

About the Author



Kajal Sihag

Kajal Sihag is a well-known educator and subject expert in General Science with 10+ years of teaching experience in the field of competitive education. She holds a B.Sc. in Biotechnology, M.Sc. and is pursuing a Ph.D., which provides her with a strong academic foundation and deep conceptual clarity. She has guided thousands of students through her structured, student-centric teaching approach that emphasizes conceptual understanding, topic-wise clarity and analysis of important previous-year questions. Her methodology helps learners focus not only on what to study but also on how to study smartly for better outcomes. Through her books and the Futurekul Coaching YouTube platform, Kajal Sihag strives to simplify complex concepts and eliminate common learning gaps faced by aspirants. She strongly believes that the right strategy, consistent practice and concept-based preparation are the real keys to success in today's highly competitive environment. This book reflects her vast teaching experience, academic research and continuous interaction with students, making it a reliable, practical and confidence-boosting learning resource for aspirants.

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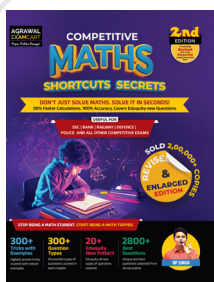
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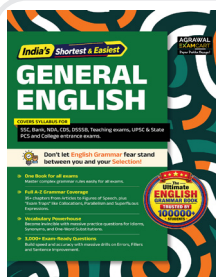
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1 CHAPTER

Classification of Organisms

- Moss and Marchantia comes under which of the following?
(A) Algae (B) Gymnosperms
(C) Bryophytes (D) Pteridophytes
- Cycas and pinus are which type of plants?
(A) Gymnosperms (B) Angiosperms
(C) Pteridophyta (D) Thallophyta
- Plants that do not have well-differentiated body design fall in this group. The plants in this group are commonly called algae. This group is _____.
(A) Pteridophytes (B) Gymnosperms
(C) Bryophytes (D) Thallophytes
- Which of the following comes under Mollusca?
(A) Sting ray (B) Octopus
(C) Turtle (D) Musca
- Which one of the following in an Arthropod?
(A) Leech (B) Millipede
(C) Liver fluke (D) Snail
- Which of the following is not a cold-blooded animal?
(A) Rabbit (B) Frog
(C) Shark (D) Crocodile
- Chlamydomonas is an example of :
(A) Algae (B) Virus
(C) Bacteria (D) Fungus
- Which one of the following is a multicellular organism?
(A) Paramecium
(B) Chlamydomonas
(C) Amoeba
(D) Sponge
- What are those organisms called that give birth to young offsprings?
(A) Viviparous (B) Fissiparous
(C) Oviparous (D) Ovoviviparous
- Which of the following animal respire from its skin?
(A) Peacock (B) Frog
(C) Rabbit (D) Deer
- Which of the following can be a basis of difference between a salamander and a house-wall lizard apart from their habitat?
(A) Egg-laying feature
(B) Scales on the skin
(C) Three-chambered heart
(D) Cold-blood
- In the case of reptiles, their heart is not properly divided into four chambers *i.e.*, it consists of two auricles and an incompletely divided ventricle. Which of the following is an example of a reptile having a four-chambered heart?
(A) Turtles (B) Lizard
(C) Snake (D) Crocodile
- In the animal kingdom, which of the following phyla includes animals with a segmented body?
(A) Mollusca (B) Chordata
(C) Annelida (D) Arthropoda
- What is the primary function of the notochord in chordates?
(A) Respiration (B) Locomotion
(C) Support (D) Digestion
- Species of Scaphopoda Mollusca 'Dentalium' is commonly known as?
(A) Head foot (B) Tusk shells
(C) Heart clam (D) Duck mussel
- What do you call the body cavity that is lined by mesoderm?
(A) Triploblasts
(B) Coelom
(C) Radial symmetry
(D) Diploblasts
- Based on the number of chambers in the heart, select the odd one from the following.
(A) Turtle (B) Crocodile
(C) Chameleon (D) Frog
- If the body of an animal can be divided into two indistinguishable left and right halves through only one plane, then it possesses:
(A) bilateral symmetry
(B) centre of symmetry
(C) radial symmetry
(D) asymmetricity
- Which of the following groups of organisms are more vulnerable to the acidification of ocean?
(A) Clacifying organisms
(B) Marine algae
(C) Marine reptiles
(D) Marine mammals
- Which of the following is considered unicellular green algae?
(A) Oedogonium
(B) Cladophora
(C) Chlorophyta
(D) Chlamydomonas
- Which of the following classifications do humans NOT fall under?
(A) Vertebrata (B) Chordata
(C) Hominidae (D) Porifera
- Spirogyra belongs to which group of plant kingdom?
(A) Bryophyta (B) Angiosperms
(C) Thallophyta (D) Pteridophyta
- Which of the following are also called the amphibians of the plant kingdom?
(A) Thallophytes (B) Bryophytes
(C) Angiosperms (D) Pteridophytes
- Which of the following is NOT an example of Pteridophyta?
(A) Equisetum (B) Selaginella
(C) Pteris (D) Funaria
- Tapeworm belongs to which group of the animal kingdom?
(A) Coelenterata (B) Platyhelminthes
(C) Porifera (D) Annelida
- Which of the following is an example of Phylum Annelida of Animal Kingdom?
(A) Kangaroo (B) Honey bee
(C) Squid (D) Earthworm
- Which of the following is NOT a characteristic of Kingdom Fungi?
(A) With a cell wall
(B) Multicellular structure
(C) No mechanisms for locomotion
(D) With chloroplasts
- What does Ichthyology deal with?
(A) Study of reptiles and amphibians
(B) Study of fish
(C) Study of birds
(D) Study of insects

29. What does Ornithology deal with ?
 (A) Study of fish
 (B) Study of reptiles and amphibians
 (C) Study of insects
 (D) Study of birds
30. Which one of the following is part of the animal kingdom. Cnidarian phylum belongs to?
 (A) Sea urchin (B) Earthworm
 (C) Snail (D) Coral
31. Which of the following organism has a 2-Chambered heart ?
 (A) Human beings
 (B) Sparrows
 (C) Monkey
 (D) Fishes
32. Susu Dolphin is found in waters of which river ?
 (A) Jhelum (B) Indus
 (C) Chenab (D) Ganga
33. Which of the following does not contain blood but respire?
 (A) Rat (B) Hydra
 (C) Snake (D) Fish
34. The symbiotic relationship between algae and ____ is lichen.
 (A) Bacteria (B) Virus
 (C) Fungus (D) Protozoa
35. Which of the following classes has the largest number of animals ?
 (A) Reptiles (B) Pisces
 (C) Insects (D) Mammals
36. Which of the following is an example of a vertebrate ?
 (A) Insects (B) Crustaceans
 (C) Mammals (D) Molluscs
37. In which of the following kingdoms is the eukaryotic cell NOT found?
 (A) Animalia (B) Protista
 (C) Monera (D) Fungi
38. What are the paired organs of balance commonly found in aquatic invertebrates which are usually fluid & filled vesicles with sensory hairs?
 (A) Radula (B) Pharynx
 (C) Nephridia (D) Statocyst
39. Which species of Arthropods is horseshoe shaped, with hard shell and spine & TAIL LIKE ?
 (A) Laccifer (B) Loligo
 (C) Locusta (D) Limulus
40. Which of the following is a biological name for a Housefly?
 (A) Poaceae
 (B) Triticum aestivum
 (C) Primata
 (D) Musca domestica
41. What is the common name of the class of red algae?
 (A) Chlorophyceae
 (B) Xanthophyceae
 (C) Rhodophyceae
 (D) Phaeophyceae
42. Which one of the following is a fungus ?
 (A) Penicillium
 (B) Spirogyra
 (C) Amoeba
 (D) Chlamydomonas
43. Which one of the following is not a nocturnal animal ?
 (A) Rabbit (B) Rat
 (C) Bat (D) Cockroach
44. Which of the following choices is related to the phylum Coelenterata ?
 (A) Sycon (B) Euspongia
 (C) Aurelia (D) Spongilla
45. Which of the following is the green algae?
 (A) Chlorophyceae
 (B) Rhodophyceae
 (C) Phaeophyceae
 (D) Liverwort
46. Which of the following combinations is NOT correctly matched?
 (A) Uricotelic–reptiles and birds
 (B) Ammonotelic–aquatic animals
 (C) Urotelic–terrestrial mammals
 (D) Ammonotelic–cartilaginous fish
47. Which of the following members of the animal world has four chambered heart?
 (A) Amphibians
 (B) Reptiles (except crocodiles)
 (C) Fish
 (D) Bird
48. Who among the following developed the binomial nomenclature system for living organisms?
 (A) Carolus Linnaeus
 (B) Fleming
 (C) Alexander
 (D) Carlson
49. Which of the following animals can change their gender during their life span ?
 (A) Nereis (B) Humans
 (C) Snail (D) Ascaris
50. The reproduction in yeast happens by the process of
 (A) Spore formation
 (B) Budding
 (C) Fragmentation
 (D) Fertilisation
51. Hydra is an example of which of the following phylum of the animal kingdom?
 (A) Coelenterata
 (B) Nematoda
 (C) Platyhelminthes
 (D) Porifera
52. Which among the following pairs of 'animal-phylum of animal kingdom they belong' is incorrect?
 (A) Prawns–Arthropoda
 (B) Liver fluke–Nematoda
 (C) Sycon–Porifera
 (D) Starfish–Echinodermata
53. Which unicellular organism acquires food by a process in which cells absorb external material by engulfing it with the cell membrane ?
 (A) Yeast (B) Amoeba
 (C) Spirogyra (D) Volvox
54. Bacteria, blue-green algae or cyano bacteria and mycoplasma are the examples of organisms of which world?
 (A) Plant (B) Monera
 (C) Protista (D) Animalia
55. Yeast and mushroom are the examples of organisms of which kingdom?
 (A) Fungi (B) Monera
 (C) Plantae (D) Protista
56. To what phylum does a blood sucking leech belong ?
 (A) Platyhelminthes
 (B) Aschelmenthis
 (C) Cnidarian
 (D) Annelida
57. Identify the largest phylum in the animal kingdom.
 (A) Mollusca
 (B) Annelida
 (C) Platyhelmenthis
 (D) Arthropoda
58. Identify the third germinal layer found in triploblastic animals.
 (A) Ectoderm (B) Coelom
 (C) Endoderm (D) Mesoderm
59. The main function of centriole is :
 (A) to maintain rigidity in plant cell
 (B) to help plant cell for multiplication
 (C) to help cell division in animal cell
 (D) to maintain mineral composition in bacterial cell
60. Cycas is an example of which of the following animal division?
 (A) Pteridophyta (B) Gymnosperms
 (C) Bryophyta (D) Angiosperms

61. With regard to the classification of algae, the members of Phaeophyceae are commonly referred to as :

- (A) Green algae (B) White algae
(C) Brown algae (D) Red algae

62. 'Capra aegagrus hircus' is commonly known as _____.

- (A) Dog (B) Goat
(C) Cow (D) Hen

63. Passer domesticus is commonly known as _____.

- (A) Pigeon (B) Parrot
(C) Sparrow (D) Lark

64. Match the following :

Reproductive type	Organism
1. Fragmentation	a. planaria
2. Regeneration	b. amoeba
3. Budding	c. hydra

- (A) 1-b, 2-a, 3-c (B) 1-a, 2-c, 3-b
(C) 1-c, 2-a, 3-b (D) 1-a, 2-b, 3-c

65. Whose scientific name is Bos (Bos mutus)?

- (A) Bull (B) Horse
(C) Buffalo (D) Wild Yak

66. Hubbardia heptaneuron, which has become endangered, is a species of which of the following?

- (A) Tiger (B) Bamboo
(C) Grass (D) Crane

67. Which of the following options is associated with the class of cold-blooded animals

- (A) Psittacula (B) Macropus
(C) Pavo (D) Chameleon

68. Which of the following is Not the characteristics of Aves?

- (A) These are warm-blooded animals.
(B) They give birth to live young ones with some exceptions those lay eggs.
(C) They breathe through the lungs
(D) They have four-chambered heart.

69. Match the points under Column A with those under Column B.

Column A	Column B
i. Annelida	a. Tapeworm
ii. Arthropoda	b. Sea star
iii. Echinodermata	c. Ant
iv. Platyhelminthes	d. Earthworm

- (A) i-b, ii-a, iii-c, iv-d
(B) i-a, ii-c, iii-b, iv-d
(C) i-d, ii-c, iii-b, iv-a
(D) i-a, ii-b, iii-c, iv-d

70. Which of the following does NOT belong to the category of Porifera?

- (A) Sycon (B) Spongilla
(C) Euplectella (D) Hydra

71. Which of the following categories does Gonyaulax belong to?

- (A) Euglenoids (B) Dinoflagellates
(C) Protozoans (D) Chrysophytes

72. Which of the following classes includes the family of turtles?

- (A) Amphibia (B) Chondrichthyes
(C) Aves (D) Reptilia

73. Which of the following is NOT a member of the Aves (birds) class?

- (A) Pteropus (B) Psittacula
(C) Struthio (D) Neophron

74. Which of the following is a characteristic of both mammals and birds?

- (A) Pigmented skin
(B) Pneumatic bones
(C) Viviparity
(D) Warm blooded

75. Match the points under Column A with those under Column B.

Column A (Subphylum)	Column B (Animal)
i. Hexapoda	a. Daphnia
ii. Crustacea	b. Mosquito
iii. Myriapoda	c. Limulus
iv. Chelicerata	d. Julus

- (A) i-a, ii-b, iii-c, iv-d
(B) i-b, ii-c, iii-a, iv-d
(C) i-b, ii-a, iii-d, iv-c
(D) i-d, ii-c, iii-b, iv-a

76. Match the columns.

Column-A (Class)	Column-B (Common name)
(i) Chlorophyceae	(a) Brown algae
(ii) Phaeophyceae	(b) Green algae
(iii) Rhodophyceae	(c) Blue-green algae
(iv) Cyanophyceae	(d) Red algae

- (A) i-d, ii-c, iii-b, iv-a
(B) i-a, ii-b, iii-c, iv-d
(C) i-b, ii-a, iii-d, iv-c
(D) i-b, ii-c, iii-a, iv-d

77. Which of the following is the red algae?

- (A) Liverwort
(B) Chlorophyceae
(C) Rhodophyceae
(D) Phaeophyceae

78. Match column A with column B.

Column-A (Type of algae)	Column-B (Proper Name)
-----------------------------	---------------------------

- (a) Blue-green algae (i) Sargassum
(b) Red algae (ii) Chlamydomonas
(c) Green algae (iii) Rhodophyta
(d) Brown algae (iv) Cyanobacteria
(A) a-i, b-ii, c-iii, d-iv
(B) a-i, b-iii, c-ii, d-iv
(C) a-iii, b-iv, c-ii, d-i
(D) a-iv, b-iii, c-ii, d-i

79. What is Typhlops?

- (A) Grass snake (B) Sea snake
(C) Glass snakes (D) Blind snake

80. Match the animals in column A with the phylum they belong to in column B :

Column-A	Column-B
(i) Jelly fish	(a) Mollusca
(ii) Cray fish	(b) Mammal
(iii) Whale fish	(c) Insect
(iv) Devil fish	(d) Coelenterate

- (A) i-a, ii-b, iii-c, iv-d
(B) i-d, ii-a, iii-b, iv-c
(C) i-a, ii-c, iii-b, iv-d
(D) i-d, ii-c, iii-b, iv-a

81. Which from the following is a phylum of animals found in fresh water ponds, lakes and swamps provides setae or parapodia for locomotion?

- (A) Ctenophora
(B) Annelida
(C) Platyhelminthes
(D) Porifera

82. Which group of Kingdom Animalia has unsegmented, bilaterally symmetrical, soft bodies, with a triploblastic construction (comprising three layers of cells) and a lacking coelom, skeleton and anus?

- (A) Porifera
(B) Platyhelminthes
(C) Ctenophora
(D) Cnidaria

83. Identify the animal that is NOT a non-chordate :

- (A) Porifera (B) Arthropods
(C) Arachnids (D) Reptiles

84. Salamander belongs to which of the following classes ?

- (A) Pisces (B) Aves
(C) Reptiles (D) Amphibian

85. What is the botanical name of Mango?
 (A) Mangifera indica
 (B) Cocos nucifera
 (C) Monon longifolium
 (D) Casuarina
86. Jellyfish is an example of which phylum ?
 (A) Phylum – Porifera
 (B) Phylum – Ctenophora
 (C) Phylum – Cnidaria
 (D) Phylum – Protozoa
87. To which phylum do snails belong ?
 (A) Chordata (B) Mollusca
 (C) Echinodermata (D) Arthropoda
88. To which lineage do all these species of lion, cheetah and tiger belong?
 (A) Solanum (B) Panthera
 (C) Felice (D) Tigris
89. Which of the following mammalian animals lays eggs?
 (A) Bat (B) Whale
 (C) Mongoose (D) Platypus
90. Which group of animals are named because of their spiny skin and have a peculiar water-driven tube system that they use for moving around ?
 (A) Hemichordata (B) Aschelminthes
 (C) Mollusca (D) Echinodermata
91. Which of the following algae is also called kelp and found in the deep sea?
 (A) Fucus
 (B) Nostoc
 (C) Chlamydomona
 (D) Laminaria
92. Identify an organism that exhibits metagenesis.
 (A) Spongilla (B) Obelia
 (C) Sycon (D) Euspongia
93. Which of the following does a frog respire during hibernation?
 (A) Lungs only
 (B) Partly by lungs and partly by skin
 (C) Both skin and lungs
 (D) Skin only
94. Who among the following introduced binominal nomenclature of biological classification?
 (A) John Ray (B) Linnaeus
 (C) Aristotle (D) Charles Darwin
95. In which of the following four chambered heart is found ?
 (A) Frog (B) Crocodile
 (C) Fish (D) Chameleon
96. Fusion of two gametes dissimilar in size, as in species of Eudorina is termed as _____.
 (A) anisogamous (B) isogamous
 (C) oogamous (D) zoogamous
97. In the plant kingdom, to which group do ferns and fern adjuncts belong?
 (A) Pteridophyta (B) Bryophyta
 (C) Gymnosperms (D) Thallophyte
98. Who among the following is considered the 'Father of Biology'?
 (A) Darwin (B) Aristotle
 (C) Heckel (D) Edward Jenner
99. Which of the following pairs is INCORRECTLY matched ?
 (A) Ascaris – Roundworm
 (B) Ancylostoma – Pinworm
 (C) Wuchereria – Filaria worm
 (D) Taenia – Tapeworm
100. From the options given below, select the organism having a three-chambered heart.
 (A) Tiger (B) Pigeon
 (C) Fish (D) Salamander
101. What is the third stage (after larva) in the life cycle of a butterfly called ?
 (A) Egg (B) Caterpillar
 (C) Nymph (D) Pupa
102. The earliest hominoids to be classified as Homo sapiens were.....
 (A) Ergaster line (B) Cro-Magnon
 (C) Neanderthal (D) Proconsul
103. Which of the following animals do NOT belong to the class of reptiles?
 (A) Crocodile (B) Snake
 (C) Toad (D) Turtle
104. Which of the following animals has comparatively longer intestine?
 (A) Fox (B) Tiger
 (C) Dog (D) Rabbit
105. What is the basic unit of classification in taxonomy?
 (A) Genus (B) Species
 (C) Family (D) Order
106. Which of the following animals can change its sex?
 (A) Planarian (B) Snail
 (C) Ascaris (D) Nereis
107. Which group of animals are exclusively free living marine animals?
 (A) Arthropoda (B) Echinodermata
 (C) Mollusca (D) Nematoda
108. Which of the following is the largest group of animals?
 (A) Nematoda (B) Porifera
 (C) Arthropoda (D) Mollusca
109. Who is considered the first botanist here?
 (A) Pliny (B) Plato
 (C) Theophrastus (D) Archimedes
110. Who introduced binomial nomenclature?
 (A) Carolus Linnaeus
 (B) Claude Louis Berthollet
 (C) Dmitri Mendeleev
 (D) John Dalton
111. Which one of the following belongs to 'Pisces' ?
 (A) Dogfish (B) Jellyfish
 (C) Silverfish (D) Starfish
112. Which one of the following groups is called 'amphibians of plant kingdom' ?
 (A) Bryophytes (B) Thallophytes
 (C) Pteridophytes (D) Gymnosperms
113. Who among the following popularized the use of embryological characters in taxonomy ?
 (A) Carl Linnaeus
 (B) Panchanan Maheshwari
 (C) Birbal Sahni
 (D) Bentham and Hooker
114. Consider the following statements :
 1. All echinoderms are not marine.
 2. Sponges are exclusively marine.
 3. Insects are found in all kinds of habitats.
 4. Many primates are arboreal.
 Which of the statements given above is/are correct ?
 (A) 1, 3 and 4 only (B) 3 and 4 only
 (C) 2 and 4 only (D) 3 only
115. The animals which have the ability to change the colour to hide them from their enemies (camouflage). This protective coloration is called
 (A) Adultry (B) Commentry
 (C) Mortury (D) Mimicry
116. Based on characteristics all living organisms can be classified into different text. This process of classification is called
 (A) Taxonomy
 (B) Algorithm
 (C) Claxigomy
 (D) None of the these
117. Which of the following is a detrivorous ?
 (A) Honey bee (B) Earthworm
 (C) Ascaris (D) Cockroach
118. The scientific name of goat is :
 (A) Capra aegagrus hircus
 (B) Bos indicus
 (C) Sus scrofa
 (D) Ovis aries

119. *Musca domestica* belongs to the class :
 (A) Dicotyledonae
 (B) Monocotyledonae
 (C) Mammalia
 (D) Insecta
120. Cats belongs to the family :
 (A) Canidae (B) Ovidae
 (C) Felidae (D) Bovidae
121. Match the List I with List II and choose the correct answer from the codes given below :
- | List-I | List-II |
|-------------------------|--|
| 1. Oncology | (i) Study of Birds |
| 2. Study of Numismatics | (ii) Study of exchange of biotic components. |
| 3. Study of Eugenics | (iii) Study of coins |
| 4. Study of Ornithology | (iv) Study of cancer |
- Codes :**
 (A) 1-iv, 2-iii, 3-ii, 4-i
 (B) 1-iv, 2-ii, 3-iii, 4-i
 (C) 1-iii, 2-ii, 3-iv, 4-i
 (D) 1-i, 2-iii, 3-ii, 4-iv
122. There arecompartments in frog's heart.
 (A) Two (B) Three
 (C) Four (D) Five
123. The blood colour of cockroach is
 (A) Red (B) White
 (C) Blue (D) Dusky or Gray
124. Which of the following is the largest mammal ?
 (A) Elephant (B) Whale
 (C) Dinosaur (D) Rhino
125.is the Largest group of animal kingdom, in which insects are also included.
 (A) Annelida (B) Platyhelmenthis
 (C) Aschelminth (D) Arthropoda
126. Which type of reproduction seen in Hydra ?
 (A) Budding (B) Fission
 (C) Regeneration (D) Fragmentation
127. How many pairs of legs a cockroach has ?
 (A) One (B) Two
 (C) Three (D) Four
128. *Apis florea* is related to which of the following ?
 (A) Silk worm (B) Termite
 (C) Honey Bee (D) Lac insect
129. Match List-I with names of Phylum with List-II with structures and select the correct answer :
- | List-I | List-II |
|---------------------|------------------------|
| (a) Porifera | (i) Flame cells |
| (b) Platyhelminthes | (ii) Choanocytes |
| (c) Nematelminthes | (iii) Phasmids |
| (d) Chordata | (iv) Cnidocytes |
| | (v) Malpighian tubules |
| | (vi) Post and tail |
- (A) (a) (iv), (ii); (b) (i); (c) (v); (d) (vi)
 (B) (a) (iii); (b) (i), (iv); (c) (ii); (d) (v)
 (C) (a) (ii); (b) (i); (c) (iii); (d) (vi)
 (D) (a) (i), (ii); (b) (iv); (c) (iii); (d) (vi)
130. Connecting link between phylum Annelida and Mollusca is :
 (A) Peripatus (B) Neopilina
 (C) Chiton (D) Nautilus
131. *Capra hircus* is a scientific name of :
 (A) Goat (B) Cattle
 (C) Sheep (D) Buffalo
132. Botanical name of African marigold is :
 (A) *Tegenus petuda*
 (B) *Tegetes erecta*
 (C) *Tegetus manuta*
 (D) *Tegetus tenuifolia*
133. Vertebrates are grouped into _____ classes.
 (A) 4 (B) 5
 (C) 2 (D) 3
134. Which of the following sea animals does not belong to the Crustacean family ?
 (A) Sea Urchin (B) Shrimp
 (C) Crabs (D) Barnacles
135. Which of the following pair is correct?
 I. Amoeba-Protozoa
 II. Bread mold-fungus
 (A) Both I and II (B) Only II
 (C) Neither I nor II (D) Only I
136. *Cucumaria* and *Asterias* belongs to which of the following Phyla?
 (A) Arthropoda (B) Echinodermata
 (C) Mollusca (D) Annelida
137. Who are known as "Amphibians" of Plant Kingdom ?
 (A) Bryophyta (B) Thallophyta
 (C) Gymnosperms (D) Pteridophyta
138. Which of the following part of a flower of Part of stamen ?
 (A) Style (B) Anther
 (C) Stigma (D) Sepal
139. Among the following organisms, which one does not belong to the class of other three?
 (A) Crab (B) Mite
 (C) Scorpion (D) Spider
140. Kiwi is :
 (A) Flightless bird found only in New Zealand.
 (B) A desert snake.
 (C) Fastest flying Chiropteran mammal of Australia.
 (D) A species of vulture found in Amazon forest only.
141. Which one is a mammal ?
 (A) Shark (B) Squid
 (C) Octopus (D) Whale
142. '*Archaeopteryx*' is a connecting link between which of the following classes of animal ?
 (A) Amphibia and Aves
 (B) Reptilia and Aves
 (C) Reptilia and Mammalia
 (D) Aves and Mammalia
143. Mammoth is the ancestor of :
 (A) Dog (B) Horse
 (C) Camel (D) Elephant
144. Which one of the following groups of organisms has significance in diagnosing the death by drowning ?
 (A) Lichens (B) Protozoa
 (C) Cyanobacteria (D) Diatoms
145. Which of the following groups of living beings belong to the same species ?
 (A) Chinese, American, Indians and Black Africans
 (B) Tigers, Lions and Cats
 (C) Pigeons, Doves and Partridges
 (D) Lizards, Crocodiles and Snakes
146. Which of the following species is the largest of the 'toothed-whales' ?
 (A) Finback whale
 (B) Blue whale
 (C) Sperm whale
 (D) Humpback whale
147. Which of the following has the largest brain in proportion to its body size ?
 (A) Ant (B) Elephant
 (C) Dolphin (D) Human Being
148. Dolphin is an example of which one of the following classes ?
 (A) Aves (B) Mammalia
 (C) Pisces (D) Amphibia

149. The smallest organism, capable of autonomous growth and reproduction, is :
 (A) virus (B) bacteria
 (C) mycoplasma (D) bacteriophage
150. According to the five kingdom classification method, bacteria and blue green algae are included in :
 (A) Fungi (B) Monera
 (C) Plantae (D) Protista
151. Hippocampus is a :
 (A) Protochordate (B) Fish
 (C) Mammal (D) Coelenterate
152. Which one of the following is a monoecious animal?
 (A) Echinoderm (B) Annelida
 (C) Arthropoda (D) Platyhelminthes
153. Yeast reproduces through which asexual mode of reproduction ?
 (A) Fission
 (B) Budding
 (C) Fusion
 (D) Vegetative propagation
154. Mutation in a virus is caused due to a change in its :
 (A) cell size (B) genetic material
 (C) shape (D) colour
155. Hyphae are :
 (A) produced by yeast.
 (B) thin threads formed by many fungi.
 (C) reproductive cells.
 (D) responsible for preventing the cell from losing water in wet conditions.
156. Which one among the following is a free-living animal ?
 (A) Liver fluke (B) Wuchereria
 (C) Plasmodium (D) Planaria
157. Under the kingdom-Plantae, which of the following individuals are predominantly aquatic ?
 (A) Bryophytes
 (B) Algae
 (C) Pteridophyta
 (D) Gymnosperms
158. Which one of the following animals has a three-chambered heart ?
 (A) Scoliodon (B) Salamander
 (C) Pigeon (D) Human being
159. Which one of the following is most sensitive to environmental change ?
 (A) Amphibian (B) Reptile
 (C) Mammal (D) Insect
160. Match List I with List II and select the correct answer using the codes given below the lists:

List I (Animals)

- A. Ascaris
 B. Malarial parasite
 C. Housefly
 D. Cow

List II (Phyla)

1. Mammalia
 2. Arthropoda
 3. Nematoda
 4. Protozoa

Codes :

- | | A | B | C | D |
|-----|---|---|---|---|
| (A) | 3 | 4 | 2 | 1 |
| (B) | 3 | 2 | 4 | 1 |
| (C) | 1 | 2 | 4 | 3 |
| (D) | 1 | 4 | 2 | 3 |

161. Which of the following does not possess a specialised conducting tissue for transport of water and other substances in plants ?
 (A) Marchantia (B) Marsilea
 (C) Cycas (D) Fern
162. Among the following animals, choose the one having three pairs of legs :
 (A) Spider (B) Scorpion
 (C) Bug (D) Mite
163. Bats can fly in dark because they :
 (A) have strong wings
 (B) have sharp eyes
 (C) produce ultrasonic waves
 (D) are nocturnal
164. Which of the following does not belongs to class Annelida?
 (A) Leech (B) Ascaris
 (C) Nereis (D) Earthworm
165. In which one of the following animals skin is a respiratory organ?
 (A) Cockroach (B) Frog
 (C) Shark (D) Whale
166. Which one of the following is a true fish?
 (A) Jellyfish (B) Starfish
 (C) Dogfish (D) Silverfish
167. Where are the oil glands present in birds?
 (A) Beak (B) Neck
 (C) Forelimbs (D) Basal part of tail
168. Pneumatic bone is found in :
 (A) Sea fish (B) All invertebrates
 (C) All vertebrate (D) All birds
169. Pearl producing animal is :
 (A) Annelida-phylum
 (B) Arthropoda-phylum
 (C) Mollusca-phylum
 (D) Echinodermata-phylum
170. Which of the following is an aquatic bryophyte?
 (A) Marchantia palmata
 (B) Riccia fluitans
 (C) Marchantia polymorpha
 (D) Riccia discolor
171. Which of the following is a warm-blooded animal?

- (A) Whale (B) Shark
 (C) Alytes (D) Draco

172. The hormone secreted in plants due to which their stem bends towards sunlight is called :
 (A) Auxin (B) Ascorbic acid
 (C) Gibberellin (D) Cytokinin
173. Gambusia is :
 (A) Fish that eats mosquito larvae
 (B) Parasite on crab
 (C) Pathogenic protozoan
 (D) Fish paste
174. The chewing mouthparts are found in :
 (A) Cockroach (B) Fishes
 (C) Earthworms (D) Birds
175. Name the author of the famous book 'Systema Naturae'.
 (A) Carl Woese
 (B) Carolus Linnaeus
 (C) Robert Whittaker
 (D) Aristotle
176.is an autotroph.
 (A) Mushroom (B) Worm
 (C) Tree (D) Lion
177. Which group of animals with spiny skin are free-living marine organisms and have hard calcium carbonate structures that they use as skeletons?
 (A) Annelida (B) Echinodermata
 (C) Porifera (D) Mollusca
178. Which of the following is not a characteristic of Chordata?
 (A) They are diploblastic.
 (B) They have paired gill pouches.
 (C) They have a dorsal nerve cord.
 (D) They have a notochord.
179. Lichens are made up of algae and ...
 (A) Fungi (B) Bacteria
 (C) Mosses (D) Protozoa
180. The pairs of warm blooded animals are-
 (A) Amphibians and Reptiles
 (B) Aves and Mammals
 (C) Fish and Amphibians
 (D) Fish and Coelenterata
181. To which group of microorganisms do the causative organisms of Malaria and Kala-azar belong?
 (A) Monera (B) Fungi
 (C) Protozoa (D) Nematodes
182. In which group plant bodies are usually differentiated into stem-like and leaf-like structures?
 (A) Pteridophyta (B) Angiosperms
 (C) Gymnosperms (D) Bryophyta

183. Who is called the father of biology?
(A) Aristotle (B) Linnaeus
(C) Theophrastus (D) Mendel
184. Animals of which phylum have jointed legs?
(A) Mollusca (B) Nematoda
(C) Arthropoda (D) Echinodermata
185. The closest relative of man is :
(A) Lemur
(B) Apes
(C) New World monkeys
(D) Old World monkeys
186. Book 'The Origin of Species' was written by :
(A) Charles Darwin
(B) Lamarck
(C) Carolus Linnaeus
(D) Robert Whittaker
187. The basic unit of classification is :
(A) Genus (B) Species
(C) Order (D) Family
188. Which of the following statements is not true for the binomial nomenclature system?
(A) Biological names are usually in Latin and are written in italics.
(B) The first word is the generic name and the second word is the species symbol.
(C) The first letter of both the words is written in capital letters.
(D) When writing a biological name by hand, both the words have to be underlined separately.
189. Which of the following options is not an example of analogous organs?
(A) Wings of a bat
(B) Wings of a bird
(C) Wings of an insect
(D) Hands of a monkey
190. Who gave the concept of the binomial system of classification?
(A) Linnaeus
(B) Johnson
(C) Bottson
(D) Bentham and Hooker
191. In which part of the body is the oil or green gland present in birds?
(A) On the whole body
(B) On the wings
(C) At the base of the tail
(D) Near the legs
192. What are the two components of the binomial system of organisms?
(A) Local name and species epithet
(B) Genus name and species epithet
(C) Genus name and family name
(D) Family name and species epithet
193. Which of the following mammals lays eggs instead of giving birth to young ones?
(A) Echidna (B) Kangaroo
(C) Whale (D) Bat
194. Mode of nutrition is holophytic in:
(A) Amoeba (B) Lion
(C) Euglena (D) Earthworm
195. The link that connects reptiles and birds is :
(A) Archaeopteryx (B) Neopilina
(C) Balanoglossus (D) None of these
196. Special ability of regeneration is found in-
(A) Mollusca (B) Chordata
(C) Porifera (D) Echinodermata
197. Who propounded the theory of natural selection ?
(A) Newton (B) Mendel
(C) Darwin (D) Einstein
198. It is famous for its social system:
(A) Cow (B) Pig
(C) Bee (D) Fish

Answer Key

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

□□

1 CHAPTER

Nature and Constituents of Matter

- At what temperature does evaporation occur?
(A) Only below the freezing point
(B) Only at the boiling point
(C) Only at 100°C
(D) At any temperature
- Which of the following statements correctly identifies a solution where both the solute and solvent are elements and the solution is homogeneous?
(A) Carbon dissolved in water
(B) Oxygen mixed with nitrogen in the air
(C) Iron filings mixed with sulfur
(D) Sugar dissolved in water
- Choose the correct example of a crystalline solid.
(A) Only sand
(B) Only salt
(C) Both sugar and salt
(D) All salt, sugar and sand
- What is the difference between a mixture and a compound?
(A) The components of a mixture cannot be separated.
(B) The elements in a mixture are present in fixed proportions.
(C) A mixture exhibits only combined properties.
(D) The components of a mixture retain their properties.
- the Tyndall effect?
(A) Emulsion
(B) Milk
(C) Copper sulfate solution
(D) Starch
- What are colloidal particles separated by?
(A) Filtration
(B) Centrifugation
(C) Boiling
(D) Recrystallization
- Which of the following activities demonstrates the presence of empty spaces between particles of matter?
(A) Heating a solid
(B) Freezing a liquid
(C) Dissolving sugar in water
(D) Compressing a gas
- _____ of a substance is the temperature and pressure at which three phases (gas, liquid, and solid) of that substance may coexist in thermodynamic equilibrium .
(A) Tri-state (B) Amphibious
(C) Allotropic (D) Triple-point
- _____ is a form of matter in which many of the electrons wander around freely among the nuclei of the atoms .
(A) Plasma (B) Solid
(C) Liquid (D) Gas
- Humus, a dark colored amorphous substance is formed as a result of which process?
(A) leaching (B) fragmentation
(C) mineralisation (D) humification
- The approximate number of water molecules present in 9 gm of water is :
(A) 6.022×10^{22} (B) 9.023×10^{23}
(C) 6.022×10^{23} (D) 3.011×10^{23}
- Which of the given statements is correct regarding properties of suspension ?
I. Suspension is a heterogeneous mixture.
II. The particles of a suspension can be seen by the naked eye.
(A) Both I and II
(B) Neither I nor II
(C) Only I
(D) Only II
- Which of the following is considered to be the fifth state of matter ?
(A) Solid
(B) Bose-Einstein condensate
(C) Plasma
(D) Gas
- Which state of the matter has LEAST force of attraction between its particles ?
(A) Solid (B) Plasma
(C) Liquid (D) Gas
- _____ are homogeneous mixtures of two or more components.
(A) Emulsion
(B) Mercury metal mixture
(C) Enzymes
(D) Solution
- Which of the following contains small droplets of liquid or particles of solid dispersed in a gas ?
(A) Foam (B) Aerosol
(C) Gel (D) Vapour
- Which of the following is an example of a mixture?
(A) Milk
(B) Gasoline
(C) Liquefied petroleum gas
(D) All the options are correct.
- Solids can be classified as _____ on the basis of the nature of order present in the arrangement of their constituent particles.
(A) conductor or non-conductor
(B) crystalline or amorphous
(C) metal or non-metal
(D) magnetic or non-magnetic
- _____ states that for solutions of volatile liquids, the partial vapor pressure of each component of the solution is proportional to its mole fraction present in the solution.
(A) Dalton's law
(B) Raoult's law
(C) Faraday's law
(D) Boyle's law
- Which of the following can be classified as a solution?
(A) Coal (B) salt
(C) Diamond (D) sea water
- What is the process of changing from solid to gas called?
(A) Fusion (B) Solidify
(C) Sublimation (D) Condensation
- If the pressure is reduced by removing some gas in a closed vessel, then what will be the mean free path of the gas molecules?
(A) increase or decrease depending on the nature of the gas
(B) will decrease
(C) will increase
(D) remain unchanged
- Identify an example of plasma as a state of matter.
(A) Blood (B) Neon sign bulbs
(C) Freon (D) Dry ice

24. Which of the following statements is INCORRECT regarding water remaining colder in an earthen pot (matka)?
 (A) The water oozes out through the pores in an earthen pot.
 (B) The earthen pot is porous.
 (C) Environmental water vapour enters the pot through pores.
 (D) Water gets evaporated at the surface of the earthen pot.
25. Which of the following is a characteristic of amorphous solids?
 (A) A definite and characteristic enthalpy of fusion
 (B) A definite characteristic geometrical shape
 (C) Melting at a sharp and characteristic temperature
 (D) Gradual softening over range of temperatures
26. Which of the following has the lowest melting point?
 (A) Glass (B) Zinc
 (C) Tin (D) Silver
27. Which of the following is most compressible?
 (A) Solid (B) Fluid
 (C) Gas (D) Solid and liquid
28. Direct change of gas to solid without changing in to liquid is called :
 (A) Deposition (B) Evaporation
 (C) Vaporization (D) Sublimation
29. Which of the following gases, when cooled and compressed, can change from a gas to a supercritical fluid state ?
 (A) Carbon dioxide (CO₂)
 (B) Hydrogen (H₂)
 (C) Steam
 (D) Oxygen (O₂)
30. Which of the following is not a subgrade?
 (A) Camphor
 (B) Naphthalene
 (C) Alum
 (D) Ammonium chloride
31. The method of separating a mixture of soluble solids by dissolving them in a suitable hot solvent and then lowering the temperature slowly is called :
 (A) dephlegmation
 (B) fractional crystallisation
 (C) azeotropic distillation
 (D) sublimation
32. By which of the following process does a solid substance is directly converted into gas?
 (A) Sublimation (B) Deposition
 (C) Fusion (D) Vaporisation
33. At what temperature water changes into water vapour?
 (A) 273K (B) 100K
 (C) 373K (D) 0K
34. With reference to their magnetic properties, the elements nickel and cobalt are classified as _____.
 (A) antiferromagnetic
 (B) diamagnetic
 (C) ferromagnetic
 (D) paramagnetic
35. Hardness of water is expressed in terms of :
 (A) ppm (B) mole
 (C) molarity (D) normality
36. Which of the following colloid is an example of foam?
 (A) Butter (B) Sponge
 (C) Cheese (D) Mist
37. The Transformation of a substance into a gas at a temperature lower than its boiling point is known as :
 (A) Deposition (B) Crystallization
 (C) Condensation (D) Evaporation
38. Which of the following scientists had done some calculations for the fifth state of matter ?
 (A) Satyendra Nath Bose
 (B) CV Raman
 (C) Vikram Sarabhai
 (D) Homi Bhabha
39. Plasma is formed in the stars because of very :
 (A) high temperature
 (B) high pressure
 (C) low pressure
 (D) low temperature
40. A substance which cannot be broken down into simpler substances by chemical reactions is known as
 (A) pure substance (B) element
 (C) compound (D) mixture
41. What is sublimation ?
 (A) Direct transformation of a substance from liquid to gas state
 (B) Change of a substance directly from solid to gas state
 (C) Direct transformation of a substance from gas to liquid state
 (D) Direct transformation of a substance from gas to solid state
42. Which of the following can undergo sublimation?
 (A) Ammonium chlorate
 (B) Ammonium sulphate
 (C) Ammonium chloride
 (D) Ammonium sulphide
43. Due to which process the smell of perfume reaches our nose quickly?
 (A) Diffusion (B) Condensation
 (C) Fusion (D) Evaporation
44. Which of the following is the hardest substance known till date?
 (A) Buckminsterfullerene
 (B) Diamond
 (C) Graphite
 (D) Iron
45. The temperature at which a solid melts to become a liquid at the atmospheric pressure is called its melting point. The melting point of a solid is an indication of :
 (A) strength of the intermolecular forces of attraction
 (B) strength of the intermolecular forces of repulsion
 (C) molecular mass
 (D) molecular size
46. Which among the following is NOT true with respect to colloidal solution?
 (A) Particles are uniformly distributed throughout the solution
 (B) Colloidal solution is homogenous in nature
 (C) They show Tyndal effect
 (D) They do not settle down when kept undisturbed
47. Vapours of sulphur escaping from a volcano often form a crust on the rocks. The process involved is an example of :
 (A) condensation (B) precipitation
 (C) deposition (D) evaporation
48. Dry ice is used on a performing stage to produce mist in air. The process involved is an example of
 (A) sublimation (B) evaporation
 (C) condensation (D) precipitation
49. Dinitrogen (N₂) and dioxygen (O₂) are the main constituents of air but they do not react with each other to form oxides of nitrogen because :
 (A) the reaction requires initiation by a catalyst
 (B) oxides of nitrogen are unstable
 (C) the reaction is endothermic and requires very high temperature
 (D) the stoichiometry of N₂ and O₂ in air is not ideal for the reaction to take place
50. Which one of the following oxides dissolves in water ?
 (A) CuO (B) Al₂O₃
 (C) Fe₂O₃ (D) Na₂O
51. Which one among the following statements with reference to the properties of water is **not** correct?
 (A) The specific heat of water is abnormally high.
 (B) Latent heat of fusion of water is very low.
 (C) Density of water is higher than ice.
 (D) Pure water is a non-conductor of electricity.
52. Which one of the following statements about water is not true ?

- (A) Hydrogen bonds, are present in liquid water.
 (B) Water has a high boiling point.
 (C) Water has a high heat of fusion.
 (D) Water is a non-polar molecule.
53. At room temperature and 1 atm pressure, the molecules are farthest apart in :
 (A) Chlorine (B) Bromine
 (C) Iodine (D) Water
54. What statement describes a chemical property ?
 (A) Its crystals are a metallic grey.
 (B) It dissolves in alcohol.
 (C) It forms a violet coloured gas.
 (D) It reacts with hydrogen to form a gas-
55. Which of the following is not a Colloid ?
 (A) Milk (B) Mud
 (C) Butter (D) Boric acid
56. During a double decomposition reaction, what is exchanged between reactants ?
 (A) Molecule (B) Atom
 (C) Electron (D) Ion
57. Which of the following is an abiotic fertilizer ?
 (A) Bio-solid
 (B) Botanical fertilizer
 (C) Residues of crops
 (D) Potassium Nitrate
58. The element present in the largest amount in atmosphere is :
 (A) Nitrogen (B) Silicon
 (C) Hydrogen (D) Aluminium
59. Example of molecular solid is :
 (A) Sulphur, S_8
 (B) Iodine, I_2
 (C) Both sulphur S_8 and Iodine, I_2
 (D) Germanium Ge and silicon Si
60. Why oil does not mix with water ?
 (A) Molecules of oil are polar
 (B) Molecules of oil are bigger than that of water
 (C) Only A is correct
 (D) Both A and B are correct
61. Which of the following is a pure substance made up of two or more types of atoms or elements ?
 (A) Mixture (B) Compound
 (C) Element (D) All of these
62. Colloid is a :
 (A) Heterogeneous mixture
 (B) Homogeneous mixture
 (C) Compound
 (D) None of these
63. For a perfect gas the specific heat at constant pressure C_p and that at constant volume C_v are related as :
 (A) $C_p = C_v$ (B) $C_p = C_v + R$
 (C) $C_p = C_v - R$ (D) $C_p = C_v + \log R$
64. Water can dissolve more substances than any other liquid because:
 (A) It is dipolar in nature.
 (B) It is a good conductor of heat.
 (C) It has high value of specific heat.
 (D) It is an oxide of hydrogen.
65. Rate of evaporation in inversely proportional to :
 (A) Surface area (B) Temperature
 (C) Humidity (D) Wind speed
66. a, b, c & d represent four media as follows:
 a = Air, b = water, c = Iron, d = vacuum
 In which of the above media, the spread sound is least and maximum respectively.
 (A) a and d (B) b and c
 (C) a and c (D) c and d
67. Which one of the following takes place when water transforms from liquid to gaseous phase ?
 (A) Structure of the particles change.
 (B) Distance between the particles change.
 (C) The colour of the particles change.
 (D) Size of the particles change.
68. Which of the following is a heterogeneous mixture ?
 (A) Brass
 (B) Stainless steel
 (C) Iodised table salt
 (D) Air filled in a balloon
69. The temperature point at which solid liquid and gaseous states may stay together is known as :
 (A) Boiling point (B) Melting point
 (C) Freezing point (D) Triple point
70. Mixtures can be separated by ?
 (A) Sublimation
 (B) Distillation
 (C) Chromatography
 (D) Fractional Distillation
71. Aqueous solution of SO_2 is :
 (A) Acidic (B) Alkaline
 (C) Neutral (D) Amphoteric
72. Permanent hardness of water is due to the presence of
 (A) Chlorides and sulphates of Na^+ and K^+
 (B) Chlorides and sulphates of Ca^{2+} and Mg^{2+}
 (C) Nitrites and nitrates of Al^{2+}
 (D) Carbonates of Na and K^+
73. When aqueous solutions of sodium sulphate and barium chloride are mixed in a test tube, what colour precipitate will be obtained?
 (A) Yellow (B) White
 (C) Green (D) Orange
74. Which of the following is an example of a sol?
 (A) Foam
 (B) Face cream
 (D) Milk of magnesia
 (C) Rubber
75. Which of the following is the characteristic of a liquid ?
 (A) It is hard
 (B) It has fixed volume but not fixed shape
 (C) It is highly compressible
 (D) It has fixed shape and volume
76. Which of the following technique is used to separate colloidal particles from the mixture?
 (A) Evaporation
 (B) Distillation
 (C) Centrifugation
 (D) Filtration
77. Which of the following statements is, are correct?
 (i) Suspension is a heterogeneous mixture.
 (ii) The particles of a suspension scatter a beam of light passing through it and make its path visible.
 (iii) The solute particles settle down when a suspension is left undisturbed, that is, a suspension is unstable.
 (A) Only (i) and (ii)
 (B) Only (ii) and (iii)
 (C) Only (i)
 (D) (i), (ii), and (iii)
78. During the deposition procedure, which type of state conversion will take place ?
 (A) Liquid to solid state
 (B) Solid to gaseous state
 (C) Solid to liquid state
 (D) Gaseous to solid state
79. Which of the following is the dispersed phase of automobile exhaust ?
 (A) Gaseous phase
 (B) Liquid phase
 (C) Plasma phase
 (D) Solid phase
80. Which of the following stage of matter is/are highly compressible?
 (A) The solid stage
 (B) Both solid stage and liquid stage
 (C) The liquid stage
 (D) The gaseous stage
81. Which of the following statement is correct for a homogeneous mixture of sugar in water?

- (A) Both water and sugar are solvents.
 (B) Sugar is the solvent.
 (C) Water is the solute.
 (D) Water is the solvent.
82. Formation of the mixture is a _____ change whereas formation of a compound is a _____ change, respectively.
 (A) physical, physical
 (B) chemical, chemical
 (C) physical, chemical
 (D) chemical, physical
83. In summers, water becomes cool due to which phenomenon when kept in an earthen pot?
 (A) Diffusion (B) Transpiration
 (C) Osmosis (D) Evaporation
84. Which of the following are homogeneous in nature?
 1. Ice
 2. Wood
 3. Soil
 4. Air
 (A) 1 and 3 (B) 2 and 4
 (C) 1 and 4 (D) 3 and 4
85. Crystalline solid is :
 (A) Glass (B) Plastic
 (C) Rubber (D) Sugar
86. Which is called universal solvent?
 (A) Alcohol (B) Sulphuric acid
 (C) Benzene (D) Water
87. Boiling point increases :
 (A) By decreasing pressure
 (B) By increasing pressure
 (C) By decreasing humidity
 (D) By increasing humidity
88. What is called 'dry ice'?
 (A) Solid carbon dioxide
 (B) Frozen rain water
 (C) Ordinary ice at 0°C
 (D) Frozen water at -53°C
89. The presence of which in a solution can be detected by the Tyndall effect?
 (A) Protein
 (B) Lipid
 (C) Colloidal particle
 (D) Hormone
90. Density of brine is 1.2 g/cc. 40 cc of it is mixed with 30 cc of water, the density of the solution is-
 (A) 2.11 g/cc (B) 1.11 g/cc
 (C) 12.2 g/cc (D) 20.4 g/cc
91. 'Aerosol' is an example of the following colloid system :
 (A) Liquid in gas (B) Solid in gas
 (C) Gas in liquid (D) Gas in solid
92. Which one of the following is a colloidal solution?
 (A) Blood (B) Smoke
 (C) Milk (D) All of these
93. In water-salt solution :
 (A) Salt is solvent and water is solute
 (B) Salt and water both are solute
 (C) Water is solvent and salt is solute
 (D) Salt and water both are solvent
94. Which among the following is a pure matter?
 (A) Carbon dioxide (B) Brass
 (C) Air (D) Milk
95. Which of the following is an example of heterogeneous mixture ?
 (A) Water in oil
 (B) Sugar in water
 (C) Water in alcohol
 (D) Salt in water
96. Fog is a colloidal solution of :
 (A) Gas in liquid (B) Liquid in Gas
 (C) Gas in Gas (D) Solid in gas
97. How can you separate camphor from salt?
 (A) Centrifugation
 (B) Sublimation
 (C) Both distillation and centrifugation
 (D) Distillation
98. Normal water supplied to homes is :
 (A) Bad conductor
 (B) Conductor
 (C) Partial conductor
 (D) None of the above
99. Sugar in a water solution :
 (A) Sugar is the solute, water is the solvent.
 (B) Sugar is the solvent and water is the solute.
 (C) Both are solvents.
 (D) Both are solutes.
100. Why does ice float on water ?
 (A) Ice is full of air
 (B) Density of ice is less than water
 (C) Water is deeper than ice
 (D) Ice has a higher density than water
101. Density of water becomes maximum at :
 (A) 5°C (B) 12°C
 (C) 10°C (D) 4°C
102. Which of the following diffuses at the fastest speed?
 (A) Solid (B) Gas
 (C) Liquid (D) None of these
103. Movement of water molecules through a selectively permeable membrane is called :
 (A) Diffusion
 (B) Osmosis
 (C) Active Transport
 (D) Imbibition
104. Name the sodium compound which is used to soften hard water?
 (A) Polluted air
 (B) Dirty water
 (C) Limewater
 (D) None of these
105. Which of the following is a compound?
 (A) Mercury (B) Ozone
 (C) Air (D) Ammonia
106. The property of a substance that absorbs moisture from the air is :
 (A) Osmosis (B) Deliquescence
 (C) Efflorescence (D) Desiccation
107. Which of the following is the most powerful reducing agent ?
 (A) Sodium (B) Potassium
 (C) Magnesium (D) Barium
108. The size of dispersed particles in an emulsion ranges from :
 (A) 100 Å – 1000 Å
 (B) 10 Å – 10000 Å
 (C) 1000 Å – 10,000 Å
 (D) > 10,000 Å
109. What determines the state of a substance (solid, liquid or gas)?
 a. Temperature
 b. Pressure
 c. Volume
 (A) Only a and b (B) Only a, b and c
 (C) Only b and c (D) Only a and c

Answer Key

1. (D) 2. (B) 3. (D) 4. (D) 5. (C)
 6. (B) 7. (C) 8. (D) 9. (A) 10. (D)
 11. (D) 12. (A) 13. (B) 14. (D) 15. (D)
 16. (B) 17. (D) 18. (B) 19. (B) 20. (D)
 21. (C) 22. (C) 23. (B) 24. (C) 25. (D)
 26. (C) 27. (C) 28. (A) 29. (A) 30. (C)
 31. (B) 32. (A) 33. (C) 34. (C) 35. (A)
 36. (B) 37. (D) 38. (A) 39. (A) 40. (B)
 41. (B) 42. (C) 43. (A) 44. (B) 45. (A)
 46. (A) 47. (C) 48. (A) 49. (C) 50. (D)
 51. (B) 52. (D) 53. (A) 54. (D) 55. (B)
 56. (D) 57. (D) 58. (A) 59. (C) 60. (B)
 61. (B) 62. (A) 63. (B) 64. (A) 65. (C)
 66. (C) 67. (B) 68. (C) 69. (D) 70. (A)
 71. (A) 72. (B) 73. (B) 74. (D) 75. (B)
 76. (C) 77. (D) 78. (D) 79. (D) 80. (D)
 81. (D) 82. (C) 83. (D) 84. (C) 85. (D)
 86. (D) 87. (B) 88. (A) 89. (C) 90. (B)
 91. (B) 92. (D) 93. (C) 94. (A) 95. (A)
 96. (B) 97. (B) 98. (B) 99. (A) 100. (B)
 101. (D) 102. (B) 103. (B) 104. (C) 105. (D)
 106. (B) 107. (D) 108. (B) 109. (A)



1

CHAPTER

Ecology and Ecosystem

- Where does hydrarch succession take place?
 - semi-arid areas
 - dry areas
 - grasslands
 - wet areas
- Which of the following is the primary carnivore?
Grass- grasshopper- frog- snake- hawk
 - Hawk
 - Grasshopper
 - Grass
 - Frog
- _____ can be visualized as a functional unit of nature, where living organisms interact among themselves and also with the surrounding physical environment.
 - A universe
 - An ecosystem
 - A herd
 - A family
- In a food chain, _____ can be taken as the average value for the amount of organic matter that is present at each step and reaches the next level of consumers.
 - 10%
 - 1%
 - 0.01%
 - 0.1%
- The process of development of an area through conservation and regeneration of degraded ecosystem and ecological stability is called
 - Social stability
 - Sustainable development
 - Social development
 - Ecological development
- Which of the following are producers and consumers of land resources ?
 - Plants
 - Reptiles
 - Humans
 - Planet
- A.G. Tansley in 1935 presented the notion of.....
 - Respiration
 - Zero
 - Ecosystem
 - Speed
- What is the term for the gradual, sequential changes in species composition in an ecosystem over time?
 - Adaptation
 - Evolution
 - Succession
 - Extinction
- Which of the following options is an example of a decomposer in an ecosystem?
 - Producer
 - Carnivore
 - Fungus
 - Herbivore
- What is the primary role of autotrophic organisms in an ecosystem?
 - Preying on other organisms for food
 - Converting organic matter into energy
 - Breaking down dead organisms
 - Producing organic matter from inorganic substances
- What is the study of the interactions between living organisms and their environment called?
 - Ecology
 - Biology
 - Geology
 - Chemistry
- Cyanobacteria belong to the domain of :
 - Decomposers
 - Producers
 - Tertiary Consumers
 - Primary Consumers
- Which of the following options represents the correct flow of energy in an ecosystem?
 - Sunlight → Producers → Herbivores → Carnivores
 - Sunlight → Herbivores → Carnivores → Producers
 - Sunlight → Herbivores → Producers → Carnivore
 - Sunlight → Carnivores → Producers → Herbivores
- A factory set up in my area is causing huge deforestation. Which of the following can we expect to see in the near future?
 - Lowering of ground water
 - Lower temperatures
 - Frequent rain
 - Arrival of new animals
 - a
 - a
 - c
 - d
- Which of the following is abiotic component of ecology ?
 - Fungi
 - Sunlight
 - Carbonic substance
 - Humidity
- The green plants in a terrestrial ecosystem capture about of the energy of sunlight that falls on their leaves and convert it into food energy.
 - 8%
 - 5%
 - 1%
 - 14%
- What percent of energy is transmitted from one trophic level to another in a food chain ?
 - 0.2
 - 0.1
 - 0.15
 - 0.05
- Which of the following forms the upper part of an aquatic ecosystem?
 - Fishes
 - Plankton
 - Algae
 - Crustacean
- Small carnivores are called _____.
 - Primary consumer
 - Secondary consumer
 - Tertiary consumer
 - None of the options is correct
- What is parasitism?
 - Such association as is necessary for the existence of both the partners
 - An association in which one species is benefited and the other species is harmed
 - Association in which one species is benefited and the other is unaffected
 - None of these
- What kind of interaction is necessary for the existence of both the partners living in the company?
 - Symbiosis
 - Amazalism
 - Parasitism
 - None of these
-, is the study of the distribution and movement of water both on and below the Earth's surface, as well as the impact of human activity on water availability and conditions.
 - Hydrology
 - Ecology
 - Anthology
 - Biology
- Select the correct statement :
 - The pyramid of energy is always upright.
 - The pyramid of biomass is always inverted.
 - The pyramid of mass is always upright.
 - The pyramid of number is always upright.

24. Select the correct statement about climax community.
- (A) It is an ecological community in which populations of plants or animals remain stable and exist in balance with each other and their environment.
- (B) It is a very first community of ecosystem.
- (C) It consist of only plant population that makes a new ecological system.
- (D) It is an ecological community in which populations of plants or animals, which are very unstable and exist for very few time.
25. Who conceptualised the idea about animal ecology in 1927 ?
- (A) Rachel Carson
(B) Charles Elton
(C) Aldo Leopold
(D) Arthur George Tansle
26. In a food chain, the base of energy pyramid consists of :
- (A) producers
(B) tertiary consumers
(C) primary consumers
(D) secondary consumers
27. The rate at which consumers convert the chemical energy in their food into their biomass is called :
- (A) secondary productivity
(B) net tertiary productivity
(C) primary productivity
(D) gross primary productivity
28. Which of the following trophic levels has maximum energy?
- (A) Trophic level-4 (B) Trophic level-1
(C) Trophic level-2 (D) Trophic level-3
29. Phytoplanktons are _____ .
- (A) tertiary consumers of pond ecosystem
(B) secondary consumers of ocean ecosystem
(C) primary consumers of lake ecosystem
(D) producers in pond ecosystem
30. In an pond ecosystem, the first trophic level includes :
- (A) zooplankton (B) phytoplankton
(C) grasshopper (D) cow
31. Which of the following groups contains only abiotic elements of an ecosystem?
- (A) Rainfall, grass, insects and frogs
(B) Soil, minerals, grass and flowers
(C) Soil, minerals, wind and rainfall
(D) Soil, grasses, flowers and honeybees
32. Match column A with B.
- | Column A | Column B |
|----------------|-------------------------------------|
| a. Carnivores | i. Green plants |
| b. Producers | ii. Secondary or tertiary consumers |
| c. Decomposers | iii. Primary consumers |
| d. Herbivores | iv. Bacteria |
- (A) a-iii, b-i, c-iv, d-ii
(B) a-ii, b-iv, c-i, d-iii
(C) a-iii, b-iv, c-i, d-ii
(D) a-ii, b-i, c-iv, d-iii
33. The species that invade a bare area are called _____ species.
- (A) primary (B) secondary
(C) ruderal (D) pioneer
34. Biotic potential is defined as:
- (A) the tendency of a population to decrease under extreme environmental conditions
(B) the ability of a population to survive and remain constant under ideal environmental conditions
(C) the ability of a population to increase under ideal environmental conditions
(D) the tendency of a population to remain constant under extreme environmental conditions
35. Which of the following regarding the trophic levels is INCORRECT ?
- (A) Decomposers - Bacteria
(B) Herbivores - Primary consumers
(C) Omnivores - Fungus
(D) Carnivores - Secondary or tertiary consumers
36. Which concept was proposed by Hutchinson in 1957 to express the relationship of an individual or population to all aspects of its environment ?
- (A) Ecological niche
(B) Ecological stratification
(C) Ecological succession
(D) Ecological pyramid
37. In 1942, who presented the 'trophic-dynamic aspect of ecology' which is the basic process of transfer of energy from one trophic level to another in an ecosystem?
- (A) Raymond L. Lindeman
(B) Charles Elton
(C) Arthur Tansley
(D) Ernst Haeckel
38. Ecology was first described as separate field of knowledge in by the German zoologist, Ernst Haeckel.
- (A) 1845 (B) 1890
(C) 1866 (D) 1880
39. What should be the proportion of forests in India to maintain ecological balance?
- (A) 20-23% (B) 25-28%
(C) 31-34% (D) 42-45%
40. Which hypothesis was proposed by Paul Ehrlich to suggest the importance of species richness in the maintenance of ecosystems.
- (A) Rivet popper hypothesis
(B) Predation hypothesis
(C) Redundancy hypothesis
(D) Portfolio hypothesis
41. In the context of ecology, the given equation shows the relationship between the size of an area and the number of species present in it. Accordingly, by which letter is the regression coefficient denoted ?
- $$\log S = \log C + Z \log A$$
- (A) C (B) Z
(C) A (D) S
42. Which Greek term was first used by Ernst Haeckel in 1866 to refer to ' the relation of animals to both the organic as well as the inorganic environment ' ?
- (A) Oologie (B) Ecophagie
(C) Oekologie (D) Ethnologie
43. What is a population (or subspecies or race) that is adapted to local environmental conditions called ?
- (A) Ecotype (B) Biome
(C) Prototype (D) Niche
44. Who was the first ecologist to describe the specific shape of eco-trophic interactions. Which he called the pyramid of numbers, in the 1920s ?
- (A) Ernst Haeckel
(B) Charles Elton
(C) Edward O Wilson
(D) Howard Thomas Odum
45. In an ecosystem, vertical distribution of different species occupying different levels is called _____.
- (A) ramification (B) stratification
(C) levelling (D) grouping
46. In which of the following ecosystem most biomass is found in?
- (A) Desert ecology
(B) Freshwater ecology
(C) Tundra Ecology
(D) Forest ecology
47. In which of the following ecosystems, a benthic zone is found?
- (A) Freshwater ecological
(B) Salt water ecological
(C) Tundra Ecosystem

- (D) Forest Ecology
48. How many ecological hotspots are there in India?
 (A) 2 (B) 3
 (C) 4 (D) 5
49. Which of the following are the two basic categories of an ecosystem?
 (A) Terrestrial and Aquatic
 (B) Lakes and Ponds
 (C) Forest and Rivers
 (D) Forest and Aquatic
50. Which ecologist is famous for studying plant life in the Indiana Dunes in 1896 ?
 (A) Robert MacArthur
 (B) Aldo Leopold
 (C) G Evelyn Hutchinson
 (D) Henry Chandler Cowles
51. Productivity of an ecosystem is composed of which of the following ?
 (A) Net productivity and consumption
 (B) Primary and secondary productivity
 (C) Net primary productivity and gross primary productivity
 (D) Gross productivity and primary productivity
52. In a lake ecosystem, the primary consumers are
 (A) zooplankton (B) phytoplankton
 (C) bacteria (D) fishes
53. What do you call the rate of formation of new organic matter by consumers ?
 (A) Secondary productivity
 (B) Tertiary productivity
 (C) Primary productivity
 (D) Net productivity
54. Synecology can be defined as which of the following ?
 (A) A branch of science that deals with the interrelationship of two species
 (B) A branch of science that deals with the interrelationship of whole biome
 (C) A branch of science that deals with the interrelationship of individual species with its environment.
 (D) A branch of ecology that deals with the structure, development and distribution of ecological communities.
55. Who is the father of the modern ecology ?
 (A) Robert Hook (B) Robert Brown
 (C) E P Odum (D) Charles Darwin
56. What do you call the maximum, sustainable size of a resident population in a given ecosystem?
 (A) Crude rate
 (B) Carrying capacity
 (C) Case rate
 (D) Census
57. _____ is the most ecologically relevant environmental factor.
 (A) Water (B) Temperature
 (C) Light (D) Soil
58. Which of the following regions of India is considered as an 'ecological hotspot'?
 (A) Western Himalayas
 (B) Northern Himalayas
 (C) Western Ghats
 (D) Eastern Ghats
59. What is the term for the maximum population size that an environment can sustain indefinitely?
 (A) Biotic potential
 (B) Pioneer species
 (C) Ecological niche
 (D) Carrying capacity
60. Select the correct sentence about the water table.
 (A) Water cannot be found below the water table.
 (B) The water table cannot be changed at a given place.
 (C) The lower level of the groundwater layer is called water table.
 (D) The water table varies from place to place.
61. Which of the following is the best definition of ecological efficiency?
 (A) The ratio between energy flows at different points in a food chain
 (B) The amount of energy stored at different trophic levels in a food chain
 (C) The ratio between the mass and the energy flow at different trophic levels in a food chain
 (D) The amount of energy utilised at different trophic levels in a food chain
62. What does a self-sustaining ecosystem mean ?
 (A) It is not dependent on radiant energy for its maintenance.
 (B) No organisms are added or removed from the biotic component.
 (C) The organisms are well adapted to the local biotic components.
 (D) The organic matter remains almost constant generation over generation.
63. Which of the following groups of organisms help in Keeping the environment clean?
 (A) Algae and Lichens
 (B) Protozoa and Lichens
 (C) Algae and Protozoa
 (D) Bacteria and Fungi
64. What is the difference between primary consumer and secondary consumer in a food chain?
 (A) Primary consumers eat plants and other consumers, secondary consumers eat plants and decomposing matter.
 (B) Primary consumers eat only plants, secondary consumers eat primary consumers.
 (C) Primary consumers eat plants and decomposing matter, secondary consumers eat plants and other consumers.
 (D) Primary consumers eat other consumers, secondary consumers eat only plants.
65. What is the process of accumulation of chemicals in higher trophic levels called ?
 (A) Biological remediation
 (B) Biological oxidation
 (C) Biological reduction
 (D) Biological magnification
66. The green plants in a terrestrial ecosystem absorb sunlight that falls on their leaves and convert it into food energy. The percentage of solar radiation absorbed by all green plants for the process of photosynthesis is about:
 (A) 1% (B) 5%
 (C) 8% (D) 10%
67. Which of the following statements about living and non-living being is/are correct?
 1. While living being can demonstrate growth and repair, non-living being cannot.
 2. While living being demonstrates metabolic processes, non-living being does not.
 Select the correct answer using the code given below :
 (A) 1 only (B) 2 only
 (C) Both 1 and 2 (D) Neither 1 nor 2
68. Which one of the following factors does not affect the distribution of groundwater ?
 (A) Amount of precipitation
 (B) Rate of evaporation
 (C) Ability of the ground surface to allow water to infiltrate into the groundwater system
 (D) Distance from the sea
69. Which one of the following is the correct sequence about various levels of organization of Biosphere?
 (A) Ecosystem — Biosphere —

- Community—Population
(B) Population—Organism—
Ecosystem—Biosphere
(C) Organism—Community—
Population—Biosphere
(D) Organism—Population—
Ecosystem—Biosphere
70. Which of the following has the highest number in a food chain?
(A) decomposer
(B) Producer
(C) Primary consumer
(D) Secondary consumer
71. Tree is the main ecosystem in the form of a pyramid of numbers.
(A) upside down (C) Horizontal
(B) straight (D) bent
72. In pond ecosystem, food chain starts from—
(A) Small fish (B) Phytoplankton
(C) Zooplankton (D) Aquatic insects
73. In an aquatic ecosystem, the limiting factor of productivity is.
(A) Light (B) Water
(C) Air (D) Soil
74. Gradual and clearly predictable changes in the ecosystem composition of a given area are called :
(A) Ecological biodiversity
(B) Species richness
(C) Ecological succession
(D) None of the above
75. Ecosystem is the smallest unit of
(A) Ionosphere (B) Lithosphere
(C) Biosphere (D) Mesosphere
76. A set of ecosystems is called a :
(A) Biome (B) Climate
(C) Sub-system (D) Structure
77. Which ecosystem has the maximum biomass?
(A) Lake (B) Pond
(C) Forest (D) Grassland
78. Ecology is the study of :
(A) bird
(B) formation of cell
(C) Study of relationship between living beings and environment
(D) tissue
79. Which of the following have species that can establish symbiotic relationship with other organisms?
1. Cnidarians
2. Fungi
3. Protozoa
Select the correct answer using the code given below.
- (A) 1 and 2 only (B) 2 and 3 only
(C) 1 and 3 only (D) 1, 2 and 3
80. In case of which one of the following biogeochemical cycles, the weathering of rocks is the main source of release of nutrient to enter the cycle?
(A) Carbon cycle
(B) Nitrogen cycle
(C) Phosphorus cycle
(D) Sulphur cycle
81. Which of the following are detritivores?
I. Earthworms
II. Jellyfish
III. Millipedes
IV. Seahorses
V. Woodlice
Select the correct answer using the code given below:
(A) I, II and IV only
(B) II, III, IV and V only
(C) I, III and V only
(D) I, II, III, IV and V
82. Consider the following animals:
I. Hedgehog
II. Marmot
III. Pangolin
To reduce the chance of being captured of the above by predators, which roll up and protects/organisms rolls up/protect its/their vulnerable parts?
(A) I and II (B) II only
(C) III only (D) I and III
83. Consider the following kinds of organisms:
I. Copepods
II. Cyanobacteria
III. Diatoms
IV. Foraminifera
Which of the above are primary producers in the food chains of oceans?
(A) I, II and IV (B) I, III and IV
(C) I and II (D) II and IV
84. Why is there a great concern about the microbeads that are released into environment?
(A) They are considered harmful to marine ecosystem.
(B) They are considered to cause skin cancer in children.
(C) They are small enough to absorbed by crop plants in irrigated fields.
(D) They are often found to be used as food adulterants.
85. Due to some reasons, if there is a huge fall in the population of species of butterflies, what could be its likely consequence/consequences?
1. Pollination of some plants could be adversely affected.
2. There could be a drastic increase in the fungal infections of some cultivated plants.
3. It could lead to a fall in the population of some species of wasps, spiders and birds.
Select the correct answer using the code given below:
(A) 1 only (B) 2 and 3 only
(C) 1 and 3 only (D) 1, 2 and 3
86. Which one of the following is the best description of the term 'ecosystem'?
(A) A community of organisms interacting with one another.
(B) That part of the Earth which is inhabited by living organisms.
(C) A community of organisms together with the environment in which they live
(D) The flora and fauna of a geographical area
87. Which one of the following is the correct sequence of a food chain?
(A) Diatoms-Crustaceans-Herrings
(B) Crustaceans-Diatoms-Herrings
(C) Diatoms-Herrings-Crustaceans
(D) Crustaceans-Herrings-Diatoms
88. Which of the following have coral reefs?
I. Andaman and Nicobar Islands
II. Gulf of Kachchh
III. Gulf of Mannar
IV. Sundarbans
Select the correct answer using the code given below.
(A) I, II and III only
(B) II and IV only
(C) I and III only
(D) I, II, III and IV
89. Consider the following pairs:
Wetlands – **Confluence of rivers**
1. Harike Wetlands – Confluence of Beas and Satluj/Sutlej
2. Keoladeo Ghana – Confluence of National Park Banas and Chambal
3. Kolleru Lake – Confluence of Musi and Krishna
Which of the above pairs is/are correctly matched?
(A) 1 only (B) 2 and 3 only
(C) 1 and 3 only (D) 1, 2 and 3
90. With reference to food chains in ecosystems, consider the following statements:
1. A food chain illustrates the order in which a chain of organisms feed upon each other.

2. Food chains are found within the populations of a species.
3. A food chain illustrates the numbers of each organism which are eaten by others.
- Which of the statements given above is/are correct?
 (A) 1 only (B) 1 and 2 only
 (C) 1, 2 and 3 (D) None of these
91. Which one of the following terms describes not only the physical space occupied by an organism, but also its functional role in the community of organisms?
 (A) Ecotone
 (B) Ecological niche
 (C) Habitat
 (D) Home range
92. In the grasslands, trees do not replace the grasses as a part of an ecological succession because of:
 (A) Insects and fungi
 (B) limited sunlight and paucity of nutrients
 (C) Water limits and fire
 (D) None of the above
93. Which one of the following is the correct sequence of ecosystems in the order of decreasing productivity?
 (A) Oceans, lakes, grasslands, mangroves
 (B) Mangroves, oceans, grasslands, lakes
 (C) Mangroves, grasslands, lakes, oceans
 (D) Oceans, mangroves, lakes, grasslands
94. With reference to the food chains in ecosystems, which of the following kinds of organism is/are known as decomposer organism/organisms?
 1. Virus
 2. Fungi
 3. Bacteria
 Select the correct answer using the codes given below.
 (A) 1 only (B) 2 and 3 only
 (C) 1 and 3 only (D) 1, 2 and 3
95. Which of the following is/are unique characteristic/characteristics of equatorial forests?
 1. Presence of tall, closely set trees with crowns forming a continuous canopy
 2. Coexistence of a large number of species
 3. Presence of numerous varieties of epiphytes
 Select the correct answer using the codes given below.
 (A) 1 only (B) 2 and 3 only
 (C) 1 and 3 only (D) 1, 2 and 3
96. With reference to the wetlands of India, consider the following statements:
 I. The country's total geographical area under the category of wetlands is recorded more in Gujarat as compared to other States
 II. In India, the total geographical area of coastal wetlands is larger than that of inland wetlands
 Which of the statements given above is/are correct?
 (A) I Only
 (B) II Only
 (C) Both I and II
 (D) Neither I nor II
97. The Millennium Ecosystem Assessment describes the following major categories of ecosystem services provisioning, supporting, regulating, preserving and cultural. Which one of the following is supporting service?
 (A) Production of food and water
 (B) Control of climate and disease
 (C) Nutrient cycling and crop pollination
 (D) Maintenance of diversity
98. What would happen if phytoplankton of an ocean is completely destroyed for some reason?
 I. The ocean as a carbon sink would be adversely affected
 II. The food chains in the ocean would be adversely affected
 III. The density of ocean water would drastically decrease
 Select the correct answer using the codes given below:
 (A) I and II only (B) II only
 (C) III only (D) I, II and III
99. In the context of ecosystem productivity, marine upwelling zones are important as they increase the marine productivity by bringing the:
 I. Decomposer microorganisms to the surface
 II. Nutrients to the surface
 III. Bottom-dwelling organisms to the surface
 Which of the statements given above is/are correct?
 (A) I and II Only
 (B) II Only
 (C) II and III Only
 (D) III Only
100. There is a concern over the increase in harmful algal blooms in the seawaters of India. What could be the causative factors for this phenomenon?
 I. Discharge of nutrients from the estuaries
 II. Run-off from the land during the monsoon
 III. Upwelling in the seas
 Select the correct answer from the codes given below:
 (A) I Only
 (B) I and II Only
 (C) II and III Only
 (D) I, II and III
101. In the nature, which of the following is/are most likely to be found surviving on a surface without soil?
 I. Fern II. Lichen
 III. Moss IV. Mushroom
 Select the correct answer using the code given below:
 (A) I and IV only (B) II only
 (C) II and III (D) I, III and IV
102. Which of the following represents a food chain?
 (A) Frog - Eagle - Insects - Grass - Snake
 (B) Grass - Insects - Frog - Snake - Eagle
 (C) Grass - Frog - Insects - Eagle - Snake
 (D) Frog - Snake - Insects - Grass - Eagle
103. Which one of the following is the most appropriate consequence of deforestation?
 (A) Destruction of habitat only
 (B) Global warming only
 (C) All of the above
 (D) Soil erosion only
104. Soil erosion increases rapidly due to deforestation because :
 (A) Roots hold the soil firmly
 (B) Roots provide nutrients
 (C) Roots absorb water
 (D) Roots absorb minerals

Answer Key

1. (D) 2. (D) 3. (B) 4. (A) 5. (D)
 6. (C) 7. (C) 8. (C) 9. (C) 10. (D)
 11. (A) 12. (B) 13. (A) 14. (B) 15. (A)
 16. (C) 17. (B) 18. (B) 19. (B) 20. (B)
 21. (A) 22. (A) 23. (A) 24. (A) 25. (B)
 26. (A) 27. (A) 28. (B) 29. (D) 30. (B)
 31. (C) 32. (D) 33. (D) 34. (B) 35. (C)
 36. (A) 37. (A) 38. (C) 39. (C) 40. (A)
 41. (B) 42. (C) 43. (A) 44. (A) 45. (B)
 46. (D) 47. (B) 48. (C) 49. (A) 50. (D)
 51. (C) 52. (A) 53. (A) 54. (D) 55. (C)
 56. (B) 57. (B) 58. (C) 59. (D) 60. (D)
 61. (A) 62. (D) 63. (D) 64. (A) 65. (D)
 66. (A) 67. (C) 68. (D) 69. (D) 70. (A)
 71. (A) 72. (B) 73. (A) 74. (C) 75. (C)
 76. (A) 77. (C) 78. (C) 79. (D) 80. (C)
 81. (C) 82. (D) 83. (B) 84. (A) 85. (C)
 86. (C) 87. (A) 88. (A) 89. (A) 90. (A)
 91. (B) 92. (C) 93. (D) 94. (B) 95. (D)
 96. (A) 97. (C) 98. (A) 99. (C) 100. (D)
 101. (C) 102. (B) 103. (C) 104. (A)

