Chapter 4

Animal Kingdom

FACT/DEFINITION TYPE QUESTIONS

1. When any plane passing through the central axis of the body divides the organism into two identical halves, the organism is called _____.
(a) radially symmetrical
(b) bilaterally symmetrical
(c) asymmetrical
(d) metamerically segmented

2. Which of the following is not the common fundamental feature for animal classification?
(a) Germinal layers.
(b) Pathway of water transport.
(c) Pattern of organization of cells.
(d) Serial repetition of the segments.

3. Animals like annelids, arthropods, etc. where the body can be divided into identical left and right halves in only one plane, exhibit_____symmetry.
(a) radial (b) bilateral
(c) asymmetrical (d) non- symmetrical

4. Which of the following is a fresh water sponge?
(a) *Sycon* (b) *Euspongia*
(c) *Spongilla* (d) *Pleurobrachia*

5. Few cnidarians like corals have a skeleton composed of
(a) calcium hydroxide (b) calcium sulphate
(c) calcium carbonate (d) sodium bicarbonate

6. *Meandrina* (brain coral) belongs to phylum
(a) porifera (b) coelenterata
(c) ctenophora (d) platyhelminthes

7. In ctenophora, the body bears _____ external rows of ciliated comb plates, which help in locomotion.
(a) five (b) six
(c) seven (d) eight

8. Flame cells present in platyhelminthes are specialized in
(a) respiration and absorption.
(b) osmoregulation and circulation.
(c) respiration and excretion.
(d) osmoregulation and excretion.

9. Polyp phase is absent in
(a) *Hydra* (b) *Aurelia*
(c) *Physalia* (d) *Obelia*

10. Which of the following group of animals reproduces only by sexual means?
(a) Ctenophora (b) Cnidaria
(c) Porifera (d) Protozoa

11. _____ is responsible for maintaining the current of water in sponge.
(a) Osculum (b) Porocytes
(c) Spongocoel (d) Choanocytes

12. Aquatic annelids (like *Nereis*) possess lateral appendages called _____, which help in swimming.
(a) visceral hump (b) parapodia
(c) radula (d) spicules

13. Which of the following belong to phylum arthropoda?
(a) *Bombyx* and *Apis*
(b) *Laccifer* and *Anopheles*
(c) *Locusta* and *Limulus*
(d) All of the above

14. Which of the following is a living fossil?
(a) *Balanoglossus* (b) *Echinus*
(c) *Ancylostoma* (d) *Limulus*

15. A file like rasping organ for feeding, called radula, present in the phylum _____.
(a) arthropoda (b) mollusca
(c) echinodermata (d) chordata

16. In phylum arthropoda, excretion takes place through
(a) nephridia (b) flame cells
(c) malphigian tubules (d) gills

17. In phylum echinodermata, the adult echinoderms are _____A_____ but larvae are _____B_____ .
(a) A – radially symmetrical; B – bilaterally symmetrical
(b) A – bilaterally symmetrical; B – radially symmetrical
(c) A – bilaterally symmetrical; B – asymmetrical
(d) A – metamerically segmented; B – asymmetrical

18. In which of the phylum, excretory organ like proboscis gland is present?
(a) Hemichordata (b) Chordata
(c) Echinodermata (d) Annelida

19. Which of the following is not a chordate character?
(a) Presence of paired pharyngeal gill slits
(b) Ventral heart
(c) Solid and ventral nerve cord
(d) Presence of post-anal tail

20. Which of the following possesses electric organs and belongs to class chondrichthyes?
(a) *Torpedo* (b) *Petromyzon*
(c) *Trygon* (d) *Exocoetus*

21. Which of the following possesses poison sting and belongs to class chondrichthyes?
(a) *Labeo* (b) *Myxine*
(c) *Clarias* (d) *Trygon*

22. Which of the following pairs of animals comprises 'jawless fishes'?
(a) Mackerals and rohu
(b) Lampreys and hag fishes
(c) Guppies and hag fishes
(d) Lampreys and eels

23. In amphibians, respiration occurs through
(a) gills (b) lungs
(c) skin (d) all of these

24. In amphibians, heart is _____ chambered.
(a) two (b) three
(c) four (d) none of these

25. Heart is three - chambered in reptiles, except
(a) turtle (b) *Chameleon*
(c) *Naja* (Cobra) (d) crocodile

26. Which of the following is a poisonous snake?
(a) *Naja* (Cobra) (b) *Bangarus* (Krait)
(c) *Viper* (Viper) (d) All of these

27. Which of the following is a chordate feature and not shared by the non-chordates ?
(a) Metamerism (b) Axial organization
(c) Bilateral symmetry (d) Pharyngeal gill slits

STATEMENT TYPE QUESTIONS

28. Which of the following statements (i – v) are incorrect?
(i) Parapodia are lateral appendages in arthropods used for swimming.
(ii) Radula in molluscs are structures involved in excretion.
(iii) Aschelminthes are dioecious.
(iv) Echinoderm adults show radial symmetry.
(v) Ctenophorans are diploblastic.
(a) (i) and (ii) (b) (i) and (iii)
(c) (i), (iv) and (v) (d) (iii) and (v)

29. Which of the following statements (i – v) are incorrect ?
(i) Circulatory system in arthropods is of closed type.
(ii) Parapodia in annelids helps in swimming.
(iii) Phylum mollusca is the second largest animal phylum.
(iv) Aschelminthes are dioecious.
(a) (i) only (b) (iii) only
(c) (i) and (iii) (d) (iii) and (iv)

30. Which of the following phylum is being described by the given statements?
(i) These are primitive multicellular animals and have cellular level of organization.
(ii) Digestion is intracellular.
(iii) They have a water transport or canal system.
(iv) They reproduce asexually by fragmentation and sexually by formation of gametes.
(a) Porifera (b) Ctenophora
(c) Coelenterata (d) Platyhelminthes

31. Which of the following statements (i - v) are correct ?
(i) The pelvic fins of female sharks bear claspers.
(ii) In *Obelia*, polyps produce medusae sexually and medusae form the polyps asexually.
(iii) Flame cells in platyhelminthes help in osmoregulation and excretion.
(iv) In non-chordates, central nervous system is ventral, solid and double.
(v) Pinnae are present in mammals.
(a) (ii), (iv) and (v) (b) (i), (iii) and (v)
(c) (iii), (iv) and (v) (d) (i), (ii) and (iii)

32. Which one of the following statement regarding coelom of given animals is correct?
(a) Round worms (aschelminthes) are pseudocoelomates.
(b) Molluscs are acoelomates.
(c) Insects are pseudocoelomates.
(d) Flatworms (platyhelminthes) are coelomates.

33. Read the following statements and answer the question.
(i) They are exclusively marine, radially symmetrical, diploblastic organisms with tissue level of organisation.
(ii) Body bears eight external rows of ciliated comb plates, which help in locomotion.
(iii) Digestion is both extracellular and intracellular.
(iv) Reproduction takes place only by sexual means.
Which of the following phylum is being described by above statements?
(a) Platyhelminthes (b) Arthropoda
(c) Mollusca (d) Ctenophora

34. Which of the following phylum is being described by the given statements?
(i) They are bilaterally symmetrical,triploblastic, segmented and coelomate animals.
(ii) The body consists of head, thorax, abdomen and have jointed appendages.
(iii) Circulatory system is of open type.
(iv) Excretion takes place through malphigian tubules.
(a) Arthropoda (b) Annelida
(c) Mollusca (d) Echinodermata

35. The following statement are associated with the occurrence of notochord. Identify the incorrect statement.
(a) It is present only in larval tail in ascidians.
(b) It is replaced by a vertebral column in adult frog.
(c) It is absent throughout the life in humans from the very beginning.
(d) It is present throughout life in *Amphioxus*.

36. Which of the following characteristics is correct for reptilia?
(a) Body covered with dry and cornified skin, scales over the body are epidermal, they do not have external ears.
(b) Body is covered with moist skin and is devoid of scales, the ear is represented by a tympanum, alimentary canal, urinary and reproductive tracts open into a common cloaca.
(c) Fresh water animals with bony endoskeleton and air-bladder regulate buoyancy.
(d) Marine animals with cartilaginous endoskeleton and body is covered with placoid scales.

37. Which of the following statements is incorrect ?
(a) Prawn has two pairs of antennae.
(b) Nematocysts are characteristic feature of the phylum cnidaria.
(c) Millipedes have two pairs of appendages in each segment of the body.
(d) Animals that belong to phylum porifera are exclusively marine.

38. Which of the following statement(s) is/are correct regarding class aves?
(i) The forelimbs are modified into wings and the hindlimbs generally have scales and are modified for walking, swimming or clasping the tree branches.
(ii) Heart is completely four-chambered.
(iii) They are warm- blooded (homoiothermous) animals *i.e.*, they are able to maintain a constant body temperature.
(iv) They are oviparous and development is direct.
(a) Both (i) and (iii) (b) Both (i) and (iv)
(c) (i), (ii) and (iii) (d) All of these

39. Which one of the following categories of animals is correctly described with no single exception in it?
(a) In chondrichthyes notochord is persistent throughout life.
(b) All mammals are viviparous and possess diaphragm for breathing.
(c) All sponges are marine.
(d) All reptiles possess scales, have a three chambered heart and are cold blooded (poikilothermal).

40. Which of the following is an incorrect statement regarding flatworms ?
(a) They are acoelomates.
(b) They are bilaterally symmetrical.
(c) They lack a digestive system.
(d) They have a circulatory system.

41. Which of the following is not a characteristic of phylum echinodermata ?
(a) They have a water vascular system.
(b) They have an internal skeleton.
(c) They are protostomes.
(d) They have bilateral symmetry at larval stage.

42. Which of the follwoing statement(s) is/are correct?
(i) Organ systems in different group of animals show various patterns of complexities.
(ii) The digestive system in platyhelminthes has only a single opening to the outside of the body that serve as both mouth and anus, and is hence called complete.
(iii) In open type of circulatory system, the blood is pumped out of the heart and the cells and tissues are directly bathed in it.
(iv) In closed type, the blood is circulated through a series of vessels of varying diameters (arteries, veins and capillaries).
(a) Only (i) (b) Both (ii) and (iii)
(c) (i), (iii) and (iv) (d) All of these

43. Which of the following statement(s) is/are correct?
(i) Animals in which the cells are arranged in two embryonic layers, an external ectoderm and an internal endoderm, are called diploblastic animals.
(ii) Notochord is an ectodermally derived rod like structure formed on the ventral side during embryonic development in some animals.
(iii) In some animals, the body cavity is not lined by mesoderm, instead, the mesoderm is present as scattered pouches in between the ectoderm and endoderm and such a body cavity is called pseudocoelom.
(a) Only (i) (b) Both (i) and (ii)
(c) Both (i) and (iii) (d) All of these

44. 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 called hypostome.
(iii) Digestion is extracellular and intracellular.
(iv) Examples are *Sycon*, *Spongilla* and *Euspongia*.
(a) (i) and (ii) (b) (i) and (iv)
(c) (i), (ii) and (iii) (d) All of these

45. 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.
(a) (i) and (ii) (b) (iii) and (iv)
(c) (i), (ii) and (iii) (d) All of these

46. Which of the following statement(s) is/are correct regarding phylum mollusca?
(a) They are bilaterally symmetrical, triploblastic and coelomate animals.
(b) Body is covered by a calcareous shell and is unsegmented with a distinct head, muscular foot and visceral hump.
(c) The mouth contains a file-like rasping organ for feeding, called radula.
(d) All of the above

47. Which of the following class is being correctly described by given statements (i - iv)?
(i) All living members of this class are ectoparasites on some fishes.
(ii) They have a sucking and circular mouth without jaws.
(iii) Circulation is of closed type.
(iv) They are marine but migrate for spawning to fresh water. After spawing, within a few days they die.
(a) Cyclostomata (b) Chondrichthyes
(c) Osteichthyes (d) Amphibia

48. Which of the following class is being described by the given statements (i - iv)?
(i) They are found in a variety of habitats- polar ice-caps, deserts, mountains, forests, grasslands and dark caves.
(ii) Most unique mammalian characteristic is the presence of mammary glands by which the young ones are nourished.
(iii) Heart is four-chambered.
(iv) Sexes are separate and fertilization is internal.
(a) Reptilia (b) Aves
(c) Mammalia (d) Amphibia

49. Which of the following statement(s) is/are correct for class amphibia?
(i) Body is divisible into head and trunk.
(ii) Respiration is through gills only.
(iii) The heart is two chambered *i.e.* one auricle and one ventricle.
(iv) Fertilization is internal.
(a) Only (i) (b) Only (iv)
(c) (i), (ii) and (iii) (d) All of these

50. Which of the following statement is incorrect?
(a) Platyhelminthes has incomplete digestive system.
(b) In coelenterates, the arrangement of cells is more complex.
(c) *Nereis* is monoecious but earthworms and leeches are dioecious.
(d) Simple and compound eyes are present in the animals of those phylum whose over two-thirds of all named species on earth are arthropods.

51. Refer the following statement and answer the question.
'Name of "X" is derived from stinging capsules. It exhibits metagenesis containing two body forms in which sessile and cylindrical form is called "Y" and umbrella shaped and free swimming is called "Z".
Identify X, Y, and Z.

	X	Y	Z
a.	Coelenterate	Polyp	Medusa
b.	Cnidarian	Medusa	Polyp
c.	Ctenophora	Radula	Hypostome
d.	Porifera	Osculum	Radula

ASSERTION/REASON TYPE QUESTIONS

In the following questions, a statement of Assertion is followed by a statement of Reason.
(a) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.
(b) If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.
(c) If Assertion is true but Reason is false.
(d) If both Assertion and Reason are false.

52. **Assertion :** The duck-billed Platypus and the spiny ant-eater, both are egg-laying animals yet they are grouped under mammals.
Reason : Both of them have seven cervical vertebrae and 12 pairs of cranial nerves.

53. **Assertion** : Torison can be seen in ctendium.
Reason : Ctenidium acts as the respiratory organ.

54. **Assertion :** Tapeworm, roundworm and pinworm are endoparasites of human intestine.
Reason : Improperly cooked food is the source of intestinal infections.

55. **Assertion :** Sponges have body organization of "cellular level".
Reason : There is some physiological division of labour.

56. **Assertion :** Ambulacral system plays major role in locomotion of echinoderm.
Reason : Hydraulic pressure of fluid and contraction of muscle of tube feet make possible movement of echinoderm.

MATCHING TYPE QUESTIONS

57. Match the types of animals given in column I with their examples given in column II and choose the correct option.

	Column -I (Types of animals)		**Column -II (Examples)**
A.	Limbless reptiles	I.	Elephant
B.	Jawless vertebrates	II.	Lamprey
C.	Flightless bird	III.	*Ichthyophis*
D.	Largest terrestrial animal	IV.	Ostrich
E.	Limbless amphibia	V.	Cobra

(a) A – II; B – V; C – IV; D – I; E – III
(b) A – V; B – II; C – IV; D – I; E – III
(c) A – V; B – II; C – I; D – IV; E – III
(d) A – V; B – IV; C – II; D – I; E – III

58. Column-I contains organisms and column-II contains their exeretory structures. Choose the correct match form the options given below.

	Column- I (Organism)	**Column -II (Excretory structures)**
A.	Cockroach	I. Nephridia
B.	Cat fish	II. Malpighian tubules
C.	Earthworm	III. Kidneys
D.	*Balanoglossus*	IV. Flame cells
E.	Flatworm	V. Proboscis gland

(a) A – I; B – III; C – II; D – IV; E – V
(b) A – III; B – I; C – II; D – V; E – IV
(c) A – II; B – I; C – III; D – V; E – IV
(d) A – II; B – III; C – I; D – V; E – IV

59. Match the characteristic feature/terms given in column I with the phylum to which they belongs given in column II and choose the correct option.

	Column-I (Characteristic feature/term)	**Column-II (Phylum)**
A.	Choanocytes	I. Platyhelminthes
B.	Cnidoblasts	II. Ctenophora
C.	Flame cells	III. Porifera
D.	Nephridia	IV. Coelenterata
E.	Comb plates	V. Annelida

(a) A – II; B – I; C – IV; D – V; E – III
(b) A – II; B – IV; C – I; D – V; E – III
(c) A – V; B – I; C – III; D – II; E – IV
(d) A – III; B – IV; C – I; D – V; E – II

60. Column I contains zoological names of animals and column II contains their common name. Match the following and choose the correct option.

	Column -I	**Column- II**
A.	*Physalia*	I. Sea anemone
B.	*Meandrina*	II. Brain coral
C.	*Gorgonia*	III. Sea fan
D.	*Adamsia*	IV. Portuguese man-of-war

(a) A – III; B – II; C – I; D – IV
(b) A – IV; B – III; C – II; D – I
(c) A – IV; B – II; C – III; D – I
(d) A – II; B – III; C – I; D – IV

61. Match the organisms given in column-I with their common name given in column-II and choose the correct option.

	Column -I (Organisms)	**Column -II (Comman name)**
A.	*Pennatula*	I. Sea-lily
B.	*Antedon*	II. Sea- pen
C.	*Echinus*	III. Sea-urchin
D.	*Cucumaria*	IV. Sea - cucumber

(a) A – II; C – III; D – I; E – IV
(b) A – II; C – IV; D – I; E – III
(c) A – II; C – I; D – III; E – IV
(d) A – II; C – I; D – III; E – IV

62. Match the phylum given in column - I with their example given in column - II and choose the correct option.

	Column -I (Phylum)	**Column- II (Examples)**
A.	Echinodermata	I. *Ascidia, Doliolum*
B.	Hemichordata	II. *Asterias, Ophiura*
C.	Urochordata	III. *Branchiostoma*
D.	Cephalochordata	IV. *Balanoglossus, Saccoglossus*

(a) A – IV; B – II; C – I; D – III
(b) A – II; B – IV; C – I; D – III
(c) A – II; B – IV; C – III; D – I
(d) A – II; B – I; C – IV; D – III

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

	Column -I (Phylum)	**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

(a) A – III; B – IV; C – V; D – II; E – I
(b) A – IV; B – III; C – V; D – II; E – I
(c) A – III; B – IV; C – II; D – V; E – I
(d) A – III; B – V; C – IV; D – II; E – I

64. In which one of the following, the genus name, its two characters and its class/phylum are correctly matched?

	Genus name	**Two characters**	**Class/ phylum**
(a)	*Ascaris*	(i) Body segmented (ii) Males and females distinct	Annelida
(b)	Salamandra	(i) A tympanum represents ear (ii) Fertilization is internal	Amphibia
(c)	*Pteropus*	(i) Skin possesses hair (ii) Viviparous	Mammalia
(d)	*Aurelia*	(i) Cnidoblasts (ii) Organ level of organization	Coelenterata

65. In which one of the following the genus name, its two characters and phylum are not correctly matched ?

	Genus name	**Two characters**	**Phylum**
(a)	*Pila*	(i) Body segmented Mouth with radula	Mollusca
(b)	*Asterias*	(ii) Spiny skinned Water vascular system	Echinodermata
(c)	*Sycon*	(iii) Pore bearing Canal system	Porifera
(d)	*Periplaneta*	(iv) Jointed appendages Chitinous exoskeleton	Arthropoda

66. Match the animal name (column-I), with its characteristics (column-II), and the phylum/class (column-III) to which it belongs.

	Column- I	Column- II	Column -III
(a)	*Ichthyophis*	Terrestrial	Reptilia
(b)	*Limulus*	Body covered by chitinous exoskeleton	Pisces
(c)	*Adamsia*	Radially symmetrical	Porifera
(d)	*Petromyzon*	Ectoparasite	Cyclostomata

67. Which one of the following groups of animals is correctly matched with its characteristic feature without even a single exception ?

(a) Reptilia : possess 3 - chambered heart with one incompletely divided ventricle.
(b) Chordata : Possess a mouth provided with an upper and lower jaw.
(c) Chondrichthyes : Possess cartilaginous endoskeleton.
(d) Mammalia : Give birth to young one.

68. Column I contains the characteristics features and column II contains the function/ location. Select the correct match from the option given below.

	Column-I (Characteristic feature)	**Column-II (Function/Location)**
A.	Water canal system	(i) Sponges
B.	Comb plates	(ii) Help in swimming
C.	Nephridia	(iii) Present in mollusca
D.	Jointed appendages	(iv) Characteristics of roundworm
E.	Muscular foot	(v) A body part of arthropoda
		(vi) Helps in reproduction
		(vii) Platyhelminthes
		(viii) Helps in osmoregulation and excretion
		(ix) Eight ciliated external rows present in a body of ctenophora.

	A	B	C	D	E
(a)	(i)	(ix)	(viii)	(v)	(iii)
(b)	(iii)	(i)	(vi)	(ii)	(v)
(c)	(ii)	(v)	(i)	(iv)	(ix)
(d)	(iii)	(vi)	(iv)	(v)	(i)

69. Match the terms/feature given in column I with their examples given in column II and select the correct match from the option given below.

	Column-I (Term/Feature)	**Column-II (Examples)**
A.	Gregarious pest	(i) *Hirudinaria*
B.	Vector	(ii) *Planaria*
C.	Oviparous with indirect development	(iii) *Sepia*
D.	Metameres	(iv) *Aedes*
E.	High regeneration capacity	(v) *Locust*

	A	B	C	D	E
(a)	(i)	(ii)	(iii)	(iv)	(v)
(b)	(iii)	(v)	(ii)	(iv)	(i)
(c)	(iii)	(i)	(v)	(ii)	(iv)
(d)	(v)	(iv)	(iii)	(i)	(ii)

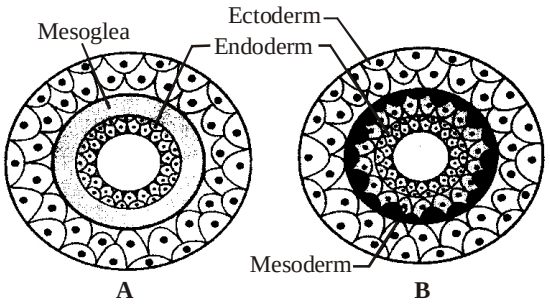
70. Match the features given in column I with their examples given in column II and choose the correct match from the option given below.

	Column-I (Features)	**Column-II (Examples)**
A.	Pseudocoelomates	(i) *Hydra, Adamsia*
B.	Diploblastic	(ii) *Ctenoplana, Aurelia*
C.	Cellular level of organization	(iii) *Ascaris, Wuchereria*
D.	Radial symmetry	(iv) *Sycon, Spongilla*
E.	Metamerism	(v) *Pheretima, Neries*

	A	B	C	D	E
(a)	(v)	(ii)	(iv)	(iii)	(i)
(b)	(iii)	(i)	(iv)	(ii)	(v)
(c)	(ii)	(i)	(iii)	(v)	(iv)
(d)	(iii)	(ii)	(iv)	(i)	(v)

DIAGRAM TYPE QUESTIONS

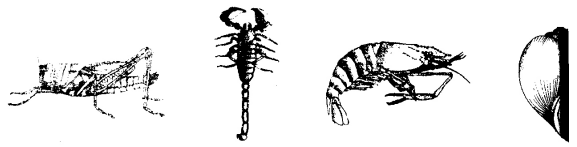
71. The given figures (A & B) shows the germinal layer.



The animals having structures shown in the figures are respectively called

(a) diploblastic, triploblastic
(b) triploblastic, diploblastic
(c) diploblastic, diploblastic
(d) triploblastic, triploblastic

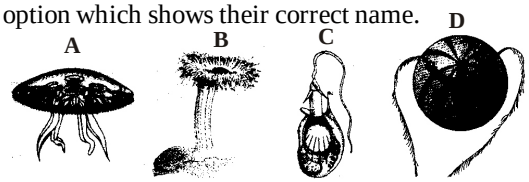
72. Refer the figures A, B, C and D given below. Which of the following options shows the correct name of the animals shown by the figures A, B, C and D ?



A B C D

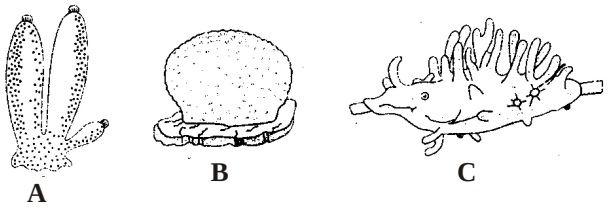
(a) A – Locust, B – Scorpion, C – Prawn, D – *Pila*
(b) A – Locust, B – Prawn, C – Scorpion, D – *Pila*
(c) A – Locust, B – Scorpion, C – Prawn, D – Snail
(d) A – Butterfly, B – Scorpion, C – Prawn, D – *Pila*

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



	A	B	C	D
(a)	*Pleurobrachia*	*Cnidoblast*	*Aurelia*	*Adamsia*
(b)	*Aurelia*	*Adamsia*	*Cnidoblast*	*Pleurobrachia*
(c)	*Cnidoblast*	*Pleurobrachia*	*Adamsia*	*Aurelia*
(d)	*Adamsia*	*Aurelia*	*Pleurobrachia*	*Cnidoblast*

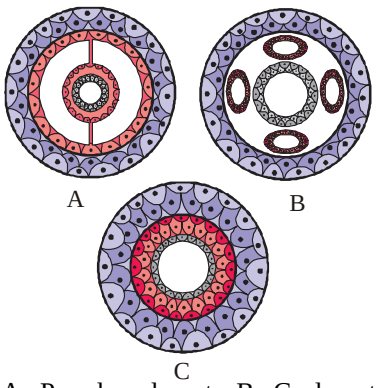
74. Examine the figures A, B and C. In which one of the four options all the items A, B and C are correctly identified ?



A B C

	A	B	C
(a)	*Sycon*	*Euspongia*	*Spongilla*
(b)	*Euspongia*	*Spongilla*	*Sycon*
(c)	*Spongilla*	*Sycon*	*Euspongia*
(d)	*Euspongia*	*Sycon*	*Spongilla*

75. Identify the figures and select the correct option.



A B C

(a) A - Pseudocoelomate; B - Coelomate, C-Acoelomate
(b) A - Coelomate, B - Pseudocoelomate, C- Acoelomate
(c) A - Coelomate; B- Acoelomate; C - Pseudocoelomate
(d) A - Coelomate; B- Acoelomate; C-Eucoelomate

76. Identify the figure with its correct name and phylum.

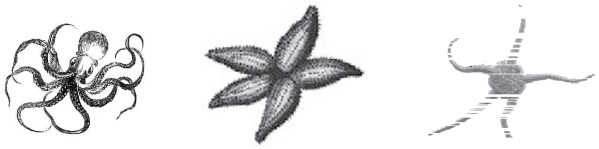
(a) *Sycon* - Porifera
(b) *Aurelia* - Coelenterata
(c) *Pleurobrachia* - Ctenophora
(d) Tapeworm - Platyhelminthes

77. Identify the figures A, B and C and choose the correct option.

A B C

(a) A - Male *Ascaris*, B - *Hirudinaria* (leech), C- *Nereis*
(b) A - Female *Ascaris*, B - *Nereis*, C-*Hirudinaria* (leech)
(c) A - Female *Ascaris* B- *Hirudinaria* (leech), C - *Nereis*
(d) A - Male *Ascaris*, B - *Nereis*, C- *Hirudinaria* (leech)

78. Identify the animals shown in the given figures A, B and C from options given below.



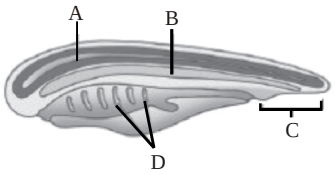
A B C

(a) A - Octopus; B -*Asterias*, C- *Ophiura*
(b) A - *Asterias*; B - *Ophiura*, C- Octopus
(c) A - *Echinus*; B - Octopus C - *Ophiura*
(d) A - *Ophiura*; B - *Echinus*, C- Octopus

79. Identify the figure with its correct name and phylum.

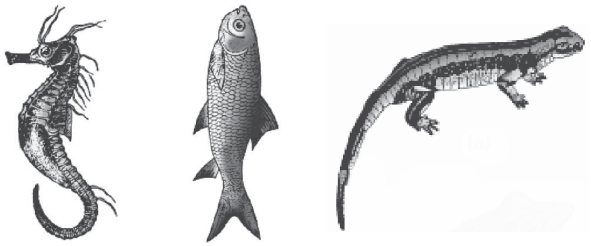
(a) *Cucumaria* – Echinodermata
(b) *Ascidia* – Urochordata
(c) *Balanoglossus* – Hemichordata
(d) *Hirudinaria* – Annelida

80. The given figure shows some characteristic features marked as chordates. Identify the correct labelling A,B,C and D.



(a) A-Notochord; B-Post-anal part; C-Gill slits; D-Nerve cord
(b) A-Nerve cord; B-Notochord; C-Post-anal part; D-Gill slits
(c) A-Notochord; B-Nerve cord; C-Gill slits; D-Post-anal part
(d) A-Gill slits; B-Post-anal part; C-Nerve cord; D-Notochord

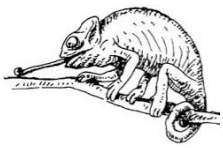
81. Refer the figures A, B and C and choose the correct option which shows animals that regulate buoyancy with the help of air bladder.



A **B** **C**

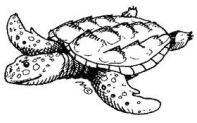
(a) A and B (b) A and C
(c) B and C (d) All of the above.

82. The given figures A, B, C and D are the examples of first true land vertebrates. They are dominant in mesozoic era and belong to phylum 'X'. Identify 'X' and the animals which have four chambered heart.



A

B

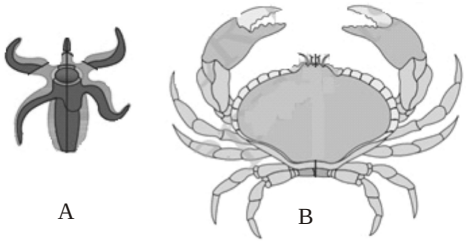


C

D

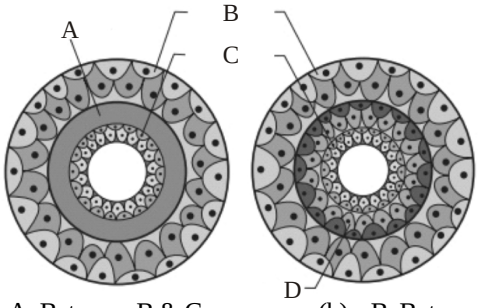
(a) X – Reptile; B
(b) X – Reptile; A
(c) X – Amphibia, C
(d) X – Pisces; D

83. The given figures of animals (A & B) are distinguished on the basis of symmetry. Select the correct option which shows the type of symmetry and its description against the animals.



(a) A : Biradial, organisms is divided into unequal halves by any plane through the central axis.
(b) B: Bilateral, body is divided into equivalent right and left halves by only one plane.
(c) A: Asymmetrical, organisms is not divided into equal halves by any plane through the central axis.
(d) B: Radial, in which any plane passing through the central axis of the body divides the organism into two identical halves.

84. The figure given below shows the germinal layers marked as A, B, C and D. Identify the label showing undifferentiated layer and its location?

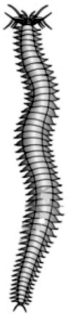


(a) A, Between B & C
(b) B, Between A & C
(c) C, Between C & D
(d) D, Between A & B

85. The figure given below is the characteristic structure of the phylum in which animals are aquatic, free swimming or sessile, mostly marine, radially symmetrical. Identify the phylum and correct function of the structure.

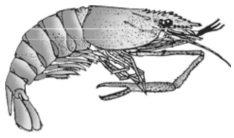
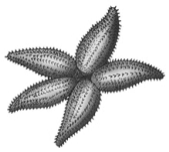
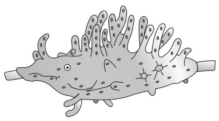
(a) Ctenophora; Emission of light.
(b) Porifera; Feeding, respiration and excretion.
(c) Cnidarian; Anchorage, Defense and food capturing
(d) Mollusca; Locomotion, transport of food and respiration.

86. Which of the following feature is not correct regarding the figure given below?

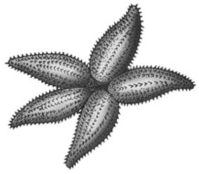


(a) It is an aquatic form.
(b) Circulatory system is of open type.
(c) It possesses parapodia for swimming.
(d) Neural system consists of paired ganglia connected by lateral nerves to a double ventral nerve cord.

87. Which of the following animal's body is covered by calcareous shell and unsegmented with a distinct head, muscular foot, and visceral hump?

(a) 
(b) 
(c) 
(d) 

88. Which of the following animal contains respiratory organs like, gills, book gills, book lungs or tracheal system?

(a) 
(b) 
(c) 
(d) 

89. Identify the correct characteristic feature shown by the given figure?

(a) Diploblastic in nature.
(b) Having radial symmetrical body.
(c) Dioecious with direct development.
(d) Presence of sensory tentacles on anterior head region.

90. Which of the following animals are bilaterally symmetrical?

1 2 3 4

(a) 1 & 2 (b) 2 & 4
(c) 3 & 4 (d) 1 & 3

CRITICAL THINKING TYPE QUESTIONS

91. Which of the following pairs of animals are similar to each other pertaining to the feature stated against them?
(a) *Pteropus* and *Ornithorhyncus* - Viviparity
(b) Garden lizard and crocodile - Three chambered heart
(c) *Ascaris* and *Ancylostoma* - Metameric segmentation
(d) Sea horse and flying fish - Cold blooded (poikilothermal)

92. Which of the following group of animals belongs to the same phylum?
(a) Earthworm, pinworm, tapeworm
(b) Prawn, scorpion, *Locusta*
(c) Sponge, *Sea anemone*, starfish
(d) Malarial parasite, *Amoeba*, mosquito

93. Which of the following traits is not shared by both *sea anemones* and jellyfish ?
(a) A medusa as the dominant stage in the life cycle.
(b) Possession of a gastro vascular cavity.
(c) Sexual reproduction.
(d) Nematocysts present on the tentacles.

94. The combination of a true coelom and repeating body segmentation allows the annelids (unlike the anatomically "simpler" worms) to do which of the following?
(a) Attain complex body shapes and thus locomote more precisely.
(b) Move through loose marine sediments.
(c) Be hermaphroditic.
(d) Inject paralytic poisons into their prey.

95. The transition from aquatic to terrestrial lifestyles required many adaptations in the vertebrate lineage. Which of the following is not one of those adaptations ?
(a) Switch from gill respiration to air-breathing lungs.
(b) Improvements in water resistance of skin.
(c) Alteration in mode of locomotion.
(d) Development of feathers for insulation.

96. Which of the following features distinguish mammals from other vertebrates ?
(a) Hairy skin and oviparity
(b) Hairy skin and mammary glands
(c) Mammary glands and teeth
(d) Pinna and teeth

97. Which of the following sets of animals give birth to young ones?
(a) *Platypus*, Penguin, Bat, Hippopotamus.
(b) Shrew, Bat, Cat, Kiwi.
(c) Kangaroo, Hedgehog, Dolphin, *Loris*.
(d) Lion, Bat, Whale, Ostrich.

98. Which one of the following features is common in silverfish, scorpion, dragonfly and prawn?
(a) Three pairs of legs and segmented body.
(b) Chitinous cuticle and two pairs of antennae.
(c) Jointed appendages and chitinous exoskeleton.
(d) Cephalothorax and tracheae.

99. Which of the following is a correct match of a phylum with its three examples?
(a) Platyhelminthes–*Planaria, Schistosoma, Enterobius*
(b) Mollusca – *Loligo, Sepia,* Octopus
(c) Porifera – *Spongilla, Euplectella,* Pennatula
(d) Cnidaria – *Bonellia, Physalia, Aurelia*

100. Hemichordates have now been placed with the non-chordates, close to echinoderms, because true
(a) notochord is absent.
(b) pharyngeal gill-slits are lacking.
(c) dorsal nerve cord is absent.
(d) heart is lacking.

101. Which of the following is not a characteristic feature of kingdom animalia ?
(a) Storage of carbohydrates as starch.
(b) Multicellularity.
(c) Obtaining nutrients by ingestion.
(d) Having eukaryotic cells without walls.

102. Which of the following characteristic distinguish arthropoda from annelids and molluscs ?
(a) An external skeleton made of chitin (a polysaccharide) and protein rather than a shell made chiefly of mineral salts.
(b) Subdivision of the legs into movable segments.
(c) Distinct group of muscles, derived from many body segments, that move the separate parts of the exoskeleton.
(d) All of the above

103. Tracheae of cockroach and mammal are similar in having
(a) paired nature.
(b) non-collapsible walls.
(c) ciliated inner lining.
(d) origin from head.

104. A common characteristic of all vertebrates without exception is
(a) the division of body into head, neck, trunk and tail.
(b) body covered with exoskeleton.
(c) the possession of two pairs of functional appendages.
(d) the presence of well - developed skull.

105. The organisms attached to the substratum generally possess
(a) one single opening to the digestive canal.
(b) cilia on the surface to create water current.
(c) radial symmetry.
(d) asymmetrical body.

106. Which of the following statements is without exception in sponges ?
(a) They all have calcareous spicules.
(b) They have high regenerative power.
(c) They are found only in marine water.
(d) They are all radially symmetrical.

107. Which of the following characters is absent in all chordates?
(a) Diaphragm
(b) Coelom
(c) Pharyngeal gill clefts
(d) Dorsal nerve cord

108. Which of the following features in birds indicates their reptilian ancestory ?
(a) Eggs with a calcareous shell
(b) Scales on their hind limbs
(c) Four-chambered heart
(d) Two special chambers-crop and gizzard in their digestive tract

109. Which of the following characteristic is probably most responsible for the great diversification of insects on land?
(a) Segmentation
(b) Antennae
(c) Bilateral symmetry
(d) Exoskeleton

110. Which of the following is a connecting link between invertebrates and non-invertebrates?
(a) *Sphenodon*
(b) *Balanoglossus*
(c) Tadpole larva
(d) Crocodile

111. 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 had gone through torsion. Identify the phylum of the animal.
(a) Porifera (b) Annelida
(c) Mollusca (d) Echinodermata

112. Identify the correct characteristics of porifera.
(i) Commonly known as sea walnuts.
(ii) Presence of ostia and collar cells.
(iii) Exhibit tissue level of characteristics.
(iv) It is the largest phylum of animal kingdom.
(v) The body is supported by spicules and sponging fibers.
(vi) Contains cnidocytes which is used for defense, anchorage and capturing of prey.
(a) (ii), (v) only
(b) (i), (ii), (vi) only
(c) (i), (ii), (iii), (iv) only
(d) All of these.

113. A student was given a specimen to identify on the basis of the characteristics given below.
(i) They are metamerically segmented.
(ii) They have closed circulatory system.
(iii) They have circular and longitudinal muscles for locomotion.
Identify the specimen.
(a) *Prawn* (b) *Pheretima*
(c) *Wuchereria* (d) *Ctenoplana*

114. 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) *Pila*
(a) (i) and (iii) only
(b) (ii) and (iv) only
(c) (ii), (iii), (v) and (vi) only
(d) All of these

115. Refer the types of cells present in some animals. Each cell is specialized to perform a single specific function except
(a) Cnidocytes
(b) Choanocytes
(c) Interstitial cells
(d) Gastrodermal cells

116. Select the incorrect feature of mollusca from the given statements.
(i) Terrestrial or aquatic animals having cellular system level of organization.
(ii) Radial symmetrical and acoelomate animals and possesses two germinal layers.
(iii) A file like rasping organ called radula is present.
(iv) Usually dioecious and viviparous animals.
(v) Examples include Pila, Octopus, and Dentalium.
(a) (i) and (ii) only
(b) (ii) and (iv) only
(c) (i), (ii) and (iv) only
(d) All the five statements.