

1. Which one of the following animals does not undergo metamorphosis?
NEET 2019
- (a) Moth (b) Tunicate
(c) Earthworm (d) Starfish
2. Integumentary nephridia in annelids are also called
DPMT 2004
- (a) enteronephric
(b) exonephric
(c) sometimes enteronephric and sometimes exonephric
(d) Both (a) and (b)
3. Anticoagulant secreted by leech is
- (a) heparin
(b) hirudin
(c) haematin
(d) haemoglobin
4. Identify the incorrect statement for the phylum-Annelida.
- (a) They show metameric segmentation
(b) They have both monoecious and dioecious animal representatives
(c) Excretory system consists of flame cells
(d) They do not have asexual reproduction
5. Which one of the following is not a characteristic of phylum-Annelida?
CBSE AIPMT 2008
- (a) Closed circulatory system
(b) Segmentation
(c) Pseudocoelom
(d) Ventral nerve cord
6. The characteristic by which annelids advanced over nematodes is/are
AMU 2005
- (a) true coelom
(b) metameric segmentation
(c) closed circulation
(d) All of the above
7. Which of the following options does correctly represent the characteristic features of phylum-Annelida?
NEET 2020
- (a) Triploblastic, unsegmented body and bilaterally symmetrical
(b) Triploblastic, segmented body and bilaterally symmetrical
(c) Triploblastic, flattened body and acoelomate condition
(d) Diploblastic, mostly marine and radially symmetrical
8. The phylum-Annelida derived its name due to
- (a) more organs are placed towards anterior part of the body
(b) the presence of antenna
(c) the presence of nephridia
(d) the presence of metameres
9. The animals belonging to phylum-Annelida use the following in locomotion.
- (a) Nephridia and nephridial pores
(b) Longitudinal and circular muscles
(c) Spicules and ostia
(d) None of the above
10. Which of the following are examples of phylum-Annelida?
- (a) *Hirudinaria*, *Nereis* and *Wuchereria*
(b) *Pheretima*, *Nereis* and *Pila*
(c) *Pheretima*, *Tubifex* and *Nereis*
(d) *Aplysia*, *Nereis* and *Dentalium*
11. Botryoidal tissue is found in
BHU 2002
- (a) rabbit
(b) *Hirudinaria*
(c) *Ascaris*
(d) earthworm
12. The chief function of chloragogen cells in megascolex is
DPMT 1999
- (a) storage of fat
(b) secretion of digestive fluids
(c) excretion of waste
(d) elimination of microorganisms
13. Heteronereis stage is
UP CPMT 1998
- (a) transformation of sexual individual into asexual
(b) sexually immature with two regions, atoke and epitoke
(c) sexually matured with two regions, atoke and epitoke
(d) All of the above
14. In which of the following, clitellum is absent?
Manipal 1997
- (a) Hirudinea
(b) Polychaeta
(c) Oligochaeta
(d) All of the above
15. 'Sea mouse' belongs to phylum
Odisha JEE 2003
- (a) Chordata (b) Mollusca
(c) Annelida (d) Echinodermata
16. Leeches are usually
J&K CET 2005
- (a) herbivorous
(b) carnivorous
(c) insectivorous
(d) sanguivorous
17. Annelids have a central nerve cord that is
Punjab PMET 2005
- (a) impermeable to K^+
(b) hollow nerve cord
(c) dorsal nerve cord
(d) ventral nerve cord
18. Photoreceptors of earthworm occur on
- (a) clitellum (b) many eyes
(c) dorsal surface (d) lateral sides
19. *Pheretima posthuma* is highly useful as
CBSE AIPMT 1990
- (a) their burrows make the soil loose
(b) they make the soil porous, leave their castings and take organic debris in the soil
(c) they are used as fish meal
(d) Both (a) and (b)
20. Blood of *Pheretima* is
CBSE AIPMT 1990
- (a) blue with haemocyanin in corpuscles
(b) blue with haemocyanin in plasma
(c) red with haemoglobin in corpuscles
(d) red with haemoglobin in plasma

Topic 8 Phylum - Arthropoda

1. Choose the correct option for larva of housefly. JIPMER 2019
 (a) Grub (b) Cypris
 (c) Maggot (d) Wiggler
2. Which of the following features is used to identify a male cockroach from a female cockroach? NEET 2018
 (a) Forewings with darker tegmina
 (b) Presence of caudal styles
 (c) Presence of a boat-shaped sternum on the 9th abdominal segment
 (d) Presence of anal cerci
3. Which of the following features is not present in the phylum-Arthropoda? NEET 2016
 (a) Metameric segmentation
 (b) Parapodia
 (c) Jointed appendages
 (d) Chitinous exoskeleton
4. Which of the following features is not present in *Periplaneta americana*? NEET 2016
 (a) Indeterminate and radial cleavage during embryonic development
 (b) Exoskeleton composed of N-acetyl glucosamine
 (c) Metamerically segmented body
 (d) Schizocoelom as body cavity
5. Match Column I with Column II for housefly classification and select the correct option using the codes given below. NEET 2016

Column I	Column II
A. Family	1. Diptera
B. Order	2. Arthropoda
C. Class	3. Muscidae
D. Phylum	4. Insecta

Codes

	A	B	C	D
(a)	3	1	4	2
(b)	3	2	4	1
(c)	4	3	2	1
(d)	4	2	1	3

6. In male cockroaches, sperms are stored in which part of the reproductive system? NEET 2016

- (a) Seminal vesicles
 (b) Mushroom glands
 (c) Testes
 (d) Vas deferens
7. Insects differ from spiders by the
 (a) presence or absence of wings, number of legs, presence or absence of haemocoel
 (b) presence or absence of antennae, number of germ layers, presence or absence of appendages
 (c) number of body divisions, number of legs, absence or presence of spinnerets
 (d) number of body divisions, presence or absence of antennae, number of legs
8. The larva of *Bombyx mori* is known as DUMET 2009
 (a) nymph (b) trochophore
 (c) cocoon (d) caterpillar
9. Similarity in *Ascaris lumbricoides* and *Anopheles stephensi* is CBSE AIPMT 2000
 (a) sexual dimorphism
 (b) metamerism
 (c) anaerobic respiration
 (d) endoparasitism
10. The option that is not the respiratory organ of phylum-Arthropoda is
 (a) tracheal system
 (b) gills
 (c) water vascular system
 (d) book lungs
11. Which of the following animal is called is living fossil?
 (a) King locust
 (b) *Balanoglossus*
 (c) *Hydra*
 (d) *Limulus*
12. An insect that does not have any economic importance is
 (a) Silkworm (b) Honeybee
 (c) Locust (d) Lac insect
13. Exoskeleton of which phylum consists of a chitinous cuticle? J&K CET 2007
 (a) Annelida
 (b) Porifera
 (c) Arthropoda
 (d) Echinodermata

14. Choose the correct option.
 (a) Phylum-Mollusca is the third largest phylum
 (b) Phylum-Arthropoda is the second largest phylum
 (c) Phylum-Mollusca is the smallest phylum
 (d) Phylum-Arthropoda is the largest phylum of Animalia
15. Skeletal system in phylum-Arthropoda is
 (a) endoskeletal spicules structures
 (b) endoskeletal siliceous structures
 (c) exoskeletal calcareous covering
 (d) exoskeletal chitinous covering
16. Mark which statement is incorrect regarding to the phylum-Arthropoda?
 (a) Open type of circulatory system
 (b) Bilaterally symmetrical, coelomate animals
 (c) Diploblastic with head, thorax and abdomen
 (d) Presence of Malpighian tubules and antennae
17. The excretory organ in cockroach is Kerala CEE 2007
 (a) Malpighian corpuscle
 (b) Malpighian tubules
 (c) hepatic caecae
 (d) metanephridia
 (e) green glands
18. Taxonomically which of the following set belongs to phylum-Arthropoda? Haryana PMT 2009
 (a) Cuttlefish, jellyfish, silverfish
 (b) Bat, pigeon, kite
 (c) Lobsters, spider, shrimps
 (d) Oyster, otter, *Octopus*
19. Spiders belong to class
 (a) Insecta (b) Merostoma
 (c) Diplopoda (d) Arachnida
20. Match the following columns.

Column I	Column II
A. <i>Palamnaeus</i>	1. Crustacea
B. <i>Musca</i>	2. Chilopoda
C. <i>Scolopendra</i>	3. Diplopoda
D. Wood louse	4. Insecta
	5. Arachnida

Codes

	A	B	C	D
(a)	5	4	2	1
(b)	4	6	2	5
(c)	2	3	5	4
(d)	3	1	5	4

21. Class—Crustacea have

- (a) tracheae and Malpighian tubules
- (b) book gills and coxal gland
- (c) gills and antennal glands
- (d) None of the above

22. The organisms that fall under phylum—Arthropda.

- (a) Chiton, prawn and cockroach
- (b) Cockroach, scorpion and prawn
- (c) Chiton, earthworm and scorpion
- (d) Prawn, *Schistosoma* and *Planaria*

23. Book lungs and book gills are found in

- (a) prawns and king crabs
- (b) scorpion and cuttle fish
- (c) *Pila* and crabs
- (d) scorpion and king crabs

24. Assertion (A) Arthropods are able to survive in adverse conditions.

Reason (R) Arthropods have well-developed sense organs, compound eyes and taste receptors.

- (a) Both A and R are true and R is the correct explanation of A
- (b) Both A and R are true, but R is not the correct explanation of A
- (c) A is true, but R is false
- (d) Both A and R are false

25. The organs that assist in balancing in mosquito is EAMCET 2005

- (a) hairy appendages
- (b) mouth parts
- (c) hemelytra
- (d) halteres

26. What is common among silverfish, scorpion, crab and honeybee?

- (a) Jointed legs CBSE AIPMT 1997
- (b) Metamorphosis
- (c) Compound eyes
- (d) Poison glands

27. In Arthropoda, head and thorax are often use to form cephalothorax, but in which one of the following classes, is the body divided into head, thorax and abdomen?

- (a) Insecta CBSE AIPMT 2004
- (b) Myriapoda
- (c) Crustacea
- (d) Arachnida and Crustacea

28. Branchial formula showing number and disposition of respiratory organs in each gill chamber of *Palaemon* is UP CPMT 1998

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

29. Which of the following gland controls egg production and moulting in insects? AIIMS 1996

- (a) Corpus callosum
- (b) Corpora allata
- (c) Corpora spongiosa
- (d) All of the above

30. The endocrine gland of insects, which secretes the juvenile hormone is AIIMS 1997, UP CPMT 1995

- (a) corpora albicans
- (b) corpora allata
- (c) corpora myecaena
- (d) All of the above

31. The mouth parts of female *Anopheles* mosquito are adapted for BHU 1993

- (a) chewing
- (b) sucking
- (c) biting
- (d) Both (a) and (c)

32. The common housefly (*Musca nebulosa*) lays its eggs on BHU 1995

- (a) stagnant water
- (b) open meats and sweets
- (c) hanging rope
- (d) cow/horse dung

33. Green glands present in some arthropods help in BHU 2007

- (a) respiration
- (b) excretion
- (c) digestion
- (d) None of these

34. *Limulus* belongs to class BHU 1998, Manipal 1994

- (a) Merostomata
- (b) Insecta
- (c) Crustacea
- (d) Onychophora

35. What is the similarity between fly, mosquitoes and cockroach? BHU 1999, UP CPMT 1996

- (a) Respiration by trachea
- (b) All have 3 pairs of legs
- (c) Open excretory system
- (d) All belong to class-Insecta

36. Freshly hatched larva of housefly lacks BHU 1999

- (a) eyes
- (b) wings
- (c) spiracles
- (d) hindlegs

37. In the butterfly, the long coiled siphoning tube is derived from BHU 1999

- (a) labrum
- (b) paraglossae
- (c) maxillae
- (d) mandibles





38. Mandibles are absent in the mouth parts of BHU 1999

- (a) locust
- (b) cockroach
- (c) bed bug
- (d) housefly

39. An arthropods whose excretory organ in nephridia belongs to Onychophora is BHU 2001

- (a) *Limulus*
- (b) *Peripatus*
- (c) *Daphnia*
- (d) *Lepisma*

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

Column I	Column II	Column III
A. 	i. Scorpion	p. Gregarious pest
B. 	ii. Locust	q. Green gland
C. 	iii. Prawn	r. Viviparous animals
D. 	iv. Butterfly	s. Holometabolous type of development

Codes

A	B	C	D
(a) iii,q	iv,r	i,s	ii,p
(b) ii,q	iii,r	iv,s	i,p
(c) iii,q	iv,s	i,r	ii,p
(d) i,p	ii,q	iii,r	iv,s

41. The hind pair of wings of mosquitoes are represented by BHU 2002

- (a) pulvilli
- (b) halteres
- (c) scutella
- (d) elaters

42. Among the following, colonial insects are BHU 2006

- (a) locusts
- (b) mosquitoes
- (c) white ants
- (d) bed bug

Topic 9 Mollusca

- Radula is a part of which animal?
JIPMER 2019
(a) Mollusca (b) Porifera
(c) Coelenterata (d) Annelida
- Torsion of visceral mass is seen in animals belonging to class
JIPMER 2017
(a) Cephalopoda (b) Scaphopoda
(c) Amphineura (d) Gastropoda
- Triploblastic, schizocoelic, unsegmented soft bodied animals belongs to the phylum J&K CET 1998
(a) Annelida
(b) Mollusca
(c) Nematelminthes
(d) None of the above
- Assertion (A)** In many gastropods, the anus and the mantle cavity are placed anteriorly above the head.
Reason (R) During embryonic development in many gastropods, one side of the visceral mass grows faster than the other side. This uneven growth rotates the visceral organs up to 180° in many gastropods.
EAMCET 2008
(a) Both A and R are true and R is the correct explanation of A
(b) Both A and R are true, but R is not the correct explanation of A
(c) A is true, but R is false
(d) Both A and R are false
- The body of organisms belonging to phylum–Mollusca is divided into
(a) head, thorax and abdomen
(b) head, muscular foot and abdomen
(c) head, thorax, visceral hump and muscular foot
(d) head, muscular foot and visceral hump
- Phylum–Mollusca lack
(a) visceral hump
(b) Malpighian tubules
(c) organ system organisation
(d) gills
- The organ that enables feeding in phylum–Mollusca is
(a) ctenidia
(b) undulating membrane
(c) ganglia
(d) radula
- The mantle in the phylum–Mollusca is a
(a) calcareous shell
(b) chitinous outer covering
(c) soft spongy layer of skin
(d) All of the above
- The generic name of tusk shell of elephant is Haryana PMT 2004
(a) *Dentalium* (b) *Chaetoderma*
(c) *Chiton* (d) *Neopilina*
- Molluscs are usually
(a) terrestrial and parasitic
(b) aquatic and parasitic
(c) aquatic or terrestrial
(d) marine or terrestrial
- What is true about phylum–Mollusca?
(a) Presence of metameric segmentation
(b) Presence of mantle cavity and coelom cavity
(c) Presence of tissue level of organisation
(d) Presence of chitinous exoskeleton
- Development of Mollusca
(a) may have a larvae named trocophore
(b) is always direct without larval stages
(c) is with a larval stage called glochidium
(d) is with a larval stage called wriggler
- Pearl is produced in the bivalve belonging to the genus Kerala CEE 2003
(a) *Ostraea* (b) *Pinctada*
(c) *Pecten* (d) *Lamellidens*
(e) *Mytilus*
- Match the following of columns.

Column I	Column II
A. <i>Dentalium</i>	1. Monoplacophora
B. <i>Pila</i>	2. Scaphopoda
C. <i>Sepia</i>	3. Amphineura
D. <i>Neopilina</i>	4. Gastropoda
	5. Cephalopoda

Codes

	A	B	C	D
(a)	2	5	4	1
(b)	2	4	5	1
(c)	1	3	4	5
(d)	2	4	3	5
- Osphradium of *Pila globosa* is a Punjab PMET 2003, Manipal 2002
(a) thermoreceptor (b) photoreceptor
(c) chemoreceptor (d) tangoreceptor
- Shell of molluscs is produced by its BHU 1998
(a) radula (b) visceral mass
(c) mantle (d) None of these
- Squid, cuttle fish and *Octopus* belongs to class of BHU 2001
(a) Decapoda
(b) Scaphopoda
(c) Cephalopoda
(d) Apoda
- Hard shell, muscular body, ommatidiophores and foot are description about BHU 2003
(a) *Periplaneta* (b) *Limulus*
(c) *Pila* (d) tortoise
- In molluscs, eye is present over a stalk called BHU 2006, UP CPMT 2007
(a) ostractum (b) operculum
(c) ommatophores (d) osphradium
- The pigment haemocyanin is found in Punjab PMET 1994, UP CPMT 1998
(a) Chordata (b) Mollusca
(c) Annelida (d) Echinodermata
- Foot is displaced to the neighbourhood of mouth and divided into arms in DPMT 1999, Punjab PMET 1996
(a) *Ostrea* (b) *Sepia*
(c) *Pila* (d) *Chiton*
- Cilia of gills of bivalve molluscs help in DPMT 2005
(a) protection (b) respiration
(c) excretion (d) feeding
- Which of the following is an excretory organ in Mollusca? Manipal 2002
(a) Keber's organ
(b) Nephridia
(c) Malpighian organ
(d) Flame cells
- Which among the following is not a class of phylum–Mollusca? Manipal 2001
(a) Gastropoda (b) Scaphopoda
(c) Cephalopoda (d) Hexapoda

Topic 10 Phylum—Echinodermata

1. In which of the following phyla, the adult shows radial symmetry, while the larva shows bilateral symmetry?
 (a) Annelids
 (b) Arthropods
 (c) Molluscs
 (d) Echinodermata
2. Higher phylum like Echinodermata is
 (a) quadroblastic animals
 (b) triploblastic animals
 (c) diploblastic animals
 (d) uniblastic animals
3. A distinctive trait of phylum—Echinodermata is
 (a) radial symmetry
 (b) water vascular system
 (c) mantle cavity
 (d) acoelomate
4. Phylum—Echinodermata comprises of
 (a) sea urchin, cuttle fish and sea lily
 (b) *Echinus*, sea hare and sea cucumber
 (c) *Antedon*, *Ophiura* and *Echinus*
 (d) *Ophiura*, *Chaetopteura* and *Echinus*
5. Tube feet are the locomotory organ in
 (a) starfish
 (b) jellyfish
 (c) silverfish
 (d) *Scoliodon*
6. Scientific name of starfish is
 (a) *Echinus*
 (b) *Limulus*
 (c) echidna
 (d) *Asterias*
7. Skeletal system in echinoderms is
 (a) formed by the distension of the water vascular system
 (b) siliceous endoskeleton
 (c) calcareous exoskeleton
 (d) calcareous and siliceous exoskeleton
 (e) None of the above
8. Excretory organ in echinoderms is
 (a) Malpighian tubules
 (b) nephridia
 (c) green glands
 (d) tube feet
9. Which of the following phyla has no freshwater forms?
 (a) Echinodermata
 (b) Mollusca
 (c) Chordata
 (d) Porifera
10. Ambulacral grooves are absent in the living forms of the class
 (a) Crinoidea
 (b) Asteroidea
 (c) Ophiuroidea
 (d) Echinodermata
11. Which of the following is a characteristics of echinoderm?
 (a) Endodermal skeletal system
 (b) Bilateral symmetry
 (c) Free-floating larval forms
 (d) All of the above
12. Aristotle's lantern is found in
 (a) sea urchin
 (b) sea cucumber
 (c) sea star
 (d) starfish
13. Typical example of 'Ophiuroidea' is
 (a) sea urchin
 (b) starfish
 (c) sand dollar
 (d) brittle star
14. Which of the following is an enterocoelic invertebrate?
 (a) *Ophiothrix*
 (b) *Sepia*
 (c) *Polygordius*
 (d) *Cimex*
15. Sea cucumbers belong to class
 (a) Echinoidea
 (b) Holothuroidea
 (c) Ophiuroidea
 (d) Asteroidea
16. Sea lilies are
 (a) echinoderms
 (b) coelenterates
 (c) rotifers
 (d) aquatic plants
17. Closed circulatory system is not found in
 (a) *Octopus*
 (b) tunicates
 (c) echinoderms
 (d) squids
18. *Antedon* belongs to
 (a) Asteroidea
 (b) Crinoidea
 (c) Ophiuroidea
 (d) Echinoidea
19. The nature of exoskeleton in echinoderms is
 (a) calcareous
 (b) chitinous
 (c) siliceous
 (d) tunicin
20. Which of the following is an exclusively echinoderm character?
 (a) Radial symmetry
 (b) Tube feet
 (c) Mesodermal endoskeleton
 (d) Coelom divided
21. The pentaradial symmetry is seen in
 (a) Echinodermata
 (b) Arthropoda
 (c) Mollusca
 (d) Annelida
22. Which of the following exhibits radial symmetry?
 (a) *Schistosoma*
 (b) *Asterias*
 (c) *Taenia*
 (d) *Unio*
23. Read the statements regarding echinoderms and choose the correct option.
 I. All are marine with organ system level of organisation.
 II. Adults are bilaterally symmetrical.
 III. They are dioecious.
 IV. Fertilisation is internal and indirect development is observed.
 V. Triploblastic and acoelomate animals.
 (a) I and III are correct
 (b) V alone is correct
 (c) I, III and V are correct
 (d) I and V are correct
24. Which of the following is not a correct identification or characteristic feature of the organism depicted below in the diagram?



- (a) The organism illustrated in the figure is *Ophiura* (brittle star)
 (b) They are exclusively in marine waters
 (c) The adults are radially symmetrical, but larvae are bilaterally symmetrical
 (d) They are triploblastic, coelomate and segmented animals

Chapter 11: Phylum Hemichordata

- The notochord-like structure of hemichordates is called
 - proboscis
 - pyloric
 - protochord
 - stomochord
- Hemichordates are
 - marine and disc-like
 - freshwater and disc-like
 - marine and worm-like
 - freshwater and worm-like
- The body of *Balanoglossus* is divided into
 - head and trunk
 - head, neck and abdomen
 - proboscis, collar and trunk
 - prosoma, mesasoma and metasoma
- In *Balanoglossus*, the mouth is present in
 - proboscis
 - collar
 - hepatic
 - abdomen
- The examples of hemichordates are
 - Balanoglossus* and *Sacculina*
 - Saccoglossus* and *Herdmania*
 - Cephalodissus* and *Pyrosoma*
 - Balanoglossus* and *Saccoglossus*
- Which of the following is a hemichordate?
 - Herdmania*
 - Doliolum*
 - Balanoglossus*
 - Branchiostoma*
- Balanoglossus* is also called
 - lung worm
 - blood worm
 - sea mouse
 - tongue worm
- The circulatory system of hemichordates is
 - closed type
 - open type
 - lacunar type
 - Both (b) and (c)
- Excretory organ in *Balanoglossus* are DPMT 1991, 2008
 - nephridia
 - antennary gland
 - collar cord
 - proboscis gland
- The larva of hemichordates is called
 - bipinnaria
 - pluteus
 - amphiblastula
 - tornaria