

## CHAPTER

# 4

# Animal Classification

### PRACTICE QUESTIONS

#### Basis of Classification

- Living organisms differ in
  - Shape
  - Form
  - Size and habit
  - All of these
- Which is not a character of sponges?
  - Multicellular
  - Cells are functionally independent
  - Cellular level of organization
  - Tissue level of organization
- Which phylum shows tissue level of organization?
  - Protozoa
  - Porifera
  - Coelenterate
  - All of these
- Organ system level of organization is not found in
  - Annelida
  - Arthropod
  - Molluscs
  - Platyhelminthes
- Incomplete digestive tract (blind sac body plan) is found in
  - Annelida
  - Arthropod
  - Molluscs
  - Platyhelminthes
- Closed type of circulatory system is present in
  - Annelida and arthropod
  - Arthropod and mollusc
  - Annelida and cephalopods
  - Mollusc and echinoderms
- In open type of circulatory system
  - Blood flow in sinuses
  - Blood pressure is low and irregular
  - It is found in arthropods and molluscs (except cephalopods)
  - All are true
- Closed type of circulatory system is found in
  - Annelida
  - Cephalopods
  - Vertebrate
  - All of these
- What is false about closed circulatory system?
  - Blood pressure is high and regular
  - Amount of blood is limited
  - Blood circulates through arteries, veins and capillaries
  - Blood pressure is low and irregular
- When the body of an animal can be divided into equal left and right halves by one plane of symmetry. It is known as
  - Bilateral
  - Radial
  - Biradial
  - Asymmetric

11. Radial symmetry is shown by
  - (a) Coelenterate
  - (b) Platyhelminthes
  - (c) Adult echinodermites
  - (d) Both (a) and (c)
12. Most of the sponges are
  - (a) Bilateral
  - (b) Radial
  - (c) Biradial
  - (d) Asymmetric
13. The first diploblastic animal is
  - (a) Coelenterates
  - (b) Platyhelminthes
  - (c) Aschelminthes
  - (d) Annelida
14. The first triploblastic animal is
  - (a) Coelenterates
  - (b) Platyhelminthes
  - (c) Aschelminthes
  - (d) Annelida
15. Triploblastic animal contains
  - (a) Ectoderm
  - (b) Mesoderm
  - (c) Endoderm
  - (d) All of these
16. Aschelminthes are
  - (a) Eucoelomate
  - (b) Pseudocoelomate
  - (c) Acoelomate
  - (d) None of these
17. Which of the following is acoelomate?
  - (a) Porifera
  - (b) Coelenterates
  - (c) Platyhelminthes
  - (d) All of these
18. Metameric segmentation is found in
  - (a) Annelida
  - (b) Arthropod
  - (c) Both (a) and (b)
  - (d) Platyhelminthes
19. Notochord is derived from which layer?
  - (a) Ectoderm
  - (b) Mesoderm
  - (c) Endoderm
  - (d) All of these
20. Which of the following is correct about notochord?
  - (a) Dorsally situated
  - (b) Mesodermal in origin
  - (c) Rod like
  - (d) All of these
21. Radial symmetry is shown by
  - (a) Ctenophores
  - (b) Coelenterates
  - (c) Adult echinodermites
  - (d) All of these
22. The undifferentiated layer present between the ectoderm and endoderm in coelenterate is
  - (a) Mesophyll
  - (b) Gastral layer
  - (c) Archenteron
  - (d) Mesoglea
23. Which of the following is correct about metamerism (true segmentation)?
  - (a) Every organ shows serial repetition.
  - (b) The body is divided externally as well as internally
  - (c) Each segment is not supplied with separate nerve and blood vessels.
  - (d) All of these
24. 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. Such a body cavity is called
  - (a) Eucoelom
  - (b) Pseudocoelom
  - (c) Acoelom
  - (d) Any of the above
25. The following are coelomates except (true coelom)
  - (a) Annelida
  - (b) Platyhelminthes
  - (c) Mollusca
  - (d) Chordata

26. Select the total number of organism from the following which are sessile:  
*Amoeba, Euglena, Adamsia, Spongilla, Hydra, Jelly fish, Earthworm*  
(a) 1 (b) 2 (c) 3 (d) 4
27. Which of the following is incorrect about Porifera?  
(a) It is a solitary or colonial organism  
(b) Majority live in sea and some live in fresh water  
(c) Most of them are asymmetric  
(d) All of the above
28. Members of phylum Porifera are commonly known as  
(a) Flatworms (b) Roundworms (c) Sponges (d) Corals
29. Water path in sponges is  
(a) Ostia → Spongocoel → Osculum (b) Osculum → Spongocoel → Osculum  
(c) Ostia → Spongocoel → Ostia (d) Spongocoel → Ostia → Osculum
30. The unique character of sponges is  
(a) Choanocytes or collar cells line, the spongocoel and the canals.  
(b) That they are hermaphrodite.  
(c) That they live in marine water.  
(d) It reproduces by asexual means only.
31. The character possessed by all sponges are  
(a) That all are fresh water (b) All possess tissue level of organization  
(c) External fertilization (d) Hermaphrodite
32. Select the total number of statements belonging to sponges:  
(1) Cellular level of organization.  
(2) Body is supported by endoskeleton made up of spicules or sponging fibres.  
(3) Larva stage is morphologically different from adult.  
(4) Pathway of water transport is helpful in gathering of food, respiratory exchange and removal of waste.  
(5) Hermaphrodite organism.  
(6) They show the power of regeneration.  
(a) 5 (b) 6 (c) 4 (d) 3
33. Select the fresh water sponge from the following:  
(a) Sycon (b) Euspongia (c) Spongilla (d) Hyalonema
34. Another name of sycon is  
(a) Scypha (b) Euspongia (c) Spongilla (d) Hyalonema
35. Match the following:
- | Column I          |   | Column II             |
|-------------------|---|-----------------------|
| A. Sycon          | — | 1. Bath sponge        |
| B. Spongilla      | — | 2. Scypha             |
| C. Euspongia      | — | 3. Fresh water sponge |
| (a) A-2, B-3, C-1 |   | (b) A-1, B-2, C-3     |
| (c) A-3, B-2, C-1 |   | (d) A-3, B-1, C-2     |

36. Select the total number of marine sponges from the following:  
*Leucosolenia, Euspongia, Spongilla, Sycon, Hyalonema*  
 (a) 3 (b) 4 (c) 5 (d) 2
37. The primitive multicellular animals having cellular level of organization are  
 (a) Ctenophores (b) Sponges (c) Corals (d) Crustacean
38. Water enters through minute pores in the body wall into central cavity in sponges. These minute pores are known as  
 (a) Osculum (b) Ostia (c) Spongocoel (d) Any of the above
39. In sponge, the sperm and ova are produced by the same individual. Such types of organisms are called  
 (a) Asexual (b) Unisexual (c) Hermaphrodite (d) Dioecious
40. Canal system and choanocytes are characteristic of  
 (a) Ctenophora (b) Coelenterates (c) Platyhelminthes (d) Porifera
41. In sponges, the commonly seen larva are  
 (a) Amphiblastula (b) Parenchymula (c) Planula (d) Both (a) and (b)
42. Digestion in sponges is  
 (a) Intracellular (b) Extracellular (c) Both (a) and (b) (d) None of these
43. Which of the following is correct about reproduction in sponges?  
 (a) The mode of asexual reproduction such as gemmule formation, budding and fragmentation.  
 (b) Fertilization is internal  
 (c) Development is indirect  
 (d) All of these
44. Exogenous budding is seen in case of  
 (a) Scypha (b) Euspongia (c) Spongilla (d) Hyalonema
45. The following characters are related to phylum:  
 (1) Aquatic, mostly marine (2) Sessile or free swimming  
 (3) Radially symmetrical animals (4) They show polymorphism  
 (a) Porifera (b) Ctenophora (c) Echinodermata (d) Coelenterata
46. Cnidoblast is a characteristic feature of  
 (a) Porifera (b) Coelenterata (c) Ctenophora (d) Arthropoda
47. The first diploblastic animal showing tissue level of organization is  
 (a) Sycon (b) Gorgonia (c) Taenia (d) Locust
48. Cnidoblast is used for  
 (a) Anchorage (b) Defense (c) Capture of prey (d) All of these
49. Select the total number of organisms from the following which shows both intra and extra cellular digestion.  
*Physalia, Pleurobrachia, Taenia, Culex, Apis, Neries, Echinus, Salpa, Meandrina, Pennatula, Doliolum, Catla, Hyla, Adamsia, Gorgonia, Ctenoplana.*  
 (a) 6 (b) 8 (c) 7 (d) 10

50. Select the correct matching:

- |                |   |              |
|----------------|---|--------------|
| (a) Petromyzon | – | Hag fish     |
| (b) Echinus    | – | Brittle star |
| (c) Apis       | – | Silkworm     |
| (d) Pennatula  | – | Sea pen      |

51. Select incorrect matching:

- |               |   |              |
|---------------|---|--------------|
| (a) Locusta   | – | Locust       |
| (b) Cucumaria | – | Sea cucumber |
| (c) Meandrina | – | Sea anemone  |
| (d) Echinus   | – | Sea urchin   |

52. Some cnidarians examples corals have a skeleton composed of

- |                       |                  |
|-----------------------|------------------|
| (a) Spongin fibres    | (b) Silica       |
| (c) Calcium carbonate | (d) Any of these |

53. Metagenesis is shown by

- |           |             |             |            |
|-----------|-------------|-------------|------------|
| (a) Hydra | (b) Adamsia | (c) Aurelia | (d) Obelia |
|-----------|-------------|-------------|------------|

54. Which of the following is not true fish?

- |               |           |              |                |
|---------------|-----------|--------------|----------------|
| (a) Exocoetus | (b) Betta | (c) Saw fish | (d) Jelly fish |
|---------------|-----------|--------------|----------------|

55. The umbrella shape and free swimming form of coelenterate reproduced by sexual reproduction is

- |           |            |                      |                   |
|-----------|------------|----------------------|-------------------|
| (a) Polyp | (b) Medusa | (c) Both (a) and (b) | (d) None of these |
|-----------|------------|----------------------|-------------------|

56. Sessile, cylindrical form of coelenterate reproduced by asexual reproduction is

- |           |            |                      |                   |
|-----------|------------|----------------------|-------------------|
| (a) Polyp | (b) Medusa | (c) Both (a) and (b) | (d) None of these |
|-----------|------------|----------------------|-------------------|

57. Polyp → Asexually → Medusa → Sexually → Polyp

The above cycle is shown by

- |              |             |            |           |
|--------------|-------------|------------|-----------|
| (a) Physalia | (b) Aurelia | (c) Obelia | (d) Hydra |
|--------------|-------------|------------|-----------|

58. Select from the following total number of organisms which contain the word 'sea' in their common names.

*Physalia, Adamsia, Pennatula, Gorgonia, Meandrina, Hydra, Aurelia, Obelia*

- |       |       |       |       |
|-------|-------|-------|-------|
| (a) 2 | (b) 3 | (c) 4 | (d) 5 |
|-------|-------|-------|-------|

59. Which of the following is known as Portuguese man-of-war?

- |              |             |              |            |
|--------------|-------------|--------------|------------|
| (a) gorgonia | (b) aurelia | (c) physalia | (d) obelia |
|--------------|-------------|--------------|------------|

60. The phylum in which first time nerve net arises

- |              |                  |                     |              |
|--------------|------------------|---------------------|--------------|
| (a) Porifera | (b) Coelenterate | (c) Platyhelminthes | (d) Protozoa |
|--------------|------------------|---------------------|--------------|

61. Gastro-vascular cavity with single opening is found in

- |              |                  |                   |              |
|--------------|------------------|-------------------|--------------|
| (a) Porifera | (b) Coelenterate | (c) Aschelminthes | (d) Annelida |
|--------------|------------------|-------------------|--------------|

62. Coelenterates asexually reproduce by

- |             |             |             |              |
|-------------|-------------|-------------|--------------|
| (a) Budding | (b) Gametes | (c) Conidia | (d) Gemmules |
|-------------|-------------|-------------|--------------|

63. The larva stage shown by coelenterate is called

- |                   |                  |             |                  |
|-------------------|------------------|-------------|------------------|
| (a) Amphiblastula | (b) Parenchymula | (c) Planula | (d) All of these |
|-------------------|------------------|-------------|------------------|

64. Match the following:

**Column I**

- A. Physalia —
- B. Adamsia —
- C. Pennatula —
- D. Gorgonia —
- E. Meandrina —
- F. Aurelia —

**Column II**

- 1. Brain coral
- 2. Sea fan
- 3. Sea pen
- 4. Sea anemone
- 5. Portuguese man-of-war
- 6. Jellyfish

(a) A-5, B-4, C-2, D-3, E-1, F-6

(b) A-5, B-4, C-3, D-2, E-1, F-6

(c) A-5, B-4, C-2, D-1, E-2, F-6

(d) A-5, B-3, C-4, D-2, E-1, F-6

65. Ctenophores are commonly known as

- (a) Sea walnut      (b) Comb jellies      (c) Both (a) and (b)      (d) None of these

66. The following features belongs to which phylum?

- (1) Exclusively marine
- (2) Radial symmetry
- (3) Diploblastic
- (4) Tissue level organization
- (a) Coelentrata
- (b) Porifera
- (c) Ctenophora
- (d) Platyhelminthes

67. Body bears eight external rows of ciliated comb plates present in phylum \_\_\_\_\_.

- (a) Coelentrata      (b) Porifera      (c) Ctenophora      (d) Platyhelminthes

68. Ctenophores show

- (a) Extra and intracellular digestion
- (b) Sexual reproduction only
- (c) Bioluminescence
- (d) All of these

69. Example of ctenophores is

- (a) Pleurobrachia      (b) Ctenoplana      (c) Both (a) and (b)      (d) None of these

70. The following features belong to which phylum?

- (1) Bilateral symmetry
- (2) Triploblastic, Acoelomate
- (3) Organ level of organization
- (4) Dorsoventrally flattened body
- (a) Platyhelminthes      (b) Aschelminthes      (c) Annelida      (d) Arthropoda

71. Platyhelminthes are called flat worms because

- (a) They are triploblastic
- (b) They are without coelom
- (c) They have organ level of organization
- (d) Their body is dorsoventrally flattened

72. Which of the following are characters present in platyhelminthes?

- (1) Some absorb nutrients from the host directly through their body surface.
  - (2) Digestive system is incomplete, branched and without anus.
  - (3) Flame cells/solenocyte protonephridia help in the excretion and osmoregulation.
  - (4) Hooks and suckers are present in parasitic form.
  - (5) Hermaphrodites
  - (6) Fertilization is internal.
  - (7) Indirect development through many larva stages.
- (a) 1, 2, 3, 5, 6      (b) 2, 3, 4, 5, 7      (c) All except 1      (d) All

73. Which platyhelminthes posses high power of regeneration?  
 (a) Planaria/Dugesia (b) Taenia (c) Fasciola (d) Liver fluke
74. Flame cells helps in excretion and osmoregulation in  
 (a) Earthworm (b) Hookworm (c) Roundworm (d) Tapeworm
75. Internal fertilization is seen in  
 (a) Pleurobrachia (b) Fasciola (c) Ctenoplane (d) All of these

76. (1) Fertilization \_\_\_\_\_.  
 (2) Development \_\_\_\_\_.  
 (3) Excretion and osmoregulation by \_\_\_\_\_.  
 Fill in the blanks for organism given in the figure.



- (a) Internal, direct, rennett cells  
 (b) Internal, indirect, flame cells  
 (c) External, direct, nephridia  
 (d) External, indirect, protonephridia
77. Phylum whose organism are mostly endoparasites is  
 (a) Platyhelminthes (b) Annelida (c) Arthropoda (d) Mollusca
78. Which of the following are pseudocoelomate?  
 (a) Roundworm (b) Hookworm (c) Filarial worm (d) All of these
79. The body of the aschelminthes is circular in cross section. Hence, it is named as  
 (a) Tapeworm (b) Earthworm (c) Hookworm (d) Roundworm
80. Roundworms/Nematodes are  
 (a) Free living (b) Aquatic or terrestrial  
 (c) Parasitic on animals and plants (d) All of these
81. Select the total number of organism which shows internal fertilization.  
*Ascaris, Wuchereria, Ancylostoma, Taenia, Fasciola, Sycon, Euspongia, Spongilla, pleurobrachia, ctenoplane*  
 (a) 6 (b) 7 (c) 8 (d) 5
82. Which character does not belong to phylum Aschelminthes?  
 (a) Excretory tube (branched ducts) removes body waste form the body cavity through excretory pore.  
 (b) Usually sexes are separate (unisexual or dioecious).  
 (c) Development may be direct or indirect.  
 (d) Alimentary canal is incomplete with a well-developed muscular pharynx.

83. Match the following:

**Column I**

- A. *Ascaris* —  
 B. *Wuchereria* —  
 C. *Ancylostoma* —  
 D. *Pheretima* —  
 (a) A-2, B-4, C-3, D-1  
 (c) A-4, B-3, C-1, D-2

**Column II**

1. Intestinal round worm  
 2. Filarial worm  
 3. Hook worm  
 4. Earth worm  
 (b) A-1, B-2, C-3, D-4  
 (d) A-2, B-1, C-4, D-3

84. Which of the following is correct about ascaris?  
(a) Females are smaller than males (b) Posterior end of male curved dorsally  
(c) Females are longer than males (d) Fertilization is external
85. Select the total number of organism from the following which contains well-developed muscular pharynx with complete alimentary canal.  
*Taenia, Fasciola, Planaria, Ascaris, Filarial worm, Hookworm*  
(a) 1 (b) 3 (c) 4 (d) 2
86. Metamerism is found in  
(a) Ascaris (b) Leech (c) Loligo (d) Octopus
87. Nephridia helps in the excretion and osmoregulation in  
(a) Nereis (b) Pheretima (c) Hirudinaria (d) All of these
88. Closed circulatory system is present in  
(a) Nereis (b) Pheretima (c) Ascaris (d) Both (a) and (b)
89. Animals having cylindrical body having an organ system level of organization showing metamerism belongs to phylum  
(a) Arthropoda (b) Mollusca (c) Annelida (d) Platyhelminthes
90. Annelids may be  
(a) Aquatic (marine and fresh water), terrestrial  
(b) Free living  
(c) Parasite  
(d) All of the above
91. The neural system consists of paired ganglia connected by lateral nerve to a double ventral nerve cord present in  
(a) Fasciola (b) Ancylostoma (c) Nereis (d) Taenia
92. Which of the following are monoecious?  
*Ascaris, Wuchereria, Ancylostoma, Neries, Pheretima, Hirudinaria*  
(a) 3 (b) 2 (c) 3 (d) 4
93. The first true coelomates are  
(a) Nereis (b) Centipede (c) Crab (d) Wuchereria
94. The following features belong to which of the following phylum?  
(1) Triploblastic  
(2) Bilateral symmetry  
(3) Eucoelomate  
(4) Metamerism  
(a) Mollusca (b) Aschelminthes  
(c) Platyhelminthes (d) Annelida
95. Which of the following is correct about parapodia?  
(a) They are longitudinal muscles which help in locomotion.  
(b) They are circular muscles which help in locomotion.  
(c) It helps in swimming.  
(d) It is the dorsal appendages of nereis.

96. Which of the following is the largest phylum?  
(a) Mollusca (b) Echinodermata (c) Arthropoda (d) Annelida
97. How many species named on earth is arthropoda?  
(a)  $\frac{1}{2}$  (b)  $\frac{2}{3}$  (c)  $\frac{1}{4}$  (d)  $\frac{3}{4}$
98. In which of the following phylum the body is generally divided into head, thorax and abdomen?  
(a) Mollusca (b) Echinodermata  
(c) Arthropoda (d) Annelida
99. Which of the following phylum shows segmentation?  
(a) Annelida (b) Arthropoda (c) Both (a) and (b) (d) Platyhelminthes
100. The following features are seen in which of the below options?  
(1) Exoskeleton of chitin  
(2) Malpighian tubules as excretory organ  
(3) Tracheal system for respiration  
(4) Three pair of legs in thoracic region  
(a) Limulus (b) Prawn (c) Spider (d) Cockroach
101. Respiration occurs through organs like gills, book gills, book lungs or tracheal system found in phylum.  
(a) Mollusca (b) Annelida (c) Arthropoda (d) Echinodermata
102. Which of the following are sensory organs in phylum Arthropoda?  
(1) Simple or compound eye  
(2) Statocyst or balance organ  
(3) Malpighian tubules  
(4) Antennae  
(a) All except (4) (b) All except (1) (c) All except (3) (d) All except (2)
103. Which of the following is correct about reproduction in Arthropods?  
(a) Usually dioecious, mostly oviparous (b) Internal fertilization  
(c) Some exhibit parthenogenesis (d) All of these
104. Ecdysis is seen in case of  
(a) Nereis (b) Pila  
(c) Sea urchin (d) Cockroach
105. Exoskeleton of Arthropods are chitinous and it sheds at interval for the growth and development process known as  
(a) Autotomy (b) Metamerism  
(c) Ecdysis (moulting) (d) Aestivation
106. The presence of joint appendages is the speciality of phylum \_\_\_\_  
(a) Mollusca (b) Echinodermata  
(c) Arthropoda (d) Annelidia
107. Bilaterally symmetrical, triploblastic, segmented, coelomate and covered by chitinous exoskeleton are features of  
(a) Annelidia (b) Vertebrata (c) Amphibia (d) Arthropoda

108. Which of the following is true for Arthropoda?  
 (a) Development may be direct or indirect.  
 (b) Open circulatory system.  
 (c) Excretion takes place by green gland, coxal gland and Malpighian tubules.  
 (d) All of these
109. Select from the following the total number of useful insects.  
*Apis, Bombyx, Laccifer, Anopheles, Culex, Aedes, Prawn, Scorpion, Locust, Limulus.*  
 (a) 3 (b) 4 (c) 3 (d) 5
110. Select from the following the total number of organism that belongs to phylum arthropoda.  
*Locust, Butterfly, Scorpion, Prawn, Salpa, doliolems, Pila, Chiton, Antedon, Hyla, Myxine, Locust, Loligo, Culex, Cucumaria, Cuttle fish.*  
 (a) 4 (b) 6 (c) 8 (d) 12
111. Select the living fossil from the following:  
 (a) Culex (b) Silkworm (c) Lac insect (d) Limulus
112. Following mosquitoes used as vector for various diseases:  
 (a) Culex (b) Anopheles (c) Aedes (d) All of these
113. Other name of limulus is  
 (a) Laccifer (b) Locust (c) King crab (d) Gregarious pest
114. Which of the following is a gregarious pest?  
 (a) Laccifer (b) Locusta (c) King crab (d) Both (a) and (b)
115. Match the following:
- | Column I               |   | Column II              |
|------------------------|---|------------------------|
| A. Locusta             | — | 1. Apis                |
| B. Honey bee           | — | 2. Locust              |
| C. Silkworm            | — | 3. Bombyx              |
| D. Lac insect          | — | 4. Laccifer            |
| (a) A-4, B-1, C-3, D-4 |   | (b) A-2, B-1, C-4, D-3 |
| (c) A-2, B-1, C-3, D-4 |   | (d) A-4, B-3, C-1, D-4 |
116. Which of the following belongs to arthropods?  
 (a) Peripatus and crab (b) Prawn and scorpion  
 (c) Centipede and cockroach (d) All of these
117. Animals with soft body, bilateral symmetry, triploblastic and unsegmented, usually protected by a shell made up of calcium carbonate belongs to phylum \_\_\_\_  
 (a) Porifera (b) Echinodermata (c) Mollusca (d) Arthropoda
118. The mouth which has file-like rasping organ for feeding called radula is found in  
 (a) Mollusca (b) Hemichordata (c) Echinodermata (d) Arthropoda
119. The body of \_\_\_\_ is unsegmented with a distinct head, muscular foot and visceral mass  
 (a) Asterias (b) Ophiura (c) Balanoglossus (d) Devil fish
120. A. A soft and spongy layer of skin forms a (i) over the visceral hump.  
 B. A (ii) cavity containing (iii) like gills.  
 C. The anterior head region has sensory (iv).

Fill in the blanks in the above respective places about mollusca.

- (a) Mantle, Mantle, Comb, Papilla (b) Mantle, Mesoglea, Feather, Papilla  
(c) Mantle, Mantle, Feather, Tentacles (d) Mantle, Mantle, Comb, Tentacles

121. Which of the following is true about reproduction in mollusca?

- (1) Mostly dioecious (2) Oviparous  
(3) Mainly indirect development (4) Fertilization is external or internal  
(a) All except (4) (b) All except (3) (c) All except (2) (d) All of these

122. Which of the following is not a fish?

- (a) Devil fish (b) Cuttle fish (c) Jelly fish (d) All of these

123. Match the following:

**Column I**

- A. Pila —  
B. Chiton —  
C. Dentalium —  
D. Sepia —  
(a) A-2, B-1, C-4, D-3  
(c) A-4, B-2, C-3, D-1

**Column II**

1. Tusk shell  
2. Apple snail  
3. Cuttle fish  
4. Chaetopleura  
(b) A-2, B-4, C-1, D-3  
(d) A-4, B-3, C-2, D-1

124. Devil fish is called

- (a) Pearl oyster (b) Tusk shell (c) Sepia (d) Octopus

125. Majority of mollusca are

- (a) Aquatic (b) Terrestrial (c) Aerial (d) Any of the above

126. Select the total number of organism from the following which are mollusca:

*Pila, Pinctada, Sepia, Loligo, Aplysia, Echinus, Antedon, Salpa, Bufo, Chelone, Neophron, Pteropus, Elephas, Pavo*

- (a) 7 (b) 6 (c) 5 (d) 9

127. Mantle cavity is a site of

- (a) Excretion (b) Respiration (c) Both (a) and (b) (d) None of these

128. Shell in molluscs is

- (a) External (b) Internal (c) Any of the above (d) Shell is absent

129. Unsegmented, triploblastic, eucoelomate is

- (a) Pheretima (b) Laccifer (c) Pila (d) All of these

130. Select the incorrect matching:

- (a) Aurelia — Jelly fish  
(b) Sepia — Cuttle fish  
(c) Octopus — Devil fish  
(d) Loligo — Fighting fish

131. Select the incorrect matching:

- (a) Gorgonia — Sea fan  
(b) Adamsia — Sea anemone  
(c) Aplysia — Sea cucumber  
(d) Antedon — Sea lily

132. Pinctada is a  
(a) Sea hare (b) Cuttle fish (c) Pearl oyster (d) Apple snail
133. The common name of which organism contains 'sea' in their name?  
(a) Chaetopleura (b) Dentalium (c) Sepia (d) Aplysia
134. Animals having calcareous endoskeleton with organ-system level of organization, completely marine are  
(a) Arthropoda (b) Mollusca (c) Hemichordates (d) Echinodermates
135. In which phylum, the larva is bilaterally symmetrical and the adult have radial symmetry?  
(a) Arthropoda (b) Mollusca (c) Hemichordata (d) Echinodermata
136. The most distinctive feature of echinoderm is  
(a) Gastro vascular cavity  
(b) Choanocytes  
(c) Water vascular system/ambulacral system  
(d) Canal system
137. Water vascular system helps in  
(a) Locomotion (b) Capture and transport of food  
(c) Respiration (d) All of these
138. Which of the following is true about reproduction in echinoderms?  
(a) Unisexuality  
(b) Usually external fertilization  
(c) Indirect development through free swimming larva  
(d) All of the above
139. Find out the number of spiny-bodied animals from the following:  
*Pila, Pinctada, Asterias, Echinus, Antedon, Cucumaria, Brittle star, Octopus*  
(a) 4 (b) 5 (c) 6 (d) 3
140. Select the correct matching:  
(a) Asterias – Sea urchin  
(b) Pila – Pearl oyster  
(c) Ophiura – Brittle star  
(d) Loligo – Cuttle fish
141. Select the incorrect matching:  
(a) Asterias – Star fish  
(b) Echinus – Sea urchin  
(c) Antedon – Sea lily  
(d) Cucumaria – Sea fan
142. Sea urchin belongs to the class phylum  
(a) Echinodermata (b) Hemichordata (c) Ctenophora (d) Mollusca
143. Another name of cucummaria is  
(a) Sea urchin (b) Sea mouse (c) Sea pen (d) Sea cucumber
144. Which phylum shows regeneration in the lost part?  
(a) Mollusca (b) Annelida (c) Arthropoda (d) Echinodermata

145. Which phylum has the following features?  
(1) Digestive track is complete, straight or U shape.  
(2) Worm like, unsegmented marine animal.  
(3) Respiration is done by gills.  
(4) Excretion by single proboscis gland.  
(5) Circulatory system is naturally open.  
(a) Arthropoda (b) Mollusca (c) Hemichordata (d) Urochordata
146. Which is a phylum?  
(a) Hemichordata (b) Urochordata (c) Cephalochordata (d) All of these
147. Larva of hemichordate is  
(a) Amphiblastula (b) Torneria (c) Ammocoete (d) Planula
148. Which of the following is correct about reproduction in hemichordata?  
(a) Internal fertilization (b) Usually direct development  
(c) Sexes are separate (d) Monoecious organism
149. The body which is cylindrical and composed of anterior proboscis and a collar and a long trunk is found in  
(a) Ascidia (b) Salpa (c) Doliolum (d) Saccoglossus
150. The excretory organ of proboscis gland is present in  
(a) Ascidia (b) Salpa (c) Doliolum (d) Saccoglossus
151. The fundamental character of chordate is  
(a) Notochord (b) Dorsal hollow nerve cord  
(c) Paired pharyngeal gill slits (d) All of these
152. Which is not a distinctive character of non-chordata?  
(a) Notochordal is absent (b) Ventral and double nerve cord  
(c) Heart is ventral (d) Post-anal tail is absent
153. Which of the following are the features of chordates?  
(1) Notochord is present.  
(2) CNS is dorsal, hollow and single.  
(3) Pharynx is perforated by gill slits.  
(4) Heart is ventral.  
(5) A post-anal is present  
(a) All except (4) (b) All except (2) (c) All of these (d) All except (5)
154. Animal belonging to phylum chordata shows  
(a) Bilateral symmetry, triploblastic and the coelom  
(b) Organ system level of organization  
(c) Closed circulatory system  
(d) All of these
155. Urochordata and cephalochordate are referred as  
(a) Non-chordates (b) Vertebrates (c) Protochordates (d) All of these
156. In which subphyla, the notochord is present in tail of larva only?  
(a) Hemichordata (b) Urochordata (c) Cephalochordata (d) All of these

157. Notochord is extended from head to tail region and is persistent throughout their life in  
(a) Hemichordata (b) Urochordata  
(c) Cephalochordata (d) All of these
158. How many of the following belongs to the subphylum cephalochordate?  
*Ascidia, Salpa, Doliolum, Branchiostoma*  
(a) 1 (b) 2 (c) 3 (d) 4
159. The other name of Branchiostoma is  
(a) Amphioxus (b) Lancelet (c) Both (a) and (b) (d) None of these
160. Select the incorrect statement from the following:  
(a) In vertebrates, the notochord is replaced by cartilaginous or bony vertebral column.  
(b) In cephalochordates, the notochord is extended from head to tail region and is persistent throughout life.  
(c) Protochordates are exclusively marine.  
(d) Notochord is present in tail of adult in urochordata.
161. Vertebrates have  
(a) Ventral muscular heart with 3, 2 or 4 chamber.  
(b) Kidneys for excretion and osmoregulation.  
(c) Paired appendages which may be fins or limbs.  
(d) All of these
162. Which of the following is exoskeleton in vertebrates?  
(a) Scales (b) Feathers (c) Hair (d) Any of the above
163. All living members of which class is ectoparasite on fishes?  
(a) Turbellaria (b) Chondrichthyes (c) Cephalopoda (d) Cyclostomata
164. Which of the following are characters of cyclostomata?  
(a) 6–15 pairs of gill slits is present for respiration  
(b) Sucking and circular mouth without jaws  
(c) Body is devoid of scales and paired fins  
(d) All of these
165. Which of the following organism possess cartilaginous cranium, vertebral column, closed type of circulatory system, which helps them migrate to fresh water for spawning?  
(a) Ascidia (b) Scoliodon (c) Petromyzon (d) All of these
166. Which of the following are marine but migrate for spawning to fresh water. After spawning, within a few days, they die. Their larvae, after metamorphosis, return to ocean. Specify the correct one.  
(a) Petromyzon (Lamprey) (b) Myxine (Hagfish)  
(c) Scoliodon (d) Both (a) and (b)
167. Which of the following is correct about cyclostomes?  
(a) Ectoparasite on fishes during their adult stage.  
(b) Skin with scales and contain unicellular mucous gland.  
(c) One kidney for excretion.  
(d) Heart is two chambered and possess 4 pair of gill slits for respiration.

168. The class name 'cyclostomata' means  
 (a) Marine, but reproduction takes place in fresh water  
 (b) Mouth is antero ventral, suctorial and circular  
 (c) Ectoparasite of fishes  
 (d) Jaws are absent
169. The study of fishes is called  
 (a) Ichthyology (b) Serpentology (c) Saurology (d) Chonchology
170. (1) Marine with streamlined body  
 (2) Cartilaginous endoskeleton  
 (3) Mouth is ventral  
 (4) Caudal fin in Heterocercal  
 (5) Notochord is persistent throughout life  
 The above characters belong to which of the following organism (select the total number)?  
*Dog fish, Saw fish, Flying fish, Fighting fish, Angle fish, Jelly fish, Star fish, Trygon, Torpedo, Rohu, Catla, Magur*  
 (a) 3 (b) 4 (c) 6 (d) 7
171. The scales found in chondrichthyes is/are  
 (a) Placoid (b) Cycloid (c) Ctenoid (d) All of these
172. Which of the following is incorrect about cartilaginous fish?  
 (a) Teeth are modified with placoid scales which are backwardly directed.  
 (b) 5 to 7 pair of gills for respiration but without operculum (i.e., gill cover).  
 (c) Air bladder is absent so they have to swim constantly to avoid sinking.  
 (d) In males, the pelvic fins claspers are absent.
173. Select the total number of organism which posses two chambered heart and are poikilothermal.  
*Scoliodon, Pristis, Clarias, Betta, Pterophyllum, Echinus, Devil Fish, Cuttle fish, Sea lily, Hyla, Labeo, catla, Torpedo, Trygon*  
 (a) 7 (b) 9 (c) 11 (d) 13
174. Select the difference which is wrongly written:  

<b>Cartilaginous fish</b>		<b>Bony fishes</b>
(a) Operculum is absent	—	Operculum is present
(b) Fertilization is internal	—	Fertilization is external
(c) Posses 5–7 pair of gills	—	Posses 4 pair of gills
(d) Mostly oviparous	—	Mostly viviparous
175. Which fish possess poison sting?  
 (a) Scoliodon (dog fish) (b) Trygon  
 (c) Torpedo (d) Pristis (saw fish)
176. Which fish possess electric organs?  
 (a) Scoliodon (dog fish) (b) Trygon  
 (c) Torpedo (d) Pristis (saw fish)
177. Males possess claspers in pelvic fins in class \_\_\_\_\_  
 (a) Cyclostomata (b) Chondrichthyes (c) Osteichthyes (d) Amphibia

178. Select the correct matching:

- |                 |   |                   |
|-----------------|---|-------------------|
| (a) Petromyzon  | — | Hagfish           |
| (b) Myxine      | — | Lamprey           |
| (c) Carcharodon | — | Great white shark |
| (d) Trygon      | — | Torpedo           |

179. (1) Stream-lined body  
(2) Both marine and fresh water  
(3) Mouth is terminal  
(4) Caudal fin homocercal  
(5) 4 pair of gills with operculum

Which class has the above characters?

- |                  |                    |                  |              |
|------------------|--------------------|------------------|--------------|
| (a) Cyclostomata | (b) Chondrichthyes | (c) Osteichthyes | (d) Amphibia |
|------------------|--------------------|------------------|--------------|

180. Osteichthyes possess which kind of scales?

- |             |             |             |                      |
|-------------|-------------|-------------|----------------------|
| (a) Placoid | (b) Cycloid | (c) Ctenoid | (d) Both (b) and (c) |
|-------------|-------------|-------------|----------------------|

181. External fertilization is found in

- |               |                 |              |              |
|---------------|-----------------|--------------|--------------|
| (a) Sting ray | (b) Flying fish | (c) Saw fish | (d) Dog fish |
|---------------|-----------------|--------------|--------------|

182. Select the total number of bony fishes from the following:

*Exocoetus*, *Hippocampus*, *Labeo*, *Catla*, *Clarias*, *Betta*, *Pterophyllum*, *Trygon*, *Torpedo*, *Pristis*, *Scolidon*, *Carcharodon*.

- |       |       |       |        |
|-------|-------|-------|--------|
| (a) 6 | (b) 7 | (c) 8 | (d) 12 |
|-------|-------|-------|--------|

183. Air bladder which regulates buoyancy is present in

- |                  |                        |                 |                |
|------------------|------------------------|-----------------|----------------|
| (a) Cyclostomata | (b) Cartilaginous fish | (c) Bony fishes | (d) Amphibians |
|------------------|------------------------|-----------------|----------------|

184. Select the correct matching:

- |                  |   |               |
|------------------|---|---------------|
| (a) Betta        | — | Fighting fish |
| (b) Hippocampus  | — | Flying fish   |
| (c) Pterophyllum | — | Fighting fish |
| (d) Clarias      | — | Labeo         |

185. Select the incorrect matching:

- |                  |   |            |
|------------------|---|------------|
| (a) Scoliodon    | — | Dog fish   |
| (b) Pterophyllum | — | Angel fish |
| (c) Clarias      | — | Magur      |
| (d) Trygon       | — | Torpedo    |

186. Select the correct matching:

- |                     |   |                    |
|---------------------|---|--------------------|
| (a) Cyclostomata    | — | gills (6–15 pairs) |
| (b) Chondrichthyes  | — | gills (5–7 pairs)  |
| (c) Osteichthyes    | — | gills (4 pairs)    |
| (d) All are correct |   |                    |

187. Which of the following is a marine bony fish?

- |                             |                             |
|-----------------------------|-----------------------------|
| (a) Exocoetus (flying fish) | (b) Hippocampus (sea-horse) |
| (c) Both (a) and (b)        | (d) Saw fish (pristis)      |

188. Which of the following is a fresh water bony fish?

- |                  |                   |                     |                  |
|------------------|-------------------|---------------------|------------------|
| (a) Labeo (rohu) | (b) Catla (katla) | (c) Clarias (magur) | (d) All of these |
|------------------|-------------------|---------------------|------------------|

189. Which of the following is a fresh water cartilaginous fish?  
(a) Scoliodon (dog fish) (b) Trygon (sting ray)  
(c) Torpedo (electric ray) (d) None of these
190. The name 'amphibian' indicates that they can live in  
(a) Aquatic habitat (b) Terrestrial habitat  
(c) Both (a) and (b) (d) Aerial habitat
191. Amphibian belong to super class  
(a) Pisces (b) Agnatha (c) Gnathostomata (d) Tetrapoda
192. The following features belong to which class?  
(1) Body is divisible into head and trunks, tail may be present in some.  
(2) Skin is moist and act as respiratory organ.  
(3) External skeleton is absent.  
(4) Eye have eyelids.  
(a) Cyclostomata (b) Amphibia (c) Reptilia (d) Osteichthyes
193. Respiration in adult frog is by  
(a) Buccopharyngeal cavity (b) Skin  
(c) Lungs (d) All of these
194. Respiration in tadpole larva is by  
(a) Gills (b) Lungs (c) Skin (d) All of these
195. Which of the following tract open into a common chamber cloaca in amphibians?  
(a) Alimentary canal (b) Urinary tract  
(c) Reproductive tract (d) All of these
196. Which type of dentition is found in amphibian?  
(a) Homodont (b) Thecodont (c) Heterodont (d) Monophyodont
197. Three chambered heart, cold blooded, external fertilization and indirect development is seen in  
(a) Labeo (b) Salpa (c) Frog (d) Myxine
198. Skin is moist and a tympanum representing ear is found in  
(a) Hyla (b) Frog (c) Ichthyophis (d) All of these
199. Select the correct matching:
- | Column I       |   | Column II             |
|----------------|---|-----------------------|
| A. Bufo        | — | 1. Salamander         |
| B. Frog        | — | 2. Rana               |
| C. Hyla        | — | 3. Limbless amphibian |
| D. Salamandra  | — | 4. Tree frog          |
| E. Ichthyophis | — | 5. Toad               |
- (a) A-2, B-5, C-4, D-1, E-3  
(b) A-5, B-2, C-4, D-1, E-3  
(c) A-2, B-4, C-5, D-1, E-3  
(d) A-5, B-4, C-2, D-1, E-3
200. Limbless amphibian is  
(a) Frog (b) Tree frog (c) Ichthyophis (d) Bufo

201. First class of vertebrate, which are fully adopted for terrestrial life is  
(a) Amphibia (b) Reptilia (c) Aves (d) Mammals
202. Reptilia means  
(a) Flying mode of locomotion (b) Swim mode of locomotion  
(c) Saltation mode of locomotion (d) Creeping or crawling mode of locomotion
203. Which of the following is incorrect about reptilia?  
(a) Body is covered by dry and cornified skin, epidermal scales or scutes.  
(b) Body is divisible into head, neck, trunk and tail.  
(c) Heart is usually three chambered.  
(d) Respiration occur through lungs and skin.
204. Four chambered heart is present in all except  
(a) Crocodilus (b) Alligator (c) Corvus (d) Calotes
205. Which of the following shed their scales as skin cast?  
(a) Snakes (b) Lizards (c) Both (a) and (b) (d) Testudo
206. Sexes is separate, internal fertilization, oviparous and direct development is seen in case of  
(a) Chelone (b) Testudo (c) Bangarus (d) All of these
207. Cloaca is seen in case of  
(a) Amphibia (b) Reptiles (c) Aves (d) All of these
208. Select the incorrect matching:  
(a) Chelone – Turtle  
(b) Testudo – Tortoise  
(c) Chameleon – Tree lizard  
(d) Calotes – Wall lizard
209. Select the incorrect matching:  
(a) Naja – Cobra  
(b) Krait – Bangarus  
(c) Vipera – Viper  
(d) Hemidactylus – Garden lizard
210. Select the total number of lizards from the following:  
*Chelone, calotes, chameleon, crocodylus, hemidactylus, columba, neophron*  
(a) 2 (b) 3 (c) 4 (d) 5
211. Which of the following is a poisonous snake?  
(a) Cobra (b) Krait (c) Viper (d) All of these
212. Limbless reptile is  
(a) Chameleon (b) Crocodile (c) Chelone (d) Snake
213. In birds  
The forelimbs are modified into \_(1)\_  
Jaw is modified into \_(2)\_  
Bones are \_(3)\_  
Heart is \_(4)\_

Fill in the blanks correctly:

- (a) Wings, beak, solid, 3 chambered
  - (b) Wings, beak, pneumatic, 4 chambered
  - (c) Claws, beak, pneumatic, 3 chambered
  - (d) Wings, beak, solid, incompletely 4 chambered
- 214.** The first vertebrate which are warm-blooded
- (a) Reptilia
  - (b) Amphibian
  - (c) Birds
  - (d) Mammals
- 215.** The aves have additional chamber in digestive tract and of which \_\_\_\_ is for food storage and \_\_\_\_ for food grinding.
- (a) crop, gizzard
  - (b) gizzard, crop
  - (c) crop, pharynx
  - (d) pharynx, gizzard
- 216.** All are flying birds from the following except
- (a) Corvus
  - (b) Columba
  - (c) Psittacula
  - (d) Aptenodytes
- 217.** Pneumatic bones are present in
- (a) Corvus
  - (b) Neophron (vulture)
  - (c) Pavo (peacock)
  - (d) All of these
- 218.** Which of the following is incorrect about birds?
- (a) Air sacs is connected to lungs which help in respiration.
  - (b) Hind limb posses scales and are modified for walking, swimming or clasping.
  - (c) Separate sexes, internal fertilization, oviparous and direct development.
  - (d) Endoskeleton consists of feathers, scales, beak and claws.
- 219.** Mammalia means organism which possess
- (a) Exoskeleton
  - (b) Endoskeleton of bone
  - (c) Mammary gland
  - (d) Two pair of limbs
- 220.** The following features belong to
- (1) Exoskeleton include hairs on body, horns and nail.
  - (2) Pinna is present.
  - (3) Heart is four chambered.
  - (4) Warm-blooded (homoiotherm).
  - (5) Thecodont and heterodont teeth.
- (a) Reptilians
  - (b) Aves
  - (c) Mammals
  - (d) Amphibians
- 221.** Mammals are adapted for
- (a) Walking and running
  - (c) Climbing and burrowing
  - (d) Any of the above
- 222.** Mammals are mostly
- (a) Viviparous
  - (b) Oviparous
  - (c) Ovoviviparous
  - (d) All of these
- 223.** Oviparous mammal is
- (a) Canis (dog)
  - (b) Felis (cat)
  - (c) Pteropus (flying fox)
  - (d) Ornithorhynchus (platypus)

224. Select the incorrect matching:

- |                |   |              |
|----------------|---|--------------|
| (a) Kangaroo   | – | Macropus     |
| (b) Blue whale | – | Balaenoptera |
| (c) Monkey     | – | Macaca       |
| (d) Elephas    | – | Camel        |

225. Find out the incorrect matching:

- |               |   |                                   |
|---------------|---|-----------------------------------|
| (a) Reptiles  | – | Chelone, Testudo, Chameleon       |
| (b) Aves      | – | Psittacula, Aptenodytes, Neophron |
| (c) Mammals   | – | Elephas, Rattus, Delphinus        |
| (d) Amphibian | – | Naja, bangarus, Calotes           |

226. Aquatic mammal is

- |                     |                  |              |              |
|---------------------|------------------|--------------|--------------|
| (a) Panthera tigris | (b) Balaenoptera | (c) Pteropus | (d) Macropus |
|---------------------|------------------|--------------|--------------|

227. Which of the following is a 'rat'?

- |           |           |             |            |
|-----------|-----------|-------------|------------|
| (a) Felis | (b) Canis | (c) Camelus | (d) Rattus |
|-----------|-----------|-------------|------------|

228. Which of the following mammal have aerial adaptation?

- |           |           |         |              |
|-----------|-----------|---------|--------------|
| (a) Felis | (b) Canis | (c) Bat | (d) Macropus |
|-----------|-----------|---------|--------------|

229. The basic fundamental feature which enables us to broadly classify the animal kingdom are

- |                                     |                               |
|-------------------------------------|-------------------------------|
| (a) Level of organisation, symmetry | (b) Cell organization, coelom |
| (c) Segmentation of notochord       | (d) All the above             |

230. Select the total number of correct statement from the following:

- (1) Coelenterates have tentacles and bear cnidoblasts.
- (2) Ctenophores are marine animals with comb plates.
- (3) Annelids are metamerically segmented animals with a true coelom.
- (4) The echinoderm posses water vascular system.
- (5) Hemichordates are a small group of worm like marine animals characterized by cylindrical body with proboscis, collar and trunk.

- |       |       |       |       |
|-------|-------|-------|-------|
| (a) 2 | (b) 3 | (c) 4 | (d) 5 |
|-------|-------|-------|-------|

231. The most primitive chordates and are ectoparasite on fishes belongs to the class

- |                    |              |                  |                  |
|--------------------|--------------|------------------|------------------|
| (a) Chondrichthyes | (b) Amphibia | (c) Cyclostomata | (d) Osteichthyes |
|--------------------|--------------|------------------|------------------|

232. Select the incorrect matching: [A: Phylum, B: Segmentation, C: Circulatory system, D: Distinctive features] [A: Absent, P: Present]

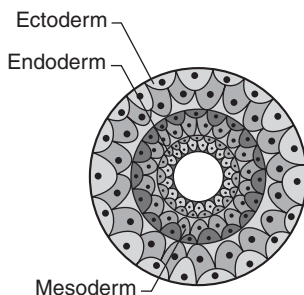
- |                   | A | B | C | D                            |
|-------------------|---|---|---|------------------------------|
| (a) Ctenophore    | A | A |   | Comb plates for locomotion   |
| (b) Aschelminthes | A | P |   | Often worm shaped, elongated |
| (c) Annelid       | P | P |   | Body segmentation like rings |
| (d) Arthropoda    | P | P |   | Jointed appendages           |

233. The below figure shows which type of symmetry

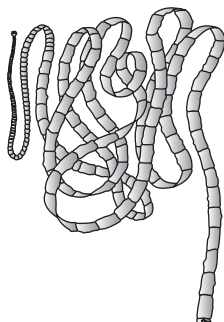


- |               |            |              |               |
|---------------|------------|--------------|---------------|
| (a) Bilateral | (b) Radial | (c) Biradial | (d) Asymmetry |
|---------------|------------|--------------|---------------|

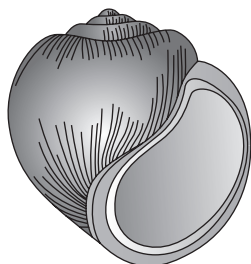
234. The below diagram shows \_\_\_\_ symmetry, which is also found in the following group of organism



- (a) Adamsia, Asterias, Aplysia  
(b) Salpa, Hyla, Calotes  
(c) Taenia, Ctenoplane, Antedon  
(d) Doliolum, Gorgonia, Sycon
235. The excretory organ present in the organism given in figure is



- (a) Rennet cells  
(b) Protonephridia or flame cells  
(c) Malpighian tubules  
(d) Kidney
236. All the features are present in the organism which is shown below in the diagram except

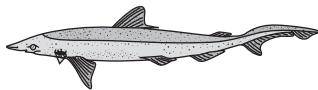


- (a) It belongs to the second largest animal phylum.  
(b) Body is segmented and covered by calcareous shell.  
(c) Triploblastic, coelomate  
(d) Mantle cavity is present

237. Find out the total number of organism given in following figure that belongs to marine habitat:



A



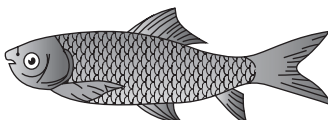
B



C



D



E

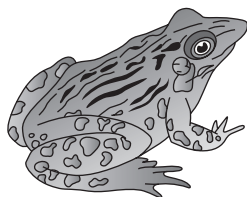
(a) 1

(b) 3

(c) 4

(d) 5

238. Organism given in figure is respire by



(a) Lungs

(b) Skin

(c) Buccopharyngeal cavity

(d) All

### ASSERTION AND REASON QUESTIONS

Read the **assertion** and **reason** carefully to mark the correct option out of the options given below:

- (a) If both the assertion and the reason are true and the reason is a correct explanation of the assertion.
- (b) If both the assertion and reason are true but the reason is not a correct explanation of the assertion.
- (c) If the assertion is true but the reason is false.
- (d) If both the assertion and reason are false.

239. **Assertion:** A closed circulatory system is found in annelids.

**Reason:** Annelids possess true coelom.

240. **Assertion:** Fertilization in sponge is internal.

**Reason:** Sponges are aquatic organisms.

241. **Assertion:** The skeleton of sponges is made up of spicules.

**Reason:** Composition of spicules help in classification of sponges.

- 242. Assertion:** Acraniata is a group of organisms which do not have distinct cranium.  
**Reason:** It includes small marine forms without head.
- 243. Assertion:** Cold blooded animals do not have fat layer.  
**Reason:** Cold blooded animals use their fat for metabolic process during hibernation.
- 244. Assertion:** Cyclostomes are marine but migrate for spawning to fresh water.  
**Reason:** Larvae of cyclostome is metamorphosed in marine water.
- 245. Assertion:** Sponges belong to Porifera.  
**Reason:** Sponges have canal system.
- 246. Assertion:** A shark can stay at a desired level in water without swimming.  
**Reason:** It has a buoyancy-regulating organ called as the swim bladder.
- 247. Assertion:** Birds have one ovary.  
**Reason:** This reduces the body weight for flight.
- 248. Assertion:** Plasmodium vivax is responsible for malaria.  
**Reason:** Malaria is caused by polluted water.
- 249. Assertion:** Birds are warm blooded.  
**Reason:** Birds are able to maintain a constant body temperature.
- 250. Assertion:** Systematics is the branch of biology that deals with classification of living organisms.  
**Reason:** The aim of classification is to group the organisms.
- 251. Assertion:** All birds, except the ones like koel (cuckoo) build nests for retiring and taking rest during night time (day time for nocturnal).  
**Reason:** Koel lays its eggs in the nests of tailor bird.
- 252. Assertion:** Bats and whales are classified as mammals.  
**Reason:** Bats and whales have four-chambered heart.
- 253. Assertion:** Tapeworm, roundworm and pinworm are endoparasites of human intestine.  
**Reason:** Improperly cooked food is the source of all intestinal infections.
- 254. 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.
- 255. Assertion:** Coelenterates are triploblastic.  
**Reason:** Coelenterates contain mesoderm in between ectoderm and endoderm.
- 256. Assertion:** Digestive system of platyhelminthes is incomplete.  
**Reason:** They have single opening to outside of the body, serve as both mouth as well as anus.
- 257. Assertion:** Coelenterates, Ctenophores and adult Echinoderms are said to be radial symmetrical.  
**Reason:** Their body can be divided into two equal halves in any plane passing through central axis of the body.
- 258. Assertion:** Obelia shows metagenesis.  
**Reason:** Obelia is polymorphic organism.

- 259. Assertion:** Metagenesis in Obelia is equivalent to alternation of generation in plant  
**Reason:** Polyp is haploid and medusa phase is diploid in Obelia
- 260. Assertion:** Ascidia belong to sub - phylum urochordata.  
**Reason:** Notochord is present in tail of larva stage.
- 261. Assertion:** Fertilisation in bony fishes is usually external.  
**Reason:** In males in bony fishes pelvic fins bear claspers.
- 262. Assertion:** Birds have pneumatic bones.  
**Reason:** This reduce weight for flight
- 263. Assertion:** Snake shed their scale as skin cast.  
**Reason:** It allow continue growth of snake.
- 264. Assertion:** All vertebrates are chordates.  
**Reason:** Vertebrates posses notochord during the embryonic period.
- 265. Assertion:** Most sponge's body are said to be asymmetrical.  
**Reason:** Body of most sponge can't be divided into two equal half by any plane pass through the centre of body.
- 266. Assertion:** Aschelminthes are pseudocoelomate.  
**Reason:** Body cavity in these organisms is not lined with mesoderm.
- 267. Assertion:** Porifera to Echinoderms are non-chordates.  
**Reason:** Notochord is not formed during embryonic development in these animals.
- 268. Assertion:** Coelenterates are called cnidarians.  
**Reason:** They possess cnidoblasts on tentacles and the body.
- 269. Assertion:** Bioluminescence is well marked in ctenophores.  
**Reason:** All ctenophores are exclusively marine.
- 270. Assertion:** Annelids shows metameric segmentation.  
**Reason:** Body of annelids divided externally as well as internally.
- 271. Assertion:** Platyhelminthes are known as flat worms.  
**Reason:** Platyhelminthes have laterally compressed body.
- 272. Assertion:** In amphibian skin is generally moist.  
**Reason:** They shows cutaneous respiration.
- 273. Assertion:** All mammals are viviparous.  
**Reason:** All mammals show external fertilisation.

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### PREVIOUS YEAR QUESTIONS

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1. The crocodile and penguin are similar to whale and dogfish in which one of the following features?
- [AIPMT MAINS 2010]
- (a) It possess a solid single stranded central nervous system.
  - (b) Lay eggs and guard them till they hatch.
  - (c) Possess bony skeleton.
  - (d) Have gill slits at some stage.

2. One example of animals having a single opening to the outside that serves both as mouth as well as anus is

[AIPMT PRE 2010]

- (a) Octopus                      (b) Asterias                      (c) Ascidia                      (d) Fasciola

3. Which one of the following statements about all the four of Spongilla, leech, dolphin and penguin is correct?

[AIPMT PRE 2010]

- (a) Penguin is homoiothermic while the remaining three are poikilothermic.  
(b) Leech is a fresh water form while all others are marine.  
(c) Spongilla has special collared cells called choanocytes, not found in the remaining three.  
(d) All are bilaterally symmetrical.

4. Which one of the following kinds of animals are triploblastic?

[AIPMT PRE 2010]

- (a) Flat worms                      (b) Sponges                      (c) Ctenophores                      (d) Corals

5. Which one of the following statements about certain given animals is correct?

[AIPMT PRE 2010]

- (a) Round worms (Aschelminthes) are pseudocoelomates  
(b) Molluscs are acoelomates  
(c) Insects are pseudocoelomates  
(d) Flat worms (Platyhelminthes) are coelomates

6. Which one of the following statements is totally wrong about the occurrence of notochord, while the other three are correct?

[AIPMT MAINS 2011]

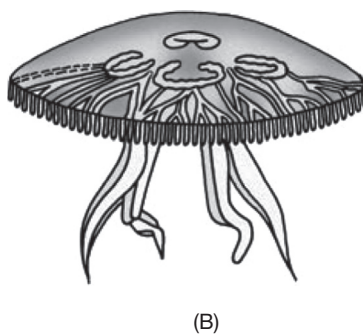
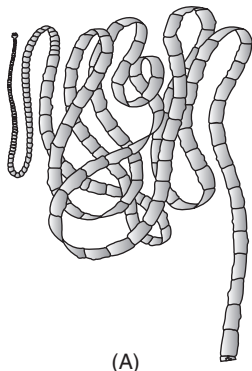
- (a) It is present only in larval tail in ascidian.  
(b) It is replaced by a vertebral column in adult frog.  
(c) It is absent throughout life in humans from the very beginning.  
(d) It is present throughout life in Amphioxus.

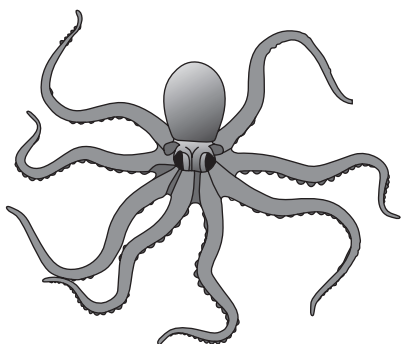
7. Frogs differ from humans in possessing

[AIPMT MAINS 2011]

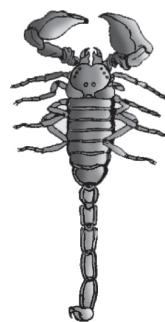
- (a) Paired cerebral hemispheres                      (b) Hepatic portal system  
(c) Nucleated red blood cells                      (d) Thyroid as well as parathyroid

8. The figures (A-D) show four animals. Select the correct option with respect to a common characteristic of two of these animals.





(C)



(D)

[AIPMT MAINS 2011]

- (a) A and D respire mainly through body wall
- (b) B and C show radial symmetry
- (c) A and B have cnidoblasts for self-defence
- (d) C and D have a true coelom

9. Which one of the following have the highest number of species in nature?

[AIPMT PRE 2011]

- (a) Insects
- (b) Birds
- (c) Angiosperms
- (d) Fungi

10. What will you look for to identify the sex of the following?

[AIPMT PRE 2011]

- (a) Male frog – A copulatory pad on the first digit of the hind limb
- (b) Female cockroach – Anal cerci
- (c) Male shark – Claspers borne on pelvic fin
- (d) Female ascaris – Sharply curved posterior end

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

[AIPMT PRE 2011]

Genus	Two characters	Class/phylum
(a) Salamander	(1) A tympanum represents ear (2) Fertilization is external	Amphibian
(b) Pteropus	(1) Skin possesses hair (2) Oviparous	Mammalian
(c) Aurelia	(1) Cnidoblast (2) Organ level of organization	Coelenterate
(d) Ascaris	(1) Body segmented (2) Males and females distinct	Annelid

12. Which one of the following animals is correctly matched with its particular named taxonomic category?

[AIPMT PRE 2011]

- (a) Cuttlefish – Mollusca, a class  
(b) Humans – Primata, the family  
(c) Housefly – Musca, an order  
(d) Tiger – tigris, the species
13. Which one of the following groups of animals is correctly matched with its one characteristic feature without even a single exception?  
[AIPMT PRE 2011]
- (a) Chordate – Possess a mouth provided with an upper and a lower jaw  
(b) Chondrichthyes – Possess cartilaginous endoskeleton  
(c) Mammalian – Give birth to young ones  
(d) Reptilian – Possess 3 chambered heart with one incompletely divided ventricle
14. Which one of the following categories of animals is correctly described with no single exception in it?  
[AIPMT MAINS 2012]
- (a) All bony fishes have four pairs of gills and an operculum on each side.  
(b) All sponges are marine and have collared cells.  
(c) All mammals are viviparous and possess diaphragm for breathing.  
(d) All reptiles possess scales, have a three chambered heart and are cold blooded (poikilothermal).
15. Which one of the following pairs of animals are similar to each other pertaining to the feature stated against them?  
[AIPMT MAINS 2012]
- (a) Garden lizard and crocodile – Three chambered heart  
(b) Ascaris and ancylostoma – Metameric segmentation  
(c) Sea horse and flying fish – Cold blooded (poikilothermal)  
(d) Pteropus and ornithorhynchus – Viviparity
16. In which one of the following, the genus name, its two characters and its phylum are not correctly matched, whereas the remaining three are correct?  
[AIPMT PRE 2012]

Genus name	Two characters	Phylum
(a) Pila	(1) Body is segmented (2) Mouth with radula	Mollusca
(b) Asterias	(1) Spiny skinned (2) Water vascular system	Echinodermata
(c) Sycon	(1) Pore bearing (2) Canal system	Porifera
(d) Periplaneta	(1) Jointed appendages (2) Chitinous exoskeleton	Arthropoda

17. Match the name of the animal (column I), with one characteristics (column II), and the phylum/class (column III) to which it belongs:

[AIPMT 2013]

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

18. Which of the following are correctly matched with respect to their taxonomic classification?

[AIPMT 2013]

- (a) Flying fish, cattle fish, silverfish, Pisces
- (b) Centipede, millipede, spider, scorpion Insecta
- (c) House fly, butterfly, tsetse fly, silverfish Insecta
- (d) Spiny anteater, sea urchin, sea cucumber echinodermata

19. Which group of animals belong to the same phylum?

[AIPMT 2013]

- (a) Malarial parasite, Amoeba, Mosquito
- (b) Earthworm, Pinworm, Tapeworm
- (c) Prawn, Scorpion, Locusta
- (d) Sponge, Sea anemone, Starfish

20. One of the representatives of Phylum Arthropoda is

[AIPMT 2013]

- (a) Cuttlefish
- (b) Silverfish
- (c) Pufferfish
- (d) Flying fish

21. Select the Taxon mentioned that represent both marine and fresh water species:

[AIPMT 2014]

- (a) Echinoderms
- (b) Ctenophora
- (c) Cephalochordata
- (d) Cnidaria

22. Which one of the following living organisms completely lack a cell wall?

[AIPMT 2014]

- (a) Cyanobacteria
- (b) Sea fan (Gorgonia)
- (c) Saccharomyces
- (d) Blue-green algae

23. Planaria possesses high capacity of

[AIPMT 2014]

- (a) Metamorphosis
- (b) Regeneration
- (c) Alternation of generation
- (d) Bioluminescence

24. A marine cartilaginous fish that can produce electric current is

[AIPMT 2014]

- (a) Pristis
- (b) Torpedo
- (c) Trygon
- (d) Scoliodon

25. Which of the following represents the correct combination without any exception? [AIPMT 2015]

Characteristics	Class
(a) Mammary gland, hair on body pinnate two pairs of limbs.	Mammalian
(b) Mouth ventral, gills without operculum skin with placoid scales; persistent notochord.	Chondrichthyes
(c) Sucking and circular mouth laws absent integument without scales; paired appendages.	Cyclostomata
(d) Body covered with feathers, skin most and glandular, fore limbs than wings; lungs with air sacs.	Aves

26. Which of the following animals is not viviparous? [AIPMT 2015]  
 (a) Flying fox (Bat) (b) Elephant (c) Platypus (d) Whale

27. Metagenesis refers to [RE-AIPMT 2015]

- (a) Alternation of generation between asexual and sexual phases of an organism.
- (b) Occurrence of a drastic change in form during post-embryonic development.
- (c) Presence of a segmented body and parthenogenetic mode of reproduction.
- (d) Presence of different morphic forms.

28. A jawless fish, which lays eggs in fresh water and whose ammocoetes larvae after metamorphosis return to the ocean is [RE-AIPMT 2015]

- (a) Myxine (b) Neomyxine
- (c) Petromyzon (d) Eptatretus

29. Body having meshwork of cells, internal cavities lined with food filtering flagellated cells and indirect developments are the characteristics of phylum [RE-AIPMT 2015]

- (a) Porifera (b) Mollusca
- (c) Protozoa (d) Coelenterata

30. Which of the following features is not present in the Phylum – Arthropoda? [NEET - I, 2016]

- (a) Chitinous exoskeleton (b) Metameric segmentation
- (c) Parapodia (d) Jointed appendages

31. Which of the following characteristic features always holds true for the corresponding group of animals? [NEET - I, 2016]

- (a) Cartilaginous endoskeleton – Chondrichthyes
- (b) Viviparous – Mammalia
- (c) Possess a mouth with an upper and a lower jaw – Chordata
- (d) 3-chambered heart with one incompletely divided ventricle. – Reptilia

32. Which one of the following characteristics is not shared by birds and mammals? [NEET - I, 2016]

- (a) Ossified endoskeleton
- (b) Breathing using lungs
- (c) Viviparity
- (d) Warm blooded nature

33. Choose the correct statement

[NEET - II, 2016]

- (a) All cyclostomes do not possess jaws and paired fins
- (b) All reptiles have a three-chambered heart.
- (c) All pisces have gills covered by an operculum
- (d) All mammals are viviparous

### NCERT EXEMPLAR QUESTIONS

1. In some animal groups, the body is found divided into compartments with at least some organs/organ repeated. This characteristic feature is named as
  - (a) Segmentation
  - (b) Metamerism
  - (c) Metagenesis
  - (d) Metamorphosis
2. Given below are types of cells present in some animals. Each one is specialized to perform a single function except
  - (a) Choanocytes
  - (b) Interstitial cells
  - (c) Gastrodermal cells
  - (d) Nematocytes
3. Which one of the following sets of animals share a four chambered heart?
  - (a) Amphibians, Reptiles, Birds
  - (b) Crocodiles, Birds, Mammals
  - (c) Crocodiles, Lizards, Turtles
  - (d) Lizards, Mammals, Birds
4. Which of the following pairs of animals has non-glandular skin?
  - (a) Snake and Frog
  - (b) Chameleon and Turtle
  - (c) Frog and Pigeon
  - (d) Crocodile and Tiger
5. Birds and mammals share one of the following characteristics as a common feature
  - (a) Pigmented skin
  - (b) Alimentary canal with some modification
  - (c) Viviparity
  - (d) Warm blooded nature
6. Which one of the following sets of animals belongs to a single taxonomic group?
  - (a) Cuttlefish, Jellyfish, Silverfish, Dogfish, Starfish
  - (b) Bat, Pigeon, Butterfly
  - (c) Monkey, Chimpanzee, Man
  - (d) Silkworm, Tapeworm, Earthworm
7. Which one of the following statements is incorrect?
  - (a) Mesoglea is present in between ectoderm and endoderm in Obelia.
  - (b) Radial symmetry is found in Asterias.
  - (c) Fasciola is a pseudocoelomate animal.
  - (d) Taenia is a triploblastic animal.
8. Which of the following statements is incorrect?
  - (a) In cockroaches and prawns, the excretion of waste material occurs through malpighian tubules.
  - (b) In ctenophores, locomotion is mediated by comb plates.
  - (c) In Fasciola, flame cells take part in excretion.
  - (d) Earthworms are hermaphrodite and yet cross fertilization takes place among them.

9. Which one of the following is oviparous?

- |              |                      |
|--------------|----------------------|
| (a) Platypus | (b) Flying fox (Bat) |
| (c) Elephant | (d) Whale            |

10. Which one of the following is not a poisonous snake?

- |            |           |
|------------|-----------|
| (a) Cobra  | (b) Viper |
| (c) Python | (d) Krait |

11. Match the following list of animals with their level of organization.

Division of Labour	Animal
a. Organ level	i. Pheritima
b. Cellular aggregate level	ii. Fasciola
c. Tissue level	iii. Spongilla
d. Organ system level	iv. Obelia

Choose the correct match showing the division of labour with animal example.

- (a) (i)–(b), (ii)–(c), (iii)–(d) and (iv)–(a)  
(b) (i)–(b), (ii)–(d), (iii)–(c) and (iv)–(a)  
(c) (i)–(d), (ii)–(a), (iii)–(b) and (iv)–(c)  
(d) (i)–(a), (ii)–(d), (iii)–(c) and (iv)–(b)

12. Body cavity is the cavity present between body wall and gut wall. In some animals the body cavity is not lined by mesoderm. Such animals are called

- |                |                     |
|----------------|---------------------|
| (a) Acoelomate | (b) Pseudocoelomate |
| (c) Coelomate  | (d) Haemocoelomate  |

13. Match the column A with column B and choose the correct option.

Column A	Column B
a. Porifera	i. Canal system
b. Aschelminthes	ii. Water–vascular system
c. Annelida	iii. Muscular Pharynx
d. Arthropoda	iv. Jointed appendages
e. Echinodermata	v. Metameres

- (a) (a)–(ii), (b)–(iii), (c)–(v), (d)–(iv), (e)–(i)  
(b) (a)–(ii), (b)–(v), (c)–(iii), (d)–(iv), (e)–(i)  
(c) (a)–(i), (b)–(iii), (c)–(v), (d)–(iv), (e)–(ii)  
(d) (a)–(i), (b)–(v), (c)–(iii), (d)–(iv), (e)–(ii)

### Answer Keys

#### Practice Questions

1. (d)	2. (d)	3. (c)	4. (d)	5. (d)	6. (c)	7. (d)	8. (d)	9. (d)	10. (a)
11. (d)	12. (d)	13. (a)	14. (b)	15. (d)	16. (b)	17. (c)	18. (a)	19. (b)	20. (d)
21. (d)	22. (d)	23. (b)	24. (b)	25. (b)	26. (c)	27. (d)	28. (c)	29. (a)	30. (a)
31. (d)	32. (b)	33. (c)	34. (a)	35. (a)	36. (b)	37. (b)	38. (b)	39. (c)	40. (d)
41. (d)	42. (a)	43. (d)	44. (a)	45. (d)	46. (b)	47. (b)	48. (d)	49. (c)	50. (d)
51. (c)	52. (c)	53. (d)	54. (d)	55. (b)	56. (a)	57. (c)	58. (c)	59. (c)	60. (b)
61. (b)	62. (a)	63. (c)	64. (b)	65. (c)	66. (c)	67. (c)	68. (d)	69. (c)	70. (a)
71. (d)	72. (d)	73. (a)	74. (d)	75. (b)	76. (b)	77. (a)	78. (d)	79. (d)	80. (d)
81. (c)	82. (d)	83. (b)	84. (c)	85. (b)	86. (b)	87. (d)	88. (d)	89. (c)	90. (d)
91. (c)	92. (b)	93. (a)	94. (d)	95. (c)	96. (c)	97. (b)	98. (c)	99. (c)	100. (d)
101. (c)	102. (c)	103. (d)	104. (d)	105. (c)	106. (c)	107. (d)	108. (d)	109. (a)	110. (b)
111. (d)	112. (d)	113. (c)	114. (b)	115. (c)	116. (d)	117. (c)	118. (a)	119. (d)	120. (c)
121. (d)	122. (d)	123. (b)	124. (d)	125. (a)	126. (c)	127. (c)	128. (c)	129. (c)	130. (d)
131. (c)	132. (c)	133. (d)	134. (d)	135. (d)	136. (c)	137. (d)	138. (d)	139. (b)	140. (c)
141. (d)	142. (a)	143. (d)	144. (d)	145. (c)	146. (a)	147. (b)	148. (c)	149. (d)	150. (d)
151. (d)	152. (c)	153. (c)	154. (d)	155. (c)	156. (b)	157. (c)	158. (a)	159. (c)	160. (d)
161. (d)	162. (d)	163. (d)	164. (d)	165. (c)	166. (d)	167. (a)	168. (b)	169. (a)	170. (b)
171. (a)	172. (d)	173. (b)	174. (d)	175. (b)	176. (c)	177. (b)	178. (c)	179. (c)	180. (d)
181. (b)	182. (b)	183. (c)	184. (a)	185. (d)	186. (d)	187. (c)	188. (d)	189. (d)	190. (c)
191. (d)	192. (b)	193. (d)	194. (a)	195. (d)	196. (a)	197. (c)	198. (d)	199. (b)	200. (c)
201. (b)	202. (d)	203. (d)	204. (d)	205. (c)	206. (d)	207. (d)	208. (d)	209. (d)	210. (b)
211. (d)	212. (d)	213. (b)	214. (c)	215. (a)	216. (d)	217. (d)	218. (d)	219. (c)	220. (c)
221. (d)	222. (a)	223. (d)	224. (d)	225. (d)	226. (b)	227. (d)	228. (c)	229. (d)	230. (d)
231. (c)	232. (b)	233. (b)	234. (b)	235. (b)	236. (b)	237. (c)	238. (d)		

#### Assertion and Reason Questions

239. (b)	240. (b)	241. (b)	242. (b)	243. (b)	244. (c)	245. (b)	246. (d)	247. (a)	248. (c)
249. (a)	250. (b)	251. (b)	252. (b)	253. (b)	254. (a)	255. (d)	256. (a)	257. (a)	258. (a)
259. (d)	260. (a)	261. (d)	262. (a)	263. (a)	264. (a)	265. (a)	266. (a)	267. (a)	268. (a)
269. (b)	270. (a)	271. (c)	272. (a)	273. (d)					

#### Previous Year Questions

1. (d)	2. (d)	3. (c)	4. (a)	5. (a)	6. (c)	7. (c)	8. (d)	9. (a)	10. (c)
11. (a)	12. (d)	13. (b)	14. (a)	15. (c)	16. (a)	17. (a)	18. (c)	19. (c)	20. (b)
21. (d)	22. (b)	23. (b)	24. (b)	25. (b)	26. (c)	27. (a)	28. (c)	29. (a)	30. (c)
31. (a)	32. (c)	33. (a)							

#### NCERT Exemplar Questions

1. (b)	2. (b)	3. (b)	4. (b)	5. (d)	6. (c)	7. (c)	8. (a)	9. (a)	10. (c)
11. (c)	12. (b)	13. (c)							