Shiksha Classes, Bhandara

Biology

Animal Kingdom

(1.) Which of the following is a basic feature of all the organisms of Animalia?

(a.) Multicellular structure
(b.) Sensory and neuromotor system
(c.) Terrestrial habitat
(d.) Locomotion

(2.) Which of the following lack tissue grade organization?

(a.) Metazoans
(b.) Eumetazoans
(c.) Parazoans
(d.) None of these

(3.) Match the columns.

Column – I	**Column – II**
(a.) Organ level	(1) Pheretima
(b.) Cellular aggregate level	(2) Fasciola
(c.) Tissue level	(3) Spongilla
(d.) Organ system level	(4) Obelia

Codes

(a.)

A	B	C	D
2	4	3	1

(b.)

A	B	C	D
2	3	4	1

(c.)

A	B	C	D
4	1	2	3

(d.)

A	B	C	D
1	2	3	4

(4.) Choose the correct option

(a.) Ctenophores andplatyhelminthes possess complete digestive system.
(b.) Aschelminthes to chordates, all possess organ system level of organization along with complete digestive system.
(c.) Coelenterates andaschelminthes possess organ system level of organization along with complete digestive system.
(d.) Poriferans may possess complete digestive system.

(5.) The entry of food and exit of waste takes place from separate openings in

(a.) organisms having incomplete digestive system
(b.) coelentrates, cteuophores and platyhelmiuthes
(c.) organisms having complete digestive system
(d.) organisms having cellular level of organization

(6.) Which of the following is incorrect?

(a.) Some division of labour (activities) occur among the cells in the members of phylum porifera.

(b.) Division of labour (activities) is completely absent among the cells in poriferans.

(c.) Open circulatory system is found in Tunicates, hemichordates, and non-cephalopod molluscs.

(d.) All of these

(7.) Choose the correct body symmetry shown in the diagram.

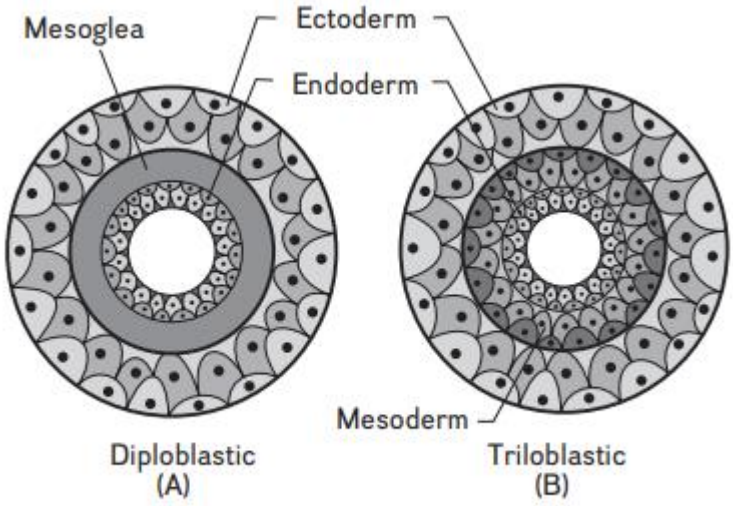
(a.) A – Radial, B – Bilateral

(b.) A – Bilateral, B – Pentamerous

(c.) A – Radial, B – Pentamerous

(d.) A – Bilateral, B – Radial

(8.) The diagram below shows the diploblastic and triploblastic germ layers in the animals. Identify the correct option in which they are found.



(a.) A – Molluscs, B – Chordates

(b.) A – Annelida, B – Porifera

(c.) A –Coelentrates, B – Platyhelminthes

(d.) A – Molluscs, B – Porifera

(9.) Choose the true statement:

(a.) Animals like annelids, arthropods,aschelminthes, molluscs, helminchordates and chordates possess

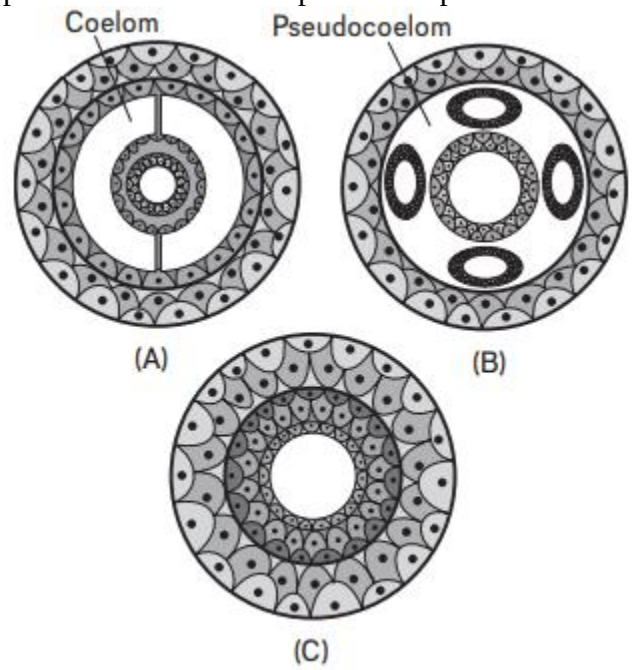
(b.) Most of the animals possess bilateral symmetry.

bilateral symmetry.

(c.) Polyhelminthes was the first phylum during evolution to exhibit bilateral symmetry.

(d.) All of these

(10.) Study the types of animals with respect to the presence or absence of body cavities:



(a.)

A	B	C
Coelomate	Pseudocoelomate	Acoelmate

(b.)

A	B	C
Acoelomate	Coelomate	Pseudocoelomate

(c.)

A	B	C
Acoelmate	Pseudocoelomate	Coelomate

(d.)

A	B	C
Pseudocoelomate	Coelomate	Acoelmate

(11.) Which of the following option is wrong?

(a.) Coelentrates and ctenophores are diploblastic.

(b.) Animals fromplatyhelminthes to chordates are triploblastic.

(c.) Radially symmetric animals remain attached to a surface by their aboral surface.

(d.) Mesoglea is an undifferentiated layer which do not form any tissue or organ.

(12.) Choose the incorrect match

(a.) Tube-within-tube body plan: Nemathelminthes, Annelida,Arthopoda, Mollusca, Echinodermata, Chordata

(b.) Cell-aggregate type body plan: Coelenterates

(c.) Blind-sac type body plan: Platyhelminthes and coelenterates

(d.) None of these

(13.) Which of the following is/are the function of coelom?

(a.) Absorb shock or provide hydrostatic skeleton

(b.) Support shock or provide hydrostatic skeleton

(c.) Allow muscles to grow independently of the body wall

(d.) All of these

(14.) Choose the animal with its correct category.

(a.)

Coelomates	Pseudo – Coelomates	Acoelomates
Aschelminthes, Annelids, Molluscs	Chordates Hemichordates	Platyhelminthes

(b.)

Coelomates	Pseudo – Coelomates	Acoelomates
Platyhelminthes, Annelids	Aschelminthes, Molluscs	Chordates, Hemichordates

(c.)

Coelomates	Pseudo – Coelomates	Acoelomates
Chordates, Hemichordates	Molluscs Platyhelminthes	Annelids

(d.)

Coelomates	Pseudo – Coelomates	Acoelomates
Annelids, Molluscs, Arthropods, Echinoderms, Hemichordates, Chordates	Aschelminthes	Platyhelminthes

(15.) Metamerism is present in

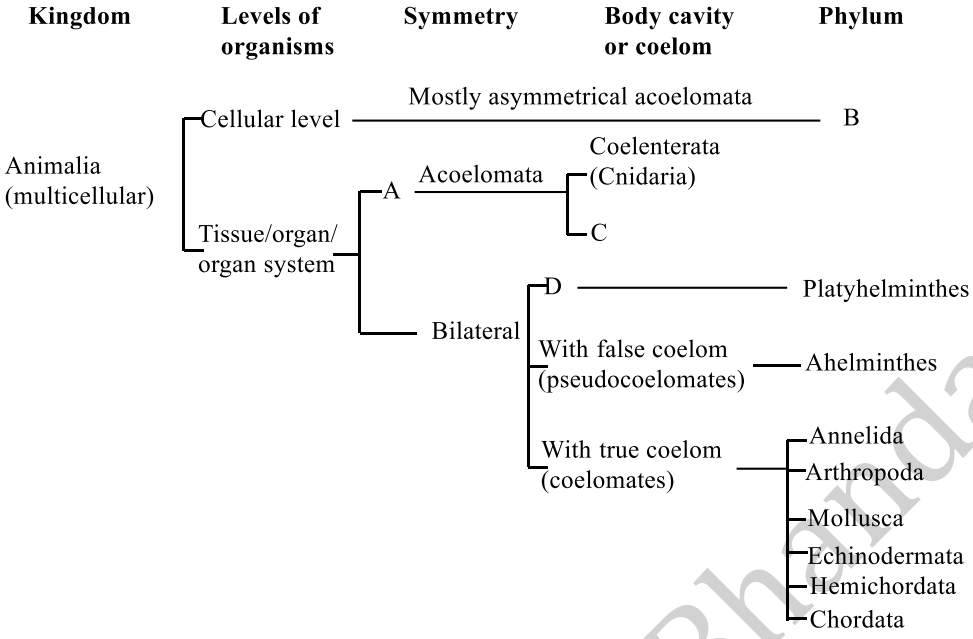
(a.) annelids

(b.) arthropods

(c.) chordates

(d.) all of these

(16.) Choose the correct label for A, B, C and D in the broad Classification of Kingdom Animalia based on common fundamental features as given below.



(a.)

A	B	C	D
Bilateral	Porifera	Ctenophora	Coelomate

(b.)

A	B	C	D
Radial	Porifera	Ctenophora	Acoelomate

(c.)

A	B	C	D
Bilateral	Porifera	Ctenophora	Coelomate

(d.)

A	B	C	D
Radial	Ctenophora	Porifera	Acoelomate

(17.) Choose the incorrect statement.
(I) Notochord is ectodermally derived rod-like structure.
(II) Notochord is formed on the dorsal side during embryonic development.
(III) The animals from porifera to Echinoderms are without notochord.
(IV) In some chordates, notochord is replaced by the vertebral column and these chordates are called vertebrates.

(a.) I and II
(b.) I, II, and III
(c.) II, III and IV
(d.) I only

(18.) Identify the correct lables A and B.

Notochord	**Nerve Cord**
A	Part of nervous system
Found in chordates only	Found in chordates as well as non-chordates
Dorsal side in chordates	B

(a.) A = Exoskeleton, B = Dorsal in chordates as well as in non-chordates

(b.) A = Endoskeleton; B = Ventral in chordates as well as in non-chordates

(c.) A = Exoskeleton; B = Ventral in chordates and dorsal in non-chordates

(d.) A = Endoskeleton; B = Dorsal in chordates and ventral in non-chordates

(19.) True coelom appear in which of the following during evolution?

(a.) Echinodermata

(b.) Annelida

(c.) Platyhelminthes

(d.) Aschelminthes

(20.) The layer absent in the embryos of diploblastic animals is

(a.) ectoderm

(b.) endoderm

(c.) mesoderm

(d.) mesoglea

(21.) Nerve cells and tissue level of organization first appeared in

(a.) coelentrates

(b.) ctenophora

(c.) chordate

(d.) porifera

(22.) In some animal groups, the body is found divided into compartments with at least some organs. This characteristic feature is called

(a.) segmentation

(b.) metamerism

(c.) metagenesis

(d.) metamorphosis

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

(a.) acoelomate

(b.) pseudocoelomate

(c.) coelomate

(d.) haemocoelomate

(24.) Match the following Columns

Column-I (Phylum)	**Column-II** (Characteristic Features)
(A) Porifera	(1) Canal system
(B) Aschelminthes	(2) Water vascular system
(C) Annelida	(3) Muscular pharynx
(D) Arthopoda	(4) Joined appendages
(E) Echinodermata	(5) Metameres

Codes

(a.)

A	B	C	D	E
1	3	5	4	2

(b.)

A	B	C	D	E
1	2	3	4	5

(c.)

A	B	C	D	E
5	4	3	2	1

(d.)

A	B	C	D	E
4	3	1	2	3

(25.) Which of the following animals are true coelomates with bilateral symmetry?

(a.) Adult echinoderms

(b.) Aschelminthes

(c.) Platyhelminthes (d.) Annelids

(26.) **Assertion**: The primary character of chordates is the presence of dorsal hollow nerve cord.
Reason: Vertebral column is derived from the notochord.

(a.) Both Assertion and Reason are true and Reason is correct explanation of Assertion.
(b.) Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
(c.) Assertion is true, but Reason is false.
(d.) Assertion is false, but Reason is true.

(27.) **Assertion**: Animals with radial symmetry has more advantage in detecting food and danger.
Reason: It allows animal to be able to respond to stimulus from any direction.

(a.) Both Assertion and Reason are true and Reason is correct explanation of Assertion.
(b.) Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
(c.) Assertion is true, but Reason is false.
(d.) Assertion is false, but Reason is true.

(28.) **Assertion**: Aschelminthes represent pseudocoelomates.
Reason: In aschelminthes, mesoderm is present as scattered pouches in between ectoderm and endoderm.

(a.) Both Assertion and Reason are true and Reason is correct explanation of Assertion.
(b.) Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
(c.) Assertion is true, but Reason is false.
(d.) Assertion is false, but Reason is true.

(29.) Sponges are

(a.) with water canal system
(b.) sexually reproducing by formation of gametes
(c.) both(a) and (b)
(d.) sessile or free-swimming

(30.) In case of poriferans, the spongocoel is lined with flagellated cells called

(a.) ostia
(b.) oscula
(c.) choanocytes
(d.) mesenchymal cells

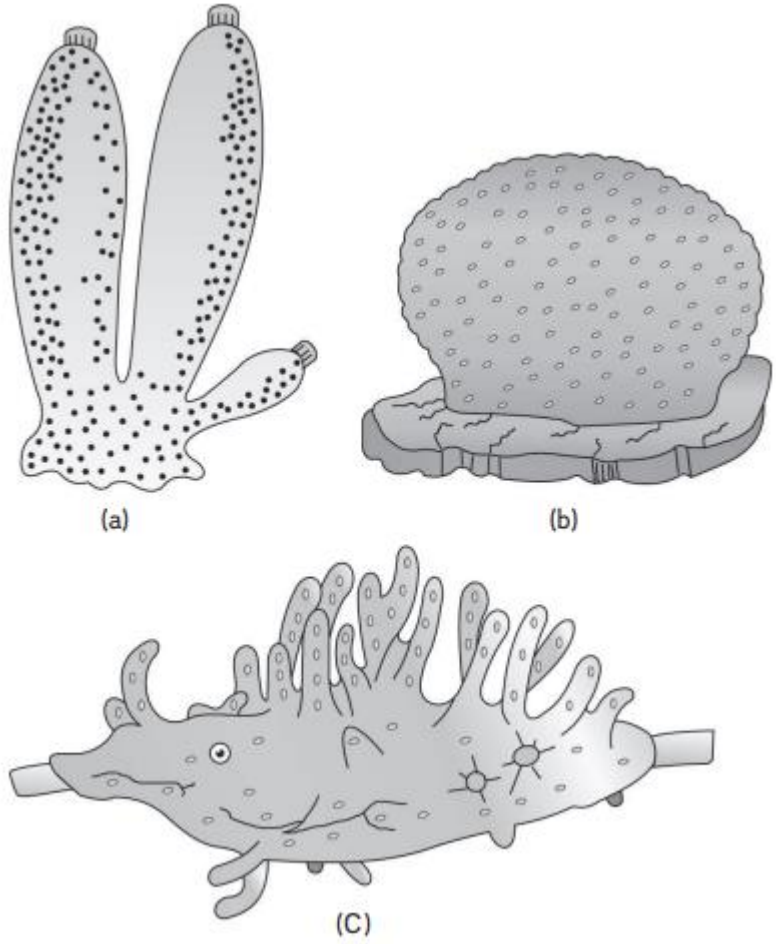
(31.) Body having meshwork of cells, internal cavities lined with food filtering flagellated cells and indirect development are the characteristics of phylum

(a.) coelenterata
(b.) porifera
(c.) mollusca
(d.) protozoa

(32.) In most simple type of canal system of porifera, water flows through which one of the following ways?

(a.) Ostia → Spongocoel → Osculum → Exterior
(b.) Spongocoel → Ostia → Osculum → Exterior
(c.) Osculum → Spongocoel → Ostia → Exterior
(d.) Osulum → Ostia → Spongocoel → Exterior

(33.) Examine the figures A, B, and C. In which one of the four options all the animals (Poriferans) are correct?



(a.) A - Sycon, B - Euspongia, C - Spongilla (b.) A - Euspongia, B - Spongilla, C - Sycon

(c.) A - Spongilla, B - Sycon, C - Euspongia (d.) A - Euspongia, B - Sycon, C - Spongilla

(34.) Which of the following is a freshwater sponge?

(a.) Euspongia (b.) Euplectella

(c.) Spongilla (d.) Sycon

(35.) In poriferans, the rudimentary division of labour is found between the

(a.) tissue (b.) cells

(c.) organs (d.) organ-system

(36.) Which of the following is not a characteristic of class Porifera?
(I) Development is indirect (larval stage is present).
(II) Mostly asymmetrical and usually marine
(III) Primitive multicellular animals with cellular level of organization.
(IV) Choanocytes line the spongocoel and the canals.
(V) Sexes are separate

(a.) I and IV (b.) II only

(c.) V only (d.) III and IV

(37.) Choose the correct characteristic for sponges.

(a.) They are highly regenerative (b.) They are universally radially symmetrical

(c.) The contain clarions spicules but lack the siliceous one (d.) They are found only in fresh water

(38.) Cnidocytes are

(a.) also calledcnidoblast or nematocyte (b.) explosive cells each of which contain giant secretory organelle calledCnida or nematocyst

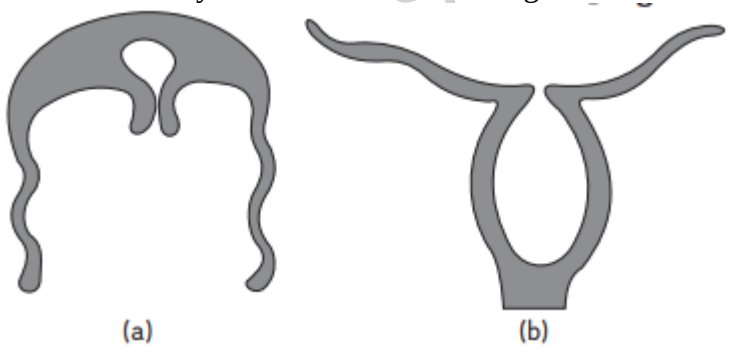
(c.) stinging cells (d.) with all the above features

(39.) Consider the following statements about cnidarians:
(I) They have tissue level of organization and triploblastic.
(II) Digestion is extracellular and intracellular.
(III) Corals secrete calcium bicarbonate form a skeleton.
(IV) Corals may harbour some photosynthetic dinoflagellates for taking nutrition.
(V) They possess a central gastro-vascular cavity with a single opening mouth in hypostome.

(a.) Statements I and III are correct (b.) Statements II, IV and V are correct

(c.) Statements I, II and III are correct (d.) Statements III and IV are incorrect

(40.) Here two basic body forms of cnidarians are given.



(a.) A and B are false swimming forms (b.) A and B are sessile form

(c.) A produce B asexually and B form the 'A' sexually (d.) B produce A sexually and A form the 'B' sexually

(41.) Match the columns.

Column-I	**Column-II**
(a.) Gorgonia	(1) Sea fan
(b.) Adamsia	(2) Sea pen
(c.) Physalia	(3) Portuguese man of war
(d.) Pennatula	(4) Sea anemone

Codes

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

(42.) 'Stinging capsules' or nematocytes are found in

(a.) sea anemone (b.) sea pen

(c.) sea fan (d.) all of these

(43.) Ctenophores

(a.) perform external fertilization (b.) have indirect development

(c.) both(a) and (b) (d.) have separate sexes

(44.) In tapeworms

(a.) flame cells are absent (b.) both exoskeleton and endoskeleton present

(c.) hooks and suckers present (d.) body is radially symmetrical

(45.) Which of the following is not a platyhelminthes

(a.) Wuchereria (b.) Taenia

(c.) Faxiola (d.) Planaria

(46.) Ascaris is characterized by

(a.) the absence of true coelom but presence of metamerism (b.) the presence of neither true coelom nor metamerism

(c.) the presence of true coelom but the absence of metamerism (d.) the presence of true coelom and metamerism

(47.) Which of the option is correct for the statements given below.
(I) Commonly called sea walnuts or comb jellies.
(II) Blue minescence is well marked.
(III) Body bear eight external rows of ciliated comb plates.
(IV) They have flame cells for osmoregulation and excretion.
(V) Alimentary canal is complete with a welldeveloped muscular pharynx. Ctenophores Platyhelminthes Aschelminthes

(a.) I, II, III IV V (b.) IV I, II III, V

(c.) I, II III, IV V (d.) IV, V II, III I

(48.) Phylum Platyhelminthes members are

(a.) dorsoventrally flattened, thus called flatworms (b.) bilaterally symmetrical,triptoblastic and acoelomates

(c.) with organ system level of organization (d.) with all the above features

(49.) Consider the following statements about aschelminthes:
(I) Their body is circular in cross-section, so are called round worms.
(II) Alimentary canal is incomplete
(III) Muscular pharynx is present
(IV) They are hermaphrodites Which of the following is correct?

(a.) I and III
(b.) II and IV
(c.) I, II and IV
(d.) IV only

(50.) Choose the incorrect option.

(a.) Mesoglea is present in between ectoderm and endoderm in Obelia.
(b.) Asterias exhibits radial symmetry.
(c.) Fasciola ispseudocolomate animal.
(d.) Taenica is a triploblastic animal

ANSWER

(1.)	a	**(2.)**	c	**(3.)**	b	**(4.)**	b	**(5.)**	c
(6.)	b	**(7.)**	a	**(8.)**	c	**(9.)**	d	**(10.)**	c
(11.)	c	**(12.)**	b	**(13.)**	d	**(14.)**	d	**(15.)**	a
(16.)	b	**(17.)**	d	**(18.)**	d	**(19.)**	b	**(20.)**	c
(21.)	a	**(22.)**	b	**(23.)**	b	**(24.)**	a	**(25.)**	d
(26.)	b	**(27.)**	a	**(28.)**	a	**(29.)**	c	**(30.)**	c
(31.)	b	**(32.)**	a	**(33.)**	a	**(34.)**	c	**(35.)**	b
(36.)	c	**(37.)**	a	**(38.)**	d	**(39.)**	b	**(40.)**	d
(41.)	a	**(42.)**	d	**(43.)**	c	**(44.)**	a	**(45.)**	a
(46.)	b	**(47.)**	a	**(48.)**	d	**(49.)**	a	**(50.)**	c

EXPLANATION

(1.) (a) Multicellular structure is the basic feature of all the organisms of Animalia.
(2.) (c) Parazoans lack tissue grade level of organization.
(3.) (b) A-2, B-3, C-4, D-1
(4.) (b) Aschelminthes to chordates, all possess organ system level of organization along with complete digestive system.
(5.) (c) The entry of food and exit of waste takes place from separate openings in organisms having complete digestive system.
(6.) (b) Poriferans have cellular level of organization with division of labour.
(7.) (a) A-Radial, B-Bilateral
(8.) (c) A-Coelentrates, B-Platyhelminthes
(9.) (d) All the given Statements are true.
(10.) (c) A-Acoelomate, B-Pseudocoelomate, C-Coelomate
(11.) (c) Radially symmetrical animals remain attached to a surface by their oral surface.
(12.) (b) Cell aggregate type body plan is seen porifera.
(13.) (d) A coelom can absorb shock or provide hydrostatic skeleton, support an immune System in the form of coelomocytes and allow muscles to grow independently of the body wall.
(14.) (d) Acoelomates – Profera to platyhelminthces Pseudocoelomates – Aschelminthes Coelomates – Annelids to chordates
(15.) (a) Metamerism is present in Annelids, e.g., earthworm.
(16.) (b) A - Radial B - Porifera C - Ctenophora D - Acoelomata
(17.) (d) Notochord is mesodermally derived rod-like structure formed on dorsalside during embryonic development in some animals.
(18.) (d) A = EndoSkeleton
B = Dorsal in chordates and neutral in nonchordates
(19.) (b) Annelida have true coelom first time in evolution.
(20.) (c) Mesoderm is absent in diploblastic animals.
(21.) (a) Coelentrata has nerve cells and tissue level of organization first in the coarse of evolution.
(22.) (b) In some animals, the body is externally and internally divided into segments with a serial repetition of at least some organs. This characteristic feature is called metamerism.
(23.) (b) Pseudocoelomates have body cavity present in them but not lined by mesoderm.
(24.) (a) A-1, B-3, C-5, D-4, E-2
(25.) (d) Annelids are animal phyla with true Coelom and bilateral symmetry.
(26.) (b) The primary character of chordates is the presence of dorsal hollow nerve cord. The vertebral column is derived from the notochord.
(27.) (a) Radial symmetry has more advantages to animals in detecting food and danger as it allows animal to be able to respond to stimulus from any direction.
(28.) (a) The phyloem aschelminthes represent pseuolocoelomates. In them mesoderm is present as scattered pouches in between ectoderm and endoderm.
(29.) (c) Sponges have a water transport or canal system. Sponges when reproduce sexually, it is by gametes.
(30.) (c) The body wall of a common sponge consists of three layers is pinacoderm, choanoderm and mesophyll layer. Choanoderm is inner cellular layer which consists of highly specialized flagellated cells called choanocytes. The beating of their flagella creates water current.

(31.) (b) In porifera (sponges), bodies are asymmetrical. Body lacks tissue or organs but forms a meshwork of cells surrounding channels that open to the outside through pores, and that expand into internal cavities lined with food filtering flagellated cells (Choanocytes).

(32.) (a) The ascon type is the simplest type of canal system found in asconoid sponges like leucosolenia. The course of water current is ascon type of canal system looks like.

$$\text{Ingressing water} \xrightarrow[\text{Ostia}]{\text{Through}} \text{Spongocoel} \xrightarrow{\text{Through osculum}} \text{Exterior}$$

(33.) (a) A - Sycon B - Euspongia C - Spongilla

(34.) (c) Spongilla is a freshwater sponge, Euspongia is bath sponge; Sycon is Scypha and Euplecterla is venus flower basket.

(35.) (b) Cellular level of organization is seen in sponges where there is rudimentary division of labour is found between the cells.

(36.) (c) Statement V is incorrect for sponges as sexes are separate in sponges. They are hermaphrodite, i.e., eggs and sperms are produced by the same individual.

(37.) (a) Sponges have high regenerative capacity, are asymmetrical, have spicules or spongin fibres and are both marine and fresh water type.

(38.) (d) The name cnidaria is derived from the presence of cnidoblasts or cnidocytes (which contain stinging capsules or nematocysts) present on the tentacles and the body. Cnidoblasts are used for anchorage, defense and for capture of prey.

(39.) (b) Cnidarians have tissue level of organization and are diploblastic. Corals have skeleton of calcium carbonate. Statements II, IV and V are correct.

(40.) (d) Cnidarians exhibit two basic body forms called medusa (a) and polyp (b). Polypis sessile form and Medusa is a free swimming umbrella shaped form. Polyps produce medusa asexually and medusa form the polyps sexually.

(41.) (a) A-1, B-3, C-4, D-2

(42.) (d) Sea anemone, sea pen, sea fan all are cnidarians and the presence of nematocytes is the characteristic feature of cnidarians.

(43.) (c) Ctenophores perform external fertilization with indirect development.

(44.) (a) In tapeworm or Platyhelminthes, hooks and suckers are present because these are mostly endoparasites.

(45.) (a) Wuchereria is an aschelminthes not a flatworm.

(46.) (b) Ascaris is characterized by the presence of neither true coelom nor metamerism. Body of ascaris is elongate, cylindrically gradually tapering at both ends. There is no metameric segmentation. The cavity between body wall and visceral organs is a spacious fluid filled cavity. This cavity is not true coelom as it is not lined by coelomate epithelium, has no relation with reproductive and excretory organs and develops from blastocoel.

(47.) (a) Ctenophores – I, II, III
Platyhelminthes – IV
Aschelminthes - V

(48.) (d) Platyhelminthes are bilaterally symmetrical, triptoblastic and coelomates animals with organsystem level of organization. Their body is dorsoventrally flattened thus called flatworms.

(49.) (a) Statements I and III are correct. Alimentary canal is complete with well-developed muscular pharynx or round worms. These are dioecious animals with separate sexes.

(50.) (c) Fasciola does not possess body cavity; hence, it is an acoelomate not a pseudocoelomate.