

CBSE Class 9 Science
NCERT Exemplar Solutions
Chapter - 7
Diversity in Living Organisms

Short Answer Questions

35. Write true (T) or false (F)

- (a) Whittaker proposed five kingdom classification.
- (b) Monera is divided into Archaeobacteria and Eubacteria.
- (c) Starting from Class, Species comes before the Genus.
- (d) Anabaena belongs to the kingdom Monera.
- (e) Blue green algae belongs to the kingdom Protista.
- (f) All prokaryotes are classified under Monera.

Ans. (a) T

(b) T

(c) F

(d) T

(e) F

(f) T

36. Fill in the blanks

(a) Fungi shows _____ mode of nutrition.

Ans. saprotrophic

(b) Cell wall of fungi is made up of _____.

Ans. chitin

(c) Association between blue green algae and fungi is called as _____.

Ans. lichens

(d) Chemical nature of chitin is _____.

Ans. carbohydrate

(e) _____ has smallest number of organisms with maximum number of similar characters.

Ans. species

(f) Plants without well differentiated stem, root and leaf are kept in _____.

Ans. thallophyta

(g) _____ are called as amphibians of the plant kingdom.

Ans. bryophytes

37. You are provided with the seeds of gram, wheat, rice, pumpkin, maize and pea. Classify them whether they are monocot or dicot.

Ans. Gram—dicot

Wheat—monocot

Rice—monocot

Pumpkin—dicot

Maize—monocot

Pea—dicot

38. Match items of column (A) with items of column (B)

Column (A)	Column (B)
(a) Naked seed	(A) Angiosperms
(b) Covered seed	(B) Gymnosperms
(c) Flagella	(C) Bryophytes
(d) Marchantia	(D) Euglena
(e) Marsilea	(E) Thallophyta
(f) Cladophora	(F) Pteridophyta
(g) Penicillium	(G) Fungi

Ans. (a)—B;

(b)—A;

(c)—D;

(d)—C;

(e)—F;

(f)—E,

(g)—G.

39. Match items of column (A) with items of column (B)

Column (A)	Column (B)
(a) Pore bearing animals	(A) Arthropoda
(b) Diploblastic	(B) Coelenterata
(c) Metameric segmentation	(C) Porifera
(d) Jointed legs	(D) Echinodermata
(e) Soft bodied animals	(E) Mollusca
(f) Spiny skinned animals	(F) Annelida

Ans. (a)—C;

(b)—B;

(c)—F;

(d)—A;

(e)—E;

(f)—D.

40. Classify the following organisms based on the absence/presence of true coelom (i.e., acoelomate, pseudocoelomate and coelomate) Spongilla, Sea anemone, Planaria, Liver flukes, Wuchereria, Ascaris, Nereis, Earthworm, Scorpion, Birds, Fishes, Horse.

Ans. Spongilla—Acoelomate

Sea anemone—Acoelomate

Planaria—Acoelomate

Liver fluke—Acoelomate

Wuchereria—Pseudocoelomate

Ascaris—Pseudocoelomate

Nereis—Coelomate

Scorpion—Coelomate

Earthworm—Coelomate

Birds, Fishes and Horse—Coelomate

41. Endoskeleton of fishes are made up of cartilage and bone; classify the following fishes as cartilaginous or bony.

Torpedo, Sting ray, Dog fish, Rohu, Angler fish, Exocoetus.

Ans. Torpedo—Cartilaginous

Sting ray—Cartilaginous

Dog fish—Cartilaginous

Rohu—Bony

Angler fish—Bony

Exocoetus—Bony.

42. Classify the following based on number of chambers in their heart. Rohu, Scoliodon, Frog, Salamander, Flying lizard, King Cobra, Crocodile, Ostrich, Pigeon, Bat, Whale

Ans. Rohu, Scoliodon— 2 chambered. Frog, Salamander, Flying lizard, King Cobra—3 chambered. Crocodile, Ostrich, Pigeon, Bat, Whale—4 chambered.

43. Classify Rohu, Scoliodon, Flying lizard, King Kobra, Frog, Salamander, Ostrich, Pigeon, Bat, Crocodile and Whale into the cold blooded/warm blooded animals.

Ans. Cold blooded—Rohu, Scoliodon, Frog, Salamander, Flying Lizard, King Cobra, Crocodile, Warm blooded— Ostrich, Pigeon, Bat, Whale.

44. Name two egg laying mammals.

Ans. (i) Platypus (ii) Echidna

45. Fill in the blanks

(a) Five kingdom classification of living organisms is given by _____.

Ans. Robert Whittaker

(b) Basic smallest unit of classification is _____.

Ans. Species

(c) Prokaryotes are grouped in Kingdom _____.

Ans. Monera

(d) Paramecium is a protista because of its _____.

Ans. Eukaryotic unicellular organisms

(e) Fungi do not contain _____.

Ans. Chlorophyll

(f) A fungus _____ can be seen without microscope.

Ans. Mushroom

(g) Common fungi used in preparing the bread is _____.

Ans. Yeast

(h) Algae and fungi form symbiotic association called _____.

Ans. Lichens

46. Give True (T) and False (F)

(a) Gymnosperms differ from Angiosperms in having covered seed.

(b) Non-flowering plants are called Cryptogamae.

(c) Bryophytes have conducting tissue.

(d) Funaria is a moss.

(e) Compound leaves are found in many ferns.

(f) Seeds contain embryo.

Ans. (a) F

(b) T

(c) F

(d) T

(e) T

(f) T

47. Give examples for the following

(a) Bilateral, dorsiventral symmetry is found in _____.

Ans. Liver fluke

(b) Worms causing disease elephantiasis is _____.

Ans. Filarial worm

(c) Open circulatory system is found in _____ where coelomic cavity is filled with blood.

Ans. Arthropods

(d) _____ are known to have pseudocoelom.

Ans. Nematodes

48. Label a,b,c and d. given in Fig. 7.1 Give the function of (b)

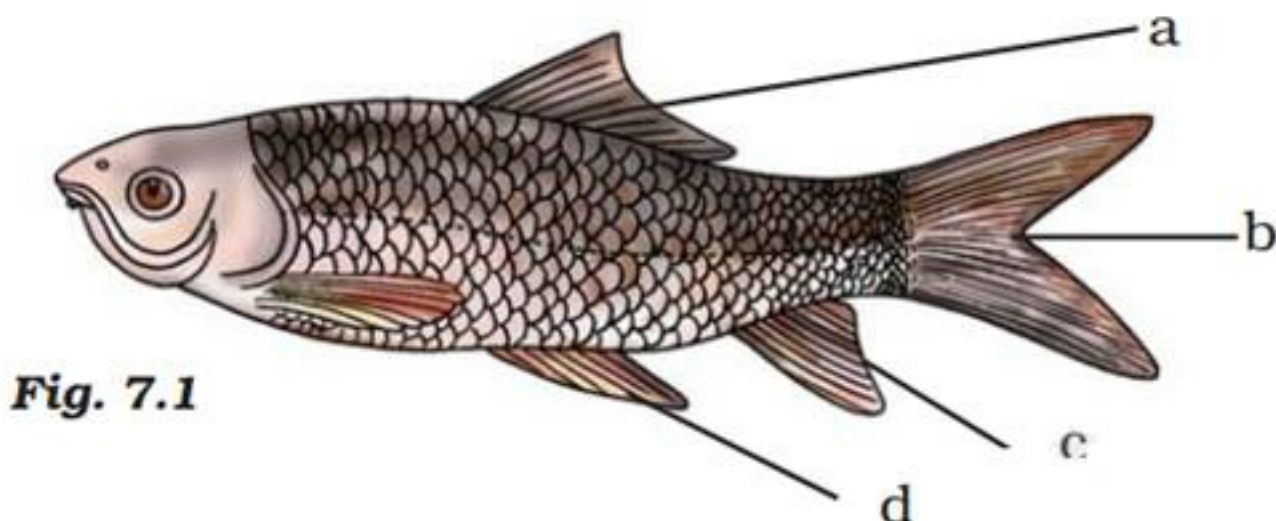


Fig. 7.1

Ans. (a) Dorsal fin

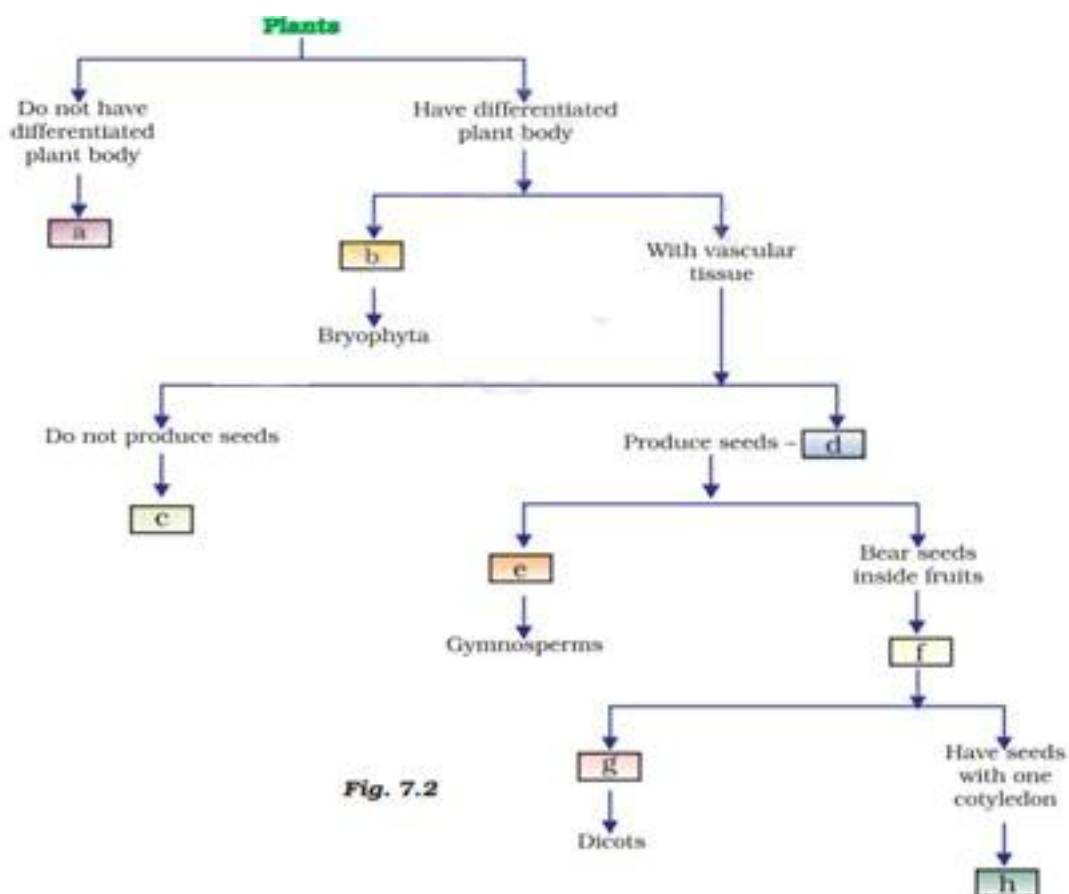
(b) Caudal fin

(c) Pelvic fin

(d) Pectoral fin

Function of Caudal fin–Caudal fin helps in streamlined movement in water.

49. Fill in the boxes given in Fig. 7.2 with appropriate characteristics/plant group (s)



- Ans.** (a) Thallophyta
 (b) Without specialized vascular tissue
 (c) Pteridophyta
 (d) Phanerogams
 (e) Bear naked seeds
 (f) Angiosperms
 (g) Have seeds with two cotyledons
 (h) Monocots