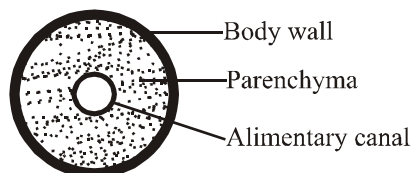


ANIMAL KINGDOM

1. The given figure shows a cross section of the body of an invertebrate. Identify the animal which has such body cavity :-



- (1) Cockroach (Arthropoda)
 (2) Round worm (Aschelminthes)
 (3) *Planaria* (Platyhelminthes)
 (4) Earthworm (Annelida)
2. In which one of the following, the genus name, its two characters and its phylum are not **correctly** matched?

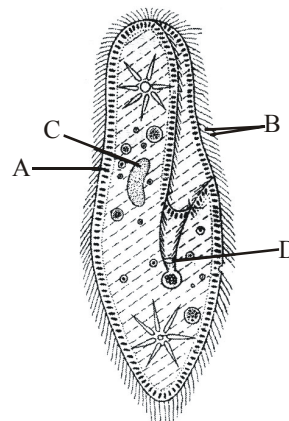
| | Genus name | Characters | Phylum |
|-----|------------------|--|---------------|
| (1) | <i>Pila</i> | (i) Body segmented (ii) Mouth with radula | Mollusca |
| (2) | <i>Echinus</i> | (i) Spiny skinned (ii) Water vascular system | Echinodermata |
| (3) | <i>Spongilla</i> | (i) Pore bearing (ii) Canal system | Porifera |
| (4) | <i>Locusta</i> | (i) Jointed appendages (ii) Malpighiantubules | Arthropoda |

3. Match animals given in column B with their respective mode of locomotion from column A and select the correct option:-

| | Column A | | Column B |
|-----|---|-----|--------------------|
| (w) | Ciliary locomotion | I | Earthworm |
| (x) | Pseudopodial movements | II | <i>Nereis</i> |
| (y) | Flagellar movements | III | Crab |
| (z) | Circular and longitudinal muscles in the body | IV | <i>Paramecium</i> |
| | | V | <i>Amoeba</i> |
| | | VI | <i>Trypanosoma</i> |

- (1) w-I, x-II, y-III, z-IV
 (2) w-V, x-VI, y-IV, z-III
 (3) w-IV, x-III, y-II, z-I
 (4) w-IV, x-V, y-VI, z-I

4. Refer the given figure of *Paramecium caudatum* and select the option that **correctly** identifies A, B, C and D.



| | A | B | C | D |
|-----|-----------|-------------|---------------------|-------------|
| (1) | Cell wall | Cilia | Contractile vacuole | Cytostome |
| (2) | Pellicle | Cilia | Contractile vacuole | Cytostome |
| (3) | Pellicle | Cilia | Macronucleus | Cytostome |
| (4) | Pellicle | Trichocysts | Macronucleus | Cytopharynx |

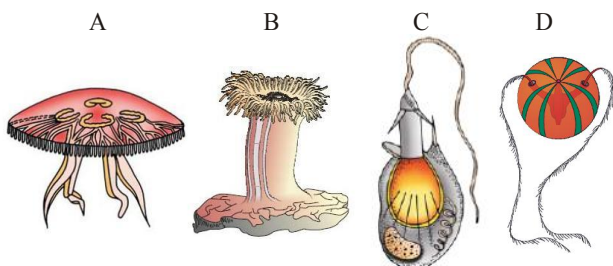
5. Which of the following statement(s) is/are correct regarding phylum Coelenterata?
- (i) They are aquatic, mostly marine, sessile or free-swimming, radially symmetrical animals.
 (ii) They have a central gastro-vascular cavity with a single opening on hypostome.
 (iii) Digestion is extracellular and intracellular.
 (iv) Examples are *Sycon*, *Spongilla* and *Euspongia*
- (1) (i) and (ii) only (2) (i) and (iv)
 (3) (i), (ii) and (iii) (4) All of these
6. Which of the following statement(s) is/are correct regarding phylum aschelminthes?
- (i) The body is circular in cross-section hence the name roundworms.
 (ii) Alimentary canal is complete with a well-developed muscular pharynx.
 (iii) Sexes are separate (dioecious), i.e., males and females are distinct.
 (iv) Nephridia help in osmoregulation and excretion.
- (1) (i) and (ii) (2) (iii) and (iv)
 (3) (i), (ii) and (iii) (4) All of these

7. Match the phylum/class given in column-I with the special features present in them given in column-II and choose the correct option.

| | Column-I (Phylum/Class) | | Column-II (Special features present) |
|---|----------------------------|-----|---|
| A | Porifera | I | Mammary glands |
| B | Mollusca | II | Cloaca |
| C | Ctenophora | III | Choanocytes |
| D | Amphibia | IV | Radula |
| E | Mammalia | V | Comb plates |

- (1) A-(III), B-(IV), C-(V), D-(II), E-(I)
 (2) A-(IV), B-(III), C-(V), D-(I), E-(II)
 (3) A-(III), B-(IV), C-(II), D-(I), E-(V)
 (4) A-(III), B-(V), C-(IV), D-(I), E-(II)

8. Refer the given figures A, B, C and D and identify the option which shows their correct name.



| | A | B | C | D |
|---|----------------------|----------------------|----------------------|----------------------|
| 1 | <i>Pleurobrachia</i> | Cnidoblast | <i>Aurelia</i> | <i>Adamsia</i> |
| 2 | <i>Aurelia</i> | <i>Adamsia</i> | Cnidoblast | <i>Pleurobrachia</i> |
| 3 | Cnidoblast | <i>Pleurobrachia</i> | <i>Adamsia</i> | <i>Aurelia</i> |
| 4 | <i>Adamsia</i> | <i>Aurelia</i> | <i>Pleurobrachia</i> | Cnidoblast |

9. Which of the following pairs of animals are similar to each other pertaining to the feature stated against them?
- (1) Canis and Panthera tigris - Viviparity
 (2) Wall lizard and Alligator - Three chambered heart
 (3) Roundworm and Filaria worm - Metameric segmentation
 (4) Sea fish and sting ray - Cold blooded (poikilothermal)

10. The combination of a true coelom and repeating body segmentation allows the annelids (unlike the anatomically "simpler" worms) to do which of the following?

- (1) Attain complex body shapes and thus locomote more precisely.
 (2) Move through loose marine sediments.
 (3) Be hermaphroditic
 (4) Inject paralytic poisons into their prey.

11. Which of the following characteristic distinguish arthropoda from annelids and molluscs?

- (1) An external skeleton made of chitin (a polysaccharide) and protein rather than a shell made chiefly of mineral salts.
 (2) Subdivision of the legs into movable segments.
 (3) Distinct group of muscles, derived from many body segments, that move the separate parts of the exoskeleton.
 (4) All of the above

12. A student brought home a strange animal which he found outside under a rock. It had moist skin, a complete digestive tract, a ventral nerve cord, and have metameric segments. Identify the phylum of the animal.

- (1) Porifera (2) Annelida
 (3) Mollusca (4) Echinodermata

13. Refer the following animals and identify those which have a fluid filled body cavity with a complete lining derived from mesoderm.

- (i) *Sycon* (ii) Butterfly
 (iii) *Nereis* (iv) Sea fan
 (v) Scorpion (vi) King crab

- (1) (i) and (iii) only
 (2) (ii) and (iv) only
 (3) (ii), (iii), (v) and (vi) only
 (4) All of these

14. A scientist is studying an organism. After studying he found that the animal has a cavity which originated from blastocoel. This cavity is present between body wall and gut. Which animal is this?

- (1) *Planaria* (2) *Fasciola*
 (3) *Ancylostoma* (4) Both 1 and 2

15. Given below are four matchings of an animal and its kind of respiratory organ
- (a) Silver fish - trachea
 - (b) Scorpion and Spider - book lung
 - (c) Ascidia and Salpa - pharyngeal gills
 - (d) Dolphin and Whale - skin


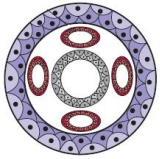
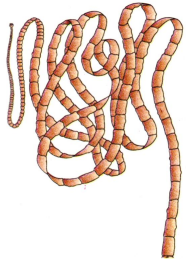
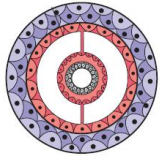

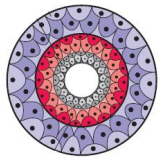
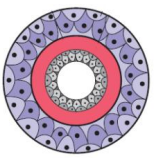
The correct matchings are

- (1) A and D
 - (2) A, B and C
 - (3) B and D
 - (4) C and D
16. When a fresh water amoeba is subjected to X-rays, the contractile vacuole is degenerated. Which function will be stopped?
- (1) Formation of pseudopodia
 - (2) Food digestion
 - (3) Respiration
 - (4) Osmoregulation
17. Sycon spongilla and euspongia belongs to a group of animals, which are best described as
- (1) unicellular or acellular
 - (2) multicellular without any tissue organization
 - (3) multicellular with a gastrovascular system
 - (4) multicellular having tissue organization, but no body cavity
18. A scientist collects a sample of water. In the water, he found the following organisms : *Amoeba*, *Hydra*, *Plasmodium*, *Trypanosoma*, *Leucosolania*, *Adamsia* and *Spongilla*. Which of the following is not an incorrect statement?
- (1) Only *Adamsia* contains collar cells
 - (2) Only *Plasmodium* is parasite
 - (3) Only *Leucosolania* is asymmetrical
 - (4) Only *Spongilla* and *Leucosolenia* has cellular grade of organization and contain water canal system
19. In comparison of coelenterata, ctenophora show
- (1) hollow tentacles around mouth
 - (2) stinging cells in epidermis and gastrodermis
 - (3) polymorphism and metagenesis
 - (4) only sexual reproduction and bioluminescence

20. Radial symmetry and lack of cnidoblasts are the characteristics of

- (1) *Hydra* and Starfish
- (2) Starfish and *Sea Anemone*
- (3) *Ctenoplana* and *Beroe*
- (4) *Aurelia* and *Paramoecium*

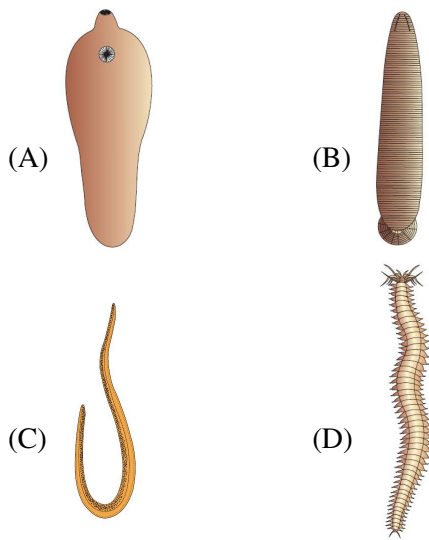
21. Match the items in Column-I with those in Column-II and choose the correct option.

| Column-I | Column-II |
|--|---|
| (A)  | (i)  |
| (B)  | (ii)  |
| (C)  | (iii)  |
| | (iv)  |

- (1) A-ii, B-ii, C-iv
 - (2) A-iii, B-iv, C-ii
 - (3) A-iv, B-iii, C-i
 - (4) A-i, B-ii, C-iii
22. In contrast to Annelids, the Platyhelminthes show
- (1) Absence of body cavity
 - (2) Presence of pseudocoel
 - (3) Radial symmetry
 - (4) Bilateral symmetry

23. Match the items in Column-I with those in Column-II and Column-III and choose the correct option.

Column-I



| | Column-II | | Column-III |
|---|--------------------|-----|------------------------|
| a | <i>Ascaris</i> | i | Phylum-Annelida |
| b | <i>Fasciola</i> | ii | Phylum-Platyhelminthes |
| c | <i>Neries</i> | iii | Phylum-Aschelminthes |
| d | <i>Hirudinaria</i> | iv | Phylum-Coelenterata |

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

24. Consider the following statements.

- (A) Alimentary canal of earthworm is complete with a well developed muscular pharynx
 (B) In roundworms, sexes are separate, which means they are monoecious
 (C) In annelida, neural system consists of paired ganglia connected by lateral nerves
 (D) Nereis is dioecious

- (1) A, C and D correct
 (2) A and C incorrect
 (3) A and B correct
 (4) C and D incorrect

25. Which of the following animals contains open circulatory system?

- (1) Silk worm (2) *Pila*
 (3) *Balanoglossus* (4) All of the above

26. Phylum Mollusca is differentiated from other by

- (1) Bilateral symmetry and external skeleton
 (2) Mantle and gills
 (3) Shell and segmented body
 (4) Mantle and non-segmented body

27. All chordates have the following characteristics.

- (1) Bilaterally symmetrical, presence of coelom, triploblastic and open circulatory system
 (2) Bilaterally symmetrical, presence of coelom and diploblastic or triploblastic
 (3) Open circulatory system, diploblastic or triploblastic, coelom and bilaterally symmetrical
 (4) Bilaterally symmetrical, coelom, triploblastic and mainly with closed circulatory system

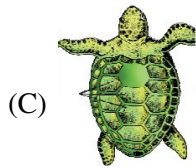
28. Select the correct statement.

- (1) In closed circulator system, cells and tissues are directly bathed in blood
 (2) Platyhelminthes have a single opening out of body, so it is called complete digestive system
 (3) Notochord is ectodermal structure formed on the dorsal side
 (4) From Porifera to echinodermata all are non-chordata

29. Which one of the following is not a living fossil?

- (1) *Peripatus*
 (2) King crab
 (3) *Sphenodon*
 (4) *Archaeopteryx*

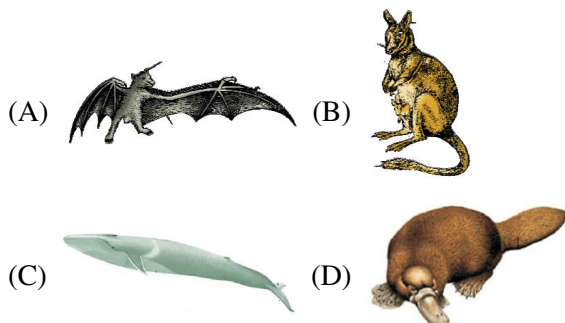
30. Which of the following animals do not belong to class Mammalia?



- (1) B and E (2) A and C
(3) E and C (4) D and E

31. Match the pictures in column-I with their generic names in column-II and their correct order of taxonomic category in column-III and choose the correct option.

Column-I



| | Column-II | | Column-III |
|---|------------------------|-----|----------------------------------|
| a | <i>Ornithorhynchus</i> | i | Metatheria-Mammalia |
| b | <i>Balaenoptera</i> | ii | Cetacea-Eutheria-Mammalia |
| c | <i>Pteropus</i> | iii | Chiroptera-Eutheria-Mammalia |
| d | <i>Macropus</i> | iv | Monotremata-Prototheria-Mammalia |

Options:

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

32. A body cavity which is lined by mesoderm is called_____ is found in _____ .

- (1) Haemocoel, Ascaris
(2) Pseudocoel, Fasciola
(3) Coelom, Taenia
(4) Coelom, Culex

33. Which one is first time evolved in annelida?

- (1) Triploblastic development
(2) Bilateral symmetry
(3) Cephalisation
(4) True coelom

34. Heart to pump blood evolved for the first time in

- (1) Annelids (2) Arthropods
(3) Roundworms (4) Flatworms

35. Among the following cells, each cell is specialised to perform a single specific function except.

- (1) Nematocytes (2) Choanocytes
(3) Interstitial cells (4) Gastrodermal cells

36. The basic fundamental feature(s) that enable us to broadly classify the animal kingdom is/are

- (1) Level of organization and coelom
(2) Cell organization and symmetry
(3) Segmentation and notochord
(4) All of the above

37. Which of the following is sedentary or does not show locomotion?

- (1) *Sycon* (2) *Amoeba*
(3) *Hydra* (4) *Physalia*

38. If '1' represents the extracellular digestion, '2' represent the intracellular digestion and '3' represent both type, then for coelentrata, ctenophora and porifera, select the correct option.

- (1) 1, 2, 3 respectively (2) 3, 3, 2 respectively
(3) 3, 2, 1 respectively (4) 3, 2, 2 respectively

39. The member of Aschelminthes that is parasitic to plants is

- (1) *Ascaris* (Ascariasis)
(2) *Wuchereria* (Filariasis)
(3) *Meloidogyne incognita*
(4) All of the above

40. Match the columns I, II and III and choose the correct combination from the options given.

| | Column-I | | Column-II | | Column-III |
|---|--------------------|---|---------------------|---|--------------|
| a | <i>Wuchereria</i> | 1 | Liver fluke | Q | Monoecious |
| b | <i>Hirudinaria</i> | 2 | Filaria worm | R | Metamerism |
| c | <i>Ancylostoma</i> | 3 | Blood sucking leech | S | Endoparasite |
| d | <i>Fasciola</i> | 4 | Hookworm | T | Dioecious |

- (1) a-4-T, b-3-R, c-2-S, d-1-Q
(2) a-2-S, b-3-Q, c-4-T, d-1-S
(3) a-2-T, b-3-R, c-4-S, d-1-R
(4) a-2-Q, b-3-T, c-4-R, d-1-S

41. Which of the following is correct matching?

- (1) Haemocoel - Prawn and *Pila*
(2) Protonephridia - Some rotifers
(3) Acoelomate - Hookworm
(4) Both 1 and 2

42. Which of the following is incorrect matching?

- (1) *Taenia*, *Fasciola*, *Dugesia*, *Schistosoma* - Platyhelminthes
(2) *Ascaris*, *Wuchereria*, Hookworm - Aschelminthes
(3) Pinworm, flatworm, liver fluke - Platyhelminthes
(4) Eye worm, Filaria worm, seatworm - Aschelminthes

43. What is present in crustaceans but not in insects?

- (1) Paired limbs
(2) Two pairs of antennae
(3) Bilateral symmetry
(4) Chitinous exoskeleton

44. Which one of the following is a matching pair of an animal and a certain phenomenon it exhibits?

- (1) *Pheretima* - Pseudocoel
(2) *Musca* - Jointed appendages
(3) *Chamaeleon* - Four chambered heart
(4) *Taenia* - Rounded body

45. Which one of the following statements is incorrect?

- (1) In cockroaches and prawns, excretion of waste material occur through malpighian tubules
(2) In ctenophores, locomotion is mediated by comb plates
(3) In *Fasciola* and *Taenia* flame cells takes part in excretion
(4) Earthworm are hermaphrodite and yet cross fertilization take place among them

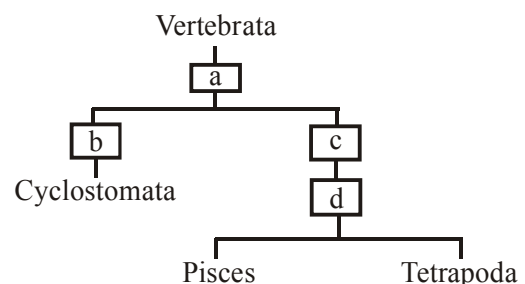
46. Larva of the echinoderms is

- (1) Sessile
(2) Free-swimming
(3) Both 1 and 2
(4) In echinoderms larva is not found / development is direct

47. In arthropods the balancing organ is

- (1) Radula (2) Reticulocyst
(3) Statocyst (4) Antennae

48. Fill in the blanks



- (1) a-subphylum, b-chondrichthyes, c-osteichthyes, d-class
(2) a-subphylum, b-agnatha, c-gnathostomata, d-class
(3) a-superclass, b-agnatha, c-gnathostomata, d-class
(4) a-division, b-agnatha, c-gnathostomata, d-super class

49. Match the column-I and II and choose the correct combination from the options given

| | Column-I | | Column-II |
|---|----------------|---|-------------------------------------|
| a | Lamprey | 1 | Flame cells |
| b | Rohu | 2 | Tetrapoda |
| c | Lancelet | 3 | Migrate to fresh water for spawning |
| d | <i>Camelus</i> | 4 | Cycloid/ctenoid scales |
| e | <i>Trygon</i> | 5 | Placoid scales |

- (1) a-3, b-4, c-1, d-2, e-5
 (2) a-2, b-3, c-5, d-2, e-4
 (3) a-3, b-5, c-1, d-2, e-4
 (4) a-2, b-4, c-3, d-1, e-5

50. Match the columns I and II, and choose the correct combination from the options given

| | Column-I | | Column-II |
|---|----------------------|---|---------------------|
| a | Limbleless amphibian | 1 | <i>Ichthyophis</i> |
| b | Jawless vertebrate | 2 | <i>Ichthyosaurs</i> |
| c | Tail less amphibian | 3 | Frog |
| d | Limbleless reptile | 4 | Lamprey |
| e | Fish like reptile | 5 | Snake |

- (1) a-1, b-2, c-3, d-5, e-4
 (2) a-1, b-4, c-2, d-5, e-3
 (3) a-2, b-4, c-3, d-1, e-5
 (4) a-1, b-4, c-3, d-5, e-2

51. Most poisonous fish among the following is

- (1) Clows fish (2) Eel fish
 (3) Sword fish (4) Puffer fish

52. Match the columns I and II, and choose the correct combination from the options given.

| | Column-I | | Column-II |
|---|--------------------|---|-----------------------|
| a | <i>Macaca</i> | 1 | Limbleless vertebrate |
| b | <i>Aptenodytes</i> | 2 | Cloacal chamber |
| c | <i>Vipera</i> | 3 | Pneumatic bones |
| d | <i>Bufo</i> | 4 | Ear pinna |

- (1) a-4, b-3, c-2, d-1 (2) a-3, b-4, c-1, d-2
 (3) a-4, b-3, c-1, d-2 (4) a-3, b-4, c-2, d-1

53. The cervical vertebrae in human is

- (1) Same as in Whale
 (2) More than that in Rabbit
 (3) Double than that of Horse
 (4) Less than that in Giraffe

54. Which one of the following does not have an excretory system?

- (1) *Myxine* (2) *Carcharodon*
 (3) *Balanoglossus* (4) *Ophiura*

ANSWER KEY

| Que. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Ans. | 3 | 1 | 4 | 3 | 3 | 3 | 1 | 2 | 1 | 1 | 4 | 2 | 3 | 3 | |
| Que. | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Ans. | 4 | 2 | 4 | 4 | 3 | 3 | 1 | 3 | 1 | 4 | 4 | 4 | 4 | 4 | |
| Que. | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| Ans. | 2 | 4 | 4 | 1 | 3 | 4 | 1 | 2 | 3 | 2 | 4 | 3 | 2 | 2 | |
| Que. | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | | | | | | |
| Ans. | 2 | 3 | 4 | 1 | 4 | 4 | 3 | 1 | 4 | | | | | | |