Animal Kingdom

Question1

Match List-I with List-II.

	List-I		List-II
A.	Chondrichthyes	I	Clarias
B.	Cyclostomata	II	Carcharodon
C.	Osteichthyes	III	Myxine
D.	Amphibia	IV	Ichthyophis

Choose the correct answer from the options given below:

[NEET 2024 Re]

Options:

A.

A-II, B-IV, C-I, D-III

B.

A-I, B-III C-II, D-IV

C.

A-II, B-III, C-I, D-IV

D.

A-I, B-II, C-III, D-IV

Answer: C

Solution:

The correct answer is option (3), because

• Carcharodon is a cartilaginous fish which belongs to the class Chondrichthyes.
• Myxine is a jawless vertebrate that belongs to the class Cyclostomata.
• Clarias is a bony fish which belongs to the class Osteichthyes.
• Ichthyophis is a limbless animal which belongs to the class Amphibia.

Hence the correct matches are
A. Chondrichthyes - Carcharodon
B. Cyclostomata - Myxine
C. Osteichthyes - Clarias
D. Amphibia - Ichthyophis

Question2

Open Circulatory system is present in:

[NEET 2024 Re]

Options:

A.

Palaemon, Nereis, Balanoglossus

B.

Hirudinaria, Bombyx, Salpa

C.

Anopheles, Limax, Limulus

D.

Pheretima, Musca, Pila

Answer: C

Solution:

The correct answer is option (3) as Anopheles (Arthropods), Limax (Mollusc) and Limulus (Arthropods) have an open circulatory system.

Option (1) is incorrect as Nereis (Annelid) has a closed circulatory system.

Option (2) is incorrect as Hirudinaria (Annelid) has a closed circulatory system.

Option (4) is incorrect as Pheretima (Annelid) has a closed circulatory system.

Arthropods (Palaemon, Bombyx, Musca) have an open circulatory system.

Hemichordates (Balanoglossus) have an open circulatory system.

Question3

Given below are two statements: One is labelled as Assertion A and the other is labelled as Reason R.

Assertion A: Members of subphylum vertebrata possess notochord during the embryonic period. The notochord is replaced by a cartilaginous or bony vertebral column in the adult.
Reason R: Thus all chordates are vertebrates not all vertebrates are chordates.

In the light of the above statements choose the correct answer from the option given below.

[NEET 2024 Re]

Options:

A.

A is true but R is false.

B.

A is false but R is true

C.

Both A and R are true and R is the correct explanation of A.

D.

Both A and R are true but R is NOT the correct explanation of A.

Answer: A

Solution:

The correct answer is option (1) as Phylum Chordata is divided into three subphyla: Urochrodata, Cephalochordata and Vertebrata. The members of subphylum Vertebrata possess notochord during the embryonic period. The notochord is replaced by a cartilaginous or bony vertebral column in the adult. Thus, all vertebrates are chordates but all chordates are not vertebrates.

Question4

Match List I with List II :

	List-I		List-II
A.	Pleurobrachia	I.	Mollusca
B.	Radula	II.	Ctenophora
C.	Stomochord	III.	Osteichthyes
D.	Air bladder	IV.	Hemichordata

Choose the correct answer from the options given below :

[NEET 2024]

Options:

A.

A-IV, B-II, C-III, D-I

B.

A-II, B-I, C-IV, D-III

C.

A-II, B-IV, C-I, D-III

D.

A-IV, B-III, C-II, D-I

Answer: B

Solution:

The correct answer is option (2) as
A. Pleurobrachia – is a member of phylum Ctenophora.
B. Radula – is a rasping feeding organ present in phylum Mollusca.
C.Stomochord – Rudimentary structure similar to notochord found in the collar region of members of phylum Hemichordata.
D.Air bladder – is found in Osteichthyes which provides them buoyancy

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Question5

Consider the following statements :
A. Annelids are true coelomates
B. Poriferans are pseudocoelomates
C. Aschelminthes are acoelomates
D. Platyhelminthes are pseudocoelomates

Choose the correct answer from the options given below :

[NEET 2024]

Options:

A.

B only

B.

A only

C.

C only

D.

D only

Answer: B

Solution:

The correct answer is option no. (2), because annelids are true coelomate animals. Options (1), (3) and (4) are incorrect because poriferans are acoelomates, aschelminths are pseudocoelomates and platyhelminthes are acoelomates.

Question6

Match List I with List II :

	List-I		List-II

A.	Pterophyllum	I.	Hag fish
B.	Myxine	II.	Saw fish
C.	Pristis	III.	Angel fish
D.	Exocoetus	IV.	Flying fish

Choose the correct answer from the options given below :

[NEET 2024]

Options:

A.

A-II, B-I, C-IIII, D-IV

B.

A-III, B-I, C-II, D-IV

C.

A-IV, B-I, C-II, D-III

D.

A-III, B-II, C-I, D-IV

Answer: B

Solution:

The correct option is option no. (2) as

Pterophyllum is the scientific name for Angel fish.

Myxine is the scientific name for Hag fish.

Pristis is the scientific name for Saw fish.

Exocoetus is the scientific name for Flying fish.

Question7

The following are the statements about non-chordates:
A. Pharynx is perforated by gill slits.
B. Notochord is absent.
C. Central nervous system is dorsal.
D. Heart is dorsal if present.
E. Post anal tail is absent.

Choose the most appropriate answer from the options given below:

[NEET 2024]

Options:

A.

A & C only

B.

A, B & D only

C.

B, D & E only

D.

B, C & D only

Answer: C

Solution:

The correct answer is option no. (3) as the features of non-chordates among the given statements are:
B. Notochord is absent.
D. Heart is dorsal if present.
E. Post anal tail is absent.

Statements A and C are features of chordates.

Hence, option (3) is correct and options (1), (2) and (4) are incorrect.

Question8

Radial symmetry is NOT found in adults of phylum _____.

[NEET 2023]

Options:

A.

Hemichordata

B.

Coelenterata

C.

Echinodermata

D.

Ctenophora

Answer: A

Solution:

Solution:

Option (1) is the correct answer because hemichrodates are bilaterally symmetrical animals.
Option (2) is not the answer because coelenterates are radially symmetrical organisms.
.Option (3) is not the answer because adult echinoderms are radially symmetrical in adult stag

Option (4) is not the answer because ctenophores are radially symmetrical organisms.

Question9

The unique mammalian characteristics are:

[NEET 2023]

Options:

A.

hairs, pinna and mammary glands

B.

hairs, pinna and indirect development

C.

pinna, monocondylic skull and mammary glands

D.

hairs, tympanic membrane and mammary glands

Answer: A

Solution:

Solution:

Option (1) is correct answer because presence of hairs, pinna and mammary glands are unique features of mammals. Options (2), (3) and (4) are not correct because, monocondylic skull is present in reptiles and aves whereas mammals have dicondylic skull. Tympanic membrane is present in amphibians also, so it is not considered as unique feature. Indirect development is not seen in mammals.

Question10

Select the correct statements with reference to chordates.
A. Presence of a mid-dorsal, solid and double nerve cord.
B. Presence of closed circulatory system.
C. Presence of paired pharyngeal gill slits.
D. Presence of dorsal heart
E. Triploblastic pseudocoelomate animals.
Choose the correct answer from the options given below:

[NEET 2023]

Options:

A.

B and C only

B.

B, D and E only

C.

C,D and E only

D.

A, C and D only

Answer: A

Solution:

Solution:

Option (1) is the correct answer because statements B and C only are correct. Option (2), (3) and (4) are not correct. The chordate characters are presence of closed circulatory system and presence of pharyngeal gill slits. Nerve cord is dorsal, hollow and single. Heart is ventral. They are triploblastic and coelomate.

Question11

	List - I		List - II
(A)	Contractile vacuole	(I)	Asterias
(B)	Water vascular system	(II)	Amoeba
(C)	Canal system	(III)	Spongilla
(D)	Flame cells	(IV)	Taenia

Choose the correct answer from the options given below :

[NEET 2023 mpr]

Options:

A.

(A)-(IV), (B)-(II), (C)-(I), (D)-(III)

B.

(A)-(I), (B)-(III), (C)-(II), (D)-(IV)

C.

(A)-(III), (B)-(II), (C)-(I), (D)-(IV)

D.

(A)-(II), (B)-(I), (C)-(III), (D)-(IV)

Answer: D

Solution:

Solution:

(A) Contractile vacuoles are found in single-celled organisms like Amoeba (II). They help in osmoregulation by expelling excess water out of the cell.
(B) A water vascular system is a unique characteristic of echinoderms such as Asterias (I), a genus of starfish. This system is involved in locomotion, feeding, respiration, and excretion.

(C) The canal system is characteristic of sponges such as Spongilla (III). It aids in the circulation of water for feeding, respiration, and excretion.
(D) Flame cells are part of the excretory system in platyhelminthes like Taenia (IV), commonly known as tapeworm. These cells function in osmoregulation and excretion.

Question12

Select the correct statements :
(A) Platyhelminthes are triploblastic pseudocoelomate and bilaterally symmetrical organisms.
(B) Ctenophores reproduce only sexually and fertilization is external.
(C) In tapeworm, fertilization is internal but sexes are not separate.
(D) Ctenophores are exclusively marine, diploblastic and bioluminescent organisms.
(E) In sponges, fertilization is external and development is direct.
Choose the correct answer from the options given below :

[NEET 2023 mpr]

Options:

A.

(A), (C) and (D) only

B.

(B), (C) and (D) only

C.

(A) and (E) only

D.

(B) and (D) only

Answer: B

Solution:

Solution:

Option (B) is answer as it includes the correct statement i.e. (B), (C) and (D) options.
Option (C) is incorrect as platyhelminths are coelomate invertebrates and sponges show internal fertilization, thus statements (A) and (E) are incorrect.
Option (A) is incorrect as it includes statements (A).
Option (D) is incorrect as it includes only (B) and (D) statements whereas statements (C) is also correct i.e. tapeworm is a flatworm and is hermaphrodite.

Question13

Radial symmetry is NOT found in adults of phylum _____.

[NEET 2023]

Options:

A.

Hemichordata

B.

Coelenterata

C.

Echinodermata

D.

Ctenophora

Answer: A

Solution:

Option (1) is the correct answer because hemichrodates are bilaterally symmetrical animals.
Option (2) is not the answer because coelenterates are radially symmetrical organisms.
.Option (3) is not the answer because adult echinoderms are radially symmetrical in adult stag
Option (4) is not the answer because ctenophores are radially symmetrical organisms.

Question14

Which of the following animals has three chambered heart? [NEET Re-2022]

Options:

A. Pteropus

B. Scoliodon

C. Hippocampus

D. Chelone

Answer: D

Solution:

Solution:

- Pteropus (Flying fox) belongs to Class Mammalia having four chambered heart.
- Scolidon (Dog fish) belongs to Superclass Pisces having two chambered heart.
- Hippocampus (Sea horse) belongs to Superclass Pisces having two chambered heart
- Chelone (Turtle) belongs to Class Reptilia having three chambered heart.

Question15

Select the incorrect statements with respect to Cyclostomes .
(a) They lack scales and paired fins.
(b) They have circular mouth with jaws.
(c) They bear 6-15 pairs of gills.
(d) They migrate to deep sea for spawning.
Choose the most appropriate answer from the options given below : [NEET Re-2022]

Options:

A. (a) and (d) only

B. (a) and (b) only

C. (b) and (c) only

D. (b) and (d) only

Answer: D

Solution:

Solution:

(a) Correct

(b) False (as the jaws are absent)

(c) Correct

(d) False (as they migrate to fresh water or shallow water for spawning)

Question16

Exoskeleton of arthropods is composed of : [NEET-2022]

Options:

A. Cutin

B. Cellulose

C. Chitin

D. Glucosamine

Answer: C

Solution:

Option (3) is the correct answer as chitin forms the exoskeleton in arthropods and is found in fungal cell wall. N-acetyl glucosamine is the monomeric unit. Cellulose is a polysaccharide. Cutin is a derived lipid.

Question17

In which of the following animals, digestive tract has additional chambers like crop and gizzard?
[NEET-2022]

Options:

A. Corvus ,Columba ,Chameleon

B. Bufo, Balaenoptera, Bangarus

C. Catla ,Columba ,Crocodilus

D. Pavo, Psittacula, Corvus

Answer: D

Solution:

Solution:

Option (4) is the correct answer because two additional chambers like crop and gizzard in alimentary canal are present in birds.

Pavo (Peacock), Psittacula (Parrot), Corvus (Crow) and Columba (Pigeon) are birds.

Option (1), (2) and (3) are incorrect because Catla is a bony fish, Crocodilus, Chameleon and Bangarus are reptiles, Bufo is an amphibian and Balaenoptera is an aquatic mammal.

Question18

Given below are two statements : one is labelled as Assertion (A) and the other is labelled as Reason (R).
Assertion (A) : All vertebrates are chordates but all chordates are not vertebrates.
Reason (R) : Notochord is replaced by vertebral column in the adult vertebrates.
In the light of the above statements, choose the most appropriate answer from the option given below :
[NEET-2022]

Options:

A. BothA) and (R) are correct and (R) is the correct explanation of (A)

B. Both (A) and (R) are correct but (R) is not the correct explanation of (A)

C. (A) is correct but (R) is not correct

D. (A) is not correct but (R)is correct

Answer: A

Solution:

Solution:

Option (1) is the correct answer because all chordates are divided into three subphyla – Urochordata, Cephalochordata and Vertebrata. In subphylum Vertebrata, notochord is replaced by bony or cartilaginous vertebral column in adults. Therefore, all vertebrates are chordates but all chordates are not vertebrates.

Question19

Tegmina in cockroach, arises from [NEET-2022]

Options:

A. Prothorax

B. Mesothorax

C. Metathorax

D. Prothorax and Mesothorax

Answer: B

Solution:

Solution:

Option (2) is the correct answer because tegmina or forewings (the first pair of wings) in cockroach arises from mesothorax.

Options (1), (3) and (4) are incorrect because no wing arises from prothorax and hindwings arise from metathorax.

Question20

Which one of the following belongs to the family Muscidae? [NEET 2021]

Options:

A. Fire fly

B. Grasshopper

C. Cockroach

D. House fly

Answer: D

Solution:

• Option (4) is correct because housefly belongs to the family Muscidae, class Insecta and phylum Arthropoda.
• Fire flies are placed in family Lampyridae of class insecta.
• Grasshopper is also an insect placed in family Acrididae.
• Cockroach is also an insect placed in family Blattidae.

Question21

Read the following statements
(a) Metagenesis is observed in Helminths.
(b) Echinoderms are triploblastic and coelomate animals.
(c) Round worms have organ-system level of body organization.
(d) Comb plates present in ctenophores help in digestion.
(e) Water vascular system is characteristic of Echinoderms.
Choose the correct answer from the options given below.
[NEET 2021]

Options:

A. (c), (d) and (e) are correct

B. (a), (b) and (c) are correct

C. (a), (d) and (e) are correct

D. (b), (c) and (e) are correct

Answer: D

Solution:

● Metagenesis (alternation of generation) is observed in members of phylum Coelenterata (Cnidaria).
● Echinoderms are triploblastic and coelomate animals as true coelom is observed in them.
● Roundworms (Aschelminths) have organ system level of organization.
● Comb plates present in ctenophores help in locomotion.
● Water vascular system is seen in echinoderms, which helps in locomotion, capture and transport of food and respiration.

Question22

Match List - I with List - II

	Column-I		Column-II
(a)	Metamerism	(i)	Coelenterala
(b)	Canal system	(ii)	Ctenophora
(c)	Comb plates	(iii)	Annelida
(d)	Cnidoblasts	(iv)	Porifera

Choose the correct answer from the options given below. [NEET 2021]

Options:

A. (a)-(iv) (b)-(iii) (c)-(i) (d)-(ii)

B. (a)-(iii) (b)-(iv) (c)-(i) (d)-(ii)

C. (a)-(iii) (b)-(iv) (c)-(ii) (d)-(i)

D. (a)-(iv) (b)-(i) (c)-(ii) (d)-(iii)

Answer: C

Solution:

Metamerism is commonly seen in the members of phylum Annelida where the body is externally and internally divided into segments with a serial repetition of atleast some organs.
Water canal system is present in the members of phylum Porifera.
The body of ctenophores bears 8 external rows of ciliated comb plates which help in locomotion.
Cnidoblasts or cnidocytes are characteristic feature of cnidarians (coelentrata).

Question23

Match the following:

	Column-I		Column-II
(a)	Physalia	(i)	Pearl oyster
(b)	Limulus	(ii)	Portuguese Man ofWar
(c)	Ancylostoma	(iii)	Living fossil
(d)	Pinctada	(iv)	Hookworm

Choose the correct answer from the options given below. [NEET 2021]

Options:

A. (a)-(ii) (b)-(iii) (c)-(i) (d)-(iv)

B. (a)-(iv) (b)-(i) (c)-(iii) (d)-(ii)

C. (a)-(ii) (b)-(iii) (c)-(iv) (d)-(i)

D. (a)-(i) (b)-(iv) (c)-(iii) (d)-(ii)

Answer: C

Solution:

● Option (3) is correct because Physalia is commonly known as Portuguese man of war.
● Limulus is considered as a living fossil and commonly known as king crab.

● Ancylostoma is a roundworm and commonly known as hookworm.
● Pinctada is commonly known known as pearl oyster, included in phylum Mollusca.

Question24

Which one of the following organisms bears hollow and pneumatic long bones?
[NEET 2021]

Options:

A. Neophron

B. Hemidactylus

C. Macropus

D. Ornithorhynchus

Answer: A

Solution:

● Hollow and pneumatic long bones are present in animals that belong to class Aves e.g., Neophron (vulture).
● Ornithorhynchus (Platypus) and Macropus (Kangaroo) belong to class Mammalia.
● Hemidactylus (Wall lizard) is a member of class Reptilia.

Question25

Bilaterally symmetrical and acoelomate animals are exemplified by (NEET 2020)

Options:

A. Platyhelminthes

B. Aschelminthes

C. Annelida

D. Ctenophora

Answer: A

Solution:

Solution:
(a) Platyhelminthes are bilaterally symmetrical, triploblastic and acoelomate animals with organ level of organisation. The body plane of most animals, including humans, exhibit mirror symmetry, also called bilateral symmetry. A body that

is bilaterally symmetrical is easier for the brain to recognize while in different orientations and positions, thus making visual perception easier.

Question26

Match the following columns and select the correct option.

Column-I	Column-II
(a) Gregarious polyphagous pest	(i) Asterias
(b) Adult with radial symmetry and larva with bilateral symmetry	(ii) Scorpion
(c) Book lungs	(iii) Ctenoplana
(d) Bioluminescence	(iv) Locusta

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

(NEET 2020)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

Answer: A

Solution:

Solution:
(a) Locusta is a gregareous pest. In Echinoderms, adults are radially symmetrical but larvae are bilaterally symmetrical. Scorpions respire through book lungs. Bioluminescence is well marked in ctenophores.

Question27

Which of the following statements are true for the phylum-Chordata?
(i) In Urochordata notochord extends from head to tail and it is present throughout their life.
(ii) In Vertebrata notochord is present during the embryonic period only.

(iii) Central nervous system is dorsal and hollow.
(iv) Chordata is divided into 3 subphyla: Hemichordata, Tunicata and Cephalochordata.
[NEET 2020]

Options:

A. (iii) and (i)

B. (i) and (ii)

C. (ii) and (iii)

D. (i) and (iii)

Answer: C

Solution:

Solution:
(c) In vertebrata, notochord is present during embryonic period only as it is replaced by vertebral column. In chordates, central nervous system is dorsal and hollow
The notochord derives during gastrulation (infolding of the blastula, or early embryo) from cells that migrate anteriorly in the midline between the hypoblast and the epiblast (inner and outer layers of the blastula). These cells coalesce immediately beneath the developing central nervous system.

Question28

Match the following columns and select the correct option.

Column-I	Column-II
(a) 6-15 pairs of gill slits	(i) Trygon
(b) Heterocercal caudal fin	(ii) Cyclostomes
(c) Air Bladder	(iii) Chondrichthyes
(d) Poison sting	(iv) Osteichthyes

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

(NEET 2020)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

Answer: D

Solution:

Solution:
Trygon - A fish possessing a poison sting (sting-ray).
Cyclostomes - They have 6-15 pairs of gill slits.
Chondrichthyes - They are cartilaginous fish with heterocercal caudal fins (e.g. sharks).
Osteichthyes - They are bony fish having air or gas bladder that helps in controlling buoyancy.

Question29

If the head of cockroach is removed, it may live for few days because (NEET 2020)

Options:

A. the cockroach does not have nervous system.

B. the head holds a small proportion of a nervous system while the rest is situated along the ventral part of its body.

C. the head holds a 1/3rd of a nervous system while the rest is situated along the dorsal part of its body.

D. the supra-oesophageal ganglia of the cockroach are situated in ventral part of abdomen.

Answer: B

Solution:

Solution:
(b) Cockroaches breathe passively through a network of pipes connected to holes called spiracles along the length of their body. They are independent of blood circulation to move oxygen around and their body fluids are at a much lower pressure. The sensory input from the eyes and antennae, along with many other behaviours, are transmitted and handled by their brain such as running and reacting to touch, handled by ‘mini brains’ called ganglia in each body segment. A decapitated cockroach will eventually starve to death but this can still take few days.

Question30

Which of the following animals are true coelomates with bilateral symmetry ?
[NEET 2019]

Options:

A. Annelids

B. Adult echinoderms

C. Aschelminthes

D. Platyhelminthes

Answer: A

Solution:

Solution:
(a) Annelids exhibit bilateral symmetry with metameric segmentation where external segments correspond to internal segments.
Adult echinoderms are bilaterally symmetrical. Aschelminthes are pseudocoelomates and platyhelminthes are acoelomates.

Question31

Consider following features:
a) Organ system level of organisation
b) Bilateral symmetry
c) True coelomates with segmentation of body
Select the correct option of animal groups which possess all the above characteristics.
[NEET 2019]

Options:

A. Annelida, Arthropoda and Chordata

B. Annelida, Arthropoda and Mollusca

C. Arthropoda, Mollusca and Chordata

D. Annelida, Mollusca and Chordata

Answer: A

Solution:

Solution:
(a) Organ system of organisation, bilateral symmetry and true coelomates with segmented body are found in annelid, arthropoda and chordates.
In mollusc a , the body is unsegmented.

Question32

Match the following genera with their respective phylum :

Column-I	Column-II
(A) Ophiura	(i) Mollusca
(B) Physalia	(ii) Platyhelminthes
(C) Pinctada	(iii) Echinodermata
(D) Planaria	(iv) Coelenterata

Select the correct option (OD NEET 2019)

Options:

A. (A)-(iii), (B)-(iv), (C)-(ii), (D)-(i)

B. (A)-(iv), (B)-(i), (C)-(iii), (D)-(ii)

C. (A)-(iii), (B)-(iv), (C)-(i), (D)-(ii)

D. (A)-(i), (B)-(iii), (C)-(iv), (D)-(ii)

Answer: C

Solution:

(c) Ophiura is an echinoderm commonly known as brittle star.
Physalia is coelenterate (cnidarian) commonly known as portuguese man of war.
Pinctada is pearl oyster belonging to taxon bivalve molluscs.
Planaria belongs to platyhelminthes (flatworms).

Question33

Match the following organisms with their respective characteristics:

(A) Pila	(i) Flame cells
(B) Bombyx	(ii) Comb plates
(C) Pleurobrachia	(iii) Radula
(D) Taenia	(iv) Malpighian tubulesa

Select the correct option from the following:

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

(NEET 2019)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

Answer: B

Solution:

Solution:
(a) Pila is a member of mollusc. The mouth contains a rasping organ for feeding called radula.
(b) Bombyx is an arthropod. In Bombyx excretion takes place through malpighian tubules.
(c) Pleurobrachia is a ctenophore. The body bears eight external rows of ciliated comb plates, which help in locomotion.
(d) Taenia is a platyhelminth. In it specialised cells, called flame cells are present which help in osmoregulation and excretion.

Question34

Which of the following animals does not undergo metamorphosis? (2018)

Options:

A. Earthworm

B. Tunicate

C. Starfish

D. Moth

Answer: A

Solution:

Solution:
(a) Metamorphosis refers to transformation of larva into adult. Animal that perform metamorphosis are said to have indirect development. Metamorphosis includes, in insects, the transformation of a maggot into an adult fly and a caterpillar into a butterfly and, in amphibians, the changing of a tadpole into a frog. In earthworm development is direct which means no larval stage are there and hence no metamorphosis.

Question35

Important characteristic that hemichordates share with chordates is (NEET 2017)

Options:

A. ventral tubular nerve cord

B. pharynx with gill slits

C. pharynx without gill slits

D. absence of notochord.

Answer: B

Solution:

Solution:
(b): An important characteristics that hemichordates and chorddates share is presence of pharyngeal gill slits. Gill slits are dorsal in position in hemichordates whereas they are lateral in chordates. A true unotochord does not occur in hemichordates. Nervous system is distinctly of vertebrate type being intraepidermal in position and having a ventral nerve cord.

Question36

Which among these is the correct combination of aquatic mammals? (NEET 2017)

Options:

A. Dolphins, Seals, Trygon

B. Whales, Dolphins, Seals

C. Trygon, Whales, Seals

D. Seals, Dolphins, Sharks

Answer: B

Solution:

Solution:
(b) : Whales, dolphin and seals are examples of aquatic mammals. Trygon and sharks are cartilaginous fishes.

Question37

Which of the following represents order of 'Horse'? (NEET 2017)

Options:

A. Perissodactyla

B. Caballus

C. Ferus

D. Equidae

Answer: A

Solution:

(a) : Perissodactyla represents the order of horse. Equidae is the family, caballus is the subspecies whereas E. ferus is the species of horse.

Question38

In case of poriferans, the spongocoel is lined with flagellated cells called
(NEET 2017)

Options:

A. oscula

B. choanocytes

C. mesenchymal cells

D. ostia.

Answer: B

Solution:

Solution:
(b) : Spongocoel is the central body cavity of the sponges. It is lined by highly specialised flagellated cells called choanocytes.

Question39

Choose the correct statement.
(NEET-II 2016)

Options:

A. All mammals are viviparous.

B. All cyclostomes do not possess jaws and paired fins.

C. All reptiles have a three-chambered heart.

D. All pisces have gills covered by an operculum.

Answer: B

Solution:

Solution:
(b): Ornithorhynchus and Tachyglossus are oviparous mammals. Crocodile is a reptile which possesses four chambered heart. In cartilaginous fish (except Chimaera) gills are not covered by an operculum.

Question40

Which one of the following characteristics is not shared by birds and mammals?
(NEET-I 2016)

Options:

A. Viviparity

B. Warm blooded nature

C. Ossified endoskeleton

D. Breathing using lungs

Answer: A

Solution:

Solution:
(a) : All birds are oviparous while all mammals except Ornithorhyncus (duck billed platypus) and Echidna or Tachyglossus (spiny anteater) are viviparous.

Question41

Which of the following characteristic features always holds true for the corresponding group of animals?

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

(NEET-I 2016)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

Answer: C

Solution:

Solution:
(c) : Phylum Chordata includes both jawless vertebrates (Agnatha) and jawed vertebrates (Gnathostomata). Crocodile of Class Reptilia has four chambered heart with two auricles and two ventricles. Duck billed platypus and spiny anteater are oviparous mammals.

Question42

Which of the following features is not present in the Phylum Arthropoda?
(NEET-I 2016)

Options:

A. Parapodia

B. Jointed appendages

C. Chitinous exoskeleton

D. Metameric segmentation

Answer: A

Solution:

Solution:
(a) : Parapodia are flattened, fleshy, vertical flaplike outgrowths of body wall found in annelids on lateral sides of trunk segments. These are hollow structures enclosing coelom which is continuous with that of trunk segments. These serve the dual purpose of locomotion and respiration.

Question43

Body having meshwork of cells, internal cavities lined with food filtering flagellated cells and indirect development are the characteristics of Phylum
(NEET 2015)

Options:

A. Mollusca

B. Protozoa

C. Coelenterata

D. Porifera.

Answer: D

Solution:

Solution:
(d) : Phylum Porifera (the sponges) has cellular level of body organisation, with inner cellular layer consisting of highly specialised flagellated cells called choanocytes (or collar cells). The development in this phylum is indirect as it includes a free swimming larva called amphiblastula or parenchymula for dispersal of the species.

Question44

Metagenesis refers to
(NEET 2015)

Options:

A. occurrence of a drastic change in form during post-embryonic development

B. presence of a segmented body and parthenogenetic mode of reproduction

C. presence of different morphic forms

D. alternation of generation between asexual and sexual phases of an organism.

Answer: D

Solution:

Solution:
(d) : An alternation of generation between asexual and sexual phases of an organism is referred to as metagenesis. E.g. in Obelia (a coelenterate), polyps reproduce asexually and medusae reproduce sexually.

Question45

A jawless fish, which lays eggs in fresh water and whose ammocoetes larvae after metamorphosis return to the ocean is
(NEET 2015)

Options:

A. Neomyxine

B. Petromyzon

C. Eptatretus

D. Myxine.

Answer: B

Solution:

Solution:
(b) : Petromyzon (Lamprey) belongs to the ClassCyclostomata of Phylum-Chordata. It is a jawless fish which lays eggs in fresh water. The eggs hatch in about 3 weeks into minute transparent larvae called ammocoetes. After metamorphosis, the young lampreys swim down to the sea where they remain for 3 or 4 years before reaching maturity, when they once again migrate to streams or rivers to spawn and die. Gonads become mature at that time when adults return to rivers for spawning.

Question46

Which of the following endoparasites of humans does show viviparity? (NEET 2015 cancelled)

Options:

A. Trichinella spiralis

B. Ascaris lumbricoides

C. Ancylostoma duodenale

D. Enterobius vermicularis

Answer: A

Solution:

Solution:
(a) : *Trichinella spiralis* is a minute nematode parasite that shows viviparity i.e., produces live youngs (larvae) not eggs. The adults of T . spiralis live in the human small intestine, where the females release large numbers of larvae. These larvae bore through the intestine and can cause trichinosis or trichiniasis which has symptoms like diarrohea, nausea, vertigo, pain in limbs and fever etc. Humans get infected after eating imperfectly cooked meat infected with the parasite's larval cysts.

Question47

Which of the following represents the correct combination without any exception ?

Characteristics	Class
Sucking and circular mouth; jaws absent, integument without scales; paired appendages.	Cyclostomata
Body covered with feathers; skin moist and glandular, forelimbs form wings; lungs with air sacs.	Aves
Mammary gland; hair on body; pinnae; two pairs of limbs.	Mammalia
Mouth ventral; gills without operculum; skin with placoid scales; persistent notochord.	Chondrichthye

(NEET 2015 cancelled)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

E. None of the above

Answer: E

Solution:

Solution:
None of the option is correct
Cyclostomes do not have paired appendages. Skin in Aves is neither moist nor glandular. Only preen gland is present at the base of tail. Chondrichthyes members have gills without operculum, except Chimaera.Prototherian mammals do not have ear pinnae and aquatic mammals lack hind limbs (like whales and dolphins).

Question48

Which of the following animals is not viviparous?
(NEET 2015 cancelled)

Options:

A. Platypus

B. Whale

C. Flying fox (Bat)

D. Elephant

Answer: A

Solution:

(a) : Duck-billed platypus is an egg laying mammal. It is found in the rivers in eastern Australia and Tasmania. It is a beaver like monotreme about 50-60 cm long and well adapted to live in water. Usually, two eggs are laid at a time. The female curls around them for incubation and remains inactive for about two weeks. Newly hatched young ones are very immature, naked, blind and each is 2.5 cm long.

Question49

Which of the following characteristics is mainly responsible for diversification of insects on land?
(NEET 2015 cancelled)

Options:

A. Exoskeleton

B. Eyes

C. Segmentation

D. Bilateral symmetry

Answer: A

Solution:

Solution:
(a) : Exoskeleton made of cuticle has enabled insects to live on land and to diversify to almost all the possible habitats. It gives them protection, support and also helps to prevent desiccation.

Question50

Select the taxon mentioned that represents both marine and fresh water species.
(NEET 2014)

Options:

A. Echinoderms

B. Ctenophora

C. Cephalochordata

D. Cnidaria

Answer: D

Solution:

Solution:
(d) : Cnidarians are the sac-like animals which are aquatic, mostly marine except a few like Hydra , are fresh water. They are the simplest organisms that have attained a tissue level of organization. Members of Ctenophora, Cephalochordata and Echinodermata are exclusively marine.

Question51

Which one of the following living organisms completely lacks a cell wall?
(NEET 2014)

Options:

A. Cyanobacteria

B. Sea - fan (Gorgonia)

C. Saccharomyces

D. Blue - green algae

Answer: B

Solution:

Solution:
(b): Gorgonia (sea fan) is an animal belonging to phylum Coelenterata. All animals lack cell wall.

Question52

Planaria possesses high capacity of
(NEET 2014)

Options:

A. metamorphosis

B. regeneration

C. alternation of generation

D. bioluminescence.

Answer: B

Solution:

Solution:
(b) : Planaria possesses high degree of regeneration. Both epimorphosis, in which the missing parts are formed and morphallaxis, in which the whole body can be regenerated from a fragment of the body, occurs.

Question53

A marine cartilaginous fish that can produce electric current is (NEET 2014)

Options:

A. Pristis

B. Torpedo

C. Trygon

D. Scoliodon.

Answer: B

Solution:

Solution:
(b): Torpedo is a bottom-living marine fish, discharging electricity which is sufficient to stun preys such as small fishes, etc. A pair of electric organs are situated on the dorsal side of the trunk region. Infact the electric organs are the modified lateral muscle plates innervated by the cranial nerves.

Question54

Which of the following are correctly matched with respect to their taxonomic classification?
(NEET 2013)

Options:

A. House fly, butterfly, tse-tse fly, silver fish - **Insecta**

B. Spiny anteater, sea urchin, sea cucumber -**Echinodermata**

C. Flying fish, cuttle fish, silver fish - **Pisces**

D. Centipede, millipede, spider, scorpion - **Insecta**

Answer: A

Solution:

Solution:
(a) : Spiny anteater (Echidna) is a prototherian mammal whereas, sea urchins and sea cucumber are echinoderms. Silver fish (Lepisma) is an insect, Cuttle fish (Sepia) is a mollusc and flying fish (Exocoetus) is a bony fish. Centipede is class chilopoda, Millipede is class diplopoda and Scorpion and Spider are class arachnida of Phylum Arthropoda.

Question55

Which group of animals belong to the same phylum?

(NEET 2013)

Options:

A. Prawn, Scorpion, Locusta

B. Sponge, Sea anemone, Starfish

C. Malarial parasite, Amoeba, Mosquito

D. Earthworm, Pinworm, Tapeworm

Answer: A

Solution:

(a) : Prawn, Scorpion and Locusta belong to the phylum Arthropoda. All other animals categories are given below:
Sponge ----- Porifera
Sea anemone ------ Coelenterata
Starfish ------- Echinodermata
Malarial parasite, Amoeba ------- Protozoa
Mosquito ------- Arthropoda
Earthworm ------- Annelida
Pinworm --------- Aschelminthes
Tapeworm ---------- Platyhelminthes

Question56

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

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

(NEET 2013)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

Answer: C

Solution:

Limulus belongs to phylum Arthropoda. Adamsia belongs to phylum Coelenterata. Petromyzon (lamprey) (cyclostomata) is a sanguivorous ectoparasite of larger fishes. Ichthyophis is a limbless amphibian and belongs to class Amphibia.

Question57

One of the representatives of Phylum Arthropoda is (NEET 2013)

Options:

A. puffer fish

B. flying fish

C. cuttle fish

D. silver fish.

Answer: D

Solution:

Solution:
(d) : Phylum Arthropoda is the largest phylum of Animalia which includes insects. Examples include Apis, silkworm, Laccifer, silver fish (Lepisma), locust, etc. Puffer fish and flying fish (Exocoetus) are examples of superclass Pisces, while cuttle fish (Sepia) belongs to Mollusca.

Question58

The characteristics of Class Reptilia are (Karnataka NEET 2013)

Options:

A. body covered with moist skin which is devoid of scales, the ear is represented by a tympanum, alimentary canal, urinary and reproductive tracts open into a common cloaca

B. fresh water animals with bony endoskeleton, a ir-bladder to regulate buoyancy

C. marine animals with cartilaginous endoskeleton, body covered with placoid scales

D. body covered with dry and cornified skin, scales over the body are epidermal, they do not have external ears.

Answer: D

Solution:

(d) : Reptiles represent the first class of vertebrates fully adapted for life in dry places on land. The characters of reptiles are in fact a combination of characters that are found in fish and amphibians on one hand and birds and mammals on the other. Their exoskeleton is of horny epidermal scales, shields, plates and scutes. The skin is dry, cornified and devoid of glands. Reptiles lack external ears and have immovable eyelids.

Question59

Which one of the following groups of animals reproduces only by sexual means?
(Karnataka NEET 2013)

Options:

A. Cnidaria

B. Porifera

C. Protozoa

D. Ctenophora

Answer: D

Solution:

Solution:
(d) : In ctenophores, asexual reproduction is absent. They are monoecious and fertilization is generally external. In cnidaria, asexual reproduction (budding) is found in the polyps and sexual reproduction is found in the medusa form. Both asexual and sexual reproduction occur in porifera (sponges). Asexual reproduction occurs by budding and gemmules. In protozoa, asexual reproduction takes place by binary fission, budding etc. and sexual reproduction takes place by syngamy and conjugation.

Question60

Which one of the following animals is correctly matched with its one characteristic and the taxon? Animal Characteristic Taxon
(Karnataka NEET 2013)

Options:

A. Millipede Ventral nerve Arachnida cord

B. Sea anemone Triploblastic

C. Silverfish Pectoral and Chordata pelvic fins

D. Duckbilled Oviparous Mammalia platypus

Answer: D

Solution:

(d) : Duckbilled platypus is oviparous and belongs to class Mammalia. Millipede belongs to class Diplopoda. Sea anemone has two germ layers, i.e., diploblastic. Silverfish (Lepisma) belongs to nonchordata. It is an insect.

Question61

Sharks and dogfishes differ from skates and rays because (Karnataka NEET 2013)

Options:

A. gill slits are ventrally placed

B. head and trunk are widened considerably

C. distinct demarcation between body and tail

D. their pectoral fins distinctly marked off from cylindrical bodies.

Answer: D

Solution:

Solution:
(d) : Sharks and dogfishes have cylindrical body while skates and rays have both of their pectoral fins fused. It gives a wing-like appearance and are not distinct from body.

Question62

Which one of the following is one of the paths followed by air or O_2 during respiration in the adult male Periplaneta americana as it enters the animal body? (KN NEET 2013)

Options:

A. Spiracle in metathorax, trachea, tracheloes, oxygen diffuses into cells

B. Mouth, bronchial tube, trachea, oxygen enters cells

C. Spiracles in prothorax, tracheoles, trachea, oxygen diffuses into cells.

D. Hypopharynx, mouth, pharynx, trachea, tissues

Answer: A

Solution:

(a) : The respiratory system is well developed in a cockroach in order to compensate the poorly developed circulatory system. It consists of tracheae, tracheoles and spiracles. The main tracheal trunks open to the exterior on body surface through 10 pairs of segmentally arranged apertures termed spiracles or stigmata. Two pairs of spiracles are thoracic, one between pro and mesothorax and the other between meso and metathorax. Haemocoel contains a network of elastic, closed and branching air tubes or tracheae. The ultimate finer branches of tracheae are called tracheoles which come in contact with the individual body cells. The elaborate tracheal system carries oxygen directly to all the body cells.

Question63

Pheretima and its close relatives derive nourishment from (2012)

Options:

A. sugarcane roots

B. decaying fallen leaves and soil organic matter

C. soil insects

D. small pieces of fresh fallen leaves of maize, etc.

Answer: B

Solution:

(b) : Pheretima (earthworm) and related organisms feed upon the decaying organic matter found in the soil. They also feed on the bits of plants and animal matter. Thus, they are omnivorous.

Question64

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?

(a)	Pild	(i) Body segmented Mollusca (ii) Mouth with radula
(b)	Asterias	(i) Spiny skinned Echinodermata (ii) Water vascular system
(c)	Sycon	(i) Pore bearing Porifera (ii) Canal system
(d)	Periplaneta	(i) Jointed appendages Arthropoda (ii) Chitinous exoskeleton

(2012)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

Answer: A

Solution:

Solution:
(a) : Pila belongs to phylum mollusca. The body of molluscs (soft bodied animals) is unsegmented, with a distinct head, muscular foot and visceral hump. Radula is found in mouth of Pila.

Question65

Which one of the following pairs of animals are similar to each other pertaining to the feature stated against them?

(a) Pteropus and Ornithorhynchus	Viviparity
(b) Garden lizard and	crocodile Three chambered heart
(c) Ascaris and Ancylostoma	Metameric segmentation
(d) Sea horse and flying fish	Cold blooded (poikilothermal)

(Mains 2012)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

Answer: D

Solution:

Solution:
(d) : Sea horse (Hippocampus) and flying fish (Exocoetus) belong to class osteichthyes of super class pisces. They have two chambered heart (one auricle and one ventricle) and are cold blooded animals.

Question66

Which one of the following categories of animals, is correctly described with no single exception in it?
(Mains 2012)

Options:

A. All reptiles possess scales, have a three chambered heart and are cold blooded (poikilothermal).

B. All bony fishes have four pairs of gills and an operculum on each side.

C. All sponges are marine and have collared cells.

D. All mammals are viviparous and possess diaphragm for breathing.

Answer: B

Solution:

Solution:
(b) : Heart is generally 3 -chambered in reptiles but in crocodile, it is 4-chambered. Sponges are generally marine and have collared cells but few fresh water forms can also be seen like Spongilla. All mammals are viviparous (giving birth to young ones) with an exception, Ornithorhynchus (platypus), which is oviparous (egg laying).

Question67

What will you look for to identify the sex of the following? (2011)

Options:

A. Female Ascaris-sharply curved posterior end

B. Male frog- a copulatory pad on the first digit of the hind limb

C. Female cockroach-anal cerci

D. Male shark-claspers borne on pelvic fins

Answer: D

Solution:

Solution:
(d) : Tail end is straight in female Ascaris , while tail end is curved ventral words in male Ascaris. Anal cerci is present in both male and female cockroach, while anal style is present only in the male cockroach. The forelimbs in both frogs (male and female) bear small articular pads dorsally at the joints of digit, but the males possess a special nuptial, copulatory pad on ventral side of the first finger of each forelimb. Copulatory pad appears merely as rough patches, but during breeding season, these become thick and sticky. In copulation, the male strongly grips a female under her armpits by means of these pads. Claspers are modified inner edges of pelvic fins in male sharks.

Question68

Which one of the following groups of animals is correctly matched with its characteristic feature without any exception?
(2011)

Options:

A. Reptilia: possess 3 -chambered heart with an incompletely divided ventricle

B. Chordata: possess a mouth with an upper and a lower jaw

C. Chondrichthyes : possess cartilaginous endoskeleton

D. Mammalia: give birth to young ones

Answer: C

Question69

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 external	Amphibia
(c) Pteropus	(i) Skin possesses (ii) Oviparous	Mammalia
(d) Aurelia	(i) Cnidoblasts (ii) Organ level of organization	Coelenterata

(2011)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

Answer: B

Solution:

Aurelia belongs to the class Scyphozoa under the phylum Cnidaria. .
Ascaris belongs to the class Secernentea under the phylum Aschelminthes.
Option b is correct as salamanders belong to the phylum amphibian and possess tympanum and fertilization are internal. 90% species of salmander possess internal fertilization and few primitive possess external fertilization such as Asiatic salamanders.

Question70

Which one of the following statements is totally wrong about the occurrence of notochord, while the other three are correct? (Main 2011)

Options:

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.

Answer: C

Solution:

Solution:
(c) : Humans are mammals which are chordates. Phylum chordata includes animals which possess a notochord either throughout or during early embryonic life. In Ascidia (urochordata), notochord is present only in larval tail while in Amphioxus (cephalochordata), it extends from head to tail region and is persistent throughout their life. It is replaced by a vertebral column in adult frog.

Question71

Consider the following four statements (A-D) related to the common frog Rana tigrina, and select the correct option stating which ones are true (T) and which ones are false (F).

Statements:
A. On dry land it would die due to lack of O_2 if its mouth is forcibly kept closed for a few days.
B. It has four-chambered heart.
C. On dry land it turns uricotelic from ureotelic.
D. Its life-history is carried out in pond water.

	A	B	C	D
(a)	T	F	F	T
(b)	T	T	F	F
(c)	F	F	T	T
(d)	F	T	T	F

(Main 2011)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

E. None of the above

Answer: E

Solution:

Solution:
None of the options is correct.
Frog respires in three different manners; cutaneous or skin respiration; buccopharyngeal respiration; pulmonary or lung respiration. Lungs are poorly developed in frog, the inadequate supply of O_2 obtained through lungs is supplemented through moist skin and buccal cavity. Hence, first statement is false. Heart of frog has three chambers, two atria and one ventricle. Hence, second statement is false. The frog excretes urea and thus is a ureotelic animal. The elimination of nitrogenous wastes is carried out by a well developed excretory system. The excretory system consists of a pair of kidneys, ureters, cloaca and urinary bladder. Frog do not change into uricotelic animal in any condition. Hence, third statement is false. In frog, fertilization is external and takes place in water. Within two weeks, fertilized eggs or zygotes develop into free-swimming aquatic larvae, called tadpoles, which undergo metamorphosis to become adult terrestrial frogs.

Question72

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

(A)  (B) 

(C)  (D) 

(Main 2011)

Options:

A. (A) and (D) respire mainly through body wall

B. (B) and (C) show radial symmetry

C. (A) and (B) have cnidoblasts for selfdefence

D. (C) and(D) have a true coelom.

Answer: D

Solution:

Solution:
(d) : The animals which possess true coelom are called eucoelomates or coelomates. The true coelom is a body cavity which arises as a cavity in embryonic mesoderm. True coelom is of two types; schizocoelom (schizocoel) and enterocoelom (enterocoel). Schizocoelom develops as a split in the mesoderm sheet. It is found in annelids, arthropods, molluscs. In enterocoelom, mesoderm arises from the wall of the embryonic cut of enteron as hollow outgrowths. It occurs in echinoderms and chordates.

Question73

Ureters act as urinogenital ducts in
(Main 2011)

Options:

A. human males

B. human females

C. both male and female frogs

D. male frogs.

Answer: D

Solution:

(d) : In male frogs, two úreters act as urinogenital duct which open into the cloaca. They run backwards from the kidneys and open into the cloaca. In female ureters carry urine alone, while in male both sperms and urine are carried. Hence, are called urinogenital ducts.

Question74

One example of animals having a single opening to the outside that serves both as mouth as wellas anus is (2010)

Options:

A. Octopus

B. Asterias

C. Ascidia

D. Fasciola.

Answer: D

Solution:

Solution:
(d) : In Fasciola (flatworms) the body has a single cavity with one opening to the outside. The single opening functions as both mouth for ingestion (intake of food) and anus for egestion (undigested food is passed out). It is called blind sac plan. Other examples are coelenterates.

Question75

Which one of the following statements about all the four of Spongilla, leech, dolphin and penguin is correct? (2010)

Options:

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.

Answer: C

Solution:

Solution:
(c) : Spongilla is a common, widely distributed fresh water sponge belonging to phylum porifera. Canal system in Spongilla is essentially of rhagon type with choanocytes restricted to small rounded chambers. It is not found in leech, dolphin and penguin.

Question76

Which one of the following kinds of animals are triploblastic? (2010)

Options:

A. Flatworms

B. Sponges

C. Ctenophores

D. Corals

Answer: A

Solution:

Solution:
(a) : Triploblastic is a condition which describes an animal having a body composed of three embryonic germ layers : the ectoderm, mesoderm and endoderm. Most multicellular animals belonging to phylum platyhelminthes to phylum chordata are triploblastic. Ctenophores, sponges and corals are diploblastic.

Question77

Which one of the following statements about certain given animals is correct? (2010)

Options:

A. Roundworms (Aschelminthes) are pseudocoelomates

B. Molluses are acoelomates

C. Insects are pseudocoelomates

D. Flatworms (Platyhelminthes) are coelomates.

Answer: A

Solution:

Solution:
(a) : Acoelomates are animals having no body cavity or coelom. Examples are poriferans coelenterates, ctenophora, platyhelminthes and nemertinea. In pseudocoelomates, body space is pseudocoelom or false coelom. Examples are ectoprocta, aschelminthes. In coelomates, body space is a true coelom enclosed by mesoderm on both sides. Remaining phyla of bilateria, from annelida to arthropoda are coelomates. Molluses and insects are coelomates while flatworms are acoelomates.

Question78

In which one of the following organisms its excretory organs are correctly stated?
(Mains 2010)

Options:

A. Humans - Kidneys, sebaceous glands and tear glands

B. Earthworm - Pharyngeal, integumentary and septal nephridia

C. Cockroach - Malpighian tubules and enteric caeca

D. Frog- Kidneys, skin and buccal epithelium

Answer: B

Solution:

Solution:
(b) : Nephridia is the excretory organ of the earthworm. Earthworms have three types of nephridial structures called as septal, integumentary and pharyngeal nephridia. These three nephridial structures are present on different positions in the body and also vary in structures. Septal and pharyngeal nephridia are both enteronephric i.e., nitrogen products are expelled in gut. Integumentary nephridia is exonephric i.e., nitrogen waste products are directly discharged outside.

Question79

Crocodile and penguin are similar to whale and dogfish in which one of the following features?
(Mains 2010)

Options:

A. 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

Answer: D

Solution:

Solution:
(d) : Animals belonging to Phylum Chordata are fundamentally characterised by the presence of a notochord, a dorsal hollow nerve cord and paired pharyngeal gill slits. Crocodile, penguin, whale and dogfish are all chordates. All of them have gill slits or have had it during embryonic development. Thus, paired gill slits are present in these animal at some stage of life.

Question80

Which one of the following groups of animals is bilaterally symmetrical and triploblastic?
(2009)

Options:

A. Aschelminthes (round worms)

B. Ctenophores

C. Sponges

D. Coelenterates (cnidarians)

Answer: A

Solution:

Solution:
(a) : Aschelminthes is a superphylum consisting of pseudocoelomates. These are mostly aquatic, free living or parasitic. Their body is slender, bilaterally symmetrical and triploblastic.

Question81

If a live earthworm is pricked with a needle on its outer surface without damaging its gut, the fluid that comes out is
(2009)

Options:

A. coelomic fluid

B. haemolymph

C. slimy mucus

D. excretory fluid.

Answer: A

Solution:

Solution:
(a): Coelom or body cavity of earthworm is filled with coelomic fluid. It lies between body wall and alimentary canal. So if a live earthworm is pricked with a needle on its outer surface without damaging the gut then only coelomic fluid will come out.

Question82

Which one of the following pairs of animals comprises 'jawless fishes'? (2009)

Options:

A. Mackerals and rohu

B. Lampreys and hag fishes

C. Guppies and hag fishes

D. Lampreys and eels

Answer: B

Solution:

Solution:
(b) : Agnatha is subphylum or superclass of marine and fresh water vertebrates that lack jaws. They are fish-like animals with cartilaginous skeletons and well-developed sucking mouthparts with horny teeth. The only living agnathans are lampreys and hagfishes (Class Cyclostomata), which are parasites or scavengers.

Question83

Which one of the following in birds, indicates their reptilian ancestry? (2008)

Options:

A. Two special chambers crop and gizzard in their digestive tract

B. Eggs with a calcareous shell

C. Scales on their hind limbs

D. Four-chambered heart

Answer: C

Solution:

Solution:
(c): Birds have originated from some ancestral reptilian stalk. These two classes have so many features in common that link the two groups. The evidence of reptilian ancestry of birds is furnished by their comparative anatomy, embryology and palaeontology. One of the features is that all birds have horny epidermal scales confined to the lower parts of their legs and feet, which are exactly like the epidermal scales of the reptiles.

Question84

Ascaris is characterized by (2008)

Options:

A. presence of true coelom but absence of metamerism

B. presence of true coelom and metamerism (metamerisation)

C. absence of true coelom but presence of metamerism

D. presence of neither true coelom nor metamerism.

Answer: D

Solution:

Solution:
(d) : Ascaris belong to the Phylum Nematoda of Superphylum Aschelminthes. They have a cylindrical body without showing any metamerism, a pseudocoel (false coelom) and a complete digestive tract lined by endodermal epithelium. The cuticle covering the body surface bears minute transverse striations giving a pseudo segmented appearance to the worm.

Question85

Which one of the following groups of three animals each is correctly matched with their one characteristic morphological feature?

	Animals	Morphological features
(a)	Scorpion, spider,	- ventral solid central cockroach nervous system
(b)	Cockroach, locust, Taenia	- metameric segmentation
(c)	Liver fluke, sea anemone, sea cucumber	- bilateral symmetry
(d)	Centipede, prawn,	- jointed appendages sea urchin

(2008)

Options:

A. (a)

B. (b)

C. (c)

D. (d)

Answer: A

Solution:

Solution:
(a): Scorpion, spider and cockroach belong to Phylum Arthropoda and are invertebrates. They possess ventral solid central nervous system which consists of a dorsal brain connected with a nerve ring to a double ventral nerve cord.

Question86

Which one of the following pairs of items correctly belongs to the category of organs mentioned against it?
(2008)

Options:

A. Nephridia of earthworm and Malpighian tubules of cockroach - excretory organs

B. Wings of honey bee and wings of crow -homologous organs

C. Thorn of Bougainvillea and tendrils of Cucurbita - analogous organs

D. Nictitating membrane and blind spot in human eye - vestigial organs

Answer: A

Solution:

Solution:
(a): Nephridia are excretory organs of earthworm which consist of a simple or branched tube formed by the ingrowth of ectoderm with cilia at the inner end. Excretory products diffuse into the nephridium and are wafted to the exterior by ciliary action. Malpighian tubules are the organs that are involved in the excretion of nitrogenous wastes in cockroach. It open into the intestine; selectively extract from the blood uric acid, which-together with water and salts - is deposited into the hind gut and excreted in the faeces.

Question87

Which one of the following phyla is correctly matched with its two general characteristics?
(2008)

Options:

A. Echinodermata - pentamerous radial symmetry and mostly internal fertilization

B. Mollusca - normally oviparous and development through a trochophore or veliger larva

C. Arthropoda-body divided into head, thorax and abdomen and respiration by tracheae

D. Chordata - notochord at some stage and separate anal and urinary openings to the outside.

Answer: C

Solution:

Solution:
(c): Arthropods are the largest phylum of Kingdom Animalia that characteristically possesses an outer body layer - the cuticle. The body is composed of segments usually forming distinct specialized body regions, i.e., head, thorax and abdomen. In them the trachea or windpipe or book lungs are the respiratory organs found in terrestrial forms, which help in respiration.

Question88

Which one of the following is not a characteristic of Phylum Annelida? (2008)

Options:

A. Pseudocoelom

B. Ventral nerve cord

C. Closed circulatory system

D. Segmentation

Answer: A

Solution:

Solution:
(a) : Phylum Annelida comprises invertebrates, which are segmented worms having cylindrical soft bodies showing metameric segmentation. These are triploblastic animals showing bilateral symmetry. A true coelom is present which is filled with coelomic fluid containing cells. Annelids are perhaps the first animals to have a true schizocoelic coelom.

Question89

Which of the following pairs are correctly matched?

	Animals	Morphological features
(i)	Crocodile	- 4-chambered heart
(ii)	Sea urchin	- Parapodia
(iii)	Obelia	- Metagenesis
(iv)	Lemur	- Thecodont

(2007)

Options:

A. (ii), (iii) and (iv)

B. only

C. and (iv)

D. only (i) and (ii)

E. (i), (iii) and (iv)

Answer: E

Solution:

Solution:
(d) : Reptiles have two auricles and a partly divided ventricle except crocodiles which have four chambered heart. Obelia shows metagenesis i.e., alternation of generations which may be defined as a a phenomenon in which diploid asexual phase alternates with haploid sexual phase. Lemur has a thecodont teeth i.e., the teeth are embedded in the sockets of the jaw bone.

Question90

Which one of the following is a matching pair of a body feature and the animal possessing it?
(2007)

Options:

A. Ventral central Leech nervous system

B. Pharyngeal gill slits Chamaeleon absent in embryo

C. Ventral heart Scorpion

D. Post-anal tail Octopus

Answer: A

Question91

What is common between parrot, platypus and kangaroo? (2007)

Options:

A. Toothless jaws

B. Functional post-anal tail

C. Ovoparity

D. Homoiothermy

Answer: D

Solution:

Solution:
(d) : Homoiothermy is the maintenance by an animal of its internal body temperature at a relatively constant value by using metabolic processes to counteract fluctuations in the temperature of the environment. Homoiothermy occurs in birds and mammals, which are described as endotherms. The heat produced by their tissue metabolism and the heat lost to the environment are balanced by various means to keep body temperature constant: 36-38°C in mammals and 38-40°C in birds. The hypothalamus in the brain monitors blood temperature and controls thermoregulation by both nervous and hormonal means. Thus parrot (bird) and platypus and kangaroo (mammals) are homoiothermic animals.

Question92

What is true about Nereis, scorpion, cockroach and silver fish? (2007)

Options:

A. They all possess dorsal heart.

B. None of them is aquatic.

C. They all belong to the same phylum.

D. They all have jointed paired appendages.

Answer: A

Solution:

(a) : Nereis, scorpion, cockroach and silver fish are all invertebrates and thus possess dorsal heart. Nereis is a marine animal while other animals mentioned in the question are terrestrial. Nereis belongs to Phylum Annelida while rest of the animals belong to Phylum Arthropoda. Jointed appendages are present in scorpion, cockroach and silver fish.

Question93

Biradial symmetry and lack of cnidoblasts are the characteristics of (2006)

Options:

A. Hydra and starfish

B. starfish and sea anemone

C. Ctenoplana and Beroe

D. Aurelia and Paramecium.

Answer: C

Solution:

Solution:
(c) : Ctenophora is a small phylum of exclusively marine, invertebrate animals. Ctenoplana and Beroe are examples of ctenophora. They have biradial symmetry (a combination of radial and bilateral symmetries). They lack the specialized stinging cells (nematocysts) found in coelenterates, but one species (Haeckelia rubra) incorporates those of its jellyfish prey for its own defense.

Question94

Two common characters found in centipede, cockroach, and crab are (2006)

Options:

A. book lungs and antennae

B. compound eyes and anal cerci

C. jointed legs and chitinous exoskeleton

D. green gland and tracheae.

Answer: C

Solution:

(c) : Centipede, cockroach, and crab all belong to phylum arthropoda which are characterized by jointed legs and chitinous exoskeleton. Arthropods have bilaterally symmetrical and metamerically segmented body with haemocoel and open blood vascular system.

Question95

In which one of the following sets of animals do all the four give birth to young ones?
(2006)

Options:

A. Kangaroo, hedgehog, dolphin, Loris

B. Lion, bat, whale, ostrich

C. Platypus, penguin, bat, hippopotamus

D. Shrew, bat, cat, kiwi

Answer: A

Solution:

Solution:
(a): Kangaroo, hedgehog, dolphin and Loris are mammals and thus give brith to young ones. Ostrich and kiwi are birds that lay eggs. Platypus is a most primitive living mammal that lays eggs. Other animals in the options are mammals and give birth to young ones.

Question96

Which one of the following is not a living fossil?
(2006)

Options:

A. Peripatus

B. King crab

C. Sphenodon

D. Archaeopteryx

Answer: D

Solution:

Solution:
(d) : Living fossil is a term for any living species (or clade) of organism which closely resembles species otherwise only known from fossils and has no close living relatives. These species have all survived major extinction events, and generally retain low taxonomic diversities.
Some examples of living fossils in animals are coelocanth, coral (polyp), crocodylia (crocodiles, gavials and alligators), horseshoe crab (*Limulus polyphemus*), monotremes (*Platypus* and *Echidna*), snout-nosed frog (*Nasikabatrachus sahyadrensis*). *Archaeopteryx* is the earliest and most primitive known bird to date. It lived in the Jurassic Period around 150-155 million years ago. It has feathers and wings but it also had teeth and a skeleton similar to a small carnivorous dinosaur, therefore, it had both bird and theropod dinosaur features. Archaeopteryx is a powerful piece of evidence that

shows that birds have evolved from dinosaurs.

Question97

Annual migration does not occur in the case of (2006)

Options:

A. arctic tern

B. salmon

C. siberian crane

D. salamander.

Answer: D

Solution:

Solution:
(d) : Migration is the seasonal movement of complete populations of animals to a more favourable environment. It is common in mammals (e.g. porpoises), fish (e.g. eels and salmon) and some insects but is most marked in birds. The arctic tern, for example, migrates annually from its breeding ground in the Arctic circle to the Antarctic. Salmon usually migrate from marine to fresh water to spawn. The Siberian crane, breeds in arctic Russia in Yakutia and western Siberia. It is a long distant migrant. Salamander is an amphibian with slender body, short legs and long tail. Outside the breeding season they are seldom seen as they spend most of their time underground.

Question98

Metameric segmentation is the characteristic of (2006)

Options:

A. mollusca and chordata

B. platyhelminthes and arthropoda

C. echinodermata and annelida

D. annelida and arthropoda.

Answer: D

Solution:

Solution:
(d) : The term metamerism refers to a linear repetition of parts in an animal body. It occurs in three highly organized phyla : Annelida, Arthropoda and Chordata. Each segment is called a metamere, or somite. Segmentation often affects

both external and internal structures. Such a condition is called metameric segmentation. In chordates, the segmentation is apparent only in the embryonic stage. In the adult chordates, segmentation is visible in the internal structures, such as vertebrae, ribs, nerves and blood vessels. Other animals have unsegmented bodies.

Question99

Which one of the following is a matching set of a phylum and its three examples?
(2006)

Options:

A. Porifera - Spongilla, Euplectella, Pennatula

B. Cnidaria - Bonellia, Physalia, Aurelia

C. Platyhelminthes - Planaria, Schistosoma, Enterobius

D. Mollusca - Loligo, Teredo, Octopus

Answer: D

Solution:

Solution:
(d) : Mollusca includes those animals which have soft bodies, usually furnished with a shell. The body is often divided into a head, with eyes or tentacles, a muscular foot and a visceral mass housing the organs. Loligo (squid or sea arrow), Teredo (shipworm), Octopus are some of their examples.

In option (a) Spongilla and Euplectella belong to porifera but Pennatula (the sea pen or sea feather) belongs to coelenterata.
In option (b) Physalia and Aurelia belong to cnidaria but Bonellia belongs to Phylum Annelida.
In option (c) Planaria and Schistosoma belong to platyhelminthes but Enterobius (Pinworm) belongs to aschelminthes.

Question100

What is common about Trypanosoma, Noctiluca, Monocystis and Giardia?
(2006)

Options:

A. These are all parasities.

B. These are all unicellular protists.

C. They have flagella.

D. They produce spores.

Answer: B

Solution:

(b) : Protista is the kingdom of unicellular eukaryotes. The protists include heterotrophs, autotrophs, and some organisms that can vary their nutritional mode depending upon environmental conditions. Protists occur in freshwater, saltwater, soil, and as symbionts within other organisms. Trypanosoma, Noctiluca, Monocystis and Giardia are all unicellular protists.

Question101

In contrast to annelids the platybelminthes show (2005)

Options:

A. absence of body cavity

B. bilateral symmetry

C. radial symmetry

D. presence of pseudocoel

Answer: A

Solution:

Solution:
(a) : Platyhelminthes do not have body cavity so they are acoelomates. In annelids, the body cavity is true and schizocoelous. Both annelids and platyhelminthes have bilateral symmertry.

Question102

From the following statements select the wrong one. (2005)

Options:

A. Prawn has two pairs of antennae.

B. Nematocysts are characteristics of the phylum cnidaria.

C. Millepedes have two pairs of appendages in each segment of the body.

D. Animals belonging to phylum porifera are marine and fresh water.

Answer: A

Solution:

(a): Prawn has one pair of antennae, one on either side, just below the antennules. They are sensory, excretory and balancing in function. Antennules are attached on either side, below the bases of eye stalks. They are tactile in function. Nematocysts are present in cnidoblasts that act as organs of offence and defence. Millipedes belong to class myriapoda. They are called thousand leggers because of possession of numerous walking legs. Body is made up of small head and 40 trunk segments, each with two pairs of jointed legs. Animals belonging to phylum porifera are mostly marine and a few are freshwater.

Question103

Which of the following unicellular organisms has a macronucleus for trophic function and one or more micronuclei for reproduction? (2005)

Options:

A. Euglena

B. Amoeba

C. Paramecium

D. Trypanosoma

Answer: C

Question104

Which one of the following characters is not typical of the class mammalia? (2005)

Options:

A. Thecodont dentition

B. Alveolar lungs

C. Ten pairs of cranial nerves

D. Seven cervical vertebrae

Answer: C

Solution:

(c) : Mammals have twelve pair of cranial nerves. Ten pairs of cranial nerves are present in fish and amphibians. Reptiles and birds also have 12 pairs of cranial nerves.

Question105

In Arthropoda, head and thorax are often used to form cephalothorax, but in which one of the following classes, is the body divided into head thorax and abdomen?
(2004)

Options:

A. Insecta

B. Myriapoda

C. Crustacea

D. Arachnida and curstacea

Answer: A

Solution:

Solution:
(a) : Body in arthropoda is segmented. Segments are grouped into 3 forms - head, thorax and abdomen. When head and thorax are fused then they are referred to as cephalothorax. Class Insecta of Phylum Arthropoda have body divided into head, thorax and abdomen.

Question106

The animals with bilateral symmetry in young stage, and radial pentamerous symmetry in the adult stage, belong to the Phylum
(2004)

Options:

A. Annelida

B. Mollusca

C. Cnidaria

D. Echinodermata.

Answer: D

Solution:

(d) : Echinoderms are triploblastic animals with organ system level of organisation. Larval forms possess bilateral symmetry while adults have radial symmetry.

Question107

Prescnce of gills in the tadpole of frog indicates hat (2004)

Options:

A. fish were amphibious in the past

B. fish evolved from frog-like ancestors

C. frogs will have gills in future

D. frogs evolved from gilled ancestors.

Answer: D

Solution:

Solution:
(d) : It is universally accepted that amphibians (frogs) have originated from fishes. Resemblance of amphibia to fish is seen in most systems of the body. Both are cold blooded. Fish respire by gills and also tadpole of frog respires by gills. To prevent desiccation in air, both usually lay eggs in water.

Question108

Uricotelism is found in (2004)

Options:

A. mammals and birds

B. fish and fresh water protozoans

C. birds, land reptiles and insects

D. frogs and toads.

Answer: C

Solution:

(c) : Uricotelism means excretion of uric acid. Uric acid excretion occurs in organisms which develop in an enclosed egg (where water is severely limited) or which normally experience very dry terrestrial environment as adult organisms. Uric acid is discharged as thick paste or as solid pellet:

Examples: terrestrial reptiles, birds, insects, gastropod mollusc, etc.

Question109

One of the following is a very unique feature of the mammalian body (2004)

Options:

A. homeothermy

B. presence of diaphragm

C. four chambered heart

D. rib cage.

Answer: B

Solution:

Solution:
(b) : The unique feature of mammals is the presence of diaphragm. It is a membrane that separates thoracic cavity from abdominal cavity. The cavity of other animals is not divided into thoracic and abdominal cavities. Homeothermy, four chambered heart and rib cage are the characters of mammals as well as some other animals also.

Question110

When a fresh-water protozoan possessing a contractile vacuole, is placed in a glass containing marine water, the vacuole will (2004)

Options:

A. increase in number

B. disappear

C. increase in size

D. decrease in size.

Answer: D

Solution:

Solution:
(d) : Amoeba is a fresh water protozoan containing contractile vacuole that is meant for osmoregulation. When Amoeba is placed in a marine water, then the water from the contractile vacuole will move out resulting in decrease in size of it. Contractile vacuole will increase in size if it is placed in hypotonic solution. Water will enter into contractile vacuole, thus

increasing its size and ultimately it will burst and disappear.

Question111

Bartholin's glands are situated (2003)

Options:

A. on the sides of the head of some amphibians

B. at the reduced tail end of birds

C. on either side of vagina in humans

D. on either side of vas deferens in humans.

Answer: C

Solution:

Solution:
(c) : Bartholin's glands are situated on either side of vagina in human females. These glands secrete a fluid that lubricates the vulva during copulation.

Question112

The chief advantage of encystment of an Amoeba is (2003)

Options:

A. the ability to survive during adverse physical conditions

B. the ability to live for some time without ingesting food

C. protection from parasites and predators

D. the chance to get rid of accumulated waste products.

Answer: A

Solution:

(a) : Amoeba forms a cyst and reproduces by multiple fission, during adverse environmental conditions. The animal secretes a three-layered, protective, chitinous cyst around it and becomes inactive. Inside the cyst, the nucleus repeatedly divides to form several daughter nuclei, which arrange themselves near the periphery. Each daughter nucleus becomes enveloped by a small amount of cytoplasm, thus forming a daughter amoeba, called amoebula or pseudopodiospore. When favourable conditions arrive, the cyst breaks off liberating the young pseudopodiospores, each with fine pseudopodia. They feed and grow rapidly to become adults and lead an independent life.

Question113

Systemic heart refers to
(2003)

Options:

A. the heart that contracts under stimulation from nervous system

B. left auricle and left ventricle in higher vertebrates

C. entire heart in lower vertebrates

D. the two ventricles together in humans.

Answer: C

Solution:

Solution:
(c) : Systemic heart refers to the entire heart of lower vertebrates. This heart pumps blood to body parts and not the lungs.

Question114

Sycon belongs to a group of animals, which are best described as
(2003)

Options:

A. unicellular or acellular

B. multicellular without any tissue organization

C. multicellular with a gastrovascular system

D. multicellular having tissue organization, but no body cavity.

Answer: B

Solution:

Solution:
(b) : Sycon, belonging to the Phylum Porifera, are multicellular organisms with cellular level of body organisation. The constituent cells perform their functions more or less independently. No distinct tissue or organs are present in it.

Question115

During the life-cycle, Fasciola hepatica (liver fluke) infects its intermediate host and primary host at the following larval stages respectively
(2003)

Options:

A. redia and miracidium

B. cercaria and redia

C. metacercaria and cercaria

D. miracidium and metacercaria.

Answer: D

Solution:

Solution:
(d) : Life cycle of *F.hepatica* is complete and completed in two hosts. Primary host, in which the adult fluke lives, is sheep. While the intermediate host, in which numerous larval stages are passed, is a snail (*Lymnaea, Planorbis,* etc.). This type of life cycle, involving two different kinds of hosts, is termed digenetic.
Miracidium larva is the larval stage involved in life cycle. When suitable conditions become available, the encapsulated embryo, in 4-15 days, differentiates into a miracidium larva. It hatches out and swims in water. Metacercaria develops into adult fluke only inside its definitive host or sheep. The latter gets infection by grazing on leaves and grass blades to which the cysts are attached. Metacercaria survives action of host's gastric juice as its cyst is insoluble in it. Cyst wall finally dissolves in proximal part of intestine and liberates the larva.

Question116

Ommatidia serve the purpose of photoreception in
(2003)

Options:

A. cockroach

B. frog

C. humans

D. sunflower.

Answer: A

Solution:

Solution:
(a): In cockroach, the compound eyes are a pair of large, black, kidney-shaped organs situated dorsolaterally on the head, one on either side. Their surface is marked by a large number of hexagonal areas, the facets. Each facet represents a visual unit named ommatidium. The eyes are the organs of sight (photoreception).

Question117

Which one of the following is a matching pair of an animal and a certain phenomenon it exhibits?
(2003)

Options:

A. Pheretima - Sexual dimorphism

B. Musca - Complete metamorphosis

C. Chameleon - Mimicry

D. Taenia- Polymorphism

Answer: B

Solution:

(b) : In Musca, development is indirect with complete metamorphosis (holometaboly) including four stages as follows - egg, larva, pupa and adult. In complete metamorphosis, larva after hatching, moults several times to become a fully grown one. It later becomes a pupa within a secreted case, called the puparium. Pupa differentiates into the young adult that breaks the puparium open and emerges outside. Then it grows to a mature form.

Question118

Given below are four matchings of an animal and its kind of respiratory organ :
(A) Silver fish - Trachea
(B) Scorpion - Book lung
(C) Sea squirt - Pharyngeal slits
(D) Dolphin - Skin The correct matchings are
(2003)

Options:

A. (A) and (B)

B. (A), (B) and (C)

C. (B) and (D)

D. (C) and (D)

Answer: B

Solution:

(b) : Silver fish is an insect in which respiration occurs by tracheae. These communicate with the exterior by paired apertures, called spiracles. Respiratory system of scorpion consists of 4 pairs of book lungs that communicate with the outer air through stigma. In sea squirt, respiration occurs through pharyngeal slits. In dolphin, respiration occurs by lungs.

Question119

In which of the following animals nerve cell is present but brain is absent?
(2002)

Options:

A. Sponge

B. Earthworm

C. Cockroach

D. Hydra

Answer: D

Solution:

Solution:
(d) : Hydra which belongs to the phylum coelenterata has nerve cells but no brain. It's nervous system consists of nerve cells and their processes. Sensory cells are also present. Sponges do not have nerve cells, they lack nervous system. Earthworm (annelida) has nervous system consisting of a circumenteric nerve ring and a solid, double, mid ventral nerve cord with ganglia. Cockroach (arthropoda) has the nervous system as that of earthworm.

Question120

In which of the following animals dimorphic nucleus is found?
(2002)

Options:

A. Amoeba proteus

B. Trypanosoma gambiense

C. Plasmodium vivax

D. Paramecium caudatum

Answer: D

Solution:

(d) : Dimorphic nucleus means two types of nuclei are present in P. caudatum - large macronucleus and small micronucleus. The macronucleus is roughly kidney-shaped and with inconspicuous nuclear membrane. Macronucleus is the somatic or vegetative nucleus and controls the day-to-day metabolic activities of the cell. The micronucleus is lodged in a depression on the surface of the macronucleus. It is usually spherical, with a nuclear membrane and with diploid number of chromosomes. It controls the reproductive activities of the organism. Amoeba, Trypanosoma and Plasmodium have only one nucleus.

Question121

In which of the following, notochord is present in embryonic stage? (2002)

Options:

A. All chordates

B. Some chordates

C. Vertebrates

D. Non chordates

Answer: A

Solution:

Solution:
(a) : Chordates are the animals that have notochord, a skeletal rod present at some stage in life cycle. In lower vertebrates, notochord persists throughout life while in higher vertebrates it is replaced by vertebral column in adults. Nonchordates never develop notochord, not even in embryonic stage.

Question122

In protozoa like Amoeba and Paramecium, the organ for osmoregulation is
(2002)

Options:

A. contractile vacuole

B. mitochondria

C. nucleus

D. food vacuole.

Answer: A

Solution:

(a) : The function of contractile vacuole is osmoregulatory. Water in freshwater protozoa enters the organism by endosmosis and during feeding. If the organism does not possess a mechanism to get rid of this excess water, it will swell to the point of rupture and dissolution. The mechanism which is assumed to effect water regulation is the contractile vacuole. The vacuole periodically increases in volume (diastole) to get filled with water and contracts (systole) to discharge its water content to the surrounding environment.

Question123

In which of the following animals, haemocyanin pigment is found? (2001)

Options:

A. Annelida

B. Echinodermata

C. Insecta

D. Mollusca

Answer: D

Solution:

Solution:
(d) : In molluscs, blood often has a copper containing, blue respiratory pigment called haemocyamin. In insects, the blood called haemolymph is colourless. In echinodermates, blood is colourless as it has no respiratory pigment. In annelids, the blood is red with haemoglobin dissolved in plasma.

Question124

In which of the following animals post anal tail is found? (2001)

Options:

A. Earthworm

B. Lower invertebrates

C. Scorpion

D. Snake

Answer: D

Solution:

(d) : Snakes are limbless reptiles with elongated cylindrical body, covered with overlapping scales differentiated into shields and plates and have post anal tail which is long.

Question125

In Hydra, waste material of food digestion and nitrogenous waste material are removed respectively from (2001)

Options:

A. mouth and mouth

B. body wall and body wall

C. mouth and body wall

D. mouth and tentacles.

Answer: C

Solution:

Solution:
(c): In Hydra indigestible residues are egested through mouth, for there is no anus. Egestion occurs by a sudden squirt due to muscular contraction of body, so that the debris is thrown at a distance. Hydra has neither blood and blood vessels, nor organs of excretion. Due to thinness of body wall and circulation of water in gastrovascular cavity, most cells of body remain freely exposed to the surrounding water. Therefore, excretion of waste nitrogenous matter (chiefly ammonia) occurs directly by diffusion through cell membranes in the outside world.

Question126

Cleavage in mammals is (2000)

Options:

A. holoblastic equal

B. holoblastic unequal

C. superficial

D. discoidal.

Answer: A

Solution:

when the complete egg divides or cleaved is called as holoblastic. Mammalian zygote undergoes holoblastic equal cleavage and results in the complete division of the zygote and the formation of subsequent cells, the blastomeres.

Question127

Which of the following animals have scattered cells with cell - tissue grade organisation?
(2000)

Options:

A. Sponge

B. Hydra

C. Liver fluke

D. Ascaris

Answer: B

Solution:

Solution:
(b) : Hydra, has tissue level of organization. Its body is multicellular and the cells occur in 2 distinct layers or tissues of specialized cells. Sponges have cellular level of organization. Liver fluke and Ascaris have organ-system level of organization.

Question128

Similarity in Ascaris lumbricoides and Anopheles stephensi is
(2000)

Options:

A. sexual dimorphism

B. metamerism

C. anaerobic respiration

D. endoparasitism.

Answer: A

Solution:

(a) : Sexual dimorphism is the difference in the form of individuals of different sexes but of same species. Sexes in Ascaris are separate and sexual dimorphism is well defined. Males are smaller than females. They possess a recurved tail

with pre and post anal papillae, a cloaca, and a pair of spicules or penial setae. In Anopheles, the ends of maxillary palps in males are club-shaped while in females they are not.

Question129

What happens if bone of frog is kept in dilute hydrochloric acid? (2000)

Options:

A. Will become flexible

B. Will turn black

C. Will break into pieces

D. Will shrink

Answer: A

Solution:

Solution:
(a) : Main component of bone is collagen which is a complex combination of amino acids. When frog's bone is treated with HCl , these compounds are broken down and the bone becomes flexible.

Question130

Which of the following characters is absent in all chordates? (2000)

Options:

A. Diaphragm

B. Coelom

C. Pharyngeal gill clefts

D. Dorsal nerve cord

Answer: A

Solution:

(a) : Diaphragm is a membrane that separates thoracic cavity from abdominal cavity. It is present only in mammals. All other chordates do not have diaphragm as their body cavity is not divided into thoracic and abdominal cavities. Chordates are coelomate animals having a true coelom, entercoelic and shizocoelic in origin. Pharyngeal gill slits are present at some stage, may or may not be functional. Nerve cord is dorsal and tubular.

Question131

What is true for mammalia?
(2000)

Options:

A. Platypus is oviparous.

B. Bats have feather.

C. Elephant is ovoviviparous.

D. Diaphragm is absent in them.

Answer: A

Solution:

Solution:
(a) : Mammals are viviparous i.e., they give birth to young ones. Protherians (e.g., Platypus) are primitive mammals and lay eggs, so they are oviparous.

Question132

Aquatic reptiles are
(1999)

Options:

A. ureotelic

B. ureotelic in water

C. ammonotelic

D. ureotelic over land.

Answer: A

Solution:

Solution:
Aquatic reptiles are ureotelic. The ureotelic animals are those animals that excrete urea. These include amphibians, mammals, aquatic or semi-aquatic reptiles like turtles and alligators.

Question133

Temperature changes, in the environment, affect most of the animals which are
(1999)

Options:

A. poikilothermic

B. homoiothermic

C. aquatic

D. desert living.

Answer: A

Solution:

Solution:
(a) : Poikilothermic animals are those whose body temperature varies with the temperature of the environment. All animals except birds and mammals are poikilothermic. Although unable to maintain a constant body temperature, they can respond to compensate for very low or very high temperatures. For example, the tissue composition (especially cell osmotic pressure) can change to regulate the blood flow to peripheral tissues (and thus increase heat loss or heat absorption), and the animals can actively seek sun or shade. Homoiothermic animals are those whose body temperature remains constant irrespective of the variations in the temperature of the environment.

Question134

The canal system is a characteristic feature of
(1999)

Options:

A. echinoderms

B. sponges

C. helminthes

D. coelenterates.

Answer: B

Question135

Which of the following is not found in birds?
(1999)

Options:

A. Pelvic girdle

B. Pectoral girdle

C. Hindlimb

D. Forelimb

Answer: D

Solution:

Solution:
(d) : Forelimbs are absent in birds as they are modified into wings for flight. They are attached high on the back, to the anterior or thoracic region of the trunk, and are very powerful when compared with the size and strength of the bird. Each wing is elongated, flattened and distally pointed with its longitudinal axis at right angles to that of the trunk. Hindlimb is made of three parts - thigh, shank and foot. Pectoral girdle on each side consists of three bones - a large coracoid, scapula and clavicle. Pelvic girdle consists of ilium, ischium and pubis.

Question136

The long bones are hollow and connected by air passages. They are the characteristics of
(1998)

Options:

A. reptilia

B. land vertebrates

C. aves

D. mammals.

Answer: C

Solution:

Solution:
(c) : Aves are the animals that fly so their body weight should be less and for this their bones are hollow and connected by air passages. Reptilia, land vertebrates and mammals do not have hollow bones.

Question137

Solenocytes are the main excretory structures in

(1998)

Options:

A. echinodermates

B. platyhelminthes

C. annelids

D. molluscs.

Answer: B

Solution:

Solution:
(b) : Solenocytes are also called flame cells. It is a cup shaped cell, which contains group of cilia and this is the main excretory organ of platyhelminthes.

Question138

Most appropriate term to describe the life cycle of Obelia is (1998)

Options:

A. metamorphosis

B. neoteny

C. metagenesis

D. all of these.

Answer: C

Solution:

Solution:
(c): Obelia belongs to the Phylum Coelenterata. In Obelia, life-cycle includes two clearly defined phases ; a fixed polypoid phase (hydroid colony) and a pelagic medusoid phase. Hydroid colony has no gonads and reproduces by asexual budding to give rise to medusae. On the other hand, medusae reproduce exclusively by sexual method (ova and sperms) to give rise to new hydroid colonies. This fact apparently seems to have given rise to the idea of alternation of generations, also called metagenesis.

Question139

The lower jaw in mammals is made up of (1998)

Options:

A. dentary

B. maxills

C. angulars

D. mandible.

Answer: A

Solution:

Solution:
(a) : Dentary is a membrane bone, present in the lower jaw of the vertebrates, that supports the teeth. In mammals the dentary is the sole bone of the lower jaw. The dentary bone is relativley short comma shaped bone.

Question140

Which one of the following cells, found in testes of rabbit, secretes male hormone?
(1998)

Options:

A. Epithelial cells

B. Spermatocytes

C. Leydig's cell

D. Sertoli cells

Answer: C

Solution:

Solution:
(c) : The connective tissue in between the seminiferous tubules of the testis contains special interstitial cells or cells of Leydig. They secrete the male sex hormones (androgens) such as testosterone. It stimulates secondary sexual characteristics of the male such as the enlargement of the external genitals and accessory glands.

Question141

What is common among silverfish, scorpion, crab and honey bee?
(1997)

Options:

A. Jointed legs

B. Metamorphosis

C. Compound eyes

D. Poison glands

Answer: A

Solution:

Solution:
Silverfish, scorpion, crab and honey bee belong to phylum Arthropoda.
Phylum Arthropoda is the largest phylum in the kingdom Animalia.
All the organisms of this phylum have jointed legs, bilaterally symmetrical and segmented body, open circulatory system, and blood-filled coelomic cavity.
So, all these organisms have jointed legs as common feature, which is also one of the most distinguishing feature of the phylum Arthropoda.

Question142

The embryonated egg of Ascaris represents (1997)

Options:

A. an egg with blastula

B. an egg with a juvenile

C. an egg with an egg

D. an egg with gastrula.

Answer: B

Solution:

Solution:
(b) : The embryonated egg of Ascaris represents an egg with a juvenile. In case of Ascaris, the eggs containing the second stage of juvenile are called embryonated egg. These are infective to human host. In suitable conditions of temperature and moisture these eggs can survive for 5 to 6 years in the soil.

Question143

Which of the following statements is without exception for sponges? (1996)

Options:

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.

Answer: B

Solution:

Solution:
(b) : Sponges may have calcareous or siliceous spicules. All sponges are not marine, some are freshwater living also. Sponges may be asymmetrical or bilaterally symmetrical, besides being radially symmetrical. So, these characters are with exception. The character without exception is the regenerative power of sponges.
All sponges have a good power of regeneration. They can regrow any part of the body lost or cut off. Small fragments can grow into a complete sponge.

Question144

When an animal has both the characters of male and female, it is called (1996)

Options:

A. super female

B. super male

C. intersex

D. gynandromorph.

Answer: D

Solution:

Solution:
(d) : Gynandromorph (hermaphrodite) is an animal that possesses both male and female characteristics. For example, earthworm.

Question145

Coelom is found between (1996)

Options:

A. body wall and ectoderm

B. ectoderm and endoderm

C. mesoderm and body wall (endoderm)

D. mesoderm and ectoderm.

Answer: C

Solution:

Solution:
(c) : Coelom is a fluid-filled cavity that forms the main body cavity of vertebrate and most invertebrate animals. It is found between mesoderm and body wall (endoderm).

Question146

Pneumatic bone is found in (1996)

Options:

A. shark

B. Rana

C. pigeon

D. whale.

Answer: C

Solution:

Solution:
(c) : Pneumatic bone is present in pigeon to keep the bones light weight because the pigeon has to fly. Pneumatic bone has a hollow cavity, which makes it light.

Question147

The nephridia in earthworm are analogous to (1996)

Options:

A. nematoblasts of Hydra

B. flame cells of Planaria

C. gills of prawn

D. trachea of insects.

Answer: B

Solution:

Solution:
(b) : Analogous organs are organs of very disparate organisms and are superficially similar but have evolved from vastly different origins. They have same function but different structure. The nephridia in earthworm are analogous to flame cells of Planaria since both of them have excretory functions. Nematoblasts of Hydra are organs of locomotion, food capture and anchorage. Gills and trachea are organs of respitation in prawn and insects respectively

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Question148

Which of the following is common among mammals? (1996)

Options:

A. They undergo no moulting.

B. They have seven cervical vertebrae.

C. They are carnivores.

D. They have ventral nerve cord.

Answer: B

Solution:

Solution:
All mammals are characterised by presence of mammary glands, hair on the body, presence of diaphragm, visceral gill clefts and dorsal nerve cord and seven cervical vertebrae. All mammals are not carnivorous. They include all type of individuals - herbivores, carnivores and omnivores. Moulting is usually seen in invertebrates. Presence of 7 cervical vertebrae in the neck is a common feature o f mammals.

Question149

The formation of canal system in sponges is due to (1996)

Options:

A. folding of inner walls

B. gastro-vascular system

C. reproduction

D. porous walls.

Answer: D

Solution:

(d) : The body wall of sponges encloses a large cavity, the spongocoel and in most cases also contains in its thickness numerous small cavities, the canals. Either the spongocoel or certain canals are lined by choanocytes with flagella. The ceaseless beating of flagella maintains a steady current of water through the canals in the sponge body. The current of water enters through small pores, the dermal ostia, perforating the porocytes and, after passing through various canals, enters the spongocoel, and finally leaves through a larger aperture, the osculum, or apertures, the oscula.

All the cavities in a sponge body are intercommunicating, and are collectively referred to as the canal system. The current of water that flows through the canal system brings in food and oxygen, and carries away carbon dioxide and nitrogenous waste materials. Thus, the canal system helps the sponge in nutrition, respiration and excretion.

Question150

Which of the following organisms possesses characteristics of a plant and an animal?
(1995)

Options:

A. Euglena

B. Paramecium

C. Bacteria

D. Mycoplasma

Answer: A

Solution:

Solution:
(a): Euglena possesses the characteristics of both plant and animal. It has chlorophyll, thus it is autotrophic like plants. In contrast to this, it has flagellated locomotion like animals.

Question151

Besides annelida and arthropoda, the metamerism is exhibited by
(1995)

Options:

A. mollusca

B. acanthocephala

C. cestoda

D. chordata.

Answer: D

Solution:

(d) : The term metamerism refers to a linear repetition of parts in an animal body. It occurs in three highly organized phyla : Annelida, Arthropoda and Chordata. Each segment is called a metamere, or somite. Segmentation often affects both external and internal structures. Such a condition is called metameric segmentation. In chordates, the segmentation is apparent only in the embryonic stage. In the adult chordates, segmentation is visible in the internal structures, such as vertebrae, ribs, nerves and blood vessels. Other animals have unsegmented bodies

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Question152

The function of contractile vacuole, in protozoa, is (1995)

Options:

A. osmoregulation

B. reproduction

C. locomotion

D. digestion of food

Answer: A

Solution:

Solution:
(a) : The function of contractile vacuole is osmoregulatory. Water in freshwater protozoa enters the organism by endosmosis and during feeding. If the organism does not possess a mechanism to get rid of this excess water, it will swell to the point of rupture and dissolution. The mechanism which is assumed to effect water regulation is the contractile vacuole. The vacuole periodically increases in volume (diastole) to get filled with water and contracts (systole) to discharge its water content to the surrounding environment.

Question153

The organisms attached to the substratum, generally, possess (1995)

Options:

A. one single opening of the digestive canal

B. cilia on the surface to create water current

C. radial symmetry

D. asymmetrical body.

Answer: C

Solution:

Solution:
(c) : The organisms attached to the substratum possess radial symmetry in all vertical planes. All the animals belonging to cnidaria (e.g. jellyfish) and echinodermata (e.g. starfish) are radially symmetrical and typically sessile in their adult form. In radial symmetry the parts in an organ or organism when cut through the centre in any direction produces two halves that are mirror images of each other.

Question154

The sympathetic nerves, in mammals, arise from (1995)

Options:

A. sacral nerves

B. 3^{rd} , 7^{th} , 9^{th} and 10^{th} cranial nerves

C. thoraco-lumbar nerves

D. cervical nerves.

Answer: C

Solution:

Solution:
(c) : Sympathetic nervous system forms a part of autonomic nervous system that consists of nerves which connect the visceral receptors and effectors with the central nervous system through the crania and spinal nerves. Sympathetic nerves arise from thoracolumbar nerves.

Question155

The oestrous cycle is a characteristic of (1995)

Options:

A. human females only

B. mammalian females other than primates

C. human males only

D. mammalian males other than primates.

Answer: B

Solution:

Solution:
(b) : Oestrous cycle comprises cyclic changes in female reproductive system of non-primate mammals like cows, dogs, etc. The oestrous cycle consists of a short period of oestrous or 'heat' (e.g., 18 hours in cow) followed by the rest of period of anoestrous or ' passive'. During oestrous, the female receives the male for copulation. During anoestrus, the female becomes passive and does not receive the male. Although the break down of tissues takes place in the female reproductive tract at the end of an oestrous cycle, yet there is no menstruation.

Question156

A common characteristic of all vertebrates without exception is (1994)

Options:

A. the division of body into head, neck, trunk and tail

B. their body covered with an exoskeleton

C. the possession of two pairs of functional appendages

D. the presence of well-developed skull.

Answer: D

Solution:

Solution:
(d) : The sub-phylum vertebrata or craniata have a well developed central nervous system that is differentiated into brain and spinal cord. Brain is protected by a brain box called cranium, so they are also called as craniata.

Question157

One of the special characters of coelenterata only is the occurrence of (1994)

Options:

A. polymorphism

B. flame cells

C. hermaphroditism

D. nematocysts.

Answer: D

Solution:

(d) : The cells characteristic of the coelenterates include stinging cells (cnidocytes or cnidoblasts or nematoblasts) for offence and defence. The stinging cells, when discharged, give out from a sac, the cnide or cnidocyst or nematocyst, a long thread-tube that may coil around the prey, or attach to it, or inject a toxin, called hypnotoxin, into it to paralyse it.

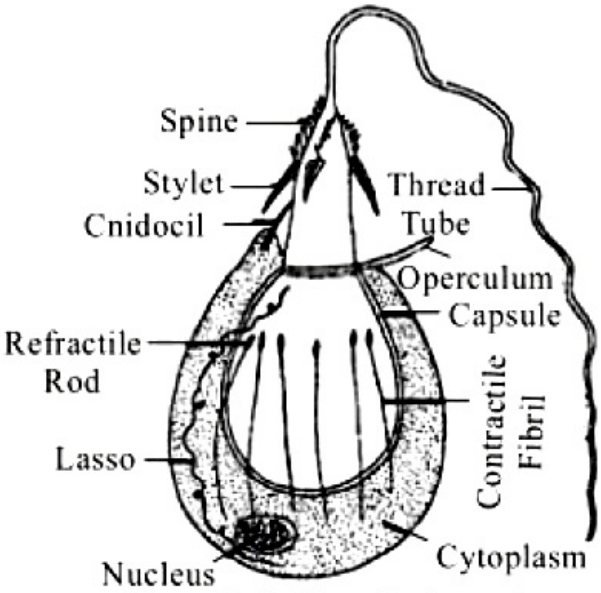

Fig. : Cnidoblast discharged.

Question158

Radial symmetry is, usually, exhibited in animals which (1994)

Options:

A. are attached to the substratum

B. have one opening of alimentary canal

C. live in water

D. have ciliary mode of feeding.

Answer: A

Solution:

The organisms attached to the substratum possess radial symmetry in all vertical planes. All the animals belonging to cnidaria (e.g. jellyfish) and echinodermata (e.g. starfish) are radially symmetrical and typically sessile in their adult form. In radial symmetry the parts in an organ or organism when cut through the centre in any direction produces two halves that are mirror images of each other.

Question159

Adult Culex and Anopheles can be distinguished with the help of (1992)

Options:

A. mouth parts/colour

B. sitting posture

C. antennae/wings

D. feeding habits.

Answer: B

Solution:

Solution:
(b) : Two common mosquito genera, Anopheles and Culex can be easily identified by their sitting postures. When sitting, the abdomen of Anopheles is always held at an angle to the surface while that of Culex is held parallel to the surface.

Question160

Which of the following is an example of platyhelminthes? (1994)

Options:

A. Plasmodium

B. Schistosoma

C. Trypanosoma

D. Wuchereria

Answer: B

Solution:

Solution:
(b) : Platyhelminthes have soft and dorsoventrally flattened body with bilateral symmetry. Plasmodium and Trypanosoma belong to Phylum Protozoa while Wuchereria belongs to Phylum Aschelminthes.

Question161

Among the following organisms point out a completely non-parasitic

form
(1994)

Options:

A. tape worm

B. mosquito

C. sea anemone

D. leech.

Answer: C

Solution:

Solution:
(c) : Sea anemone is completely non-parasitic form. It shows the example of mutualism. Sea anemone attaches itself to shell used by a hermit crab. The anemone obtains nourishment from the scraps of food left by the crab, and is transported from place to place when the crab moves. The crab is protected by the stinging cells in the tentacles of sea anemone. Mosquito and leech are parasites of animals and feed on their blood. Tapeworm is a human gut parasite.

Question162

Tube feet are the characteristic structures of
(1994)

Options:

A. starfish

B. jellyfish

C. crayfish

D. cuttlefish.

Answer: A

Solution:

Solution:
(a) : Starfish belongs to the phylum echinodermata who have developed tube feet for locomotion. The tube feet generally protrude out through special radial areas called ambulacra. They are extended and retracted by variations in hydraulic pressure of fluid in them and by contractions of their muscles.
Cuttle fish belongs to the Phylum Mollusca and it swims. Crayfish belongs to the Phylum Arthropoda in which locomotion occurs by jointed appendages. Jelly fish belongs to the Phylum Cnidaria and it swims.

Question163

Two examples in which the nitrogenous wastes are excreted from body in the form of uric acid are
(1994)

Options:

A. birds and lizards

B. frogs and cartilaginous fish

C. insects and bony fish

D. mammals and molluscs.

Answer: A

Solution:

Solution:
(a) : Birds and lizards are uricotelic. Uricotelic animals are those that excrete nitrogenous waste in the form of uric acid. It is being insoluble in water, does not require water for its elimination. Frogs and cartilaginous fish are ureotelic, that is they excrete nitrogenous waste in the form of urea. The main excretory matter of insects is uric acid and of bony fish is ammonia (ammoniotelic). Molluscs may be ammoniotelic or uricotelic. Mammals are ureotelic (excretory matter is urea).

Question164

In man and mammals, air passes from outside into the lungs through
(1994)

Options:

A. nasal cavity, larynx, pharynx, trachea, bronchi, alveoli

B. nasal cavity, larynx, pharynx, trachea, bronchioles, alveoli

C. nasal cavity, pharynx, larynx, trachea, bronchioles, bronchi, alveoli

D. nasal cavity, pharynx, larynx, trachea, bronchi, bronchioles, alveoli.

Answer: D

Solution:

Solution:
(d) : Air passes from the external nares into the nasal cavity where the dust particles are trapped. From nasal cavity, the air moves into pharynx which is a short, vertical tube. It further leads into two tubes, trachea and oesophagus. Larynx is the upper part of trachea. Besides forming a part of the respiratory tract, it also serves as the voice box. Trachea is a thin walled tube that extends downward through the neck. It divides into two primary bronchi which on entering the lungs divide into fine branches called bronchioles which enter the alveoli. Exchange of gases occur in alveoli.

Question165

Which of the following does not have an open circulatory system? (1994)

Options:

A. Frog's tadpole

B. Prawn

C. Chelifer

D. Cockroach

Answer: A

Solution:

Solution:
(a): In the open circulatory system, the blood is not confined to the blood vessels, but it flows in the open spaces. Prawn, Chelifer and cockroach have open circulatory system. Frog's tadpole has closed circulatory system, that is the blood flows in the blood vessels.

Question166

Which is common between ostrich, penguin and kiwi? (1993)

Options:

A. Running birds

B. Migratory birds

C. Flightless birds

D. Four toed birds

Answer: C

Solution:

Solution:
(c) : The ostrich is a flightless bird native to Africa. It is the only living species of its family. It is distinctive in its appearance, with a long neck and legs and the ability to run at speeds of about 65 km/h (40 mph), the top land speed of any bird. Penguins are a group of aquatic, flightless birds living almost exclusively in the Southern Hemisphere. A kiwi is any of the species of small flightless birds endemic to New Zealand.

Question167

Which one assists in locomotion? (1993)

Options:

A. Trichocysts in Paramecium

B. Pedicellariae of star fish

C. Clitellum in Pheretima

D. Posterior sucker in Hirudinaria

Answer: D

Solution:

Solution:
(d) : The looping or crawling movement in Hirudinaria is performed with the help of muscles and suckers which serve for attachment.

Question168

What is true about Taenia saginata? (1993)

Options:

A. Life history has pig as intermediate host.

B. There are two large suckers on scolex.

C. Rostellar hooks are absent.

D. Rostellum has double circle of hooks.

Answer: C

Solution:

Solution:
(c) : The beef tapeworm Taenia saginata is similar to the pork tapeworm Taenia solium, in structure and life history. It is the commonest tapeworm of man with a much greater incidence than that of T. solium. Scolex bears four strong, rounded, adhesive suckers but lacks hooks and rostellum.

Question169

Which one of the following animals possesses nerve cells but no nerves? (1993)

Options:

A. Hydra

B. Tapeworm

C. Earthworm

D. Frog's tadpole

Answer: A

Solution:

Solution:
(a) : Hydra possesses a very primitive type of nervous system. It includes bipolar and multipolar nerve cells or neurones lying immediately above the muscle processes and forming an irregular and discontinuous nerve net or nerve plexus.Neighbouring nerve cells are not fused together, but their processes or neurites form synaptic junctions. Such a nerve net is called a synaptic nerve net. Nerve cells are numerous around mouth and on pedal disc but show no groupings in the form of a nerve controlling centre like brain or nerve ring. A difference from higher animals is that the nerve net of Hydra is unpolarized so that impulses can pass in all directions (diffuse transmission). In brief, nerve net shows diffuse unpolarized transmission, autonomy of parts and paucity of reflexes.

Question170

Budding is a normal mode of asexual reproduction in (1993)

Options:

A. starfish and Hydra

B. Hydra and sponges

C. tapeworm and Hydra

D. sponge and starfish.

Answer: B

Solution:

Solution:
(b): Budding is an asexual mode of reproduction in Hydra and sponges. Bud is formed as an outgrowth on the body surface, then detached to form new animal.

Question171

Tracheae of cockroach and mammal are similar in having (1993)

Options:

A. paried nature

B. noncollapsible walls

C. ciliated inner lining

D. origin from head.

Answer: B

Solution:

Solution:
(b) : Tracheae act as passage of air during respiration in both cockroach and mammals. In cockroach, the cuticular lining is spirally thickened forming taenidia which prevents the tracheal tubes from collapsing. In mammals, cartilaginous rings supporting the walls of the tracheae prevent their collapsing.

Question172

A larval stage occurs in the life history of all members of the group (1993)

Options:

A. frog, lizard and cockroach

B. Ascaris, housefly and frog

C. housefly, earthworm and mosquito

D. butterfly, frog and mosquito.

Answer: D

Solution:

Solution:
(d) : In butterfly, the larval stage is known as caterpillar, in frog is known as tadpole and in mosquito is known as wriggler.

Question173

Gorilla, chimpanzee, monkeys and humans belong to the same (1993)

Options:

A. species

B. genus

C. family

D. order.

Answer: D

Solution:

Solution:
(d) : Gorilla, chimpanzee, monkeys and humans belong to the same order i.e.., primates. They have well developed brain, flat nails on fingers and toes. First digit is usually opposable, an adaptation for grasping. Eyes are typically large and turned forward.

Question174

What is common in whale, bat and rat?
(1993)

Options:

A. Absence of neck

B. Muscular diaphragm between thorax and abdomen

C. Extra-abdominal testes to avoid high temperature of body

D. Presence of external ears

Answer: B

Solution:

Solution:
(b) : Whale, bat and rat are mammals. Diaphragm is present in mammals. The diaphragm separates the thoracic cavity (with lung and heart) from the abdominal cavity (with digestive system and urogenital system). In its relaxed state, the diaphragm is shaped like a dome. It is controlled by the phrenic nerve.

Question175

Bullfrog of India is
(1992)

Options:

A. Rana tigrina

B. R. sylvatica

C. R. ecutesbeiana

D. R. esculenta.

Answer: A

Solution:

Solution:
(a) : The common Indian bull frog Rana tigrina lives in or near permanent freshwater lakes, ponds and streams. It is in the water most of the time. It lives near water mainly for two reasons: (i) To keep skin moist to carry on cutaneous respiration, and (ii) To immediately jump or slip into water to escape from enemies.

Question176

Aristotle's lantern occurs in Class (1992)

Options:

A. Echinoidea

B. Asteroidea

C. Holothuroidea

D. Ophiuroidea.

Answer: A

Solution:

Solution:
(a) : Aristotle's lantern occurs in the Class Echinoidea. Five teeth surrounding the mouth are attached to a masticatory apparatus, called Aristotle's lantern, after its discoverer and because of its resemblance to an ancient Greek ship-lantern. It is situated within the test and projects slightly through the mouth. It consists of five large calcareous plates, called pyramids or alveoli. By means of special protractor and retractor muscles the lantern can be partially protracted and retracted through the mouth. Aristotle's lantern is used in feeding.

Question177

Starfish belongs to (1992)

Options:

A. asteriodea

B. ophiuroidea

C. holothuroidea

D. crinodiea.

Answer: A

Solution:

Solution:
(a) : Starfishes belong to Class Asteroidea, characterized by the presence of five or more arms not sharply set off from a central disc. They are free living marine animals that occur on sandy or muddy bottoms or crawl about over rocks and shells. All are carnivorous, feeding mainly on crustaceans, polychaetes and molluscs. They also feed on detritus and plankton. They are in general, exhibit remarkable powers of autotomy and regeneration.

Question178

Eye of the molluscan group that resembles vertebrate eye is (1992)

Options:

A. bivalvia

B. gastropoda

C. pelecypoda

D. cephalopoda.

Answer: D

Solution:

Solution:
(d) : In cephalopoda paired eyes are large, efficient and bulge from the dorso-lateral sides of the head. They bear striking resemblance to those of a vertebrate in that a cornea, iris, lens and retina are present. Lens projects an inverted image on the retina, as in the vertebrate eye. External muscle attachments enable limited movements of the eye. But the embryological development of the cephalopod eye is entirely different from that of the vertebrate eye, so that homologically they are different, for the vertebrate eye is formed as an outgrowth of the brain, while the cephalopod eye is formed by an ectodermal invagination.

Question179

Sound box of birds is called (1992)

Options:

A. pygostyle

B. larynx

C. syrinx

D. synsacrum.

Answer: C

Solution:

Solution:
(c): At the posterior end or base of the trachea, at its junction with the bronchi, is found a special structure, the syrinx or voice box, concerned with sound production. It is characteristic of birds as it does not occur in other vertebrates.

Question180

Assertion (A) : Periplaneta americana is nocturnal, omnivorous, household pest.
Reason (R) : It is because it acts as scavenger.
(1992)

Options:

A. A is true but R is false.

B. A is false but R is true.

C. Both A and R are true and R is correct explanation of A.

D. Both A and R are true but R is not correct explanation of A.

Answer: D

Solution:

Solution:
(d) : Cockroaches are found in places where there is warmth, dampness and plenty of organic food to devour. Indoors, they are a common pest in kitchens, latrines, hotels, restaurants, godowns, storerooms, board ships, etc.
Cockroaches are nocturnal creatures. During daytime, they remain inactive and hiding. During night, they show much activity and run here and there in search of food. Being omnivorous and scavengers in diet, they devour any animal or vegetable substance and even non-living materials like leather, paper, cloth, etc., causing great loss.

Question181

Ascaris larva is called
(1992)

Options:

A. cysticercus

B. rhabditiform

C. hexacanth

D. onchosphere.

Answer: B

Solution:

Solution:
(b) : In Ascaris, rhabditiform larva of first stage is not infective. In a week's time, it moults within the egg shell and becomes the second stage rhabditoid, which is capable of infecting the host. Cysticercus, hexacanth and onchosphere are the larval stages of Taenia.

Question182

What is correct about Taenia?
(1992)

Options:

A. Male organs occur in posterior proglottides.

B. Male organs occur in anterior proglottides.

C. Female organs occur in anterior proglottides.

D. Mature proglottides contain both male and female organs.

Answer: D

Solution:

Solution:
(d) : There are about 450 mature proglottids forming the middle part of strobila. These are large and squarish in outline. The anterior 100 to 150 proglottids contain only male reproductive organs, while the posterior 250 mature proglottids develop both male and female reproductive organs making them hermaphrodite.

Question183

The simplest type of canal system in Porifera is
(1992)

Options:

A. ascon type

B. leucon type

C. sycon type

D. radial type.

Answer: A

Solution:

(a) : Sponges belong to the Phylum Porifera. Ostia, spongocoel and osculum together form a canal system which is characteristic of all sponges. Canal system of Leucosolenia is of ascon type. It is the simplest type of canal system found in sponges. Water enters directly through ostia into the central spongocoel, which is lined by choanocytes, and leaves through osculum. Sycon type of canal system is found Sycon and Leucon type is found in Spongilla. There is no canal system named as radial type.

Question184

An egg laying mammal is (1992)

Options:

A. kangaroo

B. platypus

C. koala

D. whale.

Answer: B

Solution:

Solution:
Duck-billed platypus is an egg laying mammal. It is found in the rivers in eastern Australia and Tasmania. It is a beaver like monotreme about 50-60 cm long and well adapted to live in water. Usually, two eggs are laid at a time. The female curls around them for incubation and remains inactive for about two weeks. Newly hatched young ones are very immature, naked, blind and each is 2.5 cm long.

Question185

Kidney of adult rabbit is (1992)

Options:

A. pronephros

B. metanephros

C. mesonephros

D. opisthonephros.

Answer: B

Solution:

Solution:
(b) : Kidney of adult rabbit is metanephros. It is formed from the posterior end of the nephrogenic mesoderm which is displaced somewhat anteriorly and laterally.

Question186

Homeostasis is
(1991)

Options:

A. tendencyto charge with change in environment

B. tendency to resist change

C. disturbance in regulatory control

D. plants and animal extracts used in homeopathy.

Answer: B

Solution:

Solution:
(b) : Homoeostasis is the regulation by an organism of the chemical composition of its body fluids and other aspects of its internal environment so that physiological processes can proceed at optimum rates. It involves monitoring changes in the external and internal environment by means of receptors and adjusting the composition of the body fluids accordingly; excretion and osmoregulation are important in this process. Example of homeostatic regulation are the maintenance of the acid-base balance and body temperature.

Question187

Which one occurs in echinodermata?
(1991)

Options:

A. Bilateral symmetry

B. Radial symmetry

C. Porous body

D. Soft skin

Answer: B

Solution:

Solution:
(b) : Radial symmetry is the arrangement of parts in an organ or organism such that cutting through the centre of the structure in any direction produces two halves that are mirror images of each other. All animals belonging to the cnidaria (e.g., jellyfish) and echinodermata (e.g., starfish) are radially symmetrical.

Question188

An insect regarded as greatest mechanical carrier of diseases is (1991)

Options:

A. Pediculus

B. Cimex

C. Musca

D. Xenopsylla.

Answer: C

Solution:

Solution:
(c) : Musca is the zoological name of house fly which is regarded as mechanical carrier of many diseases. It is very active and keeps on visiting on dirty things and eatables as well.

Question189

Metamorphosis of insects is regulated through hormone (1991)

Options:

A. pheromone

B. thyroxine

C. ecdysone

D. all of these.

Answer: C

Solution:

(c) : Ecdysone is a steroid hormone, secreted by a pair of prothoracic glands in the thorax of insects and by Y-organs in crustaceans, that stimulates moulting and metamorphosis. In insects its release is stimulated by prothoracicotropic hormone.

Question190

Classification of Porifera is based on (1991)

Options:

A. branching

B. spicules

C. reproduction

D. symmetry.

Answer: B

Solution:

Solution:
(b) : The Phylum Porifera is divided into three classes : calcarea or calcispongiae, hexactinellida or hyalospongiae and demospongiae or sclerospongiae, on the basis of spicules (skeleton). Class Calcarea have calcareous spicules, Class Hexactinellida have siliceous spicules and Class Demospongiae have siliceous spicules or spongin fibres or both.

Question191

The excretory structutes of flatworms/ Taenia are (1991)

Options:

A. flame cells

B. protonephridia

C. malpighian tubules

D. green glands.

Answer: A

Solution:

(a) : Flame cells are scattered throughout parenchyma from which they remove metabolic wastes. A flame cell is of irregular shape, with granular cytoplasm and a nucleus. Bundle of cilia, or flame, arises from basal granules near nucleus.

Cilia are enclosed into a funnel-shaped lumen formed by the terminal blind end of a capillary. Protonephridia are found in flatworms, Malpighian tubules in insects and green glands in crustaceans.

Question192

Bladderworm/cysticercus is the larval stage of (1991)

Options:

A. tapeworm

B. roundworm

C. pinworm

D. liver fluke.

Answer: A

Solution:

Solution:
(a) : Cysticercus is the larval stage of tapeworm which is characterised by a large vesicle and one scolex. Cysticercus develops in adult tapeworm only when ingested by the human host. In pig's body it leads quite an inactive life and remains viable for several years, after which it dies and becomes calcified. Pork (pig's flesh) containing viable cysticerci is called measly pork for its spotted appearance.

Question193

Ecdysis is shedding of (1990)

Options:

A. stratum corneum

B. epidermis

C. dermis

D. stratum malpighi.

Answer: A

Solution:

(a) : The stratum corneum ("the horny layer") is the outermost layer of the epidermis (the outermost layer of the skin). It is composed mainly off dead cells that lack nuclei. In reptiles, the stratum corneum is permanent, and is only replaced during times of rapid growth, in a process called ecdysis or moulting. During ecdysis, small fragments of this layer are

periodically shed of from the body. The new layer is regularly formed by underlying stratum germinativum.

Question194

Penguin occurs in (1990)

Options:

A. Australia

B. Antarctica

C. Africa

D. America.

Answer: B

Solution:

Solution:
(b) : Penguins are a group of aquatic, flightless birds living almost exclusively in Antarctica. All penguins are countershaded - that is, they have a white underside and a dark (mostly black) upper side. This is for camouflage.

Question195

Kala-azar and Oriental Sore are spread by (1990)

Options:

A. housefly

B. bed bug

C. sand fly

D. fruit fly.

Answer: C

Solution:

(c) : Visceral leishmaniasis, also known as kala-azar and black fever, is the most severe form of leishmaniasis, a disease caused by parasites of the Leishmania genus.It is transmitted by sand fly. The adult female sand fly is a bloodsucker, usually feeding at night on sleeping prey. When the fly bites an animal infected with L . donovani, the pathogen is ingested along with the prey's blood. Leishmania tropica produces skin ulcers known as oriental sore or Delhi sore. The disease is spread by sand flies. The parasite lives in the endothelial cells of skin capillaries. It leads to ulcerated wounds with raised edges. They do not cause much pain.

Question196

Malpighian tubules are (1990)

Options:

A. excretory organs of insects

B. excretory organs of annelids

C. respiratory organs of insects

D. respiratory organs of annelids.

Answer: A

Solution:

Solution:
(a) : In insects Malpighian tubules are attached to the alimentary canal at the extreme anterior end of hindgut. These are fine, long, unbranched, yellowish and blind tubules lying freely in the haemolymph. These are between 60 to 150 in number and are arranged in $6-8$ bundles. These excrete out nitrogenous wastes from the body in the form of uric acid.

Question197

Taenia saginata differs from Taenia solium in (1990)

Options:

A. absence of scolex hooks

B. absence of scolex hooks and uterine branching

C. absence of scolex hooks and presence of both male and female reproductive organs

D. presence of scolex hooks.

Answer: A

Solution:

Solution:
(a): The beef tapeworm Taenia saginata is similar to the pork tapeworm Taenia solium, in structure and life history. It is the commonest tapeworm of man with a much greater incidence than that of T . solium. Its intermediate hosts are cattle and buffaloes. It is longer than T.solium, usually attaining a length upto 12 meters or more. Scolex bears four strong, rounded, adhesive suckers but lacks hooks. Strobila comprises up to 2,000 proglottids. A gravid proglottid contains about 100,000 eggs. Uterus of gravid proglottids has 15 to 35 branches on either side.

Question198

Onchosphere occurs in (1990)

Options:

A. Ascaris

B. Fasciola

C. Taenia

D. Planaria.

Answer: C

Question199

Eutherians are characterised by (1989)

Options:

A. hairy skin

B. true placentation

C. ovoviviparity

D. glandular skin.

Answer: B

Solution:

Solution:
(b) : Eutheria is a taxon containing the placental mammals, such as humans. Nevertheless, all Eutherians are placental mammals. This means that a Eutherian foetus is nourished during gestation by a placenta. Eutherians are also viviparous, meaning that the offspring are carried in the mother's womb until fully developed.

Question200

Wish bone of birds is from (1989)

Options:

A. pelvic girdle

B. skull

C. hind limbs

D. pectoral girdle/clavicles.

Answer: D

Solution:

Solution:
(d) : The wishbone, known in anatomy as the furcula, is a sternum bone found in birds which is shaped like the letter Y. It is used as an attachment point for the wing muscles. It is so named because of a tradition: Two people pull on each side of such a bone, and when it breaks, the one who gets the larger part is said to have a wish granted. Two clavicles fused with inter clavicle to form a fork shaped bone called wish bone.

Question201

Flight muscles of bird are attached to (1989)

Options:

A. clavicle

B. keel of sternum

C. scapula

D. coracoid.

Answer: B

Solution:

Solution:
(b) : In birds, the pectoral and supracoracoideus muscles that power the wings are anchored to a large bony keel along the midline of the sternum.

Question202

A chordate character is (1989)

Options:

A. gills

B. spiracles

C. post-anal tail

D. chitinous exoskeleton.

Answer: C

Solution:

Solution:
(c) : The diagnostic characters of chordates are notochord, dorsal hollow nerve cord, pharyngeal slits and post anal tail. Tail is the part of the body behind the cloacal or anal opening. It contains skeletal elements, muscles, blood vessels and nerves but no viscera. It provides much of propulsive force in aquatic species. The tail is reduced or absent in the adults of some chordates.

Question203

Earthworms are
(1989)

Options:

A. useful

B. harmful

C. more useful than harmful

D. more harmful.

Answer: A

Solution:

Solution:
(a) : Earthworms are very useful. All over the world they are used as bait for fishing. Earthworms are in general beneficial to agriculture. Their habit of burrowing and swallowing earth increases fertility of soil in many ways. Their burrows permit penetration of air and moisture in porous soil, improve drainage, and make easier the downward growth of roots. Excretory wastes and other secretions of worms also enrich soil by adding nitrogenous matters that form important plant food. Earthworms were used variously as medicines in the past. Earthworms were used to cure stones in bladder, yellowness of jaundice, pyorrhoea, piles, rheumatism or gout, diarrhoea. Earthworms are easily obtained and are of convenient size for dissections. They are, therefore, universally employed for class studies and for investigations in general and comparative physiology.

Question204

Transfer of Taenia to secondary host occurs as (1989)

Options:

A. oncosphere

B. cysticercus

C. morula

D. egg.

Answer: A

Solution:

Solution:
(a) : Eggs of Taenia undergo cleavage to form morula. Morula, at its morphologically posterior end, develops three pairs of chitinous hooks secreted by differentiated cells, called onchoblasts. This six hooked embryo, called hexacanth, possesses a pair of large penetration glands. It is surrounded by two hexacanth membranes. The hexacanth, together with all the membranes surrounding it, is known as onchosphere. The secondary or intermediate host acquires infection by ingesting the onchospheres. Pig, which regularly feeds on human excreta is the usual secondary host, but dog, monkey and sheep are also known to get the infection. Man himself may serve as the secondary host by ingesting onchospheres with inadequately cooked or raw vegetables.

Question205

Jelly fish belongs to Class (1989)

Options:

A. Hydrozoa

B. Scyphozoa

C. Anthozoa

D. none of these.

Answer: B

Solution:

Solution:
(b) : Jelly fish belongs to the Class Scyphozoa of the Phylum Cnidaria. Its genus is Aurelia. Aurelia is found in the coastal waters of the tropical and temperate seas. Aurelia may float passively or swim actively, singly or in shoals. It is carnivorous and unisexual. It has a soft, gelatinous, saucer-like body. Its margin bears numerous short tentacles and 8 sense organs, called rhopalia, in notches of the margin. Each sense organ is enclosed by a pair of leaf-like lappets. At the centre of the lower (subumbrellar) surface is the squarish mouth surrounded by 4 long oral arms.

Question206

Fish which can be used in biological control of mosquitoes/larvicidal fish is
(1989)

Options:

A. Eel

B. carp

C. cat fish

D. Gambusia.

Answer: D

Solution:

Solution:
(d) : Gambusia is a species of freshwater fish. It is remarkably hardy, surviving in waters of very low oxygen saturations, high salinities and high temperatures. For these reasons, this species may now be the most widespread freshwater fish in the world, having being introduced as a biocontrol in certain countries to control mosquitoes. It feeds on larval and pupal stages of mosquitoes.

Question207

Hair occur in all mammals except those of
(1988)

Options:

A. rodentia

B. chiroptera

C. primata

D. cetacea.

Answer: D

Solution:

Solution:
(d) : Order Cetacea includes whales, dolphins and porpoises. These are the most highly modified mammals. They have a fish-like body with smooth, hairless skin devoid of sweat and oil glands, far posterior nares, small eyes, minute ear openings without pinnae, paddle-like forelimbs, no hind limbs, abdominal testes and flattened tail ending in two horizontal flaps or flukes.

Question208

Bird vertebrae are
(1988)

Options:

A. acoelous

B. heterocoelous

C. amphicoelous

D. procoelous.

Answer: B

Solution:

Solution:
(b) : Bird vertebrae are heterocoelous i.e., the centra of vertebrae have saddle - shaped ends. Acoelous refers to vertebrae that are flat on both ends (mammals). Amphicoelous means both ends of the centrum are concave (fish). Procoelous means concave in front and convex in back (anurans and reptiles).

Question209

Feet of kingfisher are modified for
(1988)

Options:

A. wading

B. perching

C. running

D. catching.

Answer: A

Solution:

Solution:
(a) : Hind limbs are variously modified for various functions like perching, grasping etc. In the kingfisher they are modified for wading. The legs and toes are exceptionally long and slender and serve to walk over aquatic vegetation or marshes.

Question210

Both male and female pigeons secrete milk through
(1988)

Options:

A. salivary glands

B. modified sweat glands

C. crop

D. gizzard.

Answer: C

Solution:

Solution:
(c) : Pigeons are noted for their unique ability to produce "pigeon's milk", a soft, cheesy and nourishing secretion, especially during the breeding season. It is formed by the degeneration of the epithelial cells lining the crop. It is regurgitated into the mouth of the young birds until they are old enough to manage a grain-diet like their parents. The pigeon's milk includes water, fat, protein (casein) and lactose. The milk is produced by both sexes and contains 35 per cent of fat.

Question211

Typhlops is
(1988)

Options:

A. sea snake

B. glass snake

C. blind snake

D. grass snake.

Answer: C

Solution:

Solution:
(c) : Typhlops is a genus of blind snakes (nonpoisonous snake) found in Europe, Africa, Asia and Central and South America. Sea snake is a poisonous snake while grass snake is a non-poisonous snake. Glass snake is a lizard.

Question212

Necturus is

(1988)

Options:

A. hell bender

B. congo eel

C. mud puppy

D. blind worm.

Answer: C

Solution:

Solution:
(c) : Necturus is a mud puppy belonging to the Order Urodela of Class Amphibia. Hell bender is a large salamander. Amphiuma is a Congo Eel and Ichthyophis is a blind worm.

Question213

Fire bellied toad is
(1988)

Options:

A. Amphiuma

B. Bombina

C. Necturus

D. Salamandra.

Answer: B

Solution:

Solution:
(b) : The fire-bellied toads is a group of eight species of small toads belonging to the genus Bombina . They are found across much of Europe and Asia, staying in water or near the shore. Their name derives from the brightly coloured red or yellow and black patterns on their ventral region, which act as warning to its predators. Amphiuma is a Congo-eel. Necturus is a mud puppy and Salamandra is a salamander.

Question214

Which is not a true amphibian animal?
(1988)

Options:

A. Salamander

B. Toad

C. Tortoise

D. Erog

Answer: C

Solution:

Solution:
(c) : Tortoise belongs to the Class Reptilia. Its body is protected by a shell consisting of a dorsal carapace and ventral plastron.

Question215

A wood boring mollusc/shipworm is (1988)

Options:

A. Chiton

B. Teredo

C. limax

D. Patella.

Answer: B

Solution:

Solution:
(b) : The common name of Teredo is shipworm which belongs to the class bivalvia of the Phylum Mollusca. In it, head is absent and foot is wedge shaped for burrowing. Shell consists of two valves. The common name of Chiton is the coat of mail shell (Class Amphineura), Limax is the grey slug (Class Gastropoda) and Patella is true limpet (Class Gastropoda).

Question216

Silk thread is obtained from silk moth during (1988)

Options:

A. pupal stage

B. larval stage

C. nymph stage

D. adult stage.

Answer: A

Solution:

(a) : The mulberry silk moth has been the most commercially important beneficial insect. The silk is obtained by killing the pupa inside the hot water.Then, the silk thread is wound.

Question217

Organ Pipe Coral is (1988)

Options:

A. Tubipora

B. Astraea

C. Helipora

D. Fungia.

Answer: A

Solution:

(a) : The common name of Tubipora is Organ Pipe Coral. It is a marine animal of the Class Anthozoa (Phylum Cnidaria). It occurs on reefs in shallow waters of the Indian and Pacific oceans and is characterized by long, parallel upright polyps or stalks, supported by a skeleton of rigid tubes of calcium carbonate.
