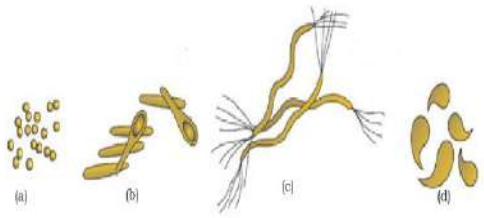
2 Biological Classification

1. Choose the correct with respect to earliest for scientific basis of classification **(Pg. 16, E)**
   A) It was proposed by Aristotle
   B) Plants were divided as trees, shrubs & herbs on the basis of their morphological characters
   C) Animals were classified into two groups that are those which have red blood and those that did not
   D) All of these
2. Linnaeus system of classification did not deal with – **(Pg. 16, E)**
   A) Eukaryotes and prokaryotes
   B) Unicellular & multicellular
   C) Photosynthetic & non – photosynthetic
   D) All of these
3. How many kingdom according to five kingdom classification and Linnaeus system of classification is/are dedicated for prokaryotes exclusively **(Pg. 16, E)**
   A) 1, 0 B) 1, 1
   C) 2, 0 D) 3, 1
4. Moneran cell wall is composed by- **(pg. 17, E)**
   A) Polysaccharide (Non cellulose) only
   B) Polysaccharide (cellulose)
   C) Polysaccharide (chitin)
   D) Amino acid and Non cellulosic polysaccharide
5. Chemosynthetic mode of nutrition is found is – **(Pg. 17, E)**
   A) Monera B) Protist
   C) Plantae D) Fungi
6. R.H Whittaker classification is/are based upon – **(Pg. 17, E)**
   A) Cell structure & body organisation
   B) Mode of nutrition & reproduction
   C) Phylogentic relationship
   D) All of these
7. Five kingdom classification was proposed in – **(Pg. 17, E)**
   A) 1969 B) 1996
   C) 1699 D) None of these
8. Choose the correct about 3 – domain system **(Pg. 17, E)**
   A) Two domain are dedicated for prokaryotic while one domain is dedicated for eukaryotic
   B) One domain is dedicated for prokaryotic while two domains are for eukaryotic
   C) It has seven kingdom which are categorised in 3 – domain
   D) It has six kingdom of which one kingdom is in first and third domain while 5 – kingdom is second domain.
9. Earlier classification system included bacteria, BGA (blue green algae) fungi, mosses, ferns under 'Plants' on basis of- **(Pg. 17, E)**
   A) Mode of nutrition
   B) Body organisation & nuclear structure
   C) Presence of cell wall
   D) Nature of cell wall.
10. How many of following are prokaryotes: **(Pg. 17, E)**
    Bacteria, Mosses, ferns, fungi, pteridophyta, blue green algae, gymnosperms angiosperm
    A) 1 B) 2
    C) 3 D) More than 4
11. Fungi has cell wall composed of– **(Pg. 17, E)**
    A) Cellulose
    B) Non – cellulosic + amino acid
    C) Chitin
    D) Absence of cell wall
12. How many kingdom from R.H. Whittaker system does have exclusive autotrophic mode of nutrition **(Pg. 17, E)**
    A) Zero B) One
    C) Two D) Three
13. Unicellular eukaryotic are categorised in- **(Pg. 17, E)**
    A) Monera B) Protista
    C) Plantae D) Animalia
14. How many of the following does belong to Protista **(Pg. 18, E)**
    Amoeba, Spirogyra, Chlamydomonas, Chlorella, Paramecium
    A) 5 B) 4
    C) 3 D) 2
15. In five kingdom classification multicellularity began from –**(Pg. 18, E)**
    A) Animalia B) Plantae
    C) Protista D) Fungi

Paragraph – 2.1
Kingdom Monera

16. Identify shape of bacteria **(Pg. 18, E)**



A) a = cocci, b = rod – shaped, c = bacilli, d = comma – shaped
B) a = spherical coccus, B = Bacilli, c = spirilla, d = vibrio
C) a = cocci, b = spirilla, c = vibrio, d = Bacilli
D) a = vibrio, b = spirilla, c = bacilli, d = coccus

17. choose the correct statement: **(Pg. 18, E)**
A) Bacteria are sole members of kingdom monera.
B) Bacteria are abundant macro – organism
C) Bacteria occurrence is limited to some area.
D) Bacteria can't live in extreme habitat like desert

18. On the basis of shape; bacteria are grouped under_____ categories **(Pg. 18, E)**
A) Four B) Five
C) Three D) None of these

19. Choose the correctly stated statement **(Pg. 19, E)**
A) Bacterial structure and behaviour are complex.
B) Bacterial structure and behaviour are simple
C) Bacterial structure is complex while behaviour is simple
D) Bacterial structure is simple while behaviour is complex

20. Synthesis of own food from inorganic substrate is occur in – **(Pg. 19, E)**
A) Autotrophic nutrition
B) Chemosynthetic autotroph
C) Photosynthetic autotroph
D) All of these

Paragraph – 2.1.1 Archaebacteria

21. Match the column – I & column – II **(Pg. 19, M)**

	Column – I		Column – II
(i)	Halophiles	(a)	Marshy area
(ii)	Thermoacidophiles	(b)	Salty area
iii)	Methanogens	(c)	Hot springs

A) i) – c, ii) – b, iii – a
B) i) – c, ii) – a, iii – b
C) i) – b, ii) – c, iii – a
D) i) – b, ii) – a, iii – c

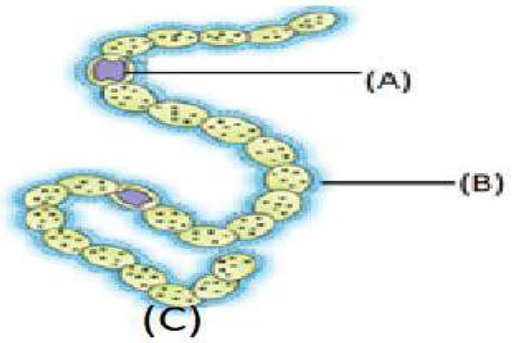
22. Archaebacteria differ from other bacteria in having **–(Pg. 19, E)**
A) Definite nuclear structure
B) Cell wall structure
C) Adaptability cytoplasmic concentration
D) Some membranous cell organelles

23. Survival of archaebacteria in extreme condition is achieved by **–(Pg. 19, E)**
A) Cell wall structure
B) Some membranous cell organelles
C) Adaptability & cytoplasm
D) All of these

24. Which of following statement is/are false **(Pg. 19, M)**
A) Methanogens are present in alimentary canal of several ruminant animals like cow & buffaloes
B) Methanogens are responsible for production of biogas from dung of ruminant animals
C) Methanogens are present in gut of several non – ruminant like cow & buffaloes
D) A & B

Paragraph – 2.1.2 Eubacteria

25. Label A , B and identify organism (c) **(Pg. 19, E)**



A) A = Heterocyst B = Mucilagenous sheath C = Nostoc, an archaebacteria
B) A = Heterocyst B = Mucilagenous sheath C = Nostoc
C) A = Mucilagenous, B = Heterocyst, C = Nostoc
D) A = heterocyst, B = Mucilagenous sheath, C = Nostoc, a filamentous algae

26. Choose the correct about blue green algae **(Pg. 19, M)**
i. Also known as cyanobacteria
ii. Presence of chlorophyll a, b similar to green plants
iii. Photosynthetic autotroph
iv) May be unicellular, colonial or filamentous
v. Occur in aquatic as well as terrestrial
A) i), iii), iv), v) B) i), ii), iii), iv), v)
C) i), ii), iv), v) D) None of these

27. Nitrogen fixation is done by – **(Pg. 19, E)**
A) Specialised vegetative cell i.e. Heterocyst of Nostoc & Anabaena
B) Specialised reproductive cell i.e. Heterocyst of Nostac & Anabaena
C) Specialised vegetative as well as reproductive cell i.e. Heterocyst of Nostoc & Anabaena
D) None

28. Choose the wrong statement for chemosynthetic autotroph bacteria **(Pg. 19, E)**
A) They oxidise various inorganic substrate such as nitrates, nitrites & ammonia and use the released energy for their ATP production
B) They play great role in recycling nutrient like nitrogen phosphorous, iron & sulphur
C) For their energy production they utilize solar energy
D) They can prepare their food from inorganic substrate.

29. Citrus canker is – **(Pg. 20, E)**
A) Plant disease cause by bacteria
B) Human disease cause by bacteria
C) Pet disease cause by bacteria
D) None of these

30. Which of following is not economic importance of heterotrophic bacteria **(Pg. 19, E)**
A) Making curd from milk
B) Antibiotic production
C) N_2 fixing in legumes root
D) N_2 fixing in Anabaena

31. Choose the incorrect option about bacterial reproduction – **(Pg. 19, E)**
A) Bacteria reproduce mainly by fission
B) Under unfavourable condition they produce spores
C) They also reproduce by sexual reproduction
D) They show a sort of sexual reproduction

32. Here are few statement given below, Identify organism on basis of statement **(Pg. 20, M)**
i. Lack cell wall
ii. Smallest living cell known
iii. Can survive without oxygen
iv. Pathogenic in animal & plants.
A) Nostoc
B) Anabaena
C) Mycoplasma
D) Chlorella

Paragraph – 2.2
Kingdom Protista-Introduction

33. Protista includes - **(Pg. 20, E)**
A) Unicellular prokaryotes
B) Bacteriophages
C) Unicellular eukaryotes
D) B.G.A

34. Which of the following kingdoms has no well defined boundaries? **(Pg. 20, E)**
A) Monera
B) Protista
C) Fungi
D) Metaphyta and Metazoa

35. Members of Protista are primarily **(Pg. 20, E)**
A) Parasites B) Terrestrial
C) Aquatic D) Photosynthetic

36. Nearly all protists are – **(Pg. 20, E)**
A) Aerobic
B) Anaerobic
C) Aerobic or anaerobic
D) Photosynthetic

37. Nutritionally, protists are- **(Pg. 20, E)**
A) Photoautotrophs
B) Heterotrophs
C) Saprotrophs
D) Photoautotrophs, heterotrophs or autotrophs

38. Based upon the modes of nutrition, protists are grouped into – **(Pg. 20, E)**

A) Plant-like protists (algae) and ingestive, animal-like protists (protozoa); and absorptive, fungus like protists
B) Chrysophytes, Dinoflagellates and Euglenoids only
C) Slime moulds and fungi only
D) Flagellated protozoans and sporozoans only

39. Which of the following are placed under Protista-? **(Pg. 20, E)**
A) Chryosophytes and Dinoflagellates
B) Euglenoids
C) Slime moulds and protozoans
D) All

40. Locomotory structures in protists are – **(Pg. 20, E)**
A) Flagella B) Cilia
C) Pseudopodia D) All

41. Protista form a link with **–** **(Pg. 20, E)**
A) Plants only
B) Animals only
C) Fungi only
D) Plants, animals and fungi

Paragraph – 2.2.1 Chrysophytes

42. Chrysophytes include – **(Pg. 20, E)**
A) Diatoms and desmids (golden algae)
B) Euglenoids
C) Dinoflagellates
D) Slime moulds

43. Which of the following modes of reproduction can be found in at least some protists? **(Pg. 20, E)**
A) Binary fission
B) Sexual reproduction
C) Spore formation
D) All

44. Select the following statement that does not apply to diatoms – **(Pg. 20, E)**
A) Diatom cell wall may be impregnated with silicon
B) Cell wall is made up of 2 half-shells fit tightly together
C) Diatom is a chrysophyte
D) Diatom is multiflagellate

45. Silica gel (Keieselghur)/Diatomite/Diatomaceous earth is obtained by – **(Pg. 20, E)**
A) Diatoms B) Dinoflagellates
C) Euglenoids D) Brown algae

46. The diatoms do not easily decay like most of the other algae because - **(Pg. 20, E)**
A) They have highly siliceous wall
B) They have water proof cells
C) Their cell wall are mucilaginous
D) Cell wall is virus-resistant

47. Diatomaceous earth is used for all except - **(Pg. 20, E)**
A) Polishing
B) Filtration of oils and syrups
C) Sound and fire proof room
D) Biogas

48. Chrysophytes are - **(Pg. 20, E)**
A) Planktons B) Nektons
C) Benthonic D) Active swimmers

49. Chief producers in ocean are - **(Pg. 20, E)**
A) Dinoflagellates B) Diatoms
C) Euglenoids D) Green algae

50. Photosynthetic protists are - **(Pg. 20, E)**
A) Euglenoids, Diatoms and Dinoflagellates
B) Euglenoids and slime moulds
C) Diatoms and Zooflagellates
D) Desmids +Ciliates

Paragraph – 2.2.2 Dinoflagellates

51. Dinoflagellates are mostly- **(Pg. 21, E)**
A) Marine B) Fresh water
C) terrestrial D) Saprophytes

52. Red tides in warm coastal water develop due to super abundance of- **(Pg. 21, E)**
A) Dinoflagellates
B) Euglenoid forms
C) Diatoms and desmids
D) *Chlamydomonas nivalis*

53. Red tide is caused by – **(Pg. 21, E)**
A) Ceretium B) Noctiluca
C) Gonyaulax D) All of these

54. Dinoflagellates have – **(Pg. 21, E)**
A) A single flagellum in the transverse groove between the cell plates
B) A single flagellum in the longitudinal groove between the cell plates
C) Two flagella one lies longitudinally and the other transversely in a furrow between the wall plates
D) No flagella

55. In which of the following the cell wall has stiff cellulose plate on the outer surface – **(Pg. 21, E)**
A) Dinoflagellates B) Desmids
C) Diatoms D) Euglenoids

56. Which of the following releases toxins that may even kill other marine animals like fishes – **(Pg. 21, E)**
A) Gonyaulax B) Paramecium
C) Euglenoids D) Sporozoans

Paragraph – 2.2.3 Euglena

57. Euglenoids e.g. *Euglena* are found – **(Pg. 21, E)**
A) In fresh running water
B) In fresh stagnant water
C) In marine environment
D) In both fresh and marine water
58. Which of the following statements about *Euglena* is true? **(Pg. 21, E)**
A) Euglenoids are flagellates
B) Euglena placed in continuous darkness loses their photosynthetic activity and die
C) The pigments of Euglena are quite different from those of green plants
D) Euglena is a marine protist
59. Which of the following statement is true about *Euglena?* **(Pg. 21, E)**
A) They show flagellar locomotion
B) They have a rigid cell wall
C) They have no chloroplast
D) They are obligate autotroph
60. **(Pg. 21, E)**
i. Instead of a cell wall they have a protein rich pellicle making their body flexible.
ii. They have 2 flagella, a short and a long one.
iii. They have mixotrophic nutrition
iv. In light they are photosynthetic, but act as heterotroph (predating other smaller organism) when they are in dark.
v. They are connecting link between plants and animals.
The above statements are assigned to –
A) Dinoflagellates
B) Slime mould
C) Desmids and Diatoms
D) Euglena

Paragraph – 2.2.4 Slime Moulds

61. Slime moulds – **(Pg. 21, E)**
A) Are parasite
B) Do not produce fruiting bodies
C) Do not produce spores
D) Saprophytic protists
62. The slimy mass of protoplasm with nuclei forms the body of slime moulds is called – **(Pg. 21, E)**
A) Plasmodium
B) Myxamoeba
C) Sporocytes
D) Periplasmodium
63. Which of the following is correct about the slime mould? **(Pg. 21, E)**
I. Its thalloid body, plasmodium, has pseudopodia for locomotion and engulfing organic matter
II During unfavourable conditions plasmodium differentiates and produces fruiting bodies, sporangium
III. Spores possess no true cell wall.
IV. They are dispersed by air current.
V. Being extremely resistant, spores survive for many years
VI. Plasmodium can grow upto several feet.
A) I, II, IV, V, VI B) I, II , III
C) I, II , III, VI D) II, III , VI

Paragraph – 2.2.5 Protozoans

64. Protozoans are not included in kingdom Animalia because – **(Pg. 22, E)**
A) Mostly asymmetrical
B) Unicellular eukaryotes
C) Heterotrophic nature
D) Multicellular prokaryotes
65. All protozoans are – **(Pg. 22, E)**
A) Saprophytes only
B) Parasites only
C) Predators only
D) Heterotrophs (parasites or predator) only
66. Which of the following is considered to be primitive relatives of animals -? **(Pg. 22, E)**
A) Dinoflagellates B) Slime moulds
C) Protozoa D) Protochordata
67. How many major groups protozoan have? **(Pg. 22, E)**
A) 3 B) 4
C) 2 D) 8
68. Which of the following are protozoans? **(Pg. 22, E)**
A) Diatoms, flagellates, ciliates
B) Desmids, flagellates, ciliates

C) Amoeboid, flagellates, ciliates, sporozoans
D) Amoeba, ·Paramecium, dinoflagellates, Plasmodium

69. Which of the following statements is wrong about the amoeboid protozoans? **(Pg. 22, M)**
A) They live in freshwater, sea water or moist soil
B) Amoeba has pseudopodia for locomotion and capture prey
C) Entamoeba show holozoic nutrition
D) Marine forms are shelled with silica

70. Flagellated protozoans are – **(Pg. 22, E)**
A) Free living
B) Parasites
C) Either free living or parasites
D) Pseudopodia

71. Which one is correct about *Trypanosoma?*
A) They are flagellated protozoan
B) They are parasite
C) They cause sleeping sickness
D) All

72. *Paramecium-* **(Pg. 22, E)**
A) Is a ciliated protozoan
B) Shows water current movement by cilia which helps the food to be steered into gullet
C) Has a cavity (gullet) that opens to the outside of the cell surface
D) All

73. Plasmodium (malarial parasite) **(Pg. 22, E)**
A) Is a ciliated protozoan
B) Shows water current movement by cilia which helps the food to be steered into gullet
C) Causes malaria
D) All

74. Which of the following always produce an infectious spore like stage in their life cycles?
A) Ciliated protozoans
B) Flagellated protozoans
C) Sporozoans
D) None

Paragraph – 2.3
Kingdom Fungi - Introduction

75. Mode of nutrition in fungi is not – **(Pg. 22, E)**
A) Parasitic B) Saprophytic
C) Autotrophic D) Heterotrophic

76. All of the following are fungi except – **(Pg. 22, E)**
A) Yeast B) Penicillium
C) Plasmodium D) Puccinia

77. Which of the following is odd? **(Pg. 22, E)**
A) Toad stool B) Puccinia
C) Alternaria D) Mushroom

78. Cell walls of all fungi consist of the polysaccharide – **(Pg. 22, E)**
A) Chitin B) Cellulose
C) Silica D) Pectin

79. The body of multicellular fungus is called a – **(Pg. 22, E)**
A) Monokaryon B) Hyphae
C) Rhizoids D) Dikaryon

80. The cells of the body of a multicellular fungus are organised into rapidly growing individual filaments called – **(Pg. 22, E)**
A) Mycelium B) Rhizoids
C) Hyphae D) Dikaryon

81. Which one is unicellular fungus? **(Pg. 22, E)**
A) Puccinia B) Toad stool
C) Penicillium D) Yeast

82. Coenocytic hypha is – **(Pg. 22, E)**
A) Uninucleate hypha
B) Multicellular hypha
C) Multinucleate hypha without septae
D) Hypha in coelom

83. Many fungi are in ____ association with photosynthetic organisms to form mycorrhizae or lichens – **(Pg. 22, E)**
A) Parasitic B) Symbiotic
C) Photosynthetic D) Saprobic

84. Fungi can be parasites on – **(Pg. 22, E)**
A) Animals B) Human being
C) Plants D) All

85. Fungi prefer to grow in – **(Pg. 22, E)**
A) Cold and dry places
B) Hot and dry places
C) Sea water
D) Warm and humid places

86. Fungi occur- **(Pg. 22, E)**
A) In air and soil
B) In water
C) On plants and animals
D) All

87. Fungi show a great diversity in – **(Pg. 22, E)**
A) Morphology
B) Habitat
C) Both a and b

D) Nutrition

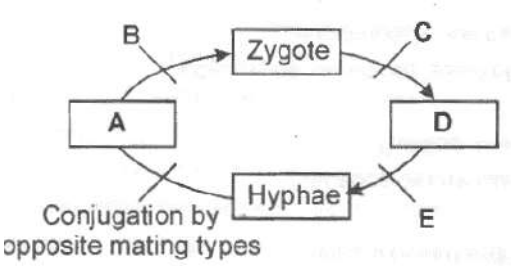
88. Reproduction in fungi can take place by all of the following vegetative methods except- **(Pg. 22, E)**
A) Gemmae B) Fragmentation
C) Fission D) Budding

89. Fungi show asexual reproduction by all of the following spores except- **(Pg. 23, E)**
A) Conidia B) Oospore
C) Sporangiospore D) Zoospores

90. Sexual reproduction in fungi is by all of the following except- **(Pg. 23, E)**
A) Oospores B) Ascopores
C) Zoospores D) Basidiospores

91. Select the correct statements below that correctly apply to the Kingdom Fungi- **(Pg. 23, E)**
A) Some fungi form beneficial interrelationships with plants
B) Certain fungi are natural sources of antibiotics
C) The fungal life cycle typically includes a spore stage
D) All

92.



93. The above diagram shows a generalized life cycle of a fungus. The appropriate terms for A to E are- **(Pg. 23, H)**
A) Spores are absent in air
B) Spores are present in the bread
C) Spores are in the air
D) The bread gets decomposed·

94. Which of the following is the correct sequence of 3 steps in the sexual cycle of fungi- **(Pg. 23, E)**
A) Mitosis ----. Meiosis ----. Fertilization
B) Plasmogamy----. Karyogamy----. Meiosis
C) Meiosis ----. Plasmogamy ----. Karyogamy
D) Karyogamy----. Plasmogamy----. Meiosis

95. Fungi are classified on the basis of – **(Pg. 23, E)**
A) Morphology of mycelium
B) Development of fruiting bodies
C) Mode of spore formation
D) All

96. Dikaryophase I Dikaryon formation is a specific characteristic of- **(Pg. 23, E)**
A) All fungi
B) Phycomycetes and ascomycetes
C) Only basidiomycetes
D) Ascomycetes and basidiomycetes

97. Coenocytic, multinucleate and branched mycelial habit is found in- **(Pg. 23, E)**
A) Basidiomycetes
B) Phycomycetes
C) Ascomycetes
D) Deuteromycetes

98.

	Column I		Column II
A.	Phycomycetes	I.	Sac fungi
B.	Ascomycetes	II.	Algal fungi
C.	Basidiomycetes	III.	Fungi imperfecti
D.	Deuteromycetes	IV.	Club fungi

The correct matching is - **(Pg. 23, H)**
A) A-II, B-I, C- IV, D-III
B) A- II, B - IV, C - I, D – III
C) A- IV, B - I, C - II, D – III
D) A- IV, B - III, C - II, D – I

Paragraph – 2.3.1
Phycomycetes

99. Members of phycomycetes are found- **(Pg. 23, E)**
I. In aquatic habitat
II. On decaying wood
III. On moist and damp places
IV. As obligate parasite on plants
A) None of the above
B) I and IV
C) II and III
D) All of the above

100. In phycomycetes asexual reproduction occurs by- **(Pg. 23, E)**
A) Zoospores (motile)
B) Aplanospores (non-motile)
C) Both
D) Aplanogamete

101. Which of the following spores are produced endogenously? **(Pg. 23, E)**
A) Zoospores and Conidia
B) Conidia and aplanospores
C) Aplanospores and zoospores
D) Aplanospore, zoospores and conidia

102. In Phycomycetes sexual reproduction occurs by **(Pg. 23, E)**
A) Isogamy and anisogamy
B) lsogamy, oogamy
C) Isogamy, anisogamy and oogamy
D) Oogamy and anisogamy

103. All the following belong to phycomycetes except – **(Pg. 23, E)**
A) Penicillium
B) Rhizopus (bread mould)
C) Mucor
D) Albugo

104. Which of the following is parasite on mustard? **(Pg. 23, E)**
A) Albugo B) Puccinia
C) Yeast D) Ustilago

Paragraph – 2.3.2 Ascomycetes

105. Which of the following is false about ascomycetes? **(Pg. 23, E)**
A) Mode of nutrition saprophytic, decomposer, coprophilous (growing on dung) and parasitic
B) Includes unicellular (e.g. yeast) and multicellular forms
C) Mycelium is coenocytic
D) Aspergillus, Claviceps, Neurospora are important members of Ascomycetes

106.
I. It includes unicellular as well as multicellular fungi
II. In multicellular forms hyphae are branched and septate
III. Conidiophore produces conidia (spores) exogenously in chain
IV. Sexual spores are ascopores produced endogenously in Ascus
V. Fruiting body is called ascocarp

Which of the above characters are show by -? **(Pg. 23, E)**
A) Phycomycetes B) Sac fungi
C) Club fungi D) Fungi imperfecti

107. Which of the following are edible ascomycete's delicacies? **(Pg. 24, E)**
A) Morels+ Mushroom
B) Truffles+ Toadstool
C) Morels+ Truffles
D) Puffball+ Mushroom

108. Which of the following is used extensively in biochemical and genetical work? **(Pg. 24, E)**
A) Agaricus B) Alternaria
C) Neurospora D) Mucor

109. Which of the following ascomycetes is the source of antibiotic? **(Pg. 24, E)**
A) Neurospora B) Penicillium
C) Claviceps D) None

Paragraph – 2.3.3 Basidiomycetes

110. Basidiomycetes include - **(Pg. 24, E)**
A) Mushroom, Toadstool, Puffball and bracket fungi
B) Smut fungi and rust fungi
C) Both a and b
D) Bread mould, sac fungi and algal fungi

111. Which of the following are common parasite basidiomycetes **(Pg. 24, E)**
A) Puccinia (rust) and Ustilago (smut)
B) Sac fungi
C) Puffballs
D) Agaricus (mushroom)

112. Where does meiosis occur in mushroom?
A) Basidiospore
B) Basidium
C) Basidiocarp
D) Ascus mother cell

113.
I. Mycelium is branched and septate
II. No asexual spores are generally formed
III. Vegetative reproduction by fragmentation is common
IV. Sex organs are absent but sexual reproduction takes place by somatogamy
V. Karyogamy and meiosis occur in basidium to form haploid exogenous 4 basidiospores
VI. Basidia are arranged in basidiocarp.

The above characters are assigned to –
A) Sac fungi **(Pg. 24, E)**
B) Club fungi
C) Algal fungi
D) Fungi imperfect

114. Plasmogamy in fungi is the fusion of- **(Pg. 24, E)**
A) Two haploid gamete cells and their nuclei at once
B) Two haploid nuclei
C) Two haploid gamete cells
D) Two diploid vegetative cells with nuclei

115. Karyogamy is - **(Pg. 24, E)**
A) Fusion of two protoplasts

B) Fusion of two nuclei
C) Fusion of two plasma membranes
D) All of these

Paragraph – 2.3.4 Deuteromycetes

116. Which of the following is false about deuteromycetes? **(Pg. 24, E)**
A) They reproduce only by asexual spores (conidia)
B) Mycelium is branched and septate
C) They have only parasitic forms
D) They have no sexual stage (perfect stage)

117. Which of the following is correct about class Deuteromycetes? **(Pg. 24, E)**
A) Some members are saprophytes or parasites
B) A large number of members are decomposers of litter and help in mineral cycling
C) Alternaria, Colletotrichum and Trichoderma are deuteromycetes
D) All

118. Sexual reproduction is found in all except – **(Pg. 24, E)**
A) Deuteromycetes
B) Ascomycetes
C) Phycomycetes
D) Basidiomycetes

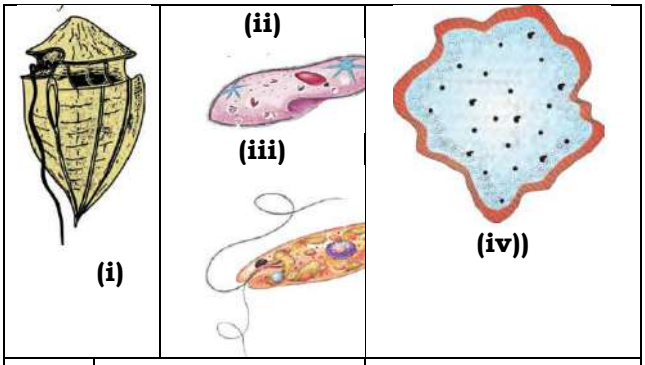
119. If sexual stage is discovered in a member of deuteromycetes, it is moved to- **(Pg. 24, E)**
A) Phycomycetes
B) Basidiomycetes
C) Ascomycetes
D) Both band c

Diagram Based Questions

120. Identify the diagram. **(Pg. 23, E)**

(A)	(i) Mucor	(ii) Aspergillus	(iii) Agaricus
(B)	(i) Aspergillus	(ii) Mucor	(iii) Agaricus
(C)	(i) Agaricus	(ii)Aspergillus	(iii) Mucor
(D)	(i) Agaricus	(ii) Mucor	(iii) Aspergillus

121. Identify the diagram. **(Pg. 21, E)**



A)	(i) Dinoflagellates	(ii) Euglena
B)	(i) Dinoflagellates	(ii) Paramoceium
C)	(i) Euglena	(ii) Dinoflagellates
D)	(i) Slime mould	(ii) Paramecium

122. Kingdom plantae includes- **(Pg. 25, E)**
i. All eukaryotic chlorophyllous organisms
ii. Some prokaryotic chlorophyllous organisms
iii. Few eukaryotic partial heterotrophic plant
iv. Few prokaryotic partial heterotrophic plant
A) i, iii B) ii, iv
C) i, ii, iii D) i, iii, iv

123. Plantae does not includes how many of following- **(Pg. 25, E)**
Algae, Fungi, Bryophyte, Bladderwort, Pteridophyta, Gymnosperm, Angiosperm
A) Zero B) One
C) Two D) Three

124. Life cycle of angiosperms plant have- **(Pg. 25, E)**
A) Diploid sporophyte & diploid gametophyte

B) Diploid gametophyte & haploid sporophyte
C) Diploid sporophyte & haploid gametophyte
D) Haploid sporophyte & haploid gametophyte

125. How many of following enlisted are correct about plantae- **(Pg. 25, E)**
I. Cells have eukaryotic structure
II. Prominent chloroplast
III. Cellulosic cell wall
IV. Life cycle has three distinct phase
V. Show alteration of generation
A) One B) Two
C) Three D) Four

Paragraph – 2.5

Kingdom Animalia

126. Kingdom Animalia are characterized by- **(Pg. 25, E)**
A) Heterotrophic eukaryotic unicellular & multicellular organism that lack cell wall
B) Holozoic ,digest food in an internal cavity and store food as complex carbohydrates or fat
C) Higher as well as lower forms show elaborate sensory mechanisms
D) All of the above

127. How many of following term is correct about Animalia- Heterotroph, eukaryotic, prokaryotic, unicellular, multicellular, store food as glycogen, presence of elaborated neuromotor mechanism without any exception, embryological development **(Pg. 25, E)**
A) 6 B) More than 6
C) 5 D) Less than 3

Paragraph – 2.6

Viruses, viroids, prions, & lichens

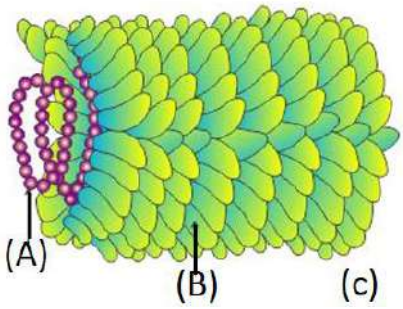
128. In R.H Whittaker system, viroids, prions & lichens are grouped into- **(Pg. 25, E)**
A) Monera B) Protista
C) Protista and fungi D) None of these

129. Viruses did not place in classification due to-
A) Lack in study of viruses
B) They are not considered truly 'living'
C) Lack of genetic material
D) All of these

130. Viruses are not- **(Pg. 25, E)**
A) Non-cellular organism
B) Inert crystalline structure outside the living cell
C) Active crystalline structure outside the living cell
D) Once they infect a cell they take over the machinery of host cell to replicate themselves, killing the host

131. The name viruses-
A) which means venom was given by Dmitri Ivanowsky
B) which means venom was given by M.W. Beijerinek
C) which means venom was given by Stanley
D) which means venom was given by Pasteur

132.



Identify a, b & organism(c)
A) a=DNA, b=capsid, c=TMV
B) a=RNA, b=capsid, c=TMV
C) a=capsid, b=DNA, c=bacteriophage
D) a=capsid, b=RNA, c=bacteriophage

133. choose the correct statement –
A) genetic material of mosaic disease of tobacco causing organism is DNA
B) Viruses were found to be smaller than bacteria but they can passed through bacteria proof filters
C) M.W Beijerinek (1898) demonstrated that the extract of infected plant of tobacco could cause infection in healthy plants
D) Viruses were found to be smaller than bacteria and they can passed through bacteria proof filters.

134. Contagium vivum fluidum was stated by – **(Pg. 26, E)**
A) Dmitri lavanowsky (1898)
B) M.W. Beijerinek (1892)
C) W.M. Stanley (1935)
D) None of these

135. Who showed that viruses could be crystallized & crystals outside host-
A) W.M. Stanley(1935)
B) M.W.Beijerinek (1898)
C) Dmitri lvanowsky (1892)
D) M.W. Stanley (1898)

136. Which of following is major constituent in crystallined virus structure – **(Pg. 26, E)**
A) Carbohydrate B) Protein
C) Fat D) Nucleic acid

137. Viruses are **(Pg. 26, E)**
A) Autotroph
B) Obligate parasite
C) Saprotroph
D) Holozoic

138. Genetic material of viruses are/is – **(Pg. 26, E)**
A) DNA
B) RNA
C) DNA and RNA both in an individual virus
D) DNA or RNA in an individual virus

139. The infection material of viruses is/are **(Pg. 26, E)**
A) Protein coat
B) Genetic material
C) Nucleoprotein
D) All of these

140. In general viruses that infect plants have- **(Pg. 26, E)**
A) ds RNA B) ss RNA
C) ds DNA D) ss DNA

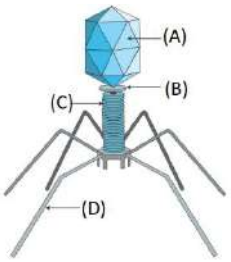
141. Animal infection viruses are not generally – **(Pg. 26, E)**
A) ss RNA B) ds RNA
C) ds DNA D) ss DNA

142. genetic material of bacteriophage is **–** **(Pg. 26, E)**
A) ds DNA B) ss RNA
C) ds RNA D) ss DNA

143. bacteriophage is – **(Pg. 26, E)**
A) bacteria that infect virus
B) virus that infect bacteria
C) bacteria that infect cellular organism
D) virus that infect other than bacteria

144. The protein coat called ___(A)___ made of small subunit called ____(B)____ that protect ____(C)____ of virus **(Pg. 26, E)**
A) A = capsomere, B = capsid, C= genetic material
B) A = capsid, B = capsomere, C = genetic material
C) A = capsid, B = capsomere, C = enzyme and mineral
D) A = capsomere, B = capsid, C = enzyme and mineral

145. Head of bacteriophage is – **(Pg. 26, E)**
A) Helical B) Polyhedral
C) Icosahedral D) A & B

146.


(Pg. 26, E)
A) A = head B = sheath, C = tail fibers, D = Collar
B) A = head B = collar C = sheath, D = tail fibers
C) A = collar B = head C = tail fibers D = sheath
D) A = tail fibers B = sheath C = head D = collar

147. Viroid was discovered by –
A) T.O. Diener (1971) **(Pg. 27, E)**
B) W.M. Stanley (1935)
C) T.O diener (1935)
D) W.M. Stanley (1971)

148. Choose the correct on basis of size : **(Pg. 27, E)**
A) Bacteria<virus<viroid
B) Viroid<virus<bacteria
C) Viroid>bacteria<virus
D) Bacteria>viroid>virus

149. Given below are statement (i-vi) choose correct set **(Pg. 27, E)**
i. Viroid=virus-capsid
ii. Potato spindle disease cause by prions
iii. Viroid have free DNA
iv. Viroid have free RNA
v. DNA of viroid was of low molecular weight
iv. RNA of viroid was of light molecular weight
A) i,iv only B) i, vi, iii
C) i, iv, vi D) i, iii, v

150. Prion cause- **(Pg. 27, E)**
A) BSE in cattle and CJD in human
B) BSE in human and CJD in cattle
C) BSE and CJD cause in cattle

D) BSE and CJD cause in human

151. Prions are- **(Pg. 27, E)**
A) Smaller than virus
B) Larger than virus
C) Smaller than viroid
D) Similar in size to viruses

152. Choose the incorrect about BSE **(Pg. 27, E)**
A) It expanded as Bovine spongiform encephalophathy
B) Caused by prion
C) Its analogous variant is CJD
D) Its homologous variant is CJD

153. Lichen are – **(Pg. 27, E)**
A) Saprotroph only
B) Symbiotic
C) Parasitic only
D) A & C

154. Lichen are mutual association of- **(Pg. 27, E)**
A) Mycobiont (fungal) and phycobiont (algae)
B) Gymnosperm root & fungi
C) Algae & gymnosperm root
D) All of these

155. Mycobiont and phycobiout are ___&___ respectively **(Pg. 27, E)**
A) Autotrophic & heterotrophic
B) Autotrophic & autotrophic
C) Heterotrophic & autotrophic
D) Heterotrophic & heterotrophic

156. The function of fungal part is lichen is/are – **(Pg. 27, E)**
A) Water absorption
B) Mineral absorption
C) Provide shelter
D) All of these

157. Lichen cannot grow in – **(Pg. 27, E)**
A) Polluted area
B) Area where there is no pollution
C) Association between fungi and algae is unpolluted region
D) All of these

Answer Key

BIOLOGICAL CLASSIFICATION

Q	01	02	03	04	05	06	07	08	09	10
Ans	D	D	A	D	A	D	A	A	D	A
Q	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Ans	C	D	B	A	D	B	A	A	D	D
Q	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Ans	C	C	A	D	D	A	A	C	B	D
Q	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Ans	C	C	C	B	C	A	D	A	D	D
Q	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
Ans	D	A	D	D	A	A	D	A	B	A
Q	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
Ans	A	A	C	C	A	A	B	A	A	D
Q	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**
Ans	D	A	A	B	D	C	B	C	D	A
Q	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
Ans	D	D	C	C	C	C	C	A	D	C
Q	**81**	**82**	**83**	**84**	**85**	**86**	**87**	**88**	**89**	**90**
Ans	D	C	B	D	D	D	C	A	B	C
Q	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**100**
Ans	D	B	C	D	D	B	A	A	D	C
Q	**101**	**102**	**103**	**104**	**105**	**106**	**107**	**108**	**109**	**110**
Ans	C	C	A	A	C	B	C	C	B	C
Q	**111**	**112**	**113**	**114**	**115**	**116**	**117**	**118**	**119**	**120**
Ans	A	B	B	C	D	D	A	D	C	B
Q	**121**	**122**	**123**	**124**	**125**	**126**	**127**	**128**	**129**	**130**
Ans	A	C	C	C	C	D	C	A	C	C
Q	**131**	**132**	**133**	**134**	**135**	**136**	**137**	**138**	**139**	**140**
Ans	A	B	D	B	A	B	B	D	B	B
Q	**141**	**142**	**143**	**144**	**145**	**146**	**147**	**148**	**149**	**150**
Ans	D	A	B	B	D	B	A	B	C	A
Q	**151**	**152**	**153**	**154**	**155**	**156**	**157**			
Ans	C	D	D	A	C	D	A			