4) A scientist who changed the name proposed by Linnaeus and proposed present name

DL0014

15. Phylogeny refers to :-
(1) Natural classification
(2) Evolutionary classification
(3) Evolutionary history
(4) Origin of algae

DL0015

16. Biological concept of species is given by :-
(1) Aristotle (2) Bentham
(3) Koch (4) Mayr

DL0016

17. In taxonomy the first step is :-
(1) Identification (2) Nomenclature
(3) Classification (4) Affinities

DL0017

18. Who wrote *Systema naturae* ?
(1) Linnaeus (2) Mayr
(3) John Ray (4) De Candolle

BC0819

19. For higher plants, flowers are chiefly used as a basis of classification, because :–
(1) These show a great variety in colour
(2) It can be preserved easily
(3) Reproductive parts are more conservative than vegetative parts
(4) None of these

BC0820

20. Who wrote species plantarum ?
(1) Linnaeus (2) Mayr
(3) Bentham (4) Aristotle

BC0821

21. The binomial system of nomenclature was given by:–
(1) Magnus (2) Linnaeus
(3) Caesalpinno (4) Discorides

BC0822

22. Who is regarded as "Darwin of 20th century" ?
(1) John Ray (2) Lamarck
(3) Ernst Mayr (4) Darwin

BC0823

23. A division is formed by combining several :–
(1) Orders (2) Families
(3) Classes (4) Tribes

DL0024

24. For declaration of new species of higher plants what characters are mainly used :–
(1) Floral character of new species
(2) Anatomical characters of new species
(3) Physiological character of new species
(4) Character of endosperm

DL0025

25. The standared size of herbarium sheets is :–
(1) 11.5" × 16.5" (2) 15.5" × 16.5"
(3) 18.5" × 10.5" (4) 20.5" × 21.5"

DL0026

26. Which statement is true ?
(1) Tautonyms are not allowed in plants
(2) Tautonyms are not allowed in animals
(3) Tautonyms normally allowed in animals and some time allowed in plants
(4) Tautonyms allowed only in bacteria

DL0027

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27. Most of the botanical names are derived from the following language :–
(1) German (2) Greek
(3) Latin (4) Spanish
DL0029

28. Evolutionary classification is called :–
(1) Artificial system
(2) Natural system
(3) Phylogenetic system
(4) None of the above
DL0030

29. Which of the following statements regarding nomenclature is correct ?
(1) Generic name always begins with capital letter whereas specific epithet with small letter
(2) Scientific nomenclature should be printed in italics
(3) Scientific nomenclature when typed or handwritten should be separately underlined
(4) All the above
DL0031

HISTORY OF TAXONOMY

30. According to Whittaker, BGA are included in :-
(1) Mycota (2) Protista
(3) Plantae (4) Monera
BC0824

31. By Bentham-Hooker, how many families are placed in gymnospermae class :-
(1) 86 (2) 88
(3) 45 (4) 3
BC0825

32. "Genera Plantarum" was written by :-
(1) Engler and Prantal
(2) Hutchinson
(3) Bentham & Hooker
(4) Bessey
BC0826

33. Chief merit of Bentham and Hooker's classification is that :-
(1) It is a system mostly based on evolutionary concepts
(2) It is a natural systems of classification of all groups of plants
(3) The description of the taxa are based on actual observation of the specimen
(4) It also considers the phylogenetic aspects
BC0827

34. The system of classification proposed by Bentham and Hooker is :-
(1) Artificial
(2) Natural
(3) Phylogenetic
(4) Numerical
DL0036

35. The classification of Linnaeus was mainly based on :-
(1) Sepals (2) Stem
(3) Petals (4) Stamens
DL0037

36. Kingdom Monera comprises the :-
(1) Plants of economic importance
(2) All the plants studied in botany
(3) Prokaryotic organisms
(4) Plants of Thallophyta group
BC0828

37. Whittaker is famous for :-
(1) Two kingdom classification
(2) Four kingdom classification
(3) Five kingdom classification
(4) Distinguishing in Bacteria & blue gree Algae
BC0829

38. System of classification proposed by Linnaeus was:-
(1) Artificial (2) Natural
(3) Sexual (4) (1) and (3) both
BC0830

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39. The group "Plantae" proposed by Whittaker includes:-
(1) Pteridophytes (2) Gymnosperms
(3) Angiosperms (4) All the above

BC0831

40. In Whittaker's five kingdom classification, eucaryotes were assigned to :-
(1) All the five kingdom
(2) Only four of the five kingdoms
(3) Only three kingdom
(4) Only one kingdom

BC0832

41. "*Theorie elementaire de la botanique*" is the book written by :-
(1) Takhtajan
(2) De Candolle
(3) Eichler
(4) Linnaeus

BC0834

42. Carolus Linnaeus classified plant kingdom on the basis of :-
(1) Floral morphology
(2) Overall morphology of plants
(3) Type of sexual reproduction
(4) Anatomical character

BC0835

43. First plant classification was given by :–
(1) Linnaeus (2) John–Ray
(3) Aristotle (4) Darwin

BC0836

44. According to Benthum & Hooker total families of real flowering plants :–
(1) 202 (2) 199 (3) 34 (4) 85

BC0837

45. According to Whittaker kingdom protista includes:-
(1) Prokaryotes
(2) Unicellular eukaryotes
(3) Slime molds & protozoa
(4) Multicellular & eukaryotes

BC0840

KINGDOM – MONERA

46. Infoldings of plasma membrane in bacteria are called as :-
(1) Episomes (2) Plasmid
(3) Pili (4) Mesosomes

BC0841

47. The organisms participating most actively in nitrogen cycle in nature are :-
(1) Bacteria (2) Legumes
(3) Parasitic algae (4) Fungi

BC0842

48. Heterocyst is a structure which is associated with
(1) Reproduction (2) Respiration
(3) Nitrogen fixation (4) Locomotion

BC0843

49. *Trichodesmium erythraeum* which imparts red colour to sea water of red sea is a :
(1) Cyanobacterium (2) Red Algae
(3) Diatom (4) Red Coral

BC0844

50. Archaebacterial cell lacks :-
(1) Peptidoglycan
(2) DNA
(3) Ribosomes
(4) Branched Chain Lipids

BC0845

51. Most common method of reproduction in prokaryotes :-
(1) Budding
(2) Binary fission
(3) Transduction
(4) Conjugation

BC0846

52. Harmful activity of Blue green algae is:-
(1) Denitrification
(2) Water - bloom
(3) Increase alkalinity of soil
(4) Decrease fertility of soil

BC0847

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53. The function of mesosome in prokaryotes is:-
(1) Aerobic respiration
(2) Cell wall formation
(3) Both (1) and (2)
(4) N_2 - fixation

BC0848

54. During rainy season ground surface become slippery due to:-
(1) Fungi (2) Blue green algae
(3) Bryophytes (4) Gymnosperm

BC0849

55. Photosynthesis of Blue green algae is:-
(1) Oxygenic
(2) Non oxygenic
(3) Both oxygenic and non oxygenic
(4) None

BC0850

56. Link between prokaryotes and multicellular eukaryotes :–
(1) Cyanobacteria
(2) Protista
(3) Fungi
(4) Plants

BC0852

57. Which structure of prokaryotes is analogous to lysosome ?
(1) Mesosome
(2) Genophore
(3) Periplasmic space
(4) Perinuclear space

BC0853

58. Which of the following performs respiration with the help of plasma membrane ?
(1) Bacteria
(2) Algae
(3) Fungi
(4) All the above

BC0854

59. Richest source of bacteria is : -
(1) Air (2) Soil
(3) Water (4) Milk

BC0855

60. The most primitive monerans are :-
(1) Archaebacteria
(2) Eubacteria
(3) Filamentous bacteria
(4) Cyanobacteria

BC0856

61. Which bacteria are utilized in Gobar gas plant ?
(1) Methanogens
(2) Nitrifying bacteria
(3) Ammonifying bacteria
(4) Denitrifying bacteria

BC0858

62. Plasmid are
(1) Virus
(2) New types of micro organism
(3) Extra chromosomal genetic material of bacteria
(4) Essential bacterial genetic materials

BC0859

63. A free living aerobic bacteria capable of fixing nitrogen is
(1) *Azotobactor*
(2) *Rhizobium*
(3) *Clostridium botulinum*
(4) *Streptomyces*

BC0860

64. Wine turns sour becasue of :-
(1) Heat
(2) Aerobic bacteria
(3) Anaerobic bacteria
(4) Exposure to the light

BC0861

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65. Which one of the following fixes CO_2 in to carbohydrates ?
(1) *Rhizobium* (2) *E.coli*
(3) *Bacillus* (4) *Rhodospirillum*
BC0862

66. Antibiotics are mostly obtained from :-
(1) Bacteria (2) Viruses
(3) Fungi (4) Angiosperm
BC0863

67. The main difference between gram +ve and gram –ve resides in the composition of :-
(1) Cilia (2) Cell-wall
(3) Cell-membrane (4) Cytoplasm
BC0864

68. Free living nitrogen-fixing bacteria are found in-
(1) Air (2) Soil
(3) Root nodules (4) None of above
BC0865

69. Cell membrane of bacteria is made up of -
(1) Cellulose and lipid
(2) Chitin
(3) Lipid + Protein
(4) Protein and Cellulose
BC0866

70. Bacterial flagella are made of-
(1) Carbohydrate (2) Lipid
(3) Protein (4) Amide
BC0868

71. The mode of the nutrition of bacteria is usually-
(1) Photo autotrophic
(2) Chemo autotrophic
(3) Heterotrophic and autotrophic
(4) None
BC0869

72. Fertility of soil is increased by-
(1) Nitrogen - fixing bacteria
(2) Denitrifying bacteria
(3) Plasmalemma
(4) Cell membrane
BC0870

73. Plant pathogenic bacteria are :-
(1) Gram ⊕ (2) Gram ⊖
(3) Both (4) None
BC0871

74. Souring of milk is due to -
(1) Aerobic bacteria
(2) Anaerobic bacteria
(3) Both
(4) None
BC0872

75. At which place bacteria are not found
(1) Soil (2) Ice
(3) Sea (4) Distilled water
BC0873

KINGDOM-PROTISTA

76. "Golden Algae" is the common name of Algae belonging to :-
(1) Chrysophyta (2) Pyrrophyta
(3) Euglenophyta (4) Cyanophyta
BC0874

77. Armoured cell wall and biflagellated cells are characteristic of :-
(1) Chrysophyta (2) Pyrrophyta
(3) Euglenophyta (4) Cyanophyta
BC0875

78. Oils and Leucosine are characteristic stored food in :-
(1) Dinoflagellates (2) Euglenoids
(3) Diatoms (4) None
BC0876

79. Armoured algae are :-
(1) Dinoflagellates (2) Euglenoids
(3) Red algae (4) Cyanobacteria
BC0877

80. The diatoms do not easily decay like most of the other Algae because:-
(1) They have water proof cells
(2) Their walls are mucilagenous
(3) They have highly siliceous wall
(4) They are non living
BC0878

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81. "Keiselgurh" a heat resistant material is obtained from :-
(1) Red Algae (2) Brown Algae
(3) Diatoms (4) Fungi
BC0879

82. The diatomaceous earth is used to insulate boilers and steam pipes because:-
(1) The wall of diatoms is deposited with calcium
(2) The diatomaceous earth is cheap
(3) It is a good conductor of heat
(4) The wall of diatoms is made of silica
BC0880

83. Shell of diatoms is made up of :–
(1) Silica
(2) Calcium carbonate
(3) Keratin
(4) Calcium oxalate
BC0881

84. "Diatomite" (Keiselgurh) is obtained from:–
(1) Myxophyceae (2) Chrysophyta
(3) Phaeophyceae (4) Rhodophyceae
BC0882

85. Most characteristic feature of diatoms is :–
(1) Pigments
(2) Stored food
(3) Cell wall
(4) Non oxygenic photosynthesis
BC0883

86. Taxonomically the most controversial group is :–
(1) Dinoflagellates (2) Diatoms
(3) Euglenoids (4) Prokryote
BC0884

87. Decomposer protists are :-
(1) Diatoms (2) Dinoflagellates
(3) Slime moulds (4) Euglenoid
BC0885

88. Taxonomists feel difficulty in classification of :-
(1) Procaryotes
(2) Unicellular eucaryotes
(3) Plants
(4) Animals
BC0887

89. Paramylum is stored food of :-
(1) Dinoflagellate (2) Euglenoid
(3) Diatom (4) Slime mould
BC0889

90. The most efficient locomotion in protists is through :-
(1) Pseudopodia (2) Flagella
(3) Cilia (4) Tentacles
BC0890

91. Organism of which kingdom feed like animals and perform photosynthesis like plants :-
(1) Monera (2) Protista
(3) Mycota (4) Animalia
BC0891

92. "Fire algae" belongs to group :-
(1) Pyrrophyta
(2) Chrysophyta
(3) Euglenophyta
(4) Rhodophyta
BC0892

93. Slime mould is known as naked fungi.
(1) Cell membrane absent
(2) Cell wall absent
(3) Cell wall and cell membrane absent
(4) Never naked
BC0893

94. Dinoflagellates are called fire algae due to which character :-
(1) They appear like fire due to pigments
(2) They produce fire due to friction
(3) They occur on burnt places
(4) They show bioluminescence
BC0894

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95. Dead remains of diatoms at sea bed are called:-
(1) Keiselgurh (2) Peat
(3) Coral reefs (4) Sporopollenin
BC0897

96. Diatoms perform which type of movement in water :-
(1) Swimming (2) Amoeboid
(3) Floating (4) Ciliary
BC0900

97. Protist used for the construction of sound proof rooms, is -
(1) Dinoflagellate (2) Diatoms
(3) Euglenoids (4) Zooflagellates
BC0901

98. Protists which are diploid reproduce sexually by the process of -
(1) Zygotic meiosis
(2) Cyst formation
(3) Binary fission
(4) Gametic meiosis
BC0903

99. 'Red tides' are produced by -
(1) Red algae (2) Dinoflagellates
(3) Diatoms (4) Brown algae
BC0904

KINGDOM – FUNGI

100. Fungal hyphae penetrate hard cell walls of their hosts with the help of:-
(1) Enzymes (2) Hormones
(3) Sharp tips (4) Sugar Exudates
BC0905

101. Which of the following secretes toxins during storage conditions of crop plants ?
(1) *Aspergillus*
(2) *Penicillium*
(3) *Fusarium*
(4) *Colletotrichum*
BC0907

102. Which of the following characters indicate similarity between fungi and animals ?
(1) Heterotrophic nutrition
(2) Type of stored food
(3) Presence of chitin
(4) All the above
BC0908

103. The sac fungi belongs to :-
(1) Ascomycetes (2) Basidiomycetes
(3) Phycomycetes (4) Deuteromycetes
BC0909

104. *Neurospora*, which is popularly known as *Drosophilla* of plant kingdom, belongs to :-
(1) Phycomycetes (2) Ascomycetes
(3) Basidiomycetes (4) Deuteromycetes
BC0910

105. The basidiomycetes includes :-
(1) Rusts (2) Smuts
(3) Mushrooms (4) All the above
BC0911

106. Which of the following causes wheat rust disease?
(1) A red alga (2) A green alga
(3) A fungus (4) Mycoplasma
BC0912

107. *Penicillium* fungi belong to class :-
(1) Zygomycetes (2) Oomycetes
(3) Deuteromycetes (4) Ascomycetes
BC0914

108. The fungi are :-
(1) Autotrophic (2) Holotrophic
(3) Chemotrophic (4) Heterotrophic
BC0915

109. All fungi are :-
(1) With chlorophyll
(2) Without chlorophyll
(3) With carotene
(4) Wall less
BC0916

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110. In class phycomycetes the mycelium is :-
(1) Coenocytic and aseptate
(2) Coenocytic and septate
(3) Uninucleate and aseptate
(4) Multinucleate and septate

BC0917

111. Coenocytic mycelium is found in :-
(1) *Rhizopus* (2) *Mucor*
(3) *Penicillium* (4) Both 1 and 2

BC0918

112. Stored food material of fungi :-
(1) Cellulose
(2) Starch
(3) Glycogen and starch
(4) Glycogen and oil

BC0919

113. The cell wall of Fungi is composed of:-
(1) Chitin (2) Cellulose
(3) Mucopeptide (4) Pseudomurein

BC0920

114. The chief characteristic of class Ascomycetes is :-
(1) Formation of spores
(2) Hyphae
(3) Formation of ascospores
(4) Formation of zoospores

BC0921

115. Which is commonly called "*Drosophilla* of plant kingdom" ?
(1) *Morchella* (2) *Neurospora*
(3) *Rhizopus* (4) *Claviceps*

BC0922

116. Normally how many ascospores are formed in an ascus :-
(1) 4 – ascospores
(2) 8 - ascospores
(3) 16 ascospores
(4) 24 ascospores

BC0923

117. Edible part in mushrooms is :-
(1) Basidiospores
(2) Mycelium
(3) Pseudomycelium
(4) Complete basidiocarp

BC0924

118. Penicillin is obtained from:-
(1) *Chara* (2) *Penicillium*
(3) *Aspergillus* (4) *Albugo*

BC0926

119. Cell wall of Chitin is found in :-
(1) Fungi (2) Bryophyta
(3) Bacteria (4) Angiosperms

BC0927

120. The fungus without mycelium is :-
(1) *Phytophthora* (2) *Rhizopus*
(3) *Saccharomyces* (4) *Microsporum*

BC0928

121. Pseudomycelium occurs in :–
(1) Muschroom (2) *Mucor*
(3) Bread mold (4) Yeast

BC0930

122. Occurence of dikaryotic mycelium mainly is the characteristic of :–
(1) Myxomycetes
(2) Phycomycetes
(3) Deuteromycetes
(4) Basidiomycetes

BC0931

123. Deuteromycetes are called 'Imperfect fungi' as :–
(1) They have no cell wall
(2) No mycelium
(3) No sexual reproduction
(4) No asexual reproduction

BC0932

124. Absorptive mode of nutrition is found in :–
(1) Algae (2) Fungi
(3) Bryophytes (4) Euglenoids

BC0935

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125. Which of the following is called 'toad stools' ?
(1) All mushrooms
(2) Edible mushrooms
(3) Poisonous mushrooms
(4) None
BC0936

126. Yeast grows more quickly in :–
(1) Salt water
(2) Sugar solution
(3) Double distilled water
(4) Marine water
BC0937

127. Which of the following is a form class ?
(1) Deuteromycetes (2) Basidiomycetes
(3) Rhodophyceae (4) Euglenophyceae
BC0938

128. Ergot fungi belongs to :–
(1) Ascomycetes (2) Basidiomycetes
(3) Phycomycetes (4) Deuteromycetes
BC0939

129. Fungi are ecologically important because :-
(1) They yield antibiotics
(2) They are used in genetic studies
(3) They function as decomposers
(4) All the above
BC0941

130. Citric acid is obtained from
(1) *Streptomyces* (2) *Aspergillus*
(3) *Penicillium* (4) *Albugo*
BC0942

131. In fungi lump of hyphae is referred to as :-
(1) Thallus (2) Haustorium
(3) Mycelium (4) Archegonia
BC0943

132. Sexual reproduction is absent in :-
(1) Phycomycetes (2)Deuteromycetes
(3) Zygomycetes (4) Basidiomycetes
BC0945

133. Non-septate mycelium occurs in :-
(1) Phycomycetes
(2) Ascomycetes
(3) Basidiomycetes
(4) Deuteromycetes
BC0946

134. Basidiocarp is present in:-
(1) Basidiomycetes (2) Ascomycetes
(3) Deuteromycetes (4) Phycomycetes
BC0947

135. All fungi are:-
(1) Symbionts (2) Parasites
(3) Saprophytes (4) Heterotrophs
BC0948

136. Aspergillosis is caused by :–
(1) Virus (2) Bacteria
(3) Fungi (4) Mycoplasma
BC0949

KINGDOM – PLANTAE – ALGAE

137. Which algal groups have similarity in pigment composition ?
(1) Red algae and brown algae
(2) Green algae and blue green algae
(3) Kelps and diatoms
(4) Diatoms and euglenoids
PD0160

138. Autotrophic thallophytes are called as :-
(1) Fungi (2) Lichens
(3) Algae (4) Microbes
PD0161

139. Parasitic algae is :-
(1) *Laminaria* (2) *Fucus*
(3) *Sargassum* (4) *Cephaleuros*
PD0162

140. "Red rust of tea" is caused by parasitic:-
(1) Algae (2) Fungi
(3) Bacteria (4) Bryophyta
PD0163

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141. No zoospore formation has been observed in the algal members belonging to:-
(1) Chlorophyceae
(2) Brown algae
(3) Phaeophyceae
(4) Cyanophyceae

PD0164

142. Which pigment is found in phaeophyceae?
(1) Chl. a, c and fucoxanthin
(2) Chl. a, d and violaxanthin
(3) β Carotene and phycocyanin
(4) None of these

PD0165

143. Food reserve in Rhodophyta is :-
(1) Floridean starch (2) Mannitol
(3) Leucosin (4) All of the above

PD0166

144. Zygotic meiosis is characteristic of :-
(1) Procaryotes
(2) Thallophyta
(3) Bryophyta
(4) Spermatophyta

PD0167

145. Photosynthetic pigments common to all algae :-
(1) Chlorophyll 'b' and carotene
(2) Chlorophyll 'a' and 'b'
(3) Chlorophyll 'a' and carotene
(4) Chlorophyll and xanthophyll

PD0168

146. Deepest algae in sea are :-
(1) Red Algae (2) Brown Algae
(3) Green Algae (4) Golden Algae

PD0170

147. Phycobilins are characteristic pigments of :-
(1) Rhodophyta and phaeophyta
(2) Rhodophyta and Pyrophyta
(3) Pyrophyta and Cyanophyta
(4) Rhodophyta and Cyanophyta

PD0171

148. Which of the following plant groups have similar pigment composition ?
(1) Rhodophyta and phaeophyta
(2) Chlorophyta and phaeophyta
(3) Rhodophyta and cyanophyta
(4) All of the above

PD0172

149. Globule and nucule are sex organs of :–
(1) *Chara* (2) *Chlorella*
(3) *Laminaria* (4) *Polysiphonia*

PD0173

150. Green algae are considered as ancestors of higher plants due to their resemblance with higher plants in :-
(1) Pigments (2) Cell wall
(3) Stored food (4) All the above

PD0175

151. Pyrenoids are characteristically found in algae. A pyrenoid consists of :-
(1) Core of starch surrounded by protein
(2) Core of protein surrounded by starch
(3) Core of fatty acids covered by starch
(4) Nucleic acid and protein

PD0176

152. In chlorophyta the mode of sexual reproduction is :-
(1) Isogamy
(2) Anisogamy
(3) Oogamy
(4) Isogamy, Anisogamy and oogamy

PD0177

153. Unique character of Thallophyta is :-
(1) Thalloid body
(2) Absence of vascular tissue
(3) Zygotic meiosis
(4) All the above

PD0178

154. Sexual reproduction in Thallophyta takes place by:-
(1) Isogamy (2) Anisogamy
(3) Oogamy (4) Any of the above

PD0180

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155. Most advanced group of Algae is :-
(1) Myxophyta (2) Chlorophyta
(3) Brown algae (4) Phaeophyta
PD0181

156. "Agar-agar" is obtained from :-
(1) Green Algae
(2) Red Algae
(3) Brown Algae
(4) Yellow green Algae
PD0182

157. Motile stages are not found in life cycle of:-
(1) Red Algae & green Algae
(2) Red Algae & brown Algae
(3) Red Algae & blue green Algae
(4) Green Algae & brown Algae
PD0183

158. Embryo is not formed in thallophyta due to:-
(1) Zygotic meiosis
(2) Zygotic mitosis
(3) Sporangial meiosis
(4) Gametic meiosis
PD0184

159. Oogonia of Thallophyta differs with archegonia of bryophyta :-
(1) Being multicellular
(2) Being jacketed
(3) Being stalked
(4) Being unicellular and jacket less
PD0185

160. *Volvox* belongs to :-
(1) Brown Algae (2) Red Algae
(3) Golden Algae (4) Green Algae
PD0188

161. Gametes are non-motile in :-
(1) Blue green Algae (2) Red Algae
(3) Both 1 and 2 (4) Green Algae
PD0189

162. Blue - green algae resembles more closely to:-
(1) Green Algae
(2) Brown Algae
(3) Red Algae and bacteria
(4) Slime molds
PD0190

163. Which of the following statement is true for algae ?
(1) Algae have root, stem and leaves
(2) Algae have true roots but lack leaves
(3) Algae have rhizoides and leaves
(4) Body of algae is thallus
PD0191

164. In which plant group reproductive organs are not enclosed in a layer of sterile cells?
(1) Pteridophyta (2) Thallophyta
(3) Angiosperm (4) Gymnosperm
PD0192

165. Classification of algae is mainly based on :-
(1) Reproductive organs
(2) Structure of spores
(3) Pigments
(4) Stored food
PD0193

166. "Carrageenin" is obtained from :-
(1) *Chondrus crispus* (2) *Laminaria*
(3) *Gelidium* (4) *Macrocystis*
PD0194

167. Female sex organ of algae is called :-
(1) Carpel (2) Oogonium
(3) Archegonia (4) Oosphere
PD0195

168. Which of the following is not correctly matched ?
(1) Heterocyst = N_2-fixation structure of B.G.A.
(2) Hormogonia= Reproductive structure of B.G.A
(3) Floridean starch = Stored food of brown algae
(4) Cyanophycean starch = Stored food of B.G.A.
PD0196

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169. Cilia & flagella are absent in life cycle of :–
(1) Red algae
(2) Brown algae
(3) Green algae
(4) Red algae & B.G.A.

PD0197

KINGDOM–PLANTAE – BRYOPHYTA

170. Embryo is present but true vasculature is absent in the group :-
(1) Cyanophyta (2) Tracheophyta
(3) Bryophyta (4) Chlorophyta

PD0199

171. The unique feature of bryophytes compared to other green plant groups is that:-
(1) They produce spores
(2) They lack vascular tissue
(3) They lack root
(4) Their sporophyte is attached to gametophyte

PD0200

172. In bryophytes diploid number of chromosomes occur in:-
(1) Gametes
(2) Spores
(3) Spore mother cells
(4) Nuclei of gametes

PD0201

173. The group bryophyta includes :-
(1) Liverworts and ferns
(2) Liverworts and club moss
(3) Moss and ferns
(4) Liverworts and moss

PD0202

174. A leafy non vascular plant with dependent sporophytic generation should properly be classified in
(1) Thallophyta (2) Bryophyta
(3) Pteridophyta (4) Spermatophyta

PD0203

175. Bryophyta includes :-
(1) Mosses (2) Psilopsida
(3) Horse tails (4) All the above

PD0204

176. A leafy gametophyte plant with multicellular rhizoids and sporophyte differentiated in foot, seta and capsule should belong to :-
(1) Psilopsida (2) Hepaticopsida
(3) Bryopsida (4) Lycopsida

PD0205

177. Bryophytes differ from thallophytes in having:-
(1) Embryo
(2) Rhizoids
(3) Sterile jacket around sex organs
(4) All the above

PD0206

178. Spores do not form protonema but directly grow into flat branching thallus in :-
(1) Liverworts (2) Mosses
(3) Ferns (4) Gymnosperms

PD0207

179. In bryophyta, simplest sporophyte occur in:-
(1) *Riccia* (2) *Marchantia*
(3) *Funaria* (4) *Anthoceros*

PD0208

180. In which of the following bryophytes there are gemmae, the means of vegetative reproduction?
(1) *Riccia* (2) *Marchantia*
(3) *Sphagnum* (4) *Anthoceros*

PD0209

181. In Bryophytes what is absent :-
(1) Embryo formation
(2) Fertilization
(3) Motile gametes
(4) True roots and vascular tissue

PD0210

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182. In bryophytes fertilization takes place:-
(1) At low temp.
(2) In dry condition
(3) In presence of water
(4) In above all situation

PD0211

183. Which statement is true about bryophytes?
(1) They are non photosynthetic
(2) Zygote produces gametophyte on germination
(3) Spores form gametophyte plant on germination
(4) They have vascular tissues

PD0212

184. Which bryophyte is of economic importance ?
(1) *Funaria* (2) *Marchantia*
(3) *Riccia* (4) *Sphagnum*

PD0213

185. Mosses are gregarious because they :-
(1) Have vascular tissue
(2) Have indirect germination of spores
(3) Have direct germination of spores
(4) Have spore mother cells

PD0214

186. Aquatic ancestry of bryophytes is evidenced by:-
(1) Their green colour
(2) Algae like protonema
(3) Many aquatic bryophytes
(4) Flagellated male gametes

PD0215

187. Moss sporophyte is diffrentiated in :-
(1) Stem & leaves
(2) Root, stem and leaves
(3) Rhizoids, stem & leaves
(4) None of these

PD0216

188. Oblique septa are found in which part of moss :-
(1) Rhizoids of sporophyte
(2) Rhizoids of gametophyte
(3) Leaves
(4) Stem

PD0217

189. Leaves of Mosses and Ferns are :-
(1) Analogous and homologous both
(2) Analogous but not homologous
(3) Homologous but not analogous
(4) None of the above

PD0218

190. Which of the following plants are similar in requirement of water for fertilisation ?
(1) Bryophyta
(2) Pteridophyta
(3) Angiosperm
(4) (1) and (2) both

PD0219

191. The bryophyte which have great water holding capacity :-
(1) *Anthoceros* (2) *Sphagnum*
(3) *Funaria* (4) *Marchantia*

PD0220

192. In which of the following zygote further develops to form a diploid structure ?
(1) Thallophyta (2) Bryophyta
(3) Algae (4) Fungi

PD0221

193. Bryophytes are :–
(1) First successful land plant
(2) Vascular cryptogames
(3) Non vascular cryptogames
(4) Vascular embryophytes

PD0222

194. Sex organ in bryophytes are :–
(1) Unicellular and jacketed
(2) Unicellular and non-jacketed
(3) Multicellular and jacketed
(4) Multicellular and non jacketed

PD0223

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195. Fossilised fuel obtained from bog is:-
(1) Tar (2) Peat
(3) Bio-gas (4) Petrol
PD0224

196. Which structure produces the gamete bearing plant of moss ?
(1) Spore (2) Bud
(3) Protonema (4) Zygote
PD0225

197. Which bryophyte is known as Peat moss ?
(1) *Riccia* (2) *Riella*
(3) *Sphagnum* (4) *Marchantia*
PD0227

198. Leafy gametophyte occurs in:-
(1) Liver worts (2) Horn worts
(3) Moss (4) Fern
PD0228

199. *Sphagnum* may be used as a substitute of :-
(1) Absorbent cotton
(2) Non absorbent cotton
(3) Plastic
(4) Polythene
PD0230

200. Non vascular embryophyta are :-
(1) Thallophyta (2) Bryophyta
(3) Pteridophyta (4) (1) and (2) both
PD0231

201. The water conducting tissue in bryophyta is:-
(1) Parenchyma (2) Sclerenchyma
(3) Tracheids (4) Sieve tubes
PD0232

202. The first cell of sporophytic generation in bryophyta is:-
(1) Spore
(2) Spore mother cell
(3) Zygote
(4) Protonema
PD0234

203. Structures for dispersal of spores in bryophyta are :-
(1) Elaters (2) Pseudoelaters
(3) Peristomial teeth (4) All the above
PD0235

204. Oblique septa in rhizoids are characteristic of :-
(1) Liverworts (2) Hornworts
(3) Mosses (4) Ferns
PD0236

205. In which bryophyta germination of spore is indirect:-
(1) *Riccia* (2) *Rhizopus*
(3) *Puccinia* (4) *Funaria*
PD0237

206. Male gametes of bryophytes are :-
(1) Uniflagellate
(2) Multiflagellate
(3) Biflagellate
(4) Triflagellate
PD0238

207. The vascular tissue is absent in :-
(1) Algae, fungi and pteridophytes
(2) Thallophytes and bryophytes
(3) Bryophytes and pteridophytes
(4) Angiosperm and gymnosperm
PD0240

208. The sporophyte of bryophyte is :-
(1) Parasitic
(2) Autotrophic
(3) Saprophytic
(4) Semiparasitic or parasitic
PD0241

209. Non vascular land plants are called:-
(1) Bryophtyes
(2) Pteridophytes
(3) Fungi
(4) Algae
PD0242

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KINGDOM–PLANTAE – PTERIDOPHYTA

210. Vascular cryptogams or seed less vascular plants belongs to:-

(1) Bryophyta (2) Pteridophyta

(3) Thallophyta (4) Spermatophyta

PD0243

211. Most conspicuous alternation of generation occurs is:-

(1) Thallophyta (2) Bryophyta

(3) Pteridophyta (4) Spermatophyta

PD0245

212. Rhizoids containing sporophytic plants are characteristic of:-

(1) Bryopsida (2) Spenopsida

(3) Cycadophyta (4) Psilopsida

PD0246

213. Which group includes green leaf microphyllous plants:-

(1) Lycopsida (2) Sphenopsida

(3) Psilotopsida (4) Pteropsida

PD0247

214. Roots first originated in :-

(1) Algae (2) Fungi

(3) Bryophyta (4) Pteridophyta

PD0248

215. In pteridophyta, reduction division occurs when:-

(1) Prothallus is formed

(2) Spores are formed

(3) Sex organs are formed

(4) Gametes are formed

PD0250

216. The main plant body of pteridophytes is:-

(1) Sporophyte

(2) Gametophyte

(3) Haploid

(4) None of the above

PD0251

217. Cryptogamic plants are:-

(1) Seedless (2) Embryoless

(3) Leafless (4) Rootless

PD0252

218. *Adiantum* is called "walking fern" due to :-

(1) Power of locomotion

(2) Vegetative reproduction

(3) Motile antherozoites

(4) All the above

PD0253

219. Plants having vascular tissues but lacking seeds are :-

(1) Bryophyta

(2) Pteridophyta

(3) Gymnosperms

(4) Angiosperms

PD0254

220. Heterospory occurs in :-

(1) *Selaginella* (2) *Pteridium*

(3) *Funaria* (4) *Riccia*

PD0255

221. Sporangia are found in fruiting structures called sporocarps in aquatic ferns, which of the following is aquatic fern :–

(1) *Salvinia* (2) *Selaginella*

(3) *Pteridium* (4) *Equisetum*

PD0256

222. The antherozoids of fern are :–

(1) Uniflagellate

(2) Biflagellate

(3) Quadriflagellate

(4) Multiflagellate

PD0257

223. In pteridophytes the spores germinate to form:-

(1) Protonema (2) Prothallus

(3) Sporophyte (4) Archegonium

PD0258

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224. Aquatic fern which supports the growth of blue green algae, *Anabaena*, and used to increase the yield of paddy crop is :-
(1) *Salvinia* (2) *Marsilea*
(3) *Selaginella* (4) *Azolla*

PD0259

225. Most distinct type of alternation of generations is demonstrated by :–
(1) Angiosperms (2) Ferns
(3) Gymnosperms (4) Bryophytes

PD0260

226. Presence of motile stage in life cycle & requirement of water as a medium to complete life cycle is diagnostic characters of :–
(1) Thallophyta (2) Bryophyta
(3) Pteridophyta (4) Cryptogams

PD0261

227. Evolution of seed habit first started in :-
(1) *Selaginella* like ancestral pteridophytes
(2) *Psilotum* like ancestral pteridophytes
(3) Gymnosperms
(4) Mosses

PD0262

228. Which is an aquatic fern
(1) *Psilotum* (2) *Salvinia*
(3) *Chara* (4) *Lycopodium*

PD0263

229. In ferns, the permanent roots are :-
(1) Tap root
(2) Adventitious roots
(3) Tuberous roots
(4) Rhizome

PD0264

230. Independent alternation of generation is found in-
(1) Pteridophyta (2) Spermatophyta
(3) Thallophyta (4) Bryophyta

PD0265

231. Stem distinctly differentiated in to node and internode in :-
(1) Psilopsida (2) Lycopsida
(3) Sphenopsida (4) Pteropsida

PD0266

232. Spore producing part of pteridophytes is:-
(1) Sporangia of gametophytes
(2) Capsule of sporophytes
(3) Sporangia of sporophytes
(4) Capsule of gametophytes

PD0267

233. In pteridophytes, reduction division takes place in :-
(1) Zygote
(2) Spore mother cells
(3) Gametangia
(4) Prothallus

PD0268

KINGDOM–PLANTAE – GYMNOSPERM

234. Most advanced Gymnosperm belongs to:-
(1) Cycadales
(2) Coniferales
(3) Gnetales
(4) Cycadofillicales

PD0269

235. Which of the following is called father of forest?
(1) *Pinus* (2) *Banyan*
(3) *Sequoia* (4) *Cedrus*

PD0270

236. Gymnosperm plants lack :-
(1) Vessels
(2) Fruits
(3) Companion cells
(4) All the above

PD0272

237. Gymnosperm plants do not produce fruits because they do not have:-
(1) ovary (2) gametes
(3) fertilization (4) None of these

PD0273

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238. Ovule is morphologically equivalent to:-
(1) Megaspore
(2) Megasporangium
(3) Microspore
(4) Megasporophyll

PD0274

239. Cones in gymnosperm plants are usually :-
(1) Bisexual (2) Unisexual
(3) Sterile (4) Any of the above

PD0275

240. Gametophyte depends on sporophyte in:-
(1) Bryophyta (2) Pteridophyta
(3) Cryptogams (4) Spermatophyta

PD0279

241. Antheridia and archegonia both are absent in :-
(1) Bryophyta (2) Pteridophyta
(3) Gymnosperms (4) Angiosperms

PD0280

242. Ephedrine is obtained by :-
(1) *Ephedra* (2) *Gnetum*
(3) *Pinus* (4) *Cycas*

PD0281

243. Resin turpentine is obtained from:-
(1) *Pinus* (2) *Adiantum*
(3) Club mosses (4) *Sequoia*

PD0282

244. Which group is largest in gymnosperms ?
(1) Cycadales (2) Gnetales
(3) Coniferales (4) Cordaitales

PD0283

245. Spore bearing tracheophytes (Vascular plants) :-
(1) Pteridophyta
(2) Gymnosperms
(3) Angiosperms
(4) All the above

PD0284

246. Which of the following Gymnospermic orders resembles with angiosperms ?
(1) Cycadales (2) Coniferales
(3) Gnetales (4) Ginkgoales

PD0285

247. Living fossil:-
(1) *Cycas*
(2) *Ginkgo*
(3) *Psilotum*
(4) All the above

PD0286

248. *Sequoia* belongs to:-
(1) Cycadofillicales (2) Gnetales
(3) Coniferales (4) Dicots

PD0287

249. Which of the following are absent in group gymnosperm ?
(1) Trees (2) Shrubs
(3) Liana (4) Herbs

PD0288

250. Which plant group is exclusively perennial ?
(1) Dicots (2) Ferns
(3) Gymnosperms (4) Monocots

PD0289

251. In *Ginkgo*, male gametes are :-
(1) Motile
(2) Non-motile
(3) Amoeboid
(4) Absent

PD0290

252. Male gamete of *Cycas* is largest in plant kingdom, is :-
(1) Non motile
(2) Biflagellate
(3) Multiciliate
(4) Uniflagellate

PD0291

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253. The mode of pollination in gymnosperme is:-
(1) Anemophily
(2) Entomophily
(3) Hydrophily
(4) Any of the above

PD0292

254. Which of the following order of gymnosperme is totally become extinct ?
(1) Cycadales (2) Ginkgoales
(3) Gnetales (4) Cycadofilicales

PD0293

255. Which of the following remained unchanged for last many million years ?
(1) *Pinus* (2) Rice
(3) *Cedrus* (4) *Ginkgo*

PD0294

256. Life cycle of gymnosperm is :-
(1) Haplontic (2) Haplodiplontic
(3) Diplontic (4) Diplohaplontic

PD0295

257. Which of the following is commonly known as "Chilgoza pine" ?
(1) *Cycas* (2) *Cedrus*
(3) *Pinus* (4) *Ginkgo*

PD0296

258. In pteridophytes and gymnosperm sporangia are born on which side of sporophyll :–
(1) Adaxial (2) Abaxial
(3) Lateral (4) Terminal

PD0298

259. Fruits are not formed in gymnosperm because :–
(1) Fertilization is absent
(2) Pollination is absent
(3) Seeds are not formed
(4) Ovary is absent

PD0300

260. Gymnosperms differ from pteridophytes in having–
(1) Presence of tracheids
(2) Presence of embryo
(3) Presence of ovule
(4) Companian cell

PD0302

261. Most gymnosperms have :–
(1) Both archegonia and antheridia
(2) Antheridia but no archegonia
(3) Archegonia but no antheridia
(4) No antheridia or archegonia

PD0303

262. The "endosperm" of a gymnosperm represent :–
(1) Gametophytic tissue
(2) Sporophytic tissue
(3) Tissue formed by double fertilization
(4) Polyploid tissue

PD0304

263. Vessels occur in the following gymnosperm plant:–
(1) *Ginkgo*
(2) *Taxus*
(3) *Gnetum*
(4) All the above

PD0305

264. In gymnosperm endosperm is :–
(1) Triploid
(2) Diploid
(3) Haploid
(4) Tetraploid

PD0306

265. Which of the following plant form seed and have pollen tube ?
(1) Angiosperm
(2) Pteridophytes
(3) Gymnosperm
(4) Siphonogamous plants

PD0309

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266. Modern day (Advanced) plants are:-
(1) Monocots
(2) Dicots
(3) Gnetales
(4) Ferns

PD0310

267. Which group of plants is exclusively arborescent (woody) ?
(1) Pteridophyta
(2) Dicots
(3) Gymnosperms
(4) Monocots

PD0311

LIVING WORLD

268. Find the incorrect statements from the followings :-
(1) Growth, reproduction and consciousness are features of living organisms
(2) Growth and reproduction are defining characteristics of living organisms
(3) Metabolism, cellular organisation and consciousness are defining characters of livings
(4) Living organisms are self replicating, evolving and self regulating.

LW0716

269. Which is a group of organisms in which reproduction is synonymous with growth :-
(1) *Amoeba*, bacteria and unicellular algae
(2) Algae, fungi and lichen
(3) Lower organisms
(4) Higher multicellular organisms

LW0717

270. Reproduction can not be taken as defining property of living because -
(1) Unicellular organisms reproduce by cell division.
(2) Multicellular organisms reproduce by both, asexual and sexual methods.
(3) Few organisms on the earth are of sterile nature also
(4) Reproduction property is present in all living organisms

LW0722

271. Metabolism can be exhibited by ?
(1) Only plant
(2) Plant and animal both
(3) Plant, animal and fungi only
(4) Plant animal, fungi and microbes

LW0723

272. Metabolism can be defined as ?
(1) Sum total of all chemical reactions hapens out side the body.
(2) Chemical reactions take place in particular cells.
(3) Sum total of all chemical reactions occurring in living body.
(4) Sum total of all chemical reactions occurring outside the cells.

LW0724

273. Living organisms can respond against ?
(1) Physical and chemical stimuli
(2) Chemical and biological stimuli
(3) Both (1) and (2)
(4) None of these

LW0726

274. The property of self conscionsness can be observed?
(1) In non vertebrates
(2) In vertebrates
(3) In human beings
(4) In all mammals

LW0727

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275. Consider the following characteristics :-

(A) Growth

(B) Reproduction

(C) Consciousness

(D) Cellular Organisation

Which of the above feature is/ are not the defining properties of are living organisms?

(1) A, B, C, D

(2) A, B, C

(3) C, D

(4) A, B

LW0730

276. Which of the following can grow but cannot reproduce ?

(1) Single celled organisms

(2) Living organisms

(3) Non-livings only

(4) Both (1) & (3)

LW0731

277. Twin characters of growth in organisms are

(1) Increase in mass

(2) Increases in number

(3) Increases in height

(4) Both (1) & (2)

LW0732

278. Stimulus can be ?

(1) Only physical type

(2) Only chemical type

(3) Only biological type

(4) All of the above

LW0725

VIRUS, VIROIDS, LICHEN, MYCORRHIZA

279. Why viruses did not find a place in classification?

(1) They are obligate parasities, cannot surive without host.

(2) Viruses are unicellular organisms so can not be included in livings.

(3) They are not truly living because they don't have cell structure.

(4) They can pass through the bacteria proof filter

BC0950

280. Which of the followings is/are symbiotic associations between autotrophic and heterotrophic organisms only

(A) Mycorrhiza between fungi and roots of higher plants

(B) Lichen between phycobiont and mycobiont.

(C) Coralloid roots of *Cycas* having cyanobacteria

(D) Obligate association between *Pinus* roots and fungi making mycorrhizae.

(1) A & B

(2) B & C

(3) A, B & C

(4) A, B & D

BC0951

281. Bacteriophages are made of both proteins and genetic material. Their genetic material is generally-

(1) ss DNA (2) ds DNA

(3) ss RNA (4) ds RNA

BC0952

282. Find the correct from the followings.

(1) T.O. Diener discovered a new infectious agent, smaller than virus and named them as prions.

(2) Viroids lack the protein coat and made of only free RNA

(3) The RNA of viroids is of high molecular weight

(4) Lichens are very good pollution indicators as they grow only in polluted areas.

BC0953

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283. Match the column A with column B and find out the correct as shown ?

Column-A	Column-B
a. Pollution indicator	p. Fungal component
b. Mycobiont	q. Viroid
c. Potato spindle tuber disease	r. Lichen
d. Obligate parasite	s. Virus

(1) a - r, b - p, c - s, d - q
(2) a - r, b - s, c - p, d - q
(3) a - s, b - r, c - p, d - q
(4) a - r, b - p, c - q, d - s

BC0954

284. In lichen fungal component is responsible to provide?
(1) Shelter to phycobiont
(2) Mineral absorption
(3) Water absorption
(4) All of the above

BC0955

285. The protein coat of viruses is called :
(1) Capsomeres (2) Capsid
(3) Sheath (4) Envelope

BC0956

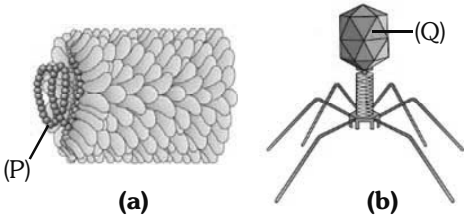
286. Lichens are :
(1) Symbiotic association between algae and fungi
(2) Pollution indicators
(3) Not placed in any kingdom by R.H. Whittaker
(4) All of these are correct

BC0957

287. Phycobiont is a :
(1) algal, autotrophic component of mycorrhiza
(2) fungal, heterotrophic component of lichen
(3) fungal component of mycorrhiza
(4) algal, autotrophic component of lichen

BC0958

288.



(a) **(b)**

Identify the (a) & (b) figure and their (P) and (Q) part.
(1) a - Tobacco Mosaic virus P → RNA
b - Bacteriophage Q → Head
(2) a - Bacteriophage P → RNA
b - Tobacco Mosaic virus Q → Head
(3) a - Potato Mosaic virus P → Head
b - Cyanophage Q → RNA
(4) a - Smallpox virus P → RNA
b - Influenza virus Q → Head

BC0959

289. Choose the **incorrect** pair :-
(1) Virus – Nucleocapsid
(2) Viroids – Only RNA
(3) Lichen – Algae and fungi
(4) Mycorrhiza – BGA and higher plants

BC0960

290. Which of the given organism(s) belong to kingdom protista according to five kingdom system?
(A) Virus (B) *Euglena*
(C) Viroids (D) Lichen
(1) A and B
(2) C and D
(3) Only B
(4) A and C

BC0961

291. The transfer of genetic material from one bacterium to other bacterium from virus, is called:-
(1) Conjugation
(2) Transduction
(3) Transformation
(4) Crossing over

BC0962

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EXERCISE-I (Conceptual Questions) ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	2	1	4	1	1	4	3	4	2	2	4	3	4	3	3
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	4	1	1	3	1	2	3	3	1	1	1	3	3	4	4
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	4	3	3	2	4	3	3	4	4	2	2	1	3	2	2
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	4	1	3	1	1	2	2	3	2	1	2	3	1	2	1
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	1	3	1	2	4	1	2	2	3	3	3	1	3	2	4
Que.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Ans.	1	2	3	1	3	3	4	1	2	3	3	3	2	2	3
Que.	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Ans.	2	1	2	4	1	3	2	4	2	1	1	4	1	2	4
Que.	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Ans.	3	4	4	2	1	4	4	1	3	2	2	4	2	1	3
Que.	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135
Ans.	4	4	3	2	3	2	1	1	3	2	3	2	1	1	4
Que.	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
Ans.	3	3	3	4	1	4	1	1	2	3	1	4	3	1	4
Que.	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165
Ans.	2	4	3	4	2	2	3	1	4	4	2	3	4	2	3
Que.	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Ans.	1	2	3	4	3	4	3	4	2	1	3	4	1	1	2
Que.	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195
Ans.	4	3	3	4	2	4	4	2	2	4	2	2	3	3	2
Que.	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210
Ans.	2	3	3	1	2	1	3	4	3	4	3	2	4	1	2
Que.	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225
Ans.	3	4	1	4	2	1	1	2	2	1	1	4	2	4	2
Que.	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
Ans.	4	1	2	2	1	3	3	2	3	3	4	1	2	2	4
Que.	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255
Ans.	4	1	1	3	4	3	4	3	4	3	1	3	1	4	4
Que.	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270
Ans.	3	3	2	4	3	3	1	3	3	4	1	3	2	1	3
Que.	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285
Ans.	4	3	3	3	4	3	4	4	3	4	2	2	4	4	2
Que.	286	287	288	289	290	291									
Ans.	4	4	1	4	3	2									

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EXERCISE-II (Previous Year Questions) AIPMT/NEET

AIPMT 2006

1. Conifers differ from grasses in the

(1) absence of pollen tubes

(2) formation of endosperm before fertilization

(3) production of seeds from ovules

(4) lack of xylem tracheids

PD0312

2. The thalloid body of a slime mould (Myxomycetes) is known as :

(1) Fruiting body

(2) Mycelium

(3) Protonema

(4) Plasmodium

BC0964

3. Moss peat is used as a packing material for sending flowers and live plants to distant places because :

(1) it reduces transpiration

(2) it serves as a disinfectant

(3) it is easily available

(4) it is hygroscopic

PD0314

4. In a moss the sporophyte :

(1) arises from a spore produced from the gametophyte

(2) manufactures food for itself, as well as for the gametophyte

(3) is partially parasitic on the gametophyte

(4) produces gametes that give rise to the gametophyte

PD0315

5. Curing of tea leaves is brought about by the activity of :

(1) viruses (2) fungi

(3) bacteria (4) mycorrhiza

BC0965

6. The bacterium (*Clostridium botulinum*) that causes botulism is :

(1) a facultative aerobe

(2) an obligate aerobe

(3) a facultative anaerobe

(4) an obligate anaerobe

BC0966

7. Evolutionary history of an organism is known as :

(1) Paleontology (2) Ontogeny

(3) Phylogeny (4) Ancestry

DL0318

8. Two microbes found to be very useful in genetic engineering are :

(1) *Diplococcus* sp. and *Pseudomonas* sp.

(2) Crown gall bacterium and *Caenorhabditis elegans*

(3) *Escherichia coli* and *Agrobacterium tumefaciens*

(4) *Vibrio cholerae* and a tailed bacteriophage

BC0967

AIPMT 2007

9. Which one of the following is a slime mould?

(1) *Anabaena* (2) *Rhizopus*

(3) *Physarum* (4) *Thiobacillus*

BC0968

10. In the prothallus of a vascular cryptogam, the antherozoids and eggs mature at different times. As a result :

(1) Self fertilization is prevented

(2) There is no change in success rate of fertilization

(3) There is high degree of sterility

(4) One can conclude that the plant is apomictic

PD0325

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11. Two plants can be conclusively said to belong to the same species if they :
(1) Have same number of chromosomes
(2) Can reproduce freely with each other and form seeds
(3) Have more than 90 percent similar genes
(4) Look similar and possess identical secondary metabolites.

DL0326

12. If you are asked to classify the various algae into distinct groups, which of the following characters you should choose ?
(1) Chemical composition of the cell wall
(2) Types of pigments present in the cell
(3) Nature of stored food materials in the cell
(4) Structural organization of thallus

PD0327

13. Flagellated male gametes are present in all the three of which one of the following sets?
(1) *Riccia, Dryopteris* and *Cycas*
(2) *Anthoceros, Funaria* and *Spirogyra*
(3) *Zygnema, Saprolegnia* and *Hydrilla*
(4) *Fucus, Marsilea* and *Calotropis*

PC0328

14. In gymnosperms, the pollen chamber represents:
(1) The microsporangium in which pollen grains develop
(2) A cell in the pollen grain in which the sperms are formed
(3) A cavity in the ovule in which pollen grains are stored after pollination
(4) An opening in the megagametophyte through which the pollen tube approaches the egg

PD0329

15. Spore dissemination in some liverworts is aided by:
(1) Peristome teeth (2) Elaters
(3) Indusium (4) Calyptra

PD0330

16. Which pair of the following belongs to Basidiomycetes ?
(1) *Morchella* and Mushrooms
(2) Birds' nest fungi and Puffballs
(3) Pufballs and *Claviceps*
(4) *Peziza* and Stinkhorns

BC0969

17. ICBN stands for :
(1) Indian Code of Botanical Nomenclature
(2) Indian Congress of Biological Names
(3) International Code of Botanical Nomenclature
(4) International Congress of Biological Names

DL0332

18. Ergot of rye is caused by a species of :-
(1) *Claviceps* (2) *Phytophthora*
(3) *Uncinula* (4) *Ustilago*

BC0970

19. One gene - one enzyme relationship was established for the first time in :-
(1) *Diplococcus pneumoniae*
(2) *Neurospora crassa*
(3) *Salmonella typhimurium*
(4) *Escherichia Coli*

BC0971

20. Which of the following is a flowering plant with nodules containing filamentous nitrogen-fixing microorganism ?
(1) *Cicer arietinum*
(2) *Casuarina equisetifolia*
(3) *Crotalaria juncea*
(4) *Cycas revoluta*

BC0972

21. Which one of the following pairs is wrongly matched?
(1) *Coliforms* – Vinegar
(2) *Methanogens* – Gobar gas
(3) *Yeast* – Ethanol
(4) *Streptomycetes* – Antibiotic

BC0973

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AIPMT 2008

22. Thermococcus, Mtehanococcus and Methanobacterium exemplify :-

(1) Bacteria whose DNA is relaxed or positively supercoiled but which have a cytoskeleton as well as mitochondria

(2) Bacteria that contain a cytoskeleton and ribosomes

(3) Archaebacteria that contain protein homologous to eukaryotic core histones

(4) Archaebacteria that lack any histones resembling those found in eukaryotes but whose DNA is negatively supercoiled.

BC0974

23. Select one of the following pairs of important features distinguishing Gnetum from Cycas and Pinus and showing affinities with angiosperms :-

(1) Perianth and two integuments

(2) Embryo development and apical meristem

(3) Absence of resin duct and leaf venation

(4) Presence of vessel elements and absence of archegonia

PD0338

24. In which one of the following, male and female gametophytes do not have free living independent existence?

(1) Polytrichum (2) Cedrus

(3) Pteris (4) Funaria

PD0339

25. Which one of the following is heterosporous ?

(1) Adiantum

(2) Equisetum

(3) Dryopteris

(4) Salvinia

PD0340

26. In the light of recent classification of living organisms into three domains of life (bacteria, archaea and eukarya), which one of the following statements is true about archaea ?

(1) Archaea completely differ from both prokaryotes and eukaryotes

(2) Archaea completely differ from prokaryotes

(3) Archaea resemble eukarya in all respects

(4) Archaea have some novel features that are absent in other pyokaryotes and eukaryotes

BC0975

27. Cellulose is the major component of cell walls of:-

(1) Pseudomonas (2) Saccharomyces

(3) Pythium (4) Xanthomonas

BC0976

28. Bacterial leaf blight of rice is caused by a species of :-

(1) *Alternaria* (2) *Erwinia*

(3) *Xanthomonas* (4) *Pseudomonas*

BC0977

29. Nitrogen flxation in root nodules of Alnus is brought about by :-

(1) Frankia (2) Azorhizobium

(3) Bradyrhizobium (4) Clostridium

BC0978

AIPMT 2009

30. Which one of the following has haplontic life cycle:-

(1) Wheat (2) *Funaria*

(3) *Polytrichum* (4) *Ustilago*

BC0979

31. Mannitol is the stored food in :-

(1) *Gracillaria* (2) *Chara*

(3) *Porphyra* (4) *Fucus*

PD0346

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32. Which one of the following is a vascular cryptogam
(1) *Cedrus* (2) *Equisetum*
(3) *Ginkgo* (4) *Marchantia*
PD0347

33. Phylogenetic system of classification is based on:-
(1) Floral characters
(2) Evolutionary relationships
(3) Morphological features
(4) Chemical constituents
DL0348

34. Oxygenic photosynthesis occurs in :-
(1) *Chlorobium* (2) *Chromatium*
(3) *Oscillatoria* (4) *Rhodospirillum*
BC0980

35. Which one of the following is considered important in the development of seed habit ?
(1) Free-living gametophyte
(2) Dependent sporophyte
(3) Heterospory
(4) Haplontic life cycle
PD0350

36. Which one of the following plants is monoecious?
(1) Papaya (2) *Marchantia*
(3) *Pinus* (4) *Cycas*
PD0351

37. Which one is the wrong pairing for the disease and its causal organism ?
(1) Root-knot of vegetables – *Meloidogyne sp*
(2) Late blight of potato – *Alternaria solani*
(3) Black rust to wheat – *Puccinia graminis*
(4) Loose smut of wheat – *Ustilago nuda*
PD0352

38. Which of the following is a symbiotic nitrogen fixer?
(1) *Azolla* (2) *Glomus*
(3) *Azotobacter* (4) *Frankia*
BC0981

39. Which one of the following is commonly used in transfer of foreign DNA into crop plants ?
(1) *Penicillium expansum*
(2) *Trichoderma harzianum*
(3) *Meloidogyme incognita*
(4) *Agrobacterium tumefaciens*
BC0982

AIPMT 2010

40. Some hyperthermophilic organisms that grow in highly acidic (pH2) habitats belong to the two groups:
(1) Liverworts and yeasts
(2) Eubacteria and archaea
(3) Cyanobacteria and diatoms
(4) Protists and mosses
BC0983

41. Male and female gametophytes are independent and free-living in :-
(1) *Sphagnum* (2) Mustard
(3) Castor (4) *Pinus*
PD0356

42. Single-celled eukaryotes are included in :-
(1) Monera (2) Protista
(3) Fungi (4) Archaea
BC0984

43. Algae have cell wall made up of :
(1) Cellulose, hemicellulose and pectins
(2) Cellulose, galactans and mannans
(3) Hemicellulose, *pectins* and proteins
(4) Pectins, cellulose and proteins
PD0358

44. Membrane-bound organelles are absent in:
(1) *Plasmodium*
(2) *Saccharomyces*
(3) *Streptococcus*
(4) *Chlamydononas*
BC0985

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45. The chief water conducting elements of xylem in gymnosperms are :

(1) Tracheids

(2) Vessels

(3) Fibres

(4) Transfusion tissue

PD0360

46. One of the free-living, anaerobic nitrogen-fixer is:

(1) *Azotobacter*

(2) *Beijernickia*

(3) *Rhodospirillum*

(4) *Rhizobium*

BC0986

47. Ringworm in humans is caused by :

(1) Viruses (2) Bacteria

(3) Fungi (4) Namatodes

BC0987

48. The common nitrogen-fixer in paddy fields is :

(1) *Frankia*

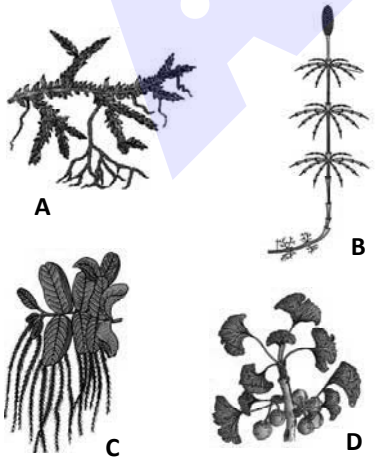
(2) *Rhizobium*

(3) *Azospirillum*

(4) *Oscillatoria*

BC0988

49. Examine the figure A, B, C and D. In which one of the four options all the items A, B, C and D are correct ?



Options :

	A	B	C	D
(1)	*Equisetum*	*Ginkgo*	*Selaginella*	*Lycopodium*
(2)	*Selaginella*	*Equisetum*	*Salvinia*	*Ginkgo*
(3)	*Funaria*	*Adiantum*	*Salvinia*	*Riccia*
(4)	*Chara*	*Marchantia*	*Fucus*	*Pinus*

PD0364

50. Which one of the following is monoecious ?

(1) *Cycas*

(2) *Pinus*

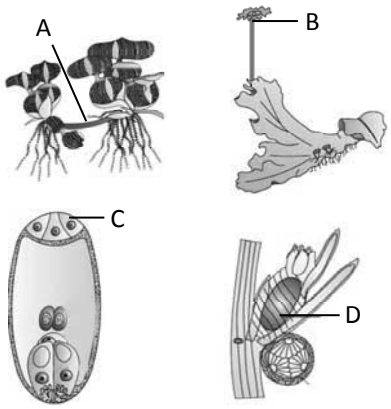
(3) *Date plam*

(4) *Marchantia*

PD0365

51. Examine the figures (A-D) given below and select the right option out of 1–4, in which all the four structures A, B, C and D are identified correctly:-

Structures :



	A	B	C	D
(1)	Runner	Archegoniophore	Synergid	Antheridium
(2)	Offset	Antheridiophore	Antipodals	Oogonium
(3)	Sucker	Seta	Megaspore mother cell	Gemma cup
(4)	Rhizome	Sporangiophore	Polar cell	Globule

PD0366

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52. Black (stem) rust of wheat is caused by :

(1) *Ustilago nuda*

(2) *Puccinia graminis*

(3) *Xanthomonas oryzae*

(4) *Alternaria solani*

BC0989

53. Select the correct combination of the statement (a-d) regarding the *characteristics* of certain organisms :

(a) Methanogens are Archaebacteria which produce methane in marshy areas

(b) *Nostoc* is filamentous blue-green alga which fixes atmospheric nitrogen

(c) Chemoysynthetic autotrophic bacteria synthesize cellulose from glucose

(d) Mycoplasma lack a cell wall and can survive without oxygen

The correct statements are :

(1) (a), (b), (c)

(2) (b), (c), (d)

(3) (a), (b), (d)

(4) (b), (c)

BC0990

AIPMT 2011

54. A prokaryotic autotrophic nitrogen fixing symbiont is found in :-

(1) *Alnus* (2) *Cycas*

(3) *Cicer* (4) *Pisum*

PD0372

55. Which one of the following is not a biofertilizer ?

(1) *Agrobacterium* (2) *Rhizobium*

(3) *Nostoc* (4) Mycorrhiza

BC0991

56. An organism used as a biofertilizer for raising soyabean crop is :-

(1) *Azotobacter* (2) *Azospirillum*

(3) *Rhizobium* (4) *Nostoc*

BC0992

57. Ethanol is commercally produced through a particular species of :-

(1) *Saccharomyces*

(2) *Clostridium*

(3) *Trichoderma*

(4) *Aspergillus*

BC0993

58. Nitrifying bacteria :-

(1) Oxidize ammonia to nitrates

(2) Convert free nitrogen to nitrogen compounds

(3) Convert proteins into ammonia

(4) Reduce nitrates to free nitrogen

BC0994

59. Archegoniophore is present in :-

(1) *Marchantia*

(2) *Chara*

(3) *Adiantum*

(4) *Funaria*

PD0377

60. Compared with the gametophytes of the bryophytes, the gametophytes of vascular plants tend to be :-

(1) Smaller but to have larger sex organs

(2) Larger but to have smaller sex organs

(3) Larger and to have larger sex organs

(4) Smaller and to have smaller sex organs

PD0378

61. The gametophyte is not an independent, free living generation in:-

(1) *Polytrichum*

(2) *Adiantum*

(3) *Marchantia*

(4) *Pinus*

PD0379

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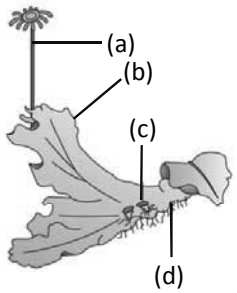
62. Examine the figure given below and select the right option giving all the four parts (a, b, c, d) correctly identified.



	(a)	(b)	(c)	(d)
(1)	Antheridiophore	Male thallus	Globule	Roots
(2)	Archegoniophore	Female thallus	Gemma-cup	Rhizoids
(3)	Archegoniophore	Female thallus	Bud	Foot
(4)	Seta	Sporophyte	Protonema	Rhizoids

PD0380

63. *Selaginella* and *Salvinia* are considered to represent a significant step toward evolution of seed habit because :-

(1) Embryo develops in female gametophyte which is retained on parent sporophyte

(2) Female gametophyte is free and gets dispersed like seeds.

(3) Female gametophyte lacks archegonia

(4) Megaspores possess endosperm and embryo surrounded by seed coat.

PD0381

64. Consider the following four statements whether they are correct or wrong :

(a) The sporophyte in liverworts is more elaborate than that is mosses.

(b) *Salvinia* is heterosporous

(c) The life-cycle in all seed-bearing plants is diplontic.

(d) In Pinus male and female cones are borne on different trees.

The two wrong statements together are :

(1) Statements (a) and (b)

(2) Statements (a) and (c)

(3) Statements (a) and (d)

(4) Statements (b) and (c)

PD0382

65. Which one of the following is a wrong matching of a microbe and its industrial product, while the remaining three are correct ?

(1) *Aspergillus niger* - citric acid

(2) Yeast - Statins

(3) *Acetobacter aceti* - acetic acid

(4) *Clostridium butylicum* - lactic acid

BC0995

66. The pathogen *Microsporum* responsible for ringworm disease in humans belongs to the same Kingdom of organisms as that of :

(1) *Ascaris,* a round worm

(2) *Taenia,* a tapeworm

(3) *Wuchereria,* a filarial worm

(4) *Rhizopus*, a mould

BC0996

AIPMT 2012

67. *Cycas* and *Adiantum* resemble each other in having :-

(1) Cambium

(2) Vessels

(3) Seeds

(4) Motile sperms

PD0386

68. Maximum nutritional diversity is found in the group :-

(1) Monera

(2) Plantae

(3) Fungi

(4) Animalia

BC0997

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69. Which one of the following is common to multicellular fungi, filamentous algae and protonema of mosses :-
(1) Mode of Nutrition
(2) Multiplication by fragmentation
(3) Diplontic life cycle
(4) Members of kingdom Plantae

LW0388

70. Which one of the following is a correct statement ?
(1) Antheridiophores and archegoniophores are present in pteridophytes
(2) Origin of seed habit can be traced in pteridophytes
(3) Pteridophyte gametophyte has a protonemal and leafy stage
(4) In gymnosperms female gametophyte is free living

PD0389

71. Nuclear membrane is absent in :-
(1) *Volvox* (2) *Nostoc*
(3) Penicillium (4) Agaricus

BC0998

72. Which one of the following does not differ in *E.coli* and *Chlamydomonas* ?
(1) Cell wall
(2) Cell membrane
(3) Ribosomes
(4) Chromosomal Organization

BC0999

73. Which one of the following is wrong statement ?
(1) Phosphorus is a constituent of cell membranes, certain nucleic acids and all proteins
(2) Nitrosomonas and Nitrobacter are chemoautotrophs
(3) *Anabaena* and *Nostoc* are capable of fixing nitrogen in free-living state also
(4) Root nodule forming nitrogen fixers live as aerobes under free-living conditions

BC1000

74. Yeast is used in the production of :-
(1) Bread and beer
(2) Cheese and butter
(3) Citric acid and lactic acid
(4) Lipase and pectinase

BC1001

75. A nitrogen fixing microbe associated with *Azolla* in rice-fields is :-
(1) *Frankia*
(2) *Tolypothrix*
(3) *Spirulina*
(4) *Anabaena*

BC1002

76. The cyanobacteria are also referred to as :-
(1) Slime moulds (2) Blue green algae
(3) Protists (4) Golden algae

BC1003

77. Which one single organism or the pair of organisms is correctly assigned to its or their named taxonomic group ?
(1) *Yeast* used in making bread and beer is a fungus
(2) *Nostoc* and *Anabaena* are examples of protista
(3) *Paramecium* and *Plasmodium* belong to the same kingdom as that of *Penicilium*
(4) Lichen is a composite organism formed from the symbiotic association of an algae and a protozoan

BC1004

78. Them most abundant prokaryotes helpful to humans in making curd from milk and in production of antibiotics are ones categorised as :
(1) Chemosynthetic autotrophs
(2) Heterotrophic bacteria
(3) Cyanobactaria
(4) Archaebacteria

BC1005

Join Telegram: @Chalnaayaaar

79. *Monascus purpureus* is a yeast used commercially in the production of :-

(1) citric acid

(2) blood chlolestrol lowering statins

(3) ethanol

(4) streptokinase for removing clots from the blood vessels.

BC1006

80. Read the following five statements (A – E) and answer as asked next to them :-

(A) In *Equisetum* the female gametophyte is retained on the parent sporophyte

(B) In *Ginkgo* male gametophyte is not independent

(C) The sporophyte in *Riccia* is more developed than that in *Polytrichum*

(D) Sexual reproduction in - Volvox is isogamous

(E) The spores of slime molds lack cell walls

How many of the above statements are correct ?

(1) Four (2) One

(3) Two (4) Three

BC1007

81. Which one of the following pairs is wrongly matched?

(1) Viroids – RNA

(2) Mustard - Synergids

(3) *Ginkgo* – Archegonia

(4) *Salvinia* - Prothallus

PC0400

82. How many organisms in the list given below are *autotrophs*?

Lactobacillus, Nostoc, Chara, Nitrosomonas, Nitrobacter, Streptomyces, Saccharomyces, Trypanosoma, Porphyra, Wolfia

(1) Six (2) Three

(3) Four (4) Five

BC1008

83. In the five-kingdom classification, *Chlamydomonas* and *Chlorella* have been included in :

(1) Plantae (2) Monera

(3) Protista (4) Algae

BC1009

NEET-UG 2013

84. Which of the following are likely to be present in deep sea water ?

(1) Saprophytic fungi

(2) Archaebacteria

(3) Eubacteria

(4) Blue-green algae

BC1010

85. Megasporangium is equivalent to :

(1) Ovule (2) Embryo sac

(3) Fruit (4) Nucellus

PD0406

86. Isogamous condition with non-flagallated gametes is found in :

(1) *Fucus* (2) *Chlamydomonas*

(3) *Spirogyra* (4) *Volvox*

PD0407

87. Monoecious plant of *Chara* shows occurrence of:

(1) upper oogonium and lower antheridium on the same plant

(2) antheridiophore and archegoniophore on the same plant

(3) stamen and carpel on the same plant

(4) upper antheridium and lower oogonium on the same plant

PD0408

88. A good producer of citric acid is :

(1) *Saccharomyces*

(2) *Aspergillus*

(3) *Pseudomonas*

(4) *Clostridium*

BC1011

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89. Besides paddy fields, cyanobacteria are also found inside vegetative part of :

(1) *Psilotum*

(2) *Pinus*

(3) *Cycas*

(4) *Equisetum*

PD0410

90. Select the wrong statement :

(1) *Chlamydomonas* exhibits both isogamy and anisogamy and *Fucus* shows oogamy

(2) Isogemetes are similar in structure, function and behaviour

(3) Anisogametes differ either in structure, function or behaviour

(4) In Oomycetes female gamete is smaller and motile, while male gamete is larger and non-motile

PD0411

91. Which one of the following is **not** a correct statements ?

(1) Key is taxonomic aid for identification of specimens

(2) Herbarium houses dried, pressed and preserved plant specimens

(3) Botanical gardens have collection of living plants for reference

(4) A museum has collection of photographs of plants and animals

DL0412

92. Which of the following represents maximum number of species among global biodiversity ?

(1) Mosses and Ferns

(2) Algae

(3) Lichens

(4) Fungi

BC1012

93. Read the following statements (a – e) and answer the question which follows them.

(a) In liverworts, mosses and ferns gametophytes are free living

(b) Gymnosperms and some ferns are heterosporous

(c) Sexual reproduction in *Fucus*, *Volvox* and *Allbugo* is oogamous

(d) The sporophyte in liverworts is more elaborate than that in mosses

(e) Both, *Pinus* and *Marchantia* are dioecious

How many of the above statements are correct ?

(1) Four (2) One

(3) Two (4) Three

PD0414

94. Pigment-containing membranous extensions in some cyanobacteria are :

(1) Chromatophores

(2) Heterocysts

(3) Basal bodies

(4) Pneumatophores

BC1013

95. Which of the following is **not** correctly matched for the organism and its cell wall degrading enzyme?

(1) Fungi – Chitinase

(2) Bacteria – Lysozyme

(3) Plant cells – Cellulase

(4) Algae – Methylase

BC1014

AIPMT 2014

96. Which one of the following shows isogamy with non-flagellated gametes?

(1) *Sargassum*

(2) *Ectocarpus*

(3) *Ulothrix*

(4) *Spirogyra*

PD0421

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97. Five kingdom system of classification suggested by R.H. Whittaker is **not** based on :
(1) Presence or absence of a well defined nucleus.
(2) Mode of reproduction.
(3) Mode of nutrition.
(4) Complexity of body organisation.
BC1015

98. Which one of the following fungi contains hallucinogens ?
(1) *Morchella esculenta*
(2) *Amanita muscaria*
(3) *Neurospora sp.*
(4) *Ustilago sp.*
BC1016

99. Archaebacteria differ from eubacteria in :
(1) Cell membrane
(2) Mode of nutrition
(3) Cell shape
(4) Mode of reproduction
BC1017

100. Which one of the following is wrong about *Chara*?
(1) Upper oogonium and lower round antheridium.
(2) Globule and nucule present on the same plant.
(3) Upper antheridium and lower oogonium
(4) Globule is male reproductive structure
PD0425

101. Which of the following is responsible for peat formation ?
(1) *Marchantia*
(2) *Riccia*
(3) *Funaria*
(4) *Sphagnum*
PD0426

102. Anoxygenic photosynthesis is characteristic of :
(1) *Rhodospirillum* (2) *Spirogyra*
(3) *Chlamydomonas* (4) *Ulva*
PD0427

103. Male gametophyte with least number of cell is present in :
(1) *Pteris* (2) *Funaria*
(3) *Lilium* (4) *Pinus*
PD0428

104. Which of the following shows coiled RNA strand and capsomeres?
(1) Polio virus
(2) Tobacco masaic virus
(3) Measles virus
(4) Retrovirus
BC1018

105. Transformation was discovered by :-
(1) Meselson and Stahl
(2) Hershey and Chase
(3) Griffith
(4) Watson and Crick
BC1019

106. Viruses have :-
(1) DNA enclosed in a protein coat
(2) Prokaryotic nucleus
(3) Single chromosome
(4) Both DNA and RNA
BC1020

107. An alga which can be employed as food for human being is :-
(1) *Ulothrix* (2) *Chlorella*
(3) *Spirogyra* (4) *Polysiphonia*
PD0432

108. Which one of the following living organisms completely *lacks* a cell wall?
(1) Cyanobacteria
(2) Sea – fan(Gorgonia)
(3) *Saccharomyces*
(4) Blue–green algae
BC1021

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AIPMT 2015

109. Which one one of the following matches is **correct** ?

(1)	Altemaria	Sexual reproduction absent	Deuteromycetes
(2)	Mucor	Reproduction by Conjugation	Ascomycetes
(3)	Agaricus	Parasitic fungus	Basidiomycetes
(4)	Phytophthora	Aseptate mycelium	Basidiomycetes

BC1022

110. In which of the following gametophyte is **not** independent free living ?

(1) *Marchantia* (2) *Pteris*

(3) *Pinus* (4) *Funaria*

PD0439

111. Read the following five statements (A to E) and select the option with **all correct** statements :-

(A) Mosses and Lichens are the first organisms to colonise a bare rock.

(B) *Selaginella* is a homosporous pteridophyte

(C) Coralloid roots in *Cycas* have VAM

(D) Main plant body in bryophytes is gametophytic, whereas in pteridophytes it is sporophytic

(E) In gymnosperms, male and female gametophytes are present within sporangia located on sporophyte

(1) (B), (C) and (D) (2) (A), (D) and (E)

(3) (B), (C) and (E) (4) (A), (C) and (D)

PD0440

112. True nucleus is absent in :-

(1) *Mucor* (2) *Vaucheria*

(3) *Volvox* (4) *Anabaena*

BC1023

113. Male gemetes are flagellated in :

(1) *Anabaena* (2) *Ectocarpus*

(3) *Spirogyra* (4) *Polysiphonia*

PD1024

114. Which one of the following is **not** an inclusion body found in prokaryotes ?

(1) Cyanophycean granule

(2) Glycogen granule

(3) Polysome

(4) Phosphate granule

BC0443

115. The guts of cow and buffalo possess:

(1) *Chlorella* spp. (2) Methanogens

(3) Cyanobacteria (4) *Fucus* spp.

BC1025

116. Which one of the following statements is **wrong**?

(1) Agar - agar is obtained from *Gelidium* and *Gracilaria*

(2) *Chlorella* and *Spirulina* are used as space food

(3) Mannitol is stored food in Rhodophyceae

(4) Algin and carragen are products of algae

PD0445

Re-AIPMT 2015

117. Which one is a **wrong** statement ?

(1) Brown algae have chlorophyll a and c, and fucoxanthin

(2) Archegonia are found in Bryophyta, Pteridophyta and Gymnosperms

(3) *Mucor* has biflagellate zoospores

(4) Haploid endosperm is typical feature of gymnosperms

PD0446

118. Which of the following structures is **not** found in prokaryotic cells?

(1) Plasma membrane

(2) Nuclear envelope

(3) Ribosome

(4) Mesosome

BC1026

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119. Choose the **wrong** statement :

(1) Yeast is unicellular and useful in fermentation

(2) *Penicillium* is multicellular and produces antibiotics

(3) *Neurospora* is used in the study of biochemical genetics

(4) Morels and truffles are poisonous mushrooms

BC1027

120. Which of the following are **not** membrane-bound?

(1) Mesosomes (2) Vacuoles

(3) Ribosomes (4) Lysosomes

BC1028

121. Cell wall is absent in :

(1) *Nostoc* (2) *Aspergillus*

(3) *Funaria* (4) Mycoplasma

BC1029

122. In which group of organisms the cells walls form two thin overlapping shells which fit together ?

(1) Slime moulds (2) Chrysophytes

(3) Euglenoids (4) Dinoflagellates

BC1030

123. Match the following list of microbes and their importance :

(a)	*Saccharornyces cerevisiae*	(i)	Production of imm unosuppr e ssive agents
(b)	*Monascus pur pure us*	(ii)	Ripening of Swiss cheese
(c)	*Trichoderma pofysporurn*	(iii)	Commercial production of ethanol
(d)	*Propioni bacteriurn sharmanii*	(iv)	Production of blood cholesterol lowering agents

	(a)	(b)	(c)	(d)
(1)	(iii)	(i)	(iv)	(ii)
(2)	(iii)	(iv)	(i)	(ii)
(3)	(iv)	(iii)	(ii)	(i)
(4)	(iv)	(ii)	(i)	(iii)

BC1031

124. Chromatophores take part in :

(1) Respiration

(2) Photosynthesis

(3) Growth

(4) Movement

BC1032

125. The structures that help some bacteria to attach to rocks and/or host tissues are :

(1) Holdfast

(2) Rhizoids

(3) Fimbriae

(4) Mesosomes

BC1033

126. The imperfect fungi which are decomposers of litter and help in mineral cycling belong to :

(1) Ascomycetes

(2) Deuteromycetes

(3) Basidiomycetes

(4) Phycomycetes

BC1034

127. Pick up the **wrong** statement :

(1) Nuclear membrane is present in Monera

(2) Cell wall is absent in Animalia

(3) Protista have photosynthetic and heterotrophic modes of nutrition

(4) Some fungi are edible

BC1035

NEET-I 2016

128. Which one of the following statements is wrong ?

(1) Cyanobacteria are also called blue-green algae

(2) Golden algae are also called desmids

(3) Eubacteria are also called false bacteria

(4) Phycomycetes are also called algal fungi

BC1036

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129. Select the **correct** statement :-
(1) Gymnosperms are both homosporous and heterosporous
(2) *Salvinia*, *Ginkgo* and *Pinus* all are gymnosperms
(3) *Sequoia* is one of the tallest trees
(4) The leaves of gymnosperms are not well adapted to extremes of climate

PD0462

130. In bryophytes and pteridophytes, transport of male gametes requires :-
(1) Wind (2) Insects
(3) Birds (4) Water

PD0463

131. Which of the following would appear as the pioneer organisms on bare rocks?
(1) Lichens
(2) Liverworts
(3) Mosses
(4) Green algae

BC1037

132. Nomenclature is governed by certain universal rules. Which one of the following is contrary to the rules of nomenclature?
(1) Biological names can be written in any language
(2) The first word in a biological name represents the genus name, and the second is a specific epithet
(3) The names are written in Latin and are italicised
(4) When written by hand, the names are to be underlined

DL0465

133. Chrysophytes, Euglenoids, Dinoflagellates and Slime moulds are included in the kingdom :-
(1) Monera (2) Protista
(3) Fungi (4) Animalia

BC1038

134. Which of the following is wrongly matched in the given table ?

	Microbe	Product	Application
(1)	*Trichoderrna polysporum*	Cyclosporin A	immunosup-pressive drug
(2)	*Monascus pur pure us*	Statins	lowering of blood cholesterol
(3)	*Streptococcus*	Streptokinase	removal of clot from blood vessel
(4)	*Clostridium bufylicum*	Lipase	removal of oil stains

BC1039

135. The primitive prokaryotes responsible for the production of biogas from the dung of ruminant animals, include the :-
(1) Halophiles
(2) Thermoacidiophiles
(3) Methanogens
(4) Eubacteria

BC1040

NEET-II 2016

136. The ovule of an angiosperm is technically equivalent to :
(1) megaspore mother cell
(2) megaspore
(3) megasporangium
(4) megasporophyll

PD0469

137. Methanogens belong to :
(1) Dinoflagellates (2) Slime moulds
(3) Eubacteria (4) Archaebacteria

BC1041

138. Select the **wrong** statement :
(1) Diatoms are chief producers in the oceans
(2) Diatoms are microscopic and float passively in water
(3) The walls of diatoms are easily destructible
(4) 'Diatomaceous earth' is formed by the cell walls of diatoms.

BC1042

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139. The lable of a herbarium shet **does not** carry information on :

(1) Local names

(2) height of the plant

(3) date of collection

(4) name of collector

DL0472

140. Conifers are adapated to tolerate extreme environmental conditions because of :

(1) thick cuticle

(2) presence of vessels

(3) broad hardy leaves

(4) superficial stomata

PD0473

141. Which one of the following statements is **wrong**?

(1) Agar-agar is obtained from *Gelidium* and *Gracilaria*

(2) *Laminaria* and *Sargassum* are used as food

(3) Algae increase the level of dissolved oxygen in the immediate environment

(4) Algin is obtained from red algae, and carrageenan from brown algae.

PD0474

142. Select the **mismatch** :-

(1) Protists-Eukaryotes

(2) Methanogens-Prokaryotes

(3) Gas vacuoles-Green bacteria

(4) Large central vacoules - Animal cells

BC1043

143. Select the **wrong** statement :-

(1) Cyanobacteria lack flagellated cells.

(2) *Mycoplasma* is a wall-less microorganism

(3) Bacterial cell wall is made up of peptidoglycan.

(4) Pilli and fimbriae are mainly involved in motility of bacterial cells

BC1044

144. Match **Column–I** with **Column–II** and select the correct option using the codes given below

Column-I		Column-II	
(a)	Citric acid	(i)	Trichoderma
(b)	Cyclosporin A	(ii)	Clostridium
(c)	Statins	(iii)	Aspergillus
(d)	Butyric acid	(iv)	Monascus

Codes :

	a	b	c	d
(1)	i	iv	ii	iii
(2)	iii	iv	i	ii
(3)	iii	i	ii	iv
(4)	iii	i	iv	ii

BC1045

145. Which of the following sets of diseases is caused by bacteria?

(1) Tetanus and mumps

(2) Herpes and influenza

(3) Cholera and tetanus

(4) Typhoid and smallpox

BC1046

146. Match **Column–I** with **Column–II** for housefly classification and select the correct option using the codes given below:

Column-I		Column-II	
a	Family	(i)	Diptera
b	Order	(ii)	Arthropoda
c	Class	(iii)	Muscidae
d	Phylum	(iv)	Insecta

Codes :

	a	b	c	d
(1)	iv	iii	ii	i
(2)	iv	ii	i	iii
(3)	iii	i	iv	ii
(4)	iii	ii	iv	i

DL0479

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147. Study the four statements (A–D) given below and select the two correct ones out of them :

(A) Definition of biological species was given by Ernst Mayr.

(B) Photoperiod does not affect reproduction in plants.

(C) Binomial nomenclature system was given by R.H. Whittaker.

(D) In unicellular organisms, reproduction is synonymous with growth.

The two **correct statements are**

(1) A and D (2) A and B

(3) B and C (4) C and D

LW0480

NEET(UG) 2017

148. Which of the following are found in extreme saline conditions ?

(1) Eubacteria (2) Cyanobacteria

(3) Mycobacteria (4) Archaebacteria

BC1047

149. Select the mismatch :

(1) *Rhodospirillum* - Mycorrhiza

(2) *Anabaena* - Nitrogen fixer

(3) *Rhizobium* - Alfalfa

(4) *Frankia - Alnus*

BC1048

150. An example of colonial alga is :

(1) *Volvox* (2) *Ulothrix*

(3) *Spirogyra* (4) *Chlorella*

PD0490

151. Which of the following components provides sticky character to the bacterial cell ?

(1) Nuclear membrane

(2) Plasma membrane

(3) Glycocalyx

(4) Cell wall

BC1049

152. Zygotic meiosis is characteristic of;

(1) *Fucus* (2) *Funaria*

(3) *Chlamydomonas* (4) *Marchantia*

PD0492

153. Life cycle of *Ectocarpus* and *Fucus* respectively are:

(1) Diplontic, Haplodiplontic

(2) Haplodiplontic, Diplontic

(3) Haplodiplontic, Haplontic

(4) Haplontic, Diplontic

PD0493

154. Viroids differ from viruses in having;

(1) DNA molecules without protein coat

(2) RNA molecules with protein coat

(3) RNA molecules without protein coat

(4) DNA molecules with protein coat

BC1050

155. Which of the following is correctly matched for the product produced by them ?

(1) *Methanobacterium* : Lactic acid

(2) *Penicillium notatum* : Acetic acid

(3) *Sacchromyces cerevisiae* : Ethanol

(4) *Acetobacter aceti* : Antibiotics

BC1051

156. Which among the following are the smallest living cells, known without a definite cell wall, pathogenic to plants as well as animals and can survive without oxygen ?

(1) *Pseudomonas* (2) *Mycoplasma*

(3) *Nostoc* (4) *Bacillus*

BC1052

157. Select the mismatch

(1) *Cycas* – Dioecious

(2) *Salvinia* – Heterosporous

(3) *Equisetum* – Homosporous

(4) *Pinus* – Dioecious

PD0497

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NEET(UG) 2018

158. Which among the following is ***not*** a prokaryote?

(1) *Saccharomyces*

(2) *Mycobacterium*

(3) *Nostoc*

(4) *Oscillatoria*

BC1053

159. Which of the following statement is ***correct***?

(1) Ovules are not enclosed by ovary wall in gymnosperms

(2) *Selaginella* is *heterosporous*, while *Salvinia* is homosporous

(3) Horsetails are gymnosperms

(4) Stems are usually unbranched in both *Cycas* and *Cedrus*

PD0506

160. Select the ***wrong*** statement :

(1) Cell wall is present in members of fungi and plantae

(2) Mushrooms belong to basidiomycetes

(3) Pseudopodia are locomotory and feeding structures in sporozoans

(4) Mitochondria are the powerhouse of the cell in all kingdoms except monera

BC1054

161. Which one is ***wrongly*** matched ?

(1) Uniflagellate gametes - *Polysiphonia*

(2) Biflagellate zoospores - Brown algae

(3) Gemma cups - *Marchantia*

(4) Unicellular organism - *Chlorella*

PD0508

162. Match the items given in Column I with those in Column II and select the ***correct*** option given below:-

	Column-I	**Column-II**
(a)	Herbarium	i. It is a place having a collection of preserved plants and animals.
(b)	Key	ii. A list that enumerates methodically all the species found in an area with brief description aiding identification.
(c)	Museum	iii. Is a place where dried and pressed plant specimens mounted on sheets are kept.
(d)	Catalogue	iv. A booklet containing a list of characters and their alternates which are helpful in identification of various taxa.

	a	**b**	**c**	**d**
(1)	i	iv	iii	ii
(2)	iii	ii	i	iv
(3)	ii	iv	iii	i
(4)	iii	iv	i	ii

DL0509

163. After karyogamy followed by meiosis, spores are produced exogenously in

(1) *Neurospora* (2) *Alternaria*

(3) *Agaricus* (4) *Saccharomyces*

BC1055

164. Oxygen is ***not*** produced during photosynthesis by

(1) Green sulphur bacteria

(2) *Nostoc*

(3) *Cycas*

(4) *Chara*

BC1056

Join Telegram: @Chalnaayaaar

165. Which of the following organisms are known as chief producers in the oceans ?

(1) Dinoflagellates

(2) Diatoms

(3) Cyanobacteria

(4) Euglenoids

BC1057

166. Winged pollen grains are present in

(1) Mustard (2) *Cycas*

(3) Mango (4) *Pinus*

PD0513

NEET(UG) 2019

167. Which of the following statements is **incorrect**?

(1) Morels and truffles are edible delicacies.

(2) *Claviceps* is a source of many alkaloids and LSD.

(3) Conidia are produced exogenously and ascospores endogenously.

(4) Yeasts have filamentous bodies with long thread-like hyphae.

BC1058

168. Which of the following statements is **incorrect** ?

(1) Viroids lack a protein coat

(2) Viruses are obligate parasites

(3) Infective constituent in viruses is the protein coat

(4) Prions consist of abnormally folded proteins

BC1059

169. *Thiobacillus* is a group of bacteria helpful in carrying out :

(1) Nitrogen fixation

(2) Chemoautotrophic fixation

(3) Nitrification

(4) Denitrification

BC1060

170. Phloem in gymnosperms lacks :

(1) Albuminous cells and sieve cells

(2) Sieve tubes only

(3) Companion cells only

(4) Both sieve tubes and companion cells

PD0744

171. Match **Column - I** with **Column - II.**

Column - I	**Column - II**
(a) Saprophyte	(i) Symbiotic association of fungi with plant roots
(b) Parasite	(ii) Decomposition of dead organic materials
(c) Lichens	(iii) Living on living plants or animals
(d) Mycorrhiza	(iv) Symbiotic association of algae and fungi

Choose the **correct** answer from the options given below :

	(a)	**(b)**	**(c)**	**(d)**
(1)	(i)	(ii)	(iii)	(iv)
(2)	(iii)	(ii)	(i)	(iv)
(3)	(ii)	(i)	(iii)	(iv)
(4)	(ii)	(iii)	(iv)	(i)

BC1061

172. Select **correctly** written scientific name of Mango which was first described by Carolus Linnaeus:

(1) *Mangifera indica* Car. Linn.

(2) *Mangifera indica* Linn.

(3) *Mangifera indica*

(4) *Mangifera Indica*

DL0746

173. From evolutionary point of view, retention of the female gametophyte with developing young embryo on the parent sporophyte for some time, is first observed in :

(1) Liverworts (2) Mosses

(3) Pteridophytes (4) Gymnosperms

PD0747

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NEET(UG) 2019 (ODISHA)

174. Match the organisms in column-I with habitats in column-II

Column-I	Column-II
(a) Halophiles	(i) Hot springs
(b) Thermoacidophiles	(ii) Aquatic environment
(c) Methanogens	(iii) Guts of ruminants
(d) Cyanobacteria	(iv) Salty area

Select the correct answer from the options given below :-

(1) (a)-(iv), (b)-(i), (c)-(iii), (d)-(ii)

(2) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)

(3) (a)-(iii), (b)-(iv), (c)-(ii), (d)-(i)

(4) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)

BC1062

175. Mad cow disease in catttle is caused by an organism which has :-

(1) inert crystalline structure

(2) abnormally folded protein

(3) free RNA without protein coat

(4) free DNA without protein coat

BC1063

176. Which of the following statements is correct ?

(1) Lichens do not grow in polluted areas.

(2) Algal component of lichens is called mycobiont.

(3) Fungal component of lichens is called phycobiont

(4) Lichens are not good pollution indicators.

BC1064

177. Which of the following bacteria reduce nitrate in soil into nitrogen ?

(1) *Nitrobacter*

(2) *Nitrococcus*

(3) *Thiobacillus*

(4) *Nitrosomonas*

BC1065

178. Among the following pairs of microbes, which pair has both the microbes that can be used as biofertilizers?

(1) *Aspergillus* and *Rhizopus*

(2) *Rhizobium* and *Rhizopus*

(3) *Cyanobacteria* and *Rhizobium*

(4) *Aspergillus* and *Cyanobacteria*

BC1066

179. Which of the following statements about methanogens is not correct?

(1) They can be used to produce biogas.

(2) They are found in the rumen of cattle and their excreta

(3) They grow aerobically and breakdown cellulose-rich food.

(4) They produce methane gas.

BC1067

180. Which of the following is against the rules of ICBN?

(1) Hand written scientific names should be underlined.

(2) Every species should have a generic name and a specific epithet.

(3) Scientific names are in Latin and should be italicized.

(4) Generic and specific names should be written starting with small letters.

DL0754

181. The contrasting characteristics generally in a pair used for identification of animals in taxonomic key are referred to as :

(1) Lead (2) Couplet

(3) Doublet (4) Alternate

DL0755

NEET(UG) 2020

182. Floridean starch has structure similar to:

(1) Laminarin and cellulose

(2) Starch and cellulose

(3) Amylopectin and glycogen

(4) Mannitol and align

PD1144

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183. Match the following columns and select the correct option.

Column - I	Column - II
(a) *Clostridium butylicum*	(i) Cyclosporin - A
(b) *Trichoderma polysporum*	(ii) Butyric Acid
(c) *Monascus purpureus*	(iii) Citric Acid
(d) *Aspergillus niger*	(iv) Blood cholesterol lowering agent

	(a)	(b)	(c)	(d)
(1)	(iv)	(iii)	(ii)	(i)
(2)	(iii)	(iv)	(ii)	(i)
(3)	(ii)	(i)	(iv)	(iii)
(4)	(i)	(ii)	(iv)	(iii)

BC1145

184. Which of the following is correct about viroids ?

(1) They have free DNA without protein coat.

(2) They have RNA with protein coat.

(3) They have free RNA without protein coat.

(4) They have DNA with protein coat.

BC1146

185. Which of the following pairs is of unicellular algae?

(1) *Chlorella* and *Spirulina*

(2) *Laminaria* and *Sargassum*

(3) *Gelidium* and *Gracilaria*

(4) *Anabaena* and *Volvox*

PD1147

186. Strobili or cones are found in :

(1) *Equisetum* (2) *Salvinia*

(3) *Pteris* (4) *Marchantia*

PD1148

187. Which of the following statements about inclusion bodies is **incorrect** ?

(1) These represent reserve material in cytoplasm.

(2) They are not bound by any membrane.

(3) These are involved in ingestion of food particles.

(4) They lie free in the cytoplasm.

BC1149

NEET(UG) 2020 (COVID-19)

188. Phycoerythrin is the major pigment in :

(1) Red algae

(2) Blue green algae

(3) Green algae

(4) Brown algae

PD1150

189. Which of the following statements is incorrect about gymnosperms ?

(1) They are heterosporous

(2) Male and female gametophytes are free living

(3) Most of them have narrow leaves with thick cuticle

(4) Their seeds are not covered

PD1151

190. Inclusion bodies of blue- green, purple and green photosynthetic bacteria are :

(1) Contractile vacuoles

(2) Gas vacuoles

(3) Centrioles

(4) Microtubules

BC1152

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191. Which of the following is **incorrect** about Cynobacteria ?

(1) They are photoautotrophs

(2) They lack heterocysts

(3) They often form blooms in polluted water bodies

(4) They have chlorophyll A similar to green plants

BC1153

192. Male and female gametophytes do not have an independent free living existence in :-

(1) Pteridophytes (2) Algae

(3) Angiosperms (4) Bryophytes

PD1154

193. For the commercial and industrial production of Citric Acid, which of the following microbes is used ?

(1) *Aspergillus niger*

(2) *Lactobacillus sp*

(3) *Saccharomyces cerevisiae*

(4) *Clostridium butylicum*

BC1155

194. Cyclosporin A, used as immuno suppression agent, is produced from :

(1) *Monascus purpureus*

(2) *Saccharomyces cerevisiae*

(3) *Penicillium notatum*

(4) *Trichoderma polysporum*

BC1156

NEET(UG) 2021

195. Gemmae are present in :

(1) Mosses

(2) Pteridophytes

(3) Some Gymnosperms

(4) Some Liverworts

PD1157

196. Genera like *Selaginella* and *Salvinia* produce two kinds of spores. Such plants are known as :

(1) Homosorus (2) Heterosorus

(3) Homosporous (4) Heterosporous

PD1158

197. Which of the following plants is monoecious?

(1) *Carica papaya*

(2) *Chara*

(3) *Marchantia polymorpha*

(4) *Cycas circinalis*

PD1159

198. Which of the following algae contains mannitol as reserve food material ?

(1) *Ectocarpus* (2) *Gracilaria*

(3) *Volvox* (4) *Ulothrix*

PD1160

199. Which of the following algae produce Carrageen ?

(1) Green algae (2) Brown algae

(3) Red algae (4) Blue-green algae

PD1161

200. Which of the following statements is **correct** ?

(1) Fusion of two cells is called Karyogamy.

(2) Fusion of protoplasms between two motile or non-motile gametes is called plasmogamy.

(3) Organisms that depend on living plants are called saprophytes.

(4) Some of the organisms can fix atmospheric nitrogen in specialized cells called sheath cells.

BC1162

201. Which one of the following belongs to the family Muscidae ?

(1) Fire fly (2) Grasshopper

(3) Cockroach (4) House fly

DL1163

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202. Match **List - I** with **List - II.**

List-I		List-II	
(a)	*Aspergillus niger*	(i)	Acetic Acid
(b)	*Acetobacter aceti*	(ii)	Lactic Acid
(c)	*Clostridium butylicum*	(iii)	Citric Acid
(d)	*Lactobacillus*	(iv)	Butyric Acid

Choose the **correct** answer from the options given below.

	(a)	**(b)**	**(c)**	**(d)**
(1)	(iii)	(i)	(iv)	(ii)
(2)	(i)	(ii)	(iii)	(iv)
(3)	(ii)	(iii)	(i)	(iv)
(4)	(iv)	(ii)	(i)	(iii)

BC1164

NEET(UG) 2021 (Paper-2)

203. Which of the following is not a correct statement?

(1) Herbaria serve as quick referral systems in taxonomical studies.

(2) Indian Botanical Garden is situated at Lucknow, India.

(3) Museums have collections of preserved plant and animal specimens.

(4) The keys are based on the contrasting characters.

DL1222

204. Match the columns and find the correct option.

Column I	**Column II**
a. Ascomycetes	i. *Ustilago*
b. Phycomycetes	ii. *Saccharomyces*
c. Basidiomycetes	iii. *Trichoderma*
d. Deuteromycetes	iv. *Albugo*

(1) a–ii, b–i, c–iv, d–iii

(2) a–iv, b–iii, c–ii, d–i

(3) a–ii, b–iv, c–i, d–iii

(4) a–iii, b–iv, c–i, d–ii

BC1223

205. Which of the following characters belongs to the kingdom Protista ?

(1) Prokaryotic

(2) Multicellular

(3) All members have cell wall

(4) Presence of nuclear membrane

BC1224

206. Which of the following is a characteristic feature of gymnosperms ?

(1) The development of pollen grains take place within the microsporangia.

(2) Some gymnosperms are homosporous.

(3) The ovules are borne on megasporophylls which may be clustered to form the male cones.

(4) All of the above.

PD1225

207. Match column I with column II for mango classification and select the correct option using the codes given below.

Column I	**Column II**
a. Division	i. Sapindales
b. Order	ii. Anacardiaceae
c. Family	iii. Dicotyledonae
d. Class	iv. Angiospermae

(1) a–ii, b–iii, c–iv, d–i

(2) a–iii, b–iv, c–i, d–ii

(3) a–iv, b–i, c–iii, d–ii

(4) a–iv, b–i, c–ii, d–iii

DL1226

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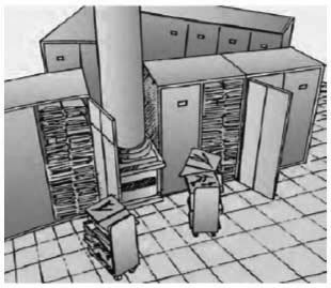
208. Find out the correct statement about figure.



(1) It is the store house of collected dried plant specimens.

(2) they have collection of preserved plant and animal specimens for study and reference.

(3) They often have collections of skeletons of animals too.

(4) They have collections of living plants for reference.

DL1227

NEET(UG) 2022

209. Hydrocolloid carrageen is obtained from :

(1) Phaeophyceae and Rhodophyceae

(2) Rhodophyceae only

(3) Phaeophyceae only

(4) Chlorophyceae and Phaeophyceae

PD1228

210. Which of the following is **incorrectly** matched ?

(1) *Ulothrix* - Mannitol

(2) *Porphyra* - Floridian Starch

(3) *Volvox* - Starch

(4) *Ectocarpus* - Fucoxanthin

PD1229

211. Match the plant with the kind of life cycle it exhibits:

List-I	List-II
(a) *Spirogyra*	(i) Dominant diploid sporophyte vascular plant, with highly reduced male or female gametophyte
(b) Fern	(ii) Dominant haploid free-living gametophyte
(c) *Funaria*	(iii) Dominant diploid sporophyte alternating with reduced gametophyte called prothallus
(d) *Cycas*	(iv) Dominant haploid leafy gametophyte alternating with partially dependent multicellular sporophyte

Choose the **correct answer** from the options given below:

(1) (a)-(ii),(b)-(iii),(c)-(iv),(d)-(i)

(2) (a)-(iii),(b)-(iv),(c)-(i),(d)-(ii)

(3) (a)-(ii),(b)-(iv),(c)-(i),(d)-(iii)

(4) (a)-(iv), (b)-(i),(c)-(ii), (d)-(iii)

PD1230

212. In the taxonomic categories which hierarchial arrangement in ascending order is **correct** in case of animals ?

(1) Kingdom, Class, Phylum, Family, Order, Genus, Species

(2) Kingdom, Order, Class, Phylum, Family, Genus, Species

(3) Kingdom, Order, Phylum, Class, Family, Genus, Species

(4) Kingdom, Phylum, Class, Order, Family, Genus, Species

DL1231

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213. Which of the following is a **correct** statement ?

(1) Bacteria are exclusively heterotrophic organisms.

(2) Slime moulds are saprophytic organisms classified under Kingdom Monera.

(3) Mycoplasma have DNA, Ribosome and cell wall

(4) Cyanobacteria are a group of autotrophic organisms classified under Kingdom Monera.

BC1232

NEET(UG) 2022 (OVERSEAS)

214. Which one of the following structures is haploid in its ploidy level?

(1) Microspore Mother Cell

(2) Protonemal cell of a moss

(3) Primary endosperm nucleus in dicot

(4) Primary Endospore Nucleus

PD1233

215. Which one of the following process is responsible for the release of N_2 in the atmosphere?

(1) Ammonification

(2) Denitrification

(3) Biological nitrogen fixation

(4) Industrial Nitrogen fixation

BC1234

216. Match **List - I** with **List - II**

List – I	**List – II**
(a) *Cedrus*	(i) Pteridophyte
(b) *Adiantum*	(ii) Gymnosperm
(c) *Sphagnum*	(iii) Liverwort
(d) *Marchantia*	(iv) Moss

Choose the correct answer from the options given below :

(1) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)

(2) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)

(3) (a)-(iii), (b)-(iv), (c)-(ii), (d)-(i)

(4) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)

PD1235

217. Identify the fungi which do not belong to the group of other fungi among the following.

(1) Puffballs

(2) Mushrooms

(3) Bracket Fungi

(4) Sac-fungi

BC1236

218. Herbarium, Botanical gardens, Museum, Zoological parks and Key are considered as-

(1) Environmental aids

(2) Pollution aids

(3) Taxonomical aids

(4) Trophic aids

DL1237

219. Match **List - I** with **List - II**

List - I	**List - II**
(a) *Puccinia*	(i) Parasitic fungus on mustard
(b) *Neurospora*	(ii) Dead substrates
(c) Saprophytes	(iii) Wheat rust
(d) *Albugo*	(iv) Biochemical and Genetic work

Choose the **correct answer** from the options given below :

(1) (a)-(iii), (b)-(iv), (c)-(ii), (d)-(i)

(2) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)

(3) (a)-(iv), (b)-(ii), (c)-(i), (d)-(iii)

(4) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)

BC1238

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RE-NEET(UG) 2022

220. Match **List - I** with **List - II** :

List - I	**List - II**
(a) *Chlamydomonas*	(i) Moss
(b) *Cycas*	(ii) Pteridophyte
(c) *Selaginella*	(iii) Alga
(d) *Sphagnum*	(iv) Gymnosperm

Choose the **correct answer** from the options given below :

(1) (a) - (iii), (b) - (i), (c) - (ii), (d) - (iv)

(2) (a) - (iii), (b) - (iv), (c) - (ii), (d) - (i)

(3) (a) - (iii), (b) - (ii), (c) - (i), (d) - (iv)

(4) (a) - (ii), (b) - (iii), (c) - (i), (d) - (iv)

PD1239

221. Read the following statements and identify the characters related to the alga shown in the diagram:

(a) It is a member of Chlorophyceae

(b) Food is stored in the form of starch

(c) It is a monoecious plant showing oogonium and antheridium

(d) Food is stored in the form of laminarin or mannitol

(e) It shows dominance of pigments chlorophyll a, c and Fucoxanthin.

Choose the **correct answer** from the options given below :

(1) (a) and (b) only

(2) (a), (b) and (c) only

(3) (a), (c) and (d) only

(4) (c), (d) and (e) only

PD1240

222. Pathogenic bacteria gain resistance to antibiotics due to changes in their :

(1) Cosmids

(2) Plasmids

(3) Nucleus

(4) Nucleoid

BL1241

223. Mad cow disease in cattle and Cr Jacob disease in humans are due to infection by_____ .

(1) Bacterium

(2) Virus

(3) Viroid

(4) Prion

BC1242

224. Which of the following are true about the taxonomical aid 'key' ?

(a) Keys are based on the similarities and dissimilarities.

(b) Key is analytical in nature.

(c) Keys are based on the contrasting characters in pair called couplet.

(d) Same key can be used for all taxonomic categories.

(e) Each statement in the key is called Lead.

Choose **the most appropriate answer** from the options given below :

(1) (a), (b) and (c) only

(2) (b), (c) and (d) only

(3) (a), (b), (c) and (e) only

(4) (a), (c), (d) and (e) only

DL1243

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EXERCISE-II (Previous Year Questions) ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	**2**	**4**	**4**	**3**	**3**	**4**	**3**	**3**	**3**	**1**	**2**	**2**	**1**	**3**	**2**
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	**2**	**3**	**1**	**2**	**2**	**1**	**3**	**4**	**2**	**4**	**4**	**3**	**3**	**1**	**4**
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	**4**	**2**	**2**	**3**	**3**	**3**	**2**	**4**	**4**	**2**	**1**	**2**	**2**	**3**	**1**
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	**3**	**3**	**4**	**2**	**2**	**2**	**2**	**3**	**2**	**1**	**3**	**1**	**1**	**1**	**4**
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	**4**	**2**	**1**	**3**	**4**	**4**	**4**	**1**	**2**	**2**	**2**	**2**	**1**	**1**	**4**
Que.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Ans.	**2**	**1**	**2**	**2**	**2**	**4**	**1**	**3**	**2**	**1**	**3**	**1**	**2**	**3**	**4**
Que.	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Ans.	**4**	**4**	**4**	**1**	**4**	**4**	**B**	**2**	**1**	**3**	**4**	**1**	**3**	**2**	**3**
Que.	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Ans.	**1**	**2**	**2**	**1**	**3**	**2**	**4**	**2**	**3**	**2**	**3**	**3**	**2**	**4**	**3**
Que.	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135
Ans.	**4**	**2**	**2**	**2**	**3**	**2**	**1**	**3**	**3**	**4**	**1**	**1**	**2**	**4**	**3**
Que.	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
Ans.	**3**	**4**	**3**	**2**	**1**	**4**	**4**	**4**	**4**	**3**	**3**	**1**	**4**	**1**	**1**
Que.	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165
Ans.	**3**	**3**	**2**	**3**	**3**	**2**	**4**	**1**	**1**	**3**	**1**	**4**	**3**	**1**	**2**
Que.	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Ans.	**4**	**4**	**3**	**4**	**4**	**4**	**2**	**3**	**1**	**2**	**1**	**3**	**3**	**3**	**4**
Que.	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195
Ans.	**2**	**3**	**3**	**3**	**1**	**1**	**3**	**1**	**2**	**2**	**2**	**3**	**1**	**4**	**4**
Que.	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210
Ans.	**4**	**2**	**1**	**3**	**2**	**4**	**1**	**2**	**3**	**4**	**1**	**4**	**1**	**2**	**1**
Que.	211	212	213	214	215	216	217	218	219	220	221	222	223	224	
Ans.	**1**	**4**	**4**	**2**	**2**	**2**	**4**	**3**	**1**	**2**	**2**	**2**	**4**	**3**	

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EXERCISE-III(A) NCERT BASED QUESTIONS

1. The number and types of organisms present on earth make :-
(1) Taxonomy (2) Plant diversity
(3) Animal diversity (4) Biodiversity

DL0527

2. The process by which anything is grouped into convinient categories based on some easily observable characters is called as:-
(1) Biodiversity (2) Classifications
(3) Identification (4) Nomenclature

DL0528

3. The process in which biologists follow universally accepted principles to provide name of any organism is called as :-
(1) Identification (2) Classification
(3) Nomenclature (4) Systematics

DL0529

4. What are the essential basis of modern taxonomic studies ?
(1) External and internal structure
(2) Structure of cell
(3) Developmental process and ecological information
(4) All of these

DL0530

5. Characterisation of families is done on the basis of:-
(1) Vegetative feautres
(2) Reproductive features
(3) Both (1) and (2)
(4) None of them

DL0531

6. In the names *Mangifera indica*, *Solanum tuberosum* and *Panthera leo*, the words *indica*, *tuberosum* and *leo* represent :-
(1) Generic name
(2) Generic epithet
(3) Name of species
(4) Specific epithet

DL0532

7. Why the determination of relationship becomes more complex in higher taxonomic categories ?
(1) Number of common characters goes on decreasing in lower taxa
(2) Number of common characters goes on decreasing in higher taxa
(3) Because classification itself is very difficult process
(4) Number of common characters goes on increasing in higher taxa

DL0533

8. Which of the following is **not** a correct statement?
(1) Order is the assemblage of families which exhibit a few similar characters in comparisation to families
(2) Convolvulaceae and Solanaceae families are included in order polymoniales mainly on the basis of floral characters
(3) In hierarchy both broad categories and sub categories are used
(4) Class is a sub category which includes related order

DL0534

9. Which of the following is **not** used as taxonomic aid?
(1) Zoological park (2) Soil
(3) Herbarium (4) Museum

DL0535

10. In which group of taxonomic aids only the means of taxonomic literature are included:-
(1) Botanical gardens, Museum, Keys
(2) Botanical Gardens, Herbarium, Keys
(3) Flora, Manual, Monograph
(4) Botanical Garden, Museum, Monographs

DL0536

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11. Taxonomists use to prepare and disseminate taxonomic informations by :-
(1) Manuals and monographs
(2) Museum and herbarium
(3) Zoological park and herbarium
(4) Keys and herbarium

DL0537

12. Largest Botanical garden, Indian Botanical Garden and National Botanical Research Institute are situated respectively at :-
(1) Kew, Lucknow, Howrah
(2) Kew, Howrah, Lucknow
(3) Lucknow, Howrah, Kew
(4) Howrah, Lucknow, Kew

DL0538

13. Which of the following taxonomic aid is useful only in case of animals ?
(1) Botanical gardens (2) Museum
(3) Keys (4) Zoological parks

DL0539

14. All the categories used in classification of organism constitute :-
(1) Taxonomy
(2) Systematics
(3) Taxonomic hierarchy
(4) Taxonomic affinity

DL0540

15. Archaebacteria differ from other bacteria in having a:-
(1) Different cell wall and cell membrane structure
(2) Different cellular organization
(3) Parasitic nature
(4) Both (2) and (3)

BC1068

16. Nitrogen fixing cyanobacteria are :-
(1) *Rhizobium, Nostoc*
(2) *Rhizobium, Anabaena*
(3) *Nostoc, Anabaena*
(4) *Anabaena, Azolla*

BC1069

17. The vast majority of bacteria are :-
(1) Symbiotic (2) Autotrophic
(3) Heterotrophic (4) Nitrogen fixing

BC1070

18. Which character indicates that Cyanobacteria are similar to higher green plants ?
(1) Type of cell wall
(2) Nitrogen fixation ability
(3) Presence of chlorophyll 'a'
(4) Presence of gelatinous sheath

BC1071

19. Typhoid and tetanus are caused by :-
(1) Bacteria (2) Virus
(3) Viroids (4) Fungi

BC1072

20. Which one of the following prokaryotes lack cell wall?
(1) Virus (2) Cyanobacteria
(3) Mycoplasma (4) Protozoa

BC1073

21. According to five kingdom classification protista includes :-
(1) Chrysophytes, Dinoflagellates, Protozoans
(2) Diatoms, Euglenoids, Virus
(3) Dinoflagellates, Protozoans, Red algae
(4) Chrysophytes, Bryophytes, Protozoans, Slime mould

BC1074

22. Which organisms have silica in their cell wall ?
(1) Dinoflagellates (2) Slime mould
(3) Diatoms (4) Euglenoids

BC1075

23. Which organism is responsible for red surface of sea?
(1) *Euglena* (2) *Gonyaulax*
(3) *Amoeba* (4) Paramecium

BC1076

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24. Which one is unicellular, photosynthetic eukaryote lacks cell wall ?
(1) Mycoplasma (2) *Amoeba*
(3) *Euglena* (4) Slime mould
BC1077

25. Orange rots (Rotten fruit) disease is caused by :-
(1) Bacterium (2) Fungi
(3) *Citrus* (4) Mycoplasma
BC1078

26. Select incorrect statement about fungi ?
(1) The cell walls are composed of chitin and polysaccharides
(2) These are heterotrophic organisms
(3) They are autotrophic organsism
(4) They are absorptive in nature
BC1079

27. In fungi, vegetative reproduction takes place by :-
(1) Fragmentation (2) Conidia
(3) Zygospore (4) Oospore
BC1080

28. In ascomycetes and basidomycetes, the dikaryotic cell is :-
(1) Haploid (2) Diploid
(3) Triploid (4) Polyploid
BC1081

29. Which of the following is not a member of class phycomycetes ?
(1) *Albugo* (2) *Mucor*
(3) *Rhizopus* (4) *Neurospora*
BC1082

30. The mycelium is aseptate and coenocytic in:-
(1) Phycomycetes
(2) Basidiomycetes
(3) Deuteromycetes
(4) Ascomycetes
BC1083

31. Septate and branched mycelium is found in:-
(1) Basidiomycetes (2) Deuteromycetes
(3) Ascomycetes (4) All the above
BC1084

32. Select correct matched pair / pairs :-
(1) *Claviceps* – Ascomycetes
(2) Morels – Ascomycetes
(3) *Agaricus* – Basidiomycetes
(4) All the above
BC1085

33. Asexual reproduction takes place by conidia formation in :-
(1) *Aspergillus* (2) *Penicillium*
(3) *Colletotrichum* (4) All the above
BC1086

34. Which of the following are examples of unicellular algae ?
(1) *Chlamydomonas* (2) *Riccia*
(3) *Chlorella* (4) Both (1) & (3)
BC1087

35. Which of the following are not considered in five kingdom system of classification ?
(1) Lichen (2) Virus
(3) Viroid (4) All the above
BC1088

36. The name virus that means venom or poisonous fluid was given by :-
(1) Pasteur (2) Ivanowsky
(3) Stanley (4) Both (2) & (3)
BC1089

37. Viroid was discovered by :-
(1) Haeckel (2) Pasteur
(3) T.O. Diener (4) Theophrastus
BC1090

38. Bacteriophages are generally :-
(1) ss DNA virus (2) ds DNA virus
(3) ss RNA virus (4) ds RNA virus
BC1091

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39. Select true statement :-
(1) Viruses are obligate parasites
(2) In Lichens, algal component is called phycobiont
(3) In Lichens, Fungal component is called mycobiont
(4) All the above
BC1092

40. Algae reproduce by :-
(1) Asexual (2) Sexual
(3) Vegetative (4) All the above
PD0566

41. Stored food in Phaeophyceae is :-
(1) Laminarin or manitol
(2) Starch
(3) Cellulose
(4) Algin
PD0567

42. Asexual reproduction in maximum brown algae is by :-
(1) Biflagellated zoospore
(2) Single flagellated zoospore
(3) Aplanospore
(4) None of these
PD0568

43. Pigments in Phaeophycae :-
(1) Chlorophyll a (2) Chlorophyll c
(3) Fucoxanthin (4) All the above
PD0569

44. Generally red algae do not form :-
(1) Zoospore
(2) Non - motile spore
(3) Non- motile gamete
(4) None of these
PD0570

45. The main plant body of bryophyte is :-
(1) Haploid (2) Diploid
(3) Haplo-diploid (4) Diplo-haploid
PD0571

46. The plant body of liverworts is :-
(1) Sporophyte (2) Thalloid
(3) With roots (4) Xerophytic
PD0572

47. Vegetative reproduction in mosses is by :-
(1) Fragementation (2) Budding
(3) Both (1) & (2) (4) By spore
PD0573

48. *Marchantia* is an example of :-
(1) Mosses (2) Liver worts
(3) Sphenopsida (4) Lycopsida
PD0574

49. In Mosses creeping, green, branched and frequently filamentous stage is called :-
(1) Protonema (2) Rhizome
(3) Rhizophore (4) All of these
PD0575

50. The leaves of Pteridophyta are :-
(1) Microphylls (2) Macrophylls
(3) Both (1) & (2) (4) None of these
PD0576

51. In majority of the Pteridophytes all the spores are of similar kind such plants are called :-
(1) Homosporous (2) Heterosporous
(3) Prothallus (4) Protanema
PD0577

52. Which is the dominant phase of Pteridophytes ?
(1) Gametophyte
(2) Sporophyte
(3) Spores
(4) Gametes
PD0578

53. In Pteridophytes, sporophylls may form distinct compact structure, called :-
(1) Strobili or cones (2) Microphyll
(3) Macrophyll (4) Tropophyll
PD0579

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54. Pteridophytes are classified in to :-

(1) Three classes (2) Two classes

(3) Four classes (4) Five classes

PD0580

55. Gymnospermic plants are :-

(1) Homosporous

(2) Heterosporous

(3) Both

(4) Without spores

PD0581

56. The nucellus is protected by envelopes and the composite structure is called :-

(1) Megaspore (2) Microspore

(3) Ovule (4) Cone

PD0582

57. In *Cycas* specialised roots are associated with N_2 fixing cyanobacteria, called :-

(1) Tap root (2) Coralloid root

(3) Adventitious root (4) All the above

PD0583

58. Gymnosperms include :-

(1) Medium sized trees

(2) Tall tree

(3) Shrubs

(4) All the above

PD0584

59. In Gymnosperm which is not found :-

(1) Antheridia

(2) Archegonia

(3) Both

(4) None of these

PD0585

60. The number of species that are known and described ranges between :

(1) 1-2 million

(2) 1.7 - 1.8 billion

(3) 1.7 - 1.8 million

(4) 7 million

DL1165

61. Branch of biology, which deals with study of evolutionary relationship between organism:-

(1) Plant anatomy (2) Systematics

(3) Ecology (4) Physiology

DL1166

62. In botanical gardens various plant species are grown for which purpose?

(1) Identification

(2) Nomenclature

(3) Classification

(4) Both 2 and 3

DL1167

63. Taxonomical aid which contain actual account of habitat and distribution of plants of a given area :

(1) Flora (2) Fauna

(3) Manual (4) Monograph

DL1168

64. The taxonomic aid, which is useful in providing information for identification of names of species found in an area, called :

(1) Flora

(2) Museum

(3) Manual

(4) Monograph

DL1169

65. Monographs are concerned with :

(1) Information of any species only

(2) Information of any genus only

(3) Information of any family only

(4) Information of any one taxon

DL1170

66. ICZN is used for

(1) Virus

(2) Bacteria

(3) Cultivated plants

(4) Animals

DL1171

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67. Which group shows the most extensive metabolic diversity ?
(1) Plantae (2) Animalia
(3) Monera (4) Fungi
BC1172

68. Archaebacteria differ from other bacteria in:-
(1) Nucleoid
(2) Composition of cell wall
(3) Composition of cytoplasm
(4) Composition of genetic material
BC1173

69. Which group of organisms is responsible for the production of biogas from the dung of cows and buffaloes ?
(1) *Methanomonas* (2) Methanogens
(3) Cyanobacteria (4) *Mycoplasma*
BC1174

70. Choose the correct statement :-
(1) Most of the bacteria are autotrophs
(2) All bacteria are heterotrophs
(3) Some bacteria are heterotrophs
(4) Most of the bacteria are heterotrophs
BC1175

71. Which of the following character is common in both cyanobacteria and green plants ?
(1) Cell wall composition
(2) Presence of chlorophyll 'a'
(3) Presence of heterocyst
(4) Presence of 80s ribosome
BC1176

72. *Nostoc* can fix atmospheric nitrogen in specialised cell, called :-
(1) Chromotophore
(2) Zoospore
(3) Heterocyst
(4) Oospore
BC1177

73. Which process is not performed by bacterial activity?
(1) Production of antibiotics
(2) Fixing nitrogen in legumes
(3) Making curd from milk
(4) Production of pseudomycelium
BC1178

74. Choose the incorrect statement regarding *Mycoplasma* :-
(1) They lack cell wall
(2) They are smallest living cell
(3) They can survive without oxygen
(4) They have mesosome for respiration
BC1179

75. Which are chief producers of oceans ?
(1) Diatoms (2) Dinoflagellates
(3) Euglenoid (4) Green algae
BC1180

76. Which organism is responsible for making the sea appear red by rapid multiplication ?
(1) *Euglena* (2) *Paramoecium*
(3) *Gonyaulax* (4) *Trypanosoma*
BC1181

77. Euglenoids have a protein rich layer instead of a cell wall. This layer is called as :-
(1) Epidermis (2) Skin
(3) Pellicle (4) Middle layer
BC1182

78. Choose the incorrect statement from following:
(1) Dinoflagellates have stiff cellulosic plates on the outer surface
(2) Euglenoids have two flagella, one lies longitudinally and the other transversely
(3) Slime mould spores are dispersed by air currents
(4) In diatoms, the cell walls form two thin overlapping shells, which fit together as in a soap box.
BC1183

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79. Which group of organisms is used to make bread and beer ?
(1) *Rhizopus* (2) *Yeast*
(3) *Albugo* (4) *Neurospora*
BC1184

80. Fungus prefers to grow in :-
(1) Warm and humid places
(2) Cold and humid places
(3) Warm and cold both
(4) Warm, cold and humid places
BC1185

81. In fungi when the hyphae are continuous and branched tubes and fibled with multinucleated cytoplasm, these are called:-
(1) Unicellular hyphae
(2) Coenocytic hyphae
(3) Multicellular hyphae
(4) Both 1 and 3
BC1186

82. In fungi sexual reproduction is by :-
(1) Fragmentation, Ascospores and Basidiospores
(2) Budding, Conidia, and Basidiospores
(3) Oospores, Ascospores and Basidiospores
(4) Fission, Zoospores, Oospores
BC1187

83. Mycelium of members of phycomycetes is:-
(1) Septate and coenocytic
(2) Aseptate and coenocytic
(3) Septate and multicellular
(4) Septate and unicellular
BC1188

84. Choose the incorrect statement about phycomycetes :-
(1) Members are found in aquatic habitats
(2) Spores are endogenously produced in sporangium
(3) Zygospore is formed by reduction division
(4) Its members reproduce sexually may be isogamous, anisogamous or oogamous.
BC1189

85. Which fungus is used extensively in biochemical and genetic work ?
(1) *Agaricus* (2) *Aspergillus*
(3) *Claviceps* (4) *Neurospora*
BC1190

86. Choose the incorrect statement about ascomycetes :-
(1) Mycelium is branched and septate
(2) Sexual spores are produced endogenously
(3) They have sac like structure in which karyogamy takes place
(4) Reduction division occurs in fruiting bodies and form conidia
BC1191

87. Which group of organism is related with basidiomycetes ?
(1) Mushroom, *Ustilago*, *Aspergillus*
(2) Puffballs, *Agaricus*, *Aspergillus*
(3) Mushroom, *Ustilago*, *Agaricus*
(4) *Ustilago*, *Aspergillus*, *Agaricus*
BC1192

88. Which set of diseases is caused by members of basidiomycetes ?
(1) Rust and smut
(2) Ergot and smut
(3) Ergot and rust
(4) Citrus canker and rust
BC1193

89. Fungi imperfacti are called,
(1) members of phycomycetes
(2) members of ascomycetes
(3) members of basidiomycetes
(4) members of deuteromycetes
BC1194

90. Which is not found in members of deuteromycetes ?
(1) Asexual reproduction
(2) Mode of nutrition
(3) Structure of mycelium
(4) Sexual reproduction
BC1195

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91. Which of the following are noncellular organisms that are characterized by having an inert crystalline structure outside the living cell :-
(1) Bacteria (2) *Mycoplasma*
(3) Virus (4) Lichen
BC1196

92. Select false statement :-
(1) Lichens are symbiotic association between algae & fungi
(2) Viruses are smaller than bacteria
(3) Virus name are obligate parasites
(4) Viruses are facultative parasite
BC1197

93. Select incorrect statement about viroid :-
(1) Free infectious RNA
(2) It was discovered by T.O. Diener
(3) It causes potato spindle tuber disease
(4) It contains high molecular weight RNA
BC1198

94. Which is incorrect statement ?
(1) The *Mycoplasma* are organisms that completely lack a cell wall
(2) *Mycoplasma* can survive without oxygen
(3) *Mycoplasma* are the smallest living cells.
(4) *Mycoplasma* can cause disease only in plants
BC1199

95. Generally plant viruses are :-
(1) Double stranded DNA viruses
(2) Single stranded RNA viruses
(3) Single stranded DNA viruses
(4) Double stranded RNA viruses
BC1200

96. Which group does not produce embryo ?
(1) Algae (2) Moss
(3) Liverworts (4) Club moss
PD1201

97. In which group the male and female sex organs are called antheridia and archegonia, respectively ?
(1) Blue green algae (2) Eubacteria
(3) Protista (4) Bryophyta
PD1202

98. The group of plants, in which body is differentiated into root, stem and leaf :-
(1) Chlorophyceae (2) Phaeophyceae
(3) Lycopsida (4) Hepaticopsida
PD1203

99. Which is not an example of moss plants ?
(1) *Funaria* (2) *Polytrichum*
(3) *Sphagnum* (4) *Colletotrichum*
PD1204

100. Strobilli or cones are not formed in :-
(1) Lycopods (2) Sphenopsids
(3) Conifers (4) Ferns
PD1205

101. In which group of plants both male and female gametophytes do not have an independent free living existence ?
(1) Bryophytes (2) Pteridophytes
(3) Gymnosperms (4) Both 1 and 2
PD1206

102. The gametophyte of pteridophytes require to grow :-
(1) Warm, damp, and shady place
(2) Cool, damp, and shady place
(3) Warm, dry, and shady place
(4) Cool, dry, and place of well sunshine
PD1207

103. Zygotic meiosis occurs in :-
(1) *Pinus* (2) *Funaria*
(3) *Pteridium* (4) *Chara*
PD1208

104. The megaspore mother cell in gymnosperms is differentiated from :-
(1) Integument (2) Embryosac
(3) Nucellus (4) Endosperm
PD1209

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105. A group of algae, having following characters:-

(a) Chlorophyll a and b are present

(b) Chloroplast has one or many pyrenoids

(c) Cell wall made of cellulose and pectose

(d) Reserve food material is starch

Which one of the following is also a very important character including above characters to call it as a member of chlorophyceae ?

(1) Plant body colonial only

(2) Plant body is made of haploid cells called as gametophyte

(3) Its flagellar character may be 2–8 in number, equal and apical

(4) It may occur in fresh water, brackish water or salt water

PD1210

106. Integumented megasporangia are formed in:-

(1) Phanerogames

(2) Cryptogames only

(3) Gymnosperms only

(4) Pteridophytes only

PD1211

107. Needle like leaves to reduce the surface area, thick cuticle, and sunken stomata to reduce water loss etc. are the xerophytic characters present in :-

(1) Pteridophytes (2) Gymnosperms

(3) Angiosperms (4) Sphenopsida

PD1212

108. Consider the following characters :-

(A) Formation of only one functional megaspore in a megasporangium

(B) Formation of hard covering around megasporangium

(C) Development of embryo from zygote within the female gametophyte

(D) Retention of megaspore inside the megasporangium

These were very essential events occurred during the course of evolution for the phenomenon of:-

(1) Heterospory

(2) Seed habit

(3) Fruit formation

(4) Covered seed formation

PD1213

109. In gymnosperms, the megaspore forms :-

(1) Endosperm (2) Female gamete

(3) Male gamete (4) Male cone

PD1214

110. Find the odd one with respect to ploidy?

(1) Spore (2) Sporophyte

(3) Archegonium (4) Antheridium

PD1215

111. Which of the following is odd one from the following about liverworts ?

(1) Foot, Seta, Capsule

(2) Spore, Archegonium, Antheridium

(3) Multicellular rhizoids, Protonema

(4) Rhizoids, Gemmae

PD1216

112. Which is not true about fern plants ?

(1) They produce sori on sporophylls

(2) They produce male and female cone by spiral arrangement of sporophylls

(3) Some fern plants are heterosporous also

(4) Some ferns are aquatic also

PD1217

113. Which group of plants is of less economic importance but have great ecological importance?

(1) Gymnosperms (2) Angiospems

(3) Bryophyta (4) Pteridophyta

PD1218

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114. Normally in gymnosperms how many archegonia are produced in an ovule ?
(1) One (2) Two
(3) Two or more (4) Always one
PD1219

115. Fusion between a large, nonmotile (static) female gamete and a smaller, motile male gamete is termed as :-
(1) Isogamy (2) Oogamy
(3) Anisogamy (4) Autogamy
BC1220

116. Vascular plants producing integumented megasporangia but not ovary are :-
(1) Pteridophytes
(2) Gymnosperms
(3) Angiosperms
(4) Bryophytes
PD1221

EXERCISE-III(B) ANALYTICAL QUESTIONS

117. Water is essential in bryophyta :-
(1) For fertilization and homosporous nature
(2) Water should be filled in archegonium for fertilization
(3) Water is necessary for movement of sperm
(4) For dissemination spores
PD0586

118. Which statement is wrong for *Cycas* ?
(1) Xylem have vessels
(2) Male cones are well developed
(3) It has coralloid roots
(4) Circinate ptyaxis/Circinate vernation
PD0587

119. Walking fern name of *Adiantum* is due to :-
(1) Dispersal by animals
(2) Reproduction by spores
(3) Vegetative reproduction
(4) Power of locomotion
BC1094

120. Modern farmer's can increase the yield of Paddy upto 50% by the use of :-
(1) Cyanobacteria
(2) *Rhizobium*
(3) Cyanobacteria in *Azolla pinnata*
(4) Farm yard manure
BC1095

121. Practical purpose of taxonomy or classification :-
(1) Facilitate the identification of unknown species.
(2) Explain the origin of organisms.
(3) To know the evolutionary history
(4) Identification of medicinal plants
DL0591

122. Plant pathogenic bacteria are mostly :-
(1) Gram + Non spore forming
(2) Gram - Negative non spore forming
(3) Gram + spore forming
(4) Gram (-) spore forming
BC1096

123. Which of the following statement is true for bryophyta ?
(1) Along with water absorption roots also provide anchoragement to plants
(2) Sporophyte is dominant
(3) Gametophyte is dominant and sporophyte is mostly parasitic
(4) Gametophyte is parasitic
PD0593

124. Nitrogen fixing bacteria convert :-
(1) $N_2 \rightarrow NH_3$ (2) $NH_4^+ \rightarrow$ Nitrates
(3) $NO_2 \rightarrow NO_3$ (4) $NO_3 \rightarrow N_2$
BC1097

125. Which arrangement is in correct ascending order ?
(1) Species < genus < order < family
(2) Genus < species < family < order
(3) Order < family < Genus < species
(4) Species < genus < family < order
DL0595

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126. Main reason of water bloom in rivers, lakes, sea etc. is:-
(1) Brown algae and green algae
(2) Cyanobacteria and dinoflagellates
(3) *Eichornia*
(4) Fishes

BC1098

127. Genetic material of prokaryotic cell:-
(1) Non histonic double stranded DNA
(2) Histonic double stranded DNA
(3) Histone & DNA both are absent
(4) Histone without DNA

BC1099

128. Enzymes are not found in-
(1) Fungi (2) Algae
(3) Virus (4) Cyanobacteria

BC1101

129. *Cycas* have two cotyledons but not included in angiosperms because of :-
(1) Naked ovules
(2) Seems like monocot
(3) Circinate ptyxis
(4) Compound leaves

PD0600

130. Plant Decomposers belong to :-
(1) Monera and fungi
(2) Fungi and plants
(3) Protista and Animalia
(4) Animalia and Monera

BC1102

131. Which of the following more similar in characters as compared to genus ?
(1) Species
(2) Division
(3) Class
(4) Family

DL0603

132. Adhesive pad (Haustoria) of fungi penetrate the host with the help of :-
(1) Mechanical pressure and enzymes
(2) Hooke and suckers
(3) Softening by enzymes
(4) Only by mechanical pressure

BC1104

133. Which fungal disease spreads by seed and flowers ?
(1) Loose smut of Wheat
(2) Corn stunt
(3) Covered smut of Barley
(4) Soft rot of Potato

BC1105

134. Which bacteria is utilized in Gober gas plant ?
(1) Methanogens
(2) Nitrifying bacteria
(3) Ammonifying bacteria
(4) Denitrifying bacteria

BC1106

135. In bacteria, plasmid is :-
(1) Extra chromosomal material
(2) Main DNA
(3) Non functional DNA
(4) Repetative gene

BC1107

136. Sequence of which of the following is used to know the phylogeny :-
(1) m-RNA (2) r – RNA
(3) t - RNA (4) DNA

BC1109

137. In five kingdom system, the main basis of classification :-
(1) Structure of nucleus
(2) Nutrition
(3) Structure of cell wall
(4) Asexual reproduction

BC1110

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138. Organisms which obtain energy by the oxidation of reduced inorganic compounds are called
(1) Photo autotrophs
(2) Chemo autotrophs
(3) Saprozoic
(4) Coproheterotrophs

BC1111

139. Which one of the following bacteria has found extensive use in genetic engineering work in plants:-
(1) *Clostridium septicum*
(2) *Xanthomonas citri*
(3) *Bacillus coagulens*
(4) *Agrobacterium tumefaciens*

BC1112

140. In which kingdom would you classify the archaea and nitrogen-fixing organisms, if the five-kingdom system of classification is used :-
(1) Plantae (2) Fungi
(3) Protista (4) Monera

BC1113

141. Which one pair of examples will correctly represent the grouping Spermatophyta according to one of the schemes of classifying plants :-
(1) *Acacia*, Sugarcane (2) *Pinus, Cycas*
(3) *Rhizopus, Triticum* (4) *Ginkgo, Pisum*

BC1114

142. Plants reproducing by spores such as mosses and ferns are grouped under the general term:-
(1) Cryptogams (2) Bryophytes
(3) Sporophytes (4) Thallophytes

BC1115

143. Chlorenchyma is known to develop in the :-
(1) Cytoplasm of *Chlorella*
(2) Mycelium of a green mould such as *Aspergillus*
(3) Spore capsule of a moss
(4) Pollen tube of *Pinus*

PD0617

144. Phenetic classification is based on :-
(1) The ancestral lineage of existing organisms
(2) Observable characteristics of existing organisms
(3) Dendograms based on DNA characteristics
(4) Sexual characteristics

DL0618

145. Which one of the following pairs of plants are not seed producers ?
(1) *Fern* and *Funaria*
(2) *Funaria* and *Ficus*
(3) *Ficus* and *Chlamydomonas*
(4) *Punica* and *Pinus*

PD0619

146. Species are considered as :-
(1) Real basic units of classification
(2) The lowest units of classification
(3) Artificial concept of human mind
(4) Biggest units of classification devised by taxonomists

DL0620

147. In oogamy, fertilization involves :-
(1) A large motile female gamete and a small non–motile male gamete
(2) A small non–motile female gamete and a large motile male gamete
(3) A large non–molile female gamete and a small motile male gamete
(4) A large non–motile female gamete and a large non–motile male gamete

PD0621

148. Flagella of prokaryotic and eukaryotic cells differ in :-
(1) Microtubular organization and function
(2) Type of movement and placement in cell
(3) Location in cell and mode of functioning
(4) Microtubular organization and type of movement

BC1116

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149. If by radiation all nitrogenase enzyme are inactivated, then there will be no :-
(1) Conversion from ammonium to nitrate in soil
(2) Fixation of nitrogen in legumes
(3) Fixation of atmospheric nitrogen
(4) Conversion from nitrate to nitrite in legumes

BC1117

150. Which one of the following pairs is not correctly matched ?
(1) *Rhizobium* – Biofertilizer
(2) *Streptomyces* – Antibiotic
(3) *Serratia* – Drug addiction
(4) *Spirulina* – Single cell protein

BC1118

151. A free living nitrogen–fixing cyanobacterium which can also form symbiotic association with the water fern *Azolla* is :-
(1) *Anabaena*
(2) *Tolypothrix*
(3) *Chlorella*
(4) *Nostoc*

BC1119

152. Top-shaped multiciliate male gemetes, and the mature seed which bears only one embryo with two cotyledons, are characteristic features of :
(1) Cycads
(2) Gamopetalous angiosperms
(3) Conifers
(4) Polypetalous angiosperms

PD0628

153. Carbohydrates, the most abundant biomolecules on earth, are produced by :
(1) some bacteria, algae and green plant cells
(2) all bacteria, fungi and algae
(3) fungi, algae and green plant cells
(4) viruses, fungi and bacteria

PD0629

154. Match items in Column-I with those in Column-II:

Column-I	**Column-II**
(A) Peritrichous flagellation	(J) *Ginkgo*
(B) Living fossil	(K) *Macrocystis*
(C) Rhizophore	(L) *Escherichia coli*
(D) Smallest flowering plant	(M) *Selaginella*
(E) Largest perennial alga	(N) *Wolffia*

Select the correct answer from the following :
(1) A–L ; B–J ; C–M; D–N ; E–K
(2) A–J ; B–K ; C–N; D–L ; E–K
(3) A–N ; B–L ; C–K; D–N ; E–J
(4) A–K ; B–J ; C–L; D–M ; E–N

PD0630

155. Barophilic prokaryotes :
(1) occur in water containing high concentrations of barium hydroxide.
(2) readily grow and divide in sea water enriched in any soluble salt of barium
(3) grow and multiply in very deep marine sediments
(4) grow slowly in highly alkaline frozen lakes at high altitudes

BC1121

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156. Study the following statements carefully and give the answer :-

A. Biological names are generally in Latin and printed in italics.

B. The first word in biological names represents the genus.

C. Both the words in a biological name are separately underlined when printed.

D. The first word of biological name starts with capital letter when given in memory of a person otherwise with small letter.

(1) A, D – correct B, C – correct

(2) A, C – correct B, D – incorrect

(3) A, B – correct C, D – incorrect

(4) A, B – incorrect C, D – correct

DL0634

157. How many are the **incorrect** statements from the followings ?

(A) In museum insects are preserved in insect boxes after collecting and killing.

(B) Monkey, gorilla and gibbon are placed in class mammalia.

(C) In an order similar characters are more as compared to different genera included in a family.

(D) Three pairs of jointed legs are present in all chordates.

(1) Two (2) Three (3) One (4) Four

DL0635

158. Which of the following is / are not correctly match?

	Common Name	Genus	Family
(i)	Man	*Homo*	Hominidae
(ii)	Housefly	*Musa*	Muscidae
(iii)	Mango	*Mangifera*	Anacardiaceae
(iv)	Wheat	*Triticum*	Poaceae

(1) i & ii (2) only i (3) only ii (4) iii & iv

DL0636

159. How many of the followings are taxa ?

Dogs, Cats, Mammals, Wheat, Rice, Plants, Wood, Mango, Leaves, Jointed legs.

(1) Eight (2) Six

(3) Seven (4) One

DL0637

160.

(A)

(B)

Identify A and B and select the right option giving their some of the features correctly ?

	I	II	III
(1)	(A) is Herbarium	Plant specimens are stored alive	Help in identification of plant
(2)	(B) is Herbarium	Animal specimens are stored alive	Help in studying anatomy
(3)	(B) is zoological park	Living animals are kept there	Help in studying animal behaviour
(4)	(A) is zoological park	Living plant parts are kept	Help to study plant physiology

DL0638

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161. How many are the **incorrect** statements from the followings ?

(A) Lower the taxa, more are the characteristics that the members within the taxon share

(B) Higher the taxonomic category, greater is the difficulty of determining the relationships to other taxa at the same level

(C) In lower taxa the problems of classification becomes more complex

(D) As we go higher from species to kingdom, the number of common characters increases

(1) One (2) Two

(3) Three (4) Four

DL0639

162. Some taxonomical aids are given in the following options; which option is correct to be used as quick referral system ?

(1) Herbarium and books

(2) Botanical garden and Zoological park

(3) Zoological park and Herbarium

(4) Biological museum and Zoological park

DL0640

163. Nomenclature is very must in taxonomy which of the following is **not correct** about scientific nomenclature ?

(1) They ensure that each organism has only one name

(2) They also ensure that such a name has not been used for any other known organism

(3) Scientific nomenclature is a standardised naming system

(4) Different countries of the world use different kinds of scientific nomenclature system

DL0641

164. The relation of solanaceae and convolvulaceae with polymoniales is similar to the relation occuring in:-

(1) Felidae and canidae with carnivora

(2) Primata and carnivora with mammalia

(3) Amphibia and reptilia with chordata

(4) *Solanum* and *Petunia* with solanaceae

DL0642

165. Classification system are changing every now and then because an attempt has been made to evolve such a system ultimately which is able to explain evolutionary relations in organisms. What was the correct sequence of these types of classification systems with respect to their evolution :-

(1) Practical → Artificial → Natural → Phylogenetic → Numerical

(2) Artificial → Practical → Numerical → Phylogenetic

(3) Practical → Artifical→ Natural → Numerical → phylogenetic

(4) Numerical → Artifical → Natural → Practical → phylogenetic

DL0643

166. In potato, brinjal, lion, leopard, and tiger, how many species and genera are there respectively ?

(1) 4 & 2 (2) 5 & 3 (3) 5 & 4 (4) 5 & 2

DL0644

167. The correct sequence of evolution is :-

(1) Bryophyta → Pteridophyta → Gymnosperms → Dicots → Monocots

(2) Pteridophyta → Gymnosperms → Dicots → Monocots → Bryophyta

(3) Bryophyta → Gymnosperms → Dicots → Monocots → Angiosperms

(4) Bryophyta → Pteridophyta → Gymnosperms → Monocots → Dicots

PD0645

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168. Suffix is not used for :-
(1) Genus (2) Species
(3) Kingdom (4) All of them
DL0646

169. Which of the following is non-cellular organism?
(1) Bacteria (2) Fungi
(3) Algae (4) Virus
BC1124

170. Find the **incorrect** match :-

	Column-I	Column-II
(1)	*Ustilago*	belongs to class basidiomycetes
(2)	*Agaricus*	belongs to class basidiomycetes
(3)	*Trichoderma*	sexual cycle is found
(4)	*Alternaria*	sexual cycle is not found

BC1125

171. Find the **incorrect** statement about fungi :-
(1) They show a great diversity in morphology and habitats
(2) Fungi are cosmopolitan and occur in air, water, soil and as parasites also
(3) They prefer to grow in cold and dry places
(4) With the exception of yeasts, fungi are filamentous
BC1126

172. Find the **correct** statements about fungi :-
(A) Most of the fungi are saprophytes
(B) Fungi can also survive as symbionts
(C) Sexual reproduction in fungi involves three steps
(D) Reduction division in fungi occurs in fruiting bodies which forms haploid spores
(1) A, B are correct
(2) C, D are correct
(3) A, B & C are correct
(4) A, B, C & D are correct
BC1127

173. Choose the **incorrect** statement regarding decomposer :-
(1) They may be prokaryotes or eukaryotes.
(2) They may be unicellular or multicellular
(3) They convert inorganic into organic compounds
(4) They play a great role in ecology
BC1128

174. With respect to fungal sexual cycle, what is the correct sequence ?
(1) Karyogamy, plasmogamy & meiosis
(2) Meiosis, plasmogamy & karyogamy
(3) Plasmogamy, karyogamy & meiosis
(4) Meiosis, karyogamy & plasmogamy
BC1129

175. For Bryophytes, select the **incorrect** statement in the followings :-
(1) The plant body of liverworts is thalloid & erect.
(2) Mosses have upright, slender axis bearing spirally arranged leaves.
(3) Spores germinate to form gametophyte
(4) The zygote produces a sporophyte
PD0654

176. Which of the following is not a character related to Red Algae ?
(1) Sexual reproduction is oogamous.
(2) They occur in both well lighted areas and great depths of oceans.
(3) The food stored in them is cyanophycean starch, very similar to amylopectin and glycogen.
(4) They reproduce asexually by non motile spores.
PD0655

177. Find the **incorrect** from the following :-
(1) Sporophyte of moss is more elaborate than that in liver worts
(2) Gemmae are asexual buds formed in moss only.
(3) *Funaria, Polytrichum* & *Sphagnum* are moss plants
(4) After meiosis spores are produced within the capsule of bryophytes
PD0656

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178. Oogamous type of sexual reproduction is found in :-
(1) *Chlamydomonas* & *Spirogyra*
(2) *Chlamydomonas* & *Ulothrix*
(3) *Spirogyra* & *Ulothrix*
(4) *Volvox* & *Fucus*

PD0657

179. A plant shows sporophyte as a main generation. Its gametophyte shows rhizoids and is haploid. It needs water to complete its life cycle because the male gametes are motile. Identify the group to which it belongs to :-
(1) Pteridophytes (2) Gymnosperms
(3) Monocots (4) Bryophytes

PD0658

180. A protonema is ?
(1) A structure in pteridophytes formed before the thallus develops
(2) A sporophytic free living structure formed in pteridophytes
(3) A creeping, green, filamentous and gametophytic structure produced in bryophytes.
(4) A primitive structure formed after fertilization in pteridophytes

PD0659

181. Read the following statements & select the correct option :
(A) Gymnosperms do not show xerophytic characters.
(B) In *Cycas* coralloid roots are associated with mycorrhiza
(C) In conifers needle like leaves reduce the surface area.
(D) All gymnosperms are heterosporous
How many above statements are correct & incorrect?
(1) 2 - correct, 2 - incorrect
(2) 3 - correct, 1 - incorrect
(3) 1 - correct, 3 - incorrect
(4) 0 - correct, 4 - incorrect

PD0660

182. As we go from species to kingdom in a taxonomic hierarchy, the number of common characteristics
(1) Will decrease
(2) Will increase
(3) Remain same
(4) May increase or decrease

DL0756

183. Which of the following 'suffixes' used for units of classification in plants indicates a taxonomic category of 'family'.
(1) Ales (2) Onae
(3) Aceae (4) Ae

DL0757

184. The term 'systematics' refers to:
(1) Identification and classification of plants and animals
(2) Nomenclature and identification of plants and animals
(3) Diversity of kinds of organisms and their relationship
(4) Different kinds of organisms and their classification

DL0758

185 Genus represents
(1) An individual plant or animal
(2) A collection of plants or animals
(3) Group of closely related species of plants or animals
(4) None of these

DL0759

186. The taxonomic unit 'Phylum' in the classification of animals is equivalent to which hierarchial level in classfication of plants
(1) Class
(2) Order
(3) Division
(4) Family

DL0760

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187. All living organisms are linked to one another because
(1) They have common genetic material of the same type
(2) They share common genetic material but to varying degrees
(3) All have common cellular organization
(4) All of above

LW0763

188. Which of the following is a defining characteristic of living organisms?
(1) Growth
(2) Ability to make sound
(3) Reproduction
(4) Response to external stimuli

LW0764

189. Match the following and choose the correct option:

A. Family	i. *Solanum tuberosum*
B. Kingdom	ii. Polymoniales
C. Order	iii. *Solanum*
D. Species	iv. Plantae
E. Genus	v. Solanaceae

Options
(1) i-D, ii-C, iii-E, iv-B, v-A
(2) i-E, ii-D, iii-B, iv-A, v-C
(3) i-D, ii-E, iii-B, iv-A, v-C
(4) i-E, ii-C, iii-B, iv-A, v-D

DL0765

190. All eukaryotic unicellular organisms belong to
(1) Monera (2) Protista
(3) Fungi (4) Bacteria

BC1131

191. The five kingdom classification was proposed by
(1) R.H. Whittaker (2) C.Linnaeus
(3) A. Roxberg (4) Virchow

BC1132

192. Organisms living in salty areas are called as
(1) Methanogens
(2) Halophiles
(3) Heliophytes
(4) Thermoacidophiles

BC1133

193. Naked cytoplasm, multinucleated and saprophytic are the characteristics of
(1) Monera (2) Protista
(3) Fungi (4) Slime molds

BC1134

194. An association between roots of higher plants and fungi is called
(1) Lichen (2) Fern
(3) Mycorrhiza (4) BGA

BC1135

195. A dikaryon is formed when
(1) Meiosis is arrested
(2) The two haploid nuclei do not fuse immediately
(3) Cytoplasm does not fuse
(4) None of the above

BC1136

196. *Contagium vivum fluidum* was proposed by
(1) D.J. Ivanowsky
(2) M.W. Beijerinek
(3) Stanley
(4) Robert Hook

BC1137

197. Mycobiont and Phycobiont are found in
(1) Mycorrhiza (2) Root
(3) Lichens (4) BGA

BC1138

198. Difference between Virus and Viroid is
(1) Absence of protein coat in viroid but present in virus
(2) Presence of low molecular weight RNA in virus but absent in viroid
(3) Both a and b
(4) None of the above

BC1139

199. With respect to fungal sexual cycle, choose the correct sequence of events
(1) Karyogamy, Plasmogamy and Meiosis
(2) Meiosis, Plasmogamy and Karyogamy
(3) Plasmogamy, Karyogamy and Meiosis
(4) Meiosis, Karyogamy and Plasmogamy

BC1140

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200. Viruses are non-cellular organisms but replicate themselves once they infect the host cell. To which of the following kingdom do viruses belong to?
(1) Monera
(2) Protista
(3) Fungi
(4) None of the above

BC1141

201. Members of phycomycetes are found in
i. Aquatic habitats
ii. On decaying wood
iii. Moist and damp places
iv. As obligate parasites on plants
Choose from the following options
(1) None of the above
(2) i and iv
(3) ii and iii
(4) All of the above

BC1142

202. Cyanobacteria are classified under
(1) Protista (2) Plantae
(3) Monera (4) Algae

BC1143

203. Fusion of two gametes which are dissimilar in size is termed as
(1) Oogamy
(2) Isogamy
(3) Anisogamy
(4) Zoogamy

PD0779

204. Holdfast, stipe and frond constitutes the plant body in case of
(1) Rhodophyceae
(2) Chlorophyceae
(3) Phaeophyceae
(4) All of the above

PD0780

205. A plant shows thallus level of organization. It shows rhizoids and is haploid. It needs water to complete its life cycle because the male gametes are motile. Identify the group to which it belongs to
(1) Pteridophytes (2) Gymnosperms
(3) Monocots (4) Bryophytes

PD0781

206. A Prothallus is
(1) A structure in pteridophytes formed before the thallus develops
(2) A sporophytic free living structure formed in pteridophytes
(3) A gametophyte free living structure formed in pteridophytes
(4) A primitive structure formed after fertilization in pteridophytes

PD0782

207. Plants of this group are diploid and well adapted to extreme conditions. They grow bearing sporophylls in compact structures called cones. The group in reference is
(1) Monocots (2) Dicots
(3) Pteridophytes (4) Gymnosperms

PD0783

208. Protonema is
(1) Haploid and is found in mosses
(2) Diploid and is found in liverworts
(3) Diploid and is found in pteridophytes
(4) Haploid and is found in pteridophytes

PD0784

209. The giant Redwood tree (*Sequoia sempervirens*) is a/an
(1) Angiosperm
(2) Free fern
(3) Pteridophyte
(4) Gymnosperm

PD0785

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EXERCISE-III

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	**4**	**2**	**3**	**4**	**3**	**4**	**2**	**4**	**2**	**3**	**1**	**2**	**4**	**3**	**1**
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	**3**	**3**	**3**	**1**	**3**	**1**	**3**	**2**	**3**	**2**	**3**	**1**	**1**	**4**	**1**
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	**4**	**4**	**4**	**4**	**4**	**1**	**3**	**2**	**4**	**4**	**1**	**1**	**4**	**1**	**1**
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	**2**	**3**	**2**	**1**	**3**	**1**	**2**	**1**	**3**	**2**	**3**	**2**	**4**	**1**	**3**
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	**2**	**1**	**1**	**3**	**4**	**4**	**3**	**2**	**2**	**4**	**2**	**3**	**4**	**4**	**1**
Que.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Ans.	**3**	**3**	**2**	**2**	**1**	**2**	**3**	**2**	**3**	**4**	**4**	**3**	**1**	**4**	**4**
Que.	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Ans.	**3**	**4**	**4**	**4**	**2**	**1**	**4**	**3**	**4**	**4**	**3**	**2**	**4**	**3**	**3**
Que.	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Ans.	**1**	**2**	**2**	**1**	**2**	**3**	**2**	**3**	**3**	**2**	**2**	**3**	**1**	**3**	**3**
Que.	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135
Ans.	**1**	**2**	**3**	**1**	**4**	**2**	**1**	**3**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Que.	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
Ans.	**2**	**2**	**2**	**4**	**4**	**4**	**1**	**3**	**2**	**1**	**1,2**	**3**	**4**	**2**	**3**
Que.	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165
Ans.	**1**	**1**	**1**	**1**	**3**	**3**	**1**	**3**	**3**	**3**	**2**	**1**	**4**	**1**	**1**
Que.	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Ans.	**4**	**1**	**4**	**4**	**3**	**3**	**4**	**3**	**3**	**1**	**3**	**2**	**4**	**1**	**3**
Que.	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195
Ans.	**1**	**1**	**3**	**3**	**3**	**3**	**2**	**4**	**1**	**2**	**1**	**2**	**4**	**3**	**2**
Que.	196	197	198	199	200	201	202	203	204	205	206	207	208	209	
Ans.	**2**	**3**	**1**	**3**	**4**	**4**	**3**	**3**	**3**	**4**	**3**	**4**	**1**	**4**	