



Previous Year's HSE Questions-TOPIC WISE

Grade: XI

Max. mark:

ZOOLOGY

Chapter: 4-ANIMAL KINGDOM

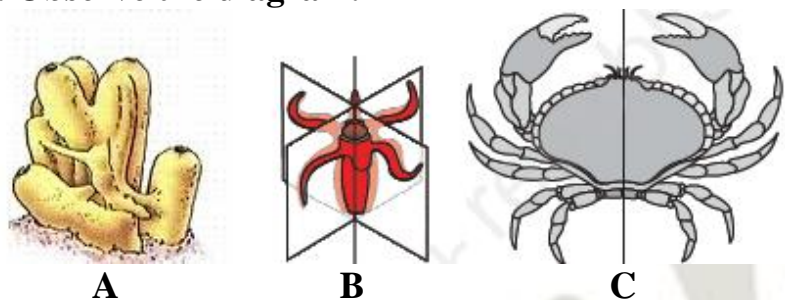
Test duration:

BASIS OF CLASSIFICATION

1. If you are given a specimen, what fundamental features are you consider to classify it? (2)

2. Classify the animals on the basis of levels (grades) of organization with examples. (3)

3. Observe the diagram.



- Identify the symmetry A, B and C
- Give an account of types of symmetry in A, B and C

3. Categorize the following animals under radial and bilateral symmetry.

Physalia, Tape worm, Fasciola, Adamsia

(2) (March 2017, Sept. 2010)

4. What do you mean by diploblastic and triploblastic animal? Give examples. (2)

5. a) Which of the following shows the body cavity of flatworm?

b) Label the different germ layers also



(3)

6. Among the different phyla of animals, have pseudocoelom.

(1) (March 2017)

7. Fill in the blanks:

Coelomate : arthropoda

Pseudocoelomate : -----

(1) (Sept. 2012)

8. Classify the organisms below based on segmentation:

<i>Ascaris</i>	<i>Taenia</i>
<i>Fasciola</i>	<i>Wuchereria</i>
<i>Neries</i>	<i>Pheretima</i>

Hint:

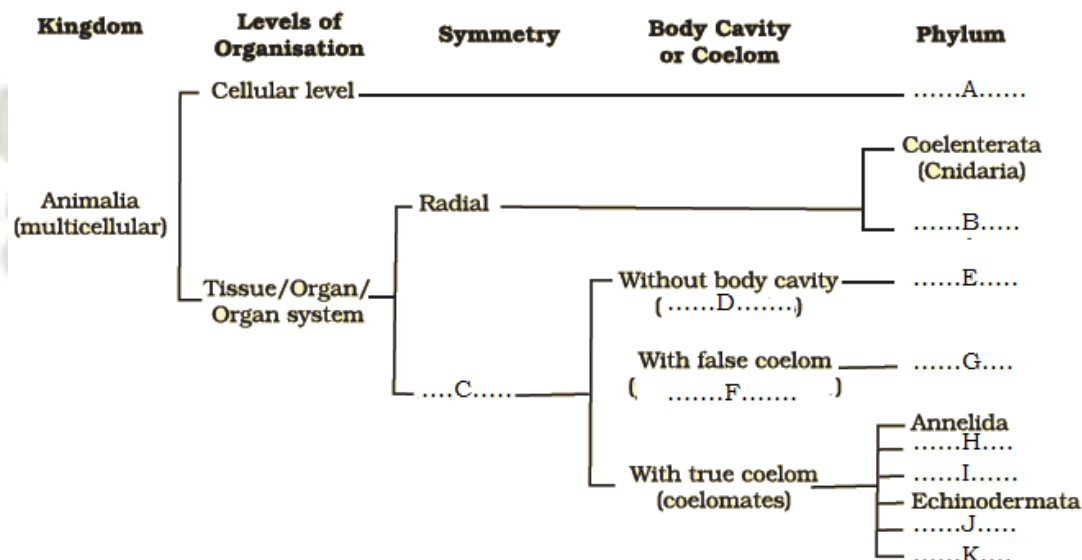
True segmentation	False	No segmentation

(2) (March 2010)

9. A taxonomist described a new organism as triploblastic, radially symmetrical, coelomate and without metameric segmentation:

- What do you understand by each term of his description? (2)
- Give an example of an organism of the same phylum that had described. (1) (Sept. 2010)

10. Complete the flow chart showing broad classification of kingdom animalia based on common fundamental features. (5)



CLASSIFICATION OF ANIMALS

NON-CHORDATA

11. Arrange the phyla in order

Arthropoda → Platyhelminthes → Porifera → Protozoa
 Coelentrata → Mollusca → Annelida → Echinodermata
 Aschelminthes

(2)

12. Name the distinctive character (responsible for their names) of the following animal groups.

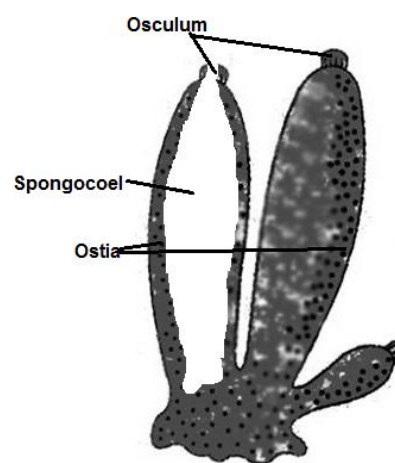
- Cnidaria
- Arthropoda
- Porifera
- Annelida
- Chordata
- Ctenophora

(3) (March 2014)

13. What is the difference between direct and indirect development? (1)

14. Name the flagellated cells which line the spongocoel and the canals in porifera. (1)

15. The flow of the sea water through the canal system of the sponges is shown using arrows. Fill the gaps marked as a & b with the help of the diagram given. (1) (Sept. 2010)



Sea water → (a) → Spongocoel → (b) → Outside

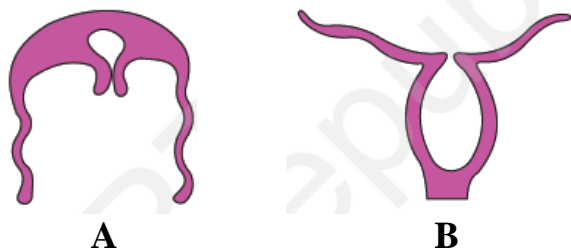
16. Distinguish between intracellular and extracellular digestion. (2)

17. a) Identify the cell given in the diagram



- b) Mention the name of animal phylum based on this cell.
 c) Mention the functions of the above structure
 (3) (Sept. 2016)

18. The diagram given below shows the outline of 2 basic body forms.



- a. Identify A and B
 b. Give the difference between A and B
 c. Name the phylum which shows this body forms
 d. Mention the salient features of the phylum
 (4)

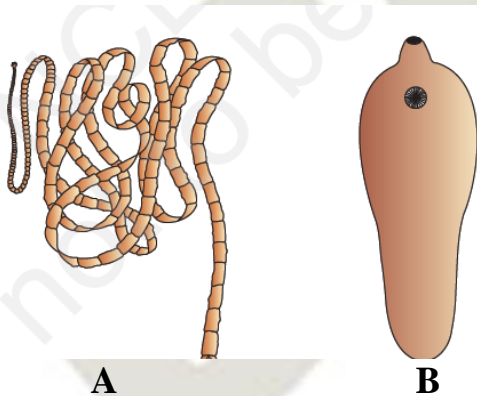
19. Ctenophores are commonly known as (1/2)

20. During a seashore visit, a student collected two organisms. Observing the morphology, it is clear that the organisms are radially symmetrical. One of them shows bioluminescence.

- a. To which phylum does this organism belong? (1)
 b. Identify the possible phyla to which the other organism can be included. (1)
 c. Which distinctive feature of this organism will help you to categorize it into a particular phylum?
 (1)(March 2013)

21. The characteristic features of an invertebrate is given. "The phylum includes the comb jellies, also called walnuts. They are noted for their bioluminescence and comb plates". Identify the phylum. (1) (March 2016)

22.



- a. Identify the animals A and B.
 b. Mention their parasitic adaptations.
 c. Name the specialized cells that help in osmoregulation and excretion in these animals
 d. In which phylum they belongs?
 (4)

23. a. Pick out the acoelomate organism from the following:

- i. Roundworm
 ii. Hookworm
 iii. Filarial worm
 iv. Tapeworm
 b. Name the phylum to which it belongs. (1/2)
 c. Mention its mode of nutrition (1/2)
 d. What is the coelomic condition of other organisms? Substantiate your answer. (1) (March 2013)

24. Prawns and insects are included in phylum arthropoda while they have different habits and habitats. Justify your answer.

(1) (March 2015)

25. Characters of a marine invertebrate is given.

- * Spiny skinned body
- * Presence of water vascular system

- a) Identify and write the phylum
 b) Write any 2 functions of water vascular system among them.
 (2) (Sept. 2016)

26. Identify the phylum whose larvae are bilaterally symmetrical, but adults are radially symmetrical?

- a. Annelida
 b. Arthropoda
 c. Mollusca
 d. Echinodermata

Mention any 2 salient features of the phylum. (1)

27. Organisms of this phylum are radially symmetrical, triploblastic and coelomate with complete digestive system.

- a. Identify the phylum (1/2)
 b. Give an example for this phylum (1/2)
 c. What are the distinctive features of this phylum? (1) (Sept. 2012)

28. Observing starfish in a marine aquarium your friend commented that it is a lower invertebrate without distinct head, eyes and legs. Do you agree with him? Evaluate his statement with reasons.

(2) (Oct. 2013)

29. Is it possible to compare the water vascular system of phylum Echinodermata to circulatory system of man in some aspects? Justify your answer.

(2)(Sept. 2012)

30. Who am I?

- * I live in the sea
- * I have organ system level of organization
- * I respire through gills
- * I excrete by proboscis gland
- * My body is composed of proboscis, collar and a long trunk.

- (a) Identify the phylum of the animal by considering the clues given below
 (b) Give one example from that phylum
 (2)

31. During a field trip a group of students collected some organisms with following characters. Help them to identify the phyla of those organisms.

- a. Dorso-ventrally flattened and leaf like body.
 b. Jelly like body with eight ciliated comb plates.
 c. Body covered with calcareous shell.
 d. Spiny skinned body with radial symmetry. (2) (Oct. 2011)

32. Complete the columns using the appropriate phylum, distinctive features and excretory organs.

Phylum	Distinctive feature	Excretory organ
Platyhelminthes	a)	b)
Arthropoda	c)	Malpighian tubules
d)	Body segmentation like rings	e)
f)	Water vascular system	Excretory system absent

(6 x 1/2=3)(March 2011)

(4 x 1/2=2)

33. Match column I with II

Column I	Column II
a) Cold blooded animal	Platypus
b) Living fossil	Sea cucumber
c) Egg laying mammal	Limulus
d) Water vascular system	Shark
	Peacock
	Earthworm

(March 2012)

34. Assign the following features of animals given in column A to the most appropriate animal phylum given in column B.

Column A	Column B
a) Metamerism	i) Ctenophora
b) Spiny endoskeleton	ii) Platyhelminthes
c) Comb plates	iii) Annelida
d) Flame cells	iv) Cnidaria
	v) Echinodermata
	vi) Porifera
	vii) Hemichordata

(2)(Sept. 2015)

35. In your practical, the class teacher brought the following preserved animals.

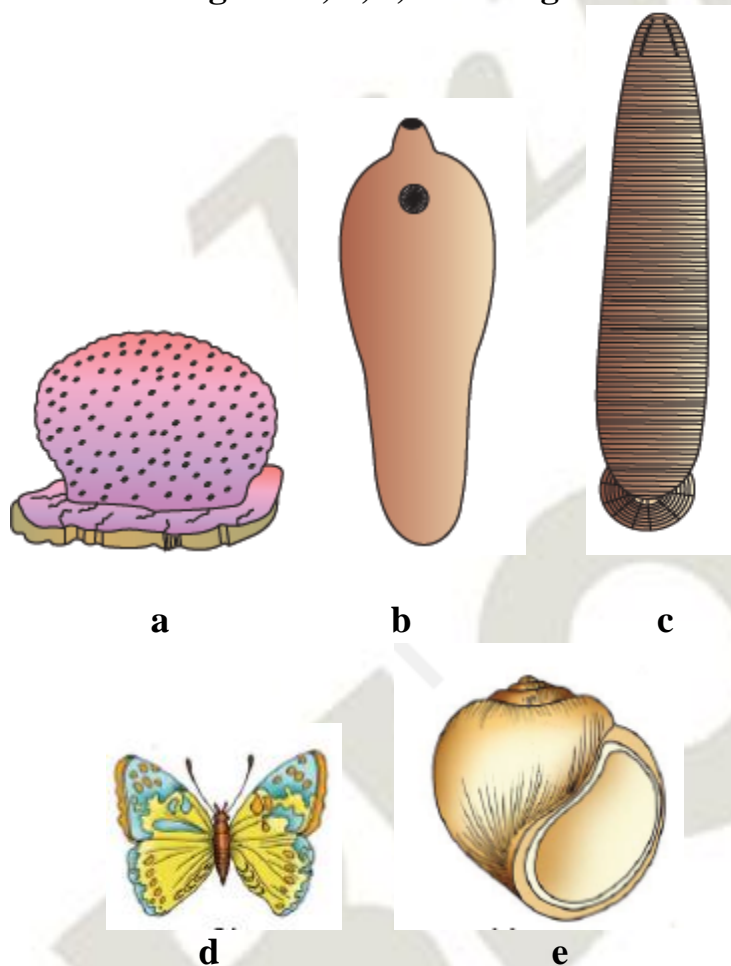
- a. Balanoglossus b. Pila
c. Tapeworm d. Physalia

Identify the phylum of each animal and select a distinguishing character of each phylum from the following table:

1. Presence of comb plates
2. Presence of Flame cells
3. Presence of Radula
4. Presence of Malpighian tubules
5. Presence of Proboscis gland
6. Presence of Cnidocytes
7. Presence of Notochord

(4) (Aug. 2014)

36. Look at the diagram a, b, c, d and e given below:



- a) Write their names
b) Write one characteristic feature of each

(5) (March 2008)

37. Name the organs for the given functions:

- Organ for the excretion and osmoregulation in tape worm
- Locomotory organ in ctenophora
- Anchorage, defence and capture of prey in cnidaria
- Organ for swimming in nereis
- Rasping organ for feeding in mollusca
- Excretory organ in hemichordata

38. Match the following:

- | A | B |
|----------------|--------------|
| a. Sea Hare | i. Antedon |
| b. Sea pen | ii. Adamsia |
| c. Sea fan | iii. Aplysia |
| d. Sea lily | iv. Gorgonia |
| e. Sea anemone | v. Pennatula |

(2)

CHORDATA

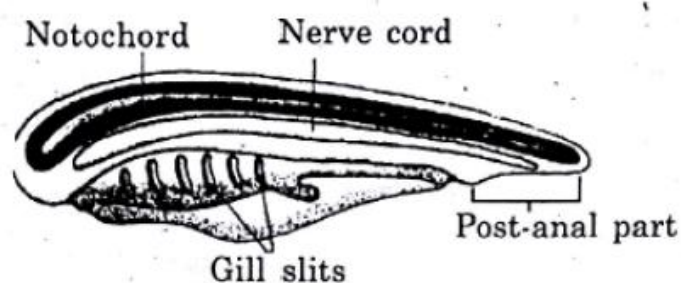
39. Your Biology teacher exhibited a laboratory specimen in the classroom. Based on which features will you distinguish it as a chordate or a non-chordate? (3) (March 2014)

40. Rearrange the following statements in two column table and give suitable heading for each group.

- Notochord is present, Post anal tail is absent,
Pharynx is perforated by gill slits, Notochord is absent,
Post anal tail is present, Gill slits are absent

(2) (Oct. 2011)

41. The diagrammatic sketch given below represents a hypothetical chordate.



- If you find any mistakes in the labelled parts, copy the diagram and make necessary corrections in the labelling.
- Based on any two labelled parts in the diagram, mention how this phylum differs from non-chordates.

(2)(March 2016, Sept. 2015)

42. Jaw present: Gnathostomata

Jaw absent: (1/2)

43. a) Name 2 cyclostomes, which migrate for spawning to fresh water.

b) How do cyclostomes differ from familiar fishes? (3)

44. The following are the key characteristics of an animal group.

- Circular and sucking mouth without jaws.
- Fish-like body without scales and paired fins.

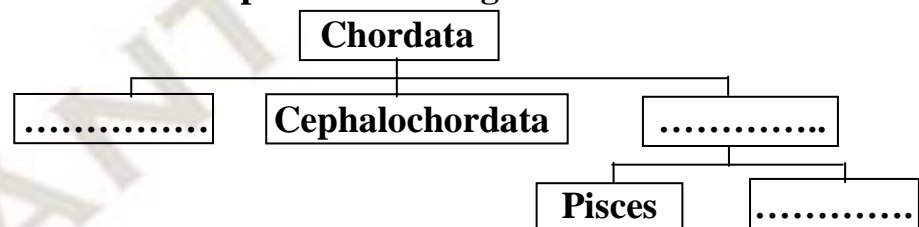
a. Name the class in which this animal belongs.

b. Give two examples from this class. (2) (Oct. 2013)

45. "All vertebrates are chordates but all chordates are not vertebrates." Evaluate and substantiate the statement.

(2) (March 2014, 2015)

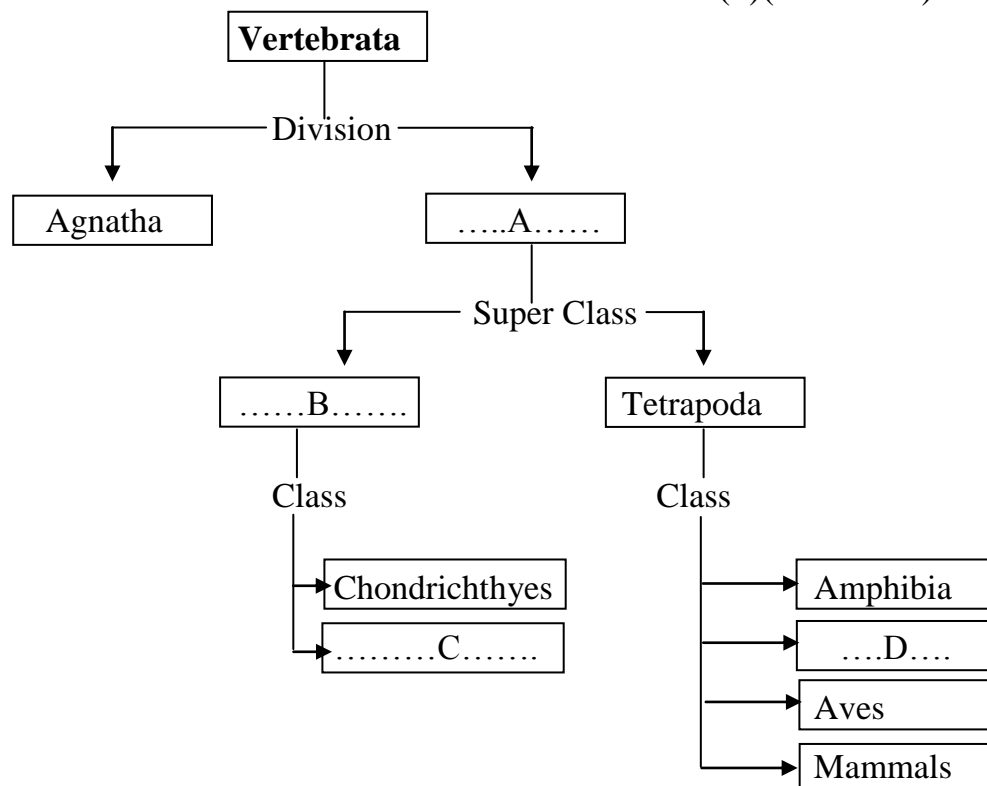
46. Fill and complete the chart given below.



(2) (March 2009)

47. Complete the table using correct terms.

(2)(Oct. 2011)



48. Find the relationship between given words and suggest the suitable words for the fourth place.

- a. Annelida : Nephridia, Arthropoda :
 b. Osteichthyes : Cycloid scales, Chondrichthyes :
 (1)(March 2016, 2012)

49. A shark has to swim continuously unlike a sardine. Give reason

(1)

50. Two examples of fishes are given.

- Scoliodon (Dogfish)
- Exocoetus (Flying fish)

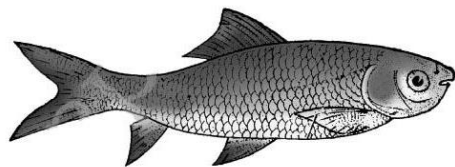
- a) Place them in 2 distinct classes
 b) Differentiate the above classes on the basis of 2 important characters.

(3) (Sept. 2016)

51. Figure A & B are the fishes of two different classes. Identify and differentiate between these classes. (3)



(A)



(B)

(March 2015, 2011)

52. Find the odd one from each group. Justify your answer. (1)

- a. Dogfish, Hagfish, Sawfish, Flying fish (Sept. 2010)

53. Match column B and C with column A.

A	B	C
Reptilia	Feathers	Psittacula
Aves	Mammary glands	Hyla
Mammalia	Parapodia	Chelone
	Scales	Panthera
	Tube feet	scoliodon

(2) (March 2010)

54. Frogs, Salamanders, Tortoise and Crocodiles are seen in both water and land. But they are classified into two different classes of the phylum vertebrata. Evaluate this classification comparing salient features of each class.

(2)(Oct. 2013)

55. Find the relationship between first pair and fill in the blank.

- a. Salamander: Amphibia
 Chameleon:

(1)(Aug. 2014)

56. Birds are well adapted for flying. Give any three of such adaptations.

(3) (March 2015)

57. Observe the following features of animals and answer the following questions.

(1) (Sept. 2015)

- Moist skin
- Hooks and suckers
- Pneumatic bones
- Dry and non-glandular skin
- Metamerism

- a. Select the flight adaptation of birds.
 b. Select the amphibious adaptation of frog.

58. Bats and whales belong to the same class.

- a. Identify the class
 b. Give reasons (3)

59. Identify the group/ organism.

- a) A chordate group in which notochord is present only in the larval stage.
 b) An animal commonly known as 'devil fish'.
 c) A limbless amphibian (3)

60. Pick out the correct word from the list provided and complete the following sentences:

Pinna, Echinodermata, Metamorphosis, Protochordates, Pseudocoelomates, Spicules, Bilaterally symmetrical, Polymorphism, Radially symmetrical, Coelomates, Mollusca

- a) The process of formation of larva into adult is
 b) Structurally and functionally different types of individuals within the same organism are called
 c) Animals having a false body cavity are called
 d) The body can be divided into 2 identical left and right halves in animals
 e) The forms the internal skeleton in sponges
 f) Sea cucumber belongs to phylum
 g) Hemichordates are
 h) Presence of is a mammalian character.

(4) (March 2006)

61. Name the following

- a) Phylum in which flat worms are included
 b) Excretory organs of annelids
 c) Largest phylum
 d) An oviparous mammal.

(2)

62. Name the animal with following characters:

- i. Cyclostomes with circular mouth.
 ii. Chondrichthyes with electric organ
 iii. Flightless bird
 iv. Egg laying mammal
 v. Gregarious pest
 vi. Aquatic annelid
 vii. Flying mammal
 viii. Living fossil

(4)

63. Apply the scientific words for each of the following statements.

- a. Water cavity found in sponges
 b. Cold blooded animals
 c. Cells which are known as organelles of offense and defense in hydra.
 d. Bones with the presence of air cavities
 e. Blood filled cavity in arthropods
 f. Animals which give birth to young ones
 g. Coelome present in the aschelminthes

(3)

64. Match the items in column B and C with A

Phylum/ Class	Common example	Unique feature
Pisces	Aedes	Presence of hair
Mammalia	Leech	Open circulatory system
Arthropoda	Felis	Presence of 2 chambered heart
	Scoliodon	Presence of nephridia

OR

Features of different phyla/ class are given below. Identify the phylum/ class and give examples of each group.

- a) Body is covered by scales, heart is 3 or 4 chambered. They respire through gills.
 b) They are exclusively marine, commonly called sea walnuts and shows bioluminescence.
 c) Body is divided into proboscis, collar and trunk. They have open circulatory system and presence of proboscis gland.

(3) (March 2017)

65. Name the phyla in which the following cells/ structures/ organs are present.

- a) Radula
 b) Cnidoblast
 c) Pneumatic bone
 d) Proboscis gland

(2) (March 2016)