

Biology
Classified MCQ
Unit 3
2000 - 2020

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Unit 3 – Evolution and Diversity of Organisms

Evolution of life.

- (1) Which of the following statement is incorrect regarding the evolutionary process?
- (1) Natural extinction of species is a part of the evolutionary process.
 - (2) The last major extinction in the history of evolution of biodiversity is elimination of dinosaurs.
 - (3) The rate of evolution of species is generally higher than the rate of extinction of species.
 - (4) Rate of extinction of species decreases with increase in human population.
 - (5) Extinction of species favours the origin of new species. (2005)
- (2) Which of the following statements regarding Russel Wallace is correct?
- (1) The experiments supported theory of inheritance of acquired characters.
 - (2) The experiments disproved the theory of spontaneous generation of life.
 - (3) The carried out experiments to prove that organic matter can, arise from inorganic matter.
 - (4) The found evidence to support the theory of natural selection.
 - (5) The belived that life come to earth from outer space. (2005)
- (3) Which of the following events is an example of natural selection?
- (1) Prodacing a better variety of paddy, by hybridization of two different paddy varieties.
 - (2) Increase of paddy harvest due to the application of weedicide in the field.
 - (3) Increase of insects, resistant to insecticides when insecticides are applied in the paddy field.
 - (4) Decrease in biodiversity when agrochemicals are applied in the paddy field.
 - (5) Decrease of paddy harvest due to repaid spread of brown hopper. (2005)
- (4) "Features which are developed by an organism within the lifetime as adaptations to environment are transmitted to the offspring."
- (1) This is a view beleived by Charles Darwin.
 - (2) This is a theory put forward by Lamarck.
 - (3) This is an essential part of the theory of natural selection.
 - (4) This is a theory put forward by Thomas Malthus.
 - (5) This is necessary for the survival of the fittest. (2007)
- (5) Which is not an observation made by Darwin or Wallace in natural populations?
- (1) Natural populations have high reproductive potential.
 - (2) Gene pools of populations stay unchanged over long periods.
 - (3) Individuals in a population show variations.
 - (4) There is much competition among members of a population.
 - (5) Many indiveduals of a population do not reproduce. (2009)
- (6) Which of the following statements regarding the evolution of organisms is incorrect?
- (1) Organisms that evolved first on earth were anaerobic prokaryotes.
 - (2) Organisms with extensive specilization face the risk of extinction.
 - (3) Evolution of highly advantageous characters has lead to adaptive radiation.
 - (4) Shelled eggs of reptiles and birds are an ezample for parallel evolution.
 - (5) Warm bloodedness evolved before three dimensional vision. (2010)

- (7) The first organisms formed on earth are considered to be
- (1) heterotrophic, anaerobic, eukaryotes
 - (2) heterotrophic, anaerobic, prokaryotes
 - (3) autotrophic, anaerobic, eukaryotes
 - (4) heterotrophic, anaerobic, prokaryotes
 - (5) autotrophic, aerobic prokaryotes
- (2020-1)

- (8) Some statements regarding biochemical evolution are given below.
- P – Small organic molecules such as amino acids and nitrogenous bases were first formed in early oceans.
- Q – Small organic molecules polymerized to form organic macromolecules.
- R – Protocells contained nucleic acids enclosed in a membrane.

Which of the above statements is/are correct?

- (1) P only
 - (2) Q only
 - (3) P and Q only
 - (4) Q and R only
 - (5) P, Q and R
- (2020-8)

Hierachi of classification

- (1) Which of the following is the natural unit of classification?
- (1) Phylum/Division
 - (2) Class
 - (3) Order
 - (4) Family
 - (5) Species
- (2000)
- (2) Which one of the following correctly represents the scientific name of man according to binomial nomenclature?
- (1) *Homo Sepians*
 - (2) *Homo sapiens saplans*
 - (3) *Homo sapiens*
 - (4) *Homo sapiens*
 - (5) *Homo sepians*
- (2003)
- (3) Which of the following is/are the major criterion/criteria used in classifying organisms into five kingdoms?
- (A) Type of nutrition
 - (B) Type of reproduction
 - (C) Cellular organization
 - (D) Differentiation into true tissues
 - (E) Evolutionary tends
- (2004)
- (4) Which of the following characteristics are found only in a procaryotic organism?
- (A) Anerobic respiration.
 - (B) Mucopeptides in the cell wall.
 - (C) Presence of naked DNA in the cytoplasm.
 - (D) Ability to fix atmospheric nitrogen.
 - (E) Reproduction by binary fission.
- (2008)

- (5) The five kingdoms of organisms, and the characteristics used to group the organisms into these kingdoms, are given below. Which combination is incorrect?

Kingdom

Characteristics

- (1) Monera - Unicellular or multicellular, prokaryotic, cells not differentiated into tissues.
 (2) Fungi - Unicellular or multicellular, eukaryotic, cells not differentiated into tissues.
 (3) Protista - Unicellular or multicellular, eucaryotic.
 (4) Plantae - Multicellular, eucaryotic, cells differentiated into tissues.
 (5) Animalia - unicellular or multicellular, eukaryotic, cells differentiated into tissues when multicellular. (2009)

- (6) Which one of the following taxa has the highest number of common characteristics?

(1) Phylum (2) Class (3) Genus (4) Family (5) Order (2010)

- (7) Which of the following characteristics is/are common to Domains Archea and Eukarya?

- (A) Presence of several kinds of RNA Polymerases
 (B) Non-sensitivity to antibiotics
 (C) Presence of branched lipid molecules in the cell membrane
 (D) Absence of peptidoglycans in the cell wall
 (E) Eukaryotic cellular organization (2011)

- (8) Members of the Domain Archaea

- (1) have cell walls which lack peptidoglycans.
 (2) are ubiquitous.
 (3) have only one type of RNA polymerase.
 (4) are sensitive to many antibiotics.
 (5) have cell membranes which contain unbranched lipids. (2013)

- (9) In the classification of organisms, the taxon phylum was introduced by

(1) Carl Woese (2) Robert Whittaker (3) Ernest Haeckel
 (4) Carolus Linnaeus (5) Aristotle (2016-8)

- (10) Which of the following groups contains a genus that has branched lipids in the cell membrane?

- (1) *Lyngbya*, *Holobacterium*, *Cycas* and *Agaricus*
 (2) *Clostridium*, *Streptomyces*, *Fasciola* and *Chloroxylon*
 (3) *Melursus*, *Staphylococcus*, *Allomyces* and *Garcinia*
 (4) *Rhizopus*, *Hevea*, *Salmonella* and *Gelidium*
 (4) *Macrogathus*, *Mucor*, *Thiobacillus* and *Caryota* (2017-8)

- (11) Which of the following statements regarding classification of organisms is correct?

- (1) Viruses do not belong to any kingdom as they do not have a well organized nucleus.
 (2) Protista is a natural kingdom where organisms with different evolutionary origins are included.
 (3) The number of common characteristics found within a genus is higher than that of a species.
 (4) The kingdom of plants was first identified by Carolus Linnaeus.
 (5) Robert Whittaker introduced the three domain classification. (2018-8)

(12) Some features of organisms are given below.

Cellular	Peptidoglycan	RNA Polymerase	Response to Streptomycin
A – Prokaryotic	P – Present	P – One kind	X – Growth inhibited
B – Eukaryotic	Q – Absent	Q – Several kinds	Y – Growth not inhibited

Select the response that indicates the correct combination of above features for each of the organisms given below.

1) *Nostoc* - A, P, S, X

2) *Thermococcus* - A, P, R, Y

3) *Euglena* - B, P, S, X

4) *Mucor* - B, Q, S, Y

5) *Planaria* - B, Q, R, Y

(2020-9)

Diversity of organism within domain bacteria.

(1) Which of the following statements is incorrect regarding a bacterial plasmid?

- (1) It is a circular DNA molecule.
- (2) It replicates and moves along with daughter cell during cell division.
- (3) It has only a small number of genes.
- (4) It performs useful functions.
- (5) It is essential for the existence of the cell.

(2004)

(2) Which of the following statements is correct regarding Cyanobacteria?

- (1) All of them move/locomotion is by flagella.
- (2) All of them are found in fresh water.
- (3) All of them form colonies.
- (4) All of them fix atmospheric nitrogen.
- (5) All of them possess photosynthetic pigments other than chlorophyll.

(2008)

Diversity of organisms within kingdom Protista

(1) Which of the following statements is/are correct regarding protista?

- (A) They are unicellular.
- (B) Some of them are prokaryotes.
- (C) They live in aquatic and terrestrial habitats.
- (D) Their cell wall is composed of cellulose.
- (E) They are either absorptive or photosynthetic.

(2008)

(2) Phylum Chrysophyta differs from other phyla of kingdom Protista due to which of the following characteristics?

- (1) Absence of flagella in vegetative cells.
- (2) Presence of mannitol as one of the storage products.
- (3) Presence of chemoautotrophs in addition to photoautotrophs.
- (4) Absence of chlorophyll-b as a photosynthetic pigment.
- (5) Presence of silica in the cell wall.

(2012)

Diversity of organisms within kingdom Plantae

- (1) Which of the following is a general feature of the class Dicotyledoneae?
(1) Perianth is not differentiated into calyx and corolla.
(2) Presence of dissected leaves.
(3) Presence of scattered vascular bundles in the stem.
(4) Presence of reticulate venation.
(5) Absence of vascular cambium. (2001)
- (2) The following features were noted in an animal living in the marine environment.
a) A cylindrical body b) Tentacles c) A body without a shell
- To which one of the following classes, this animal may belong?
(1) Scaphopoda (2) Echinoidea (3) Holothuroidea
(4) Hirudinea (5) Scyphozoa (2004)
- (3) A student observed a legless animal with minutes scales, under debris in the home garden. This animal is most likely to
(1) have a spiral shell. (2) have muscles attached to the body wall.
(3) have an aquatic larval stage. (4) respire through epidermis.
(5) excrete uric acid. (2006)
- (4) Which of the following taxa contains terrestrial organisms?
(A) Crustacea (B) Chondrichthyes (C) Bryophyta
(D) Cyanobacteria (E) Echinodermata (2006)
- (5) To which of the following phyla, does *Selaginella* belong?
(1) Chlorophyta (2) Bryophyta (3) Cycadophyta
(4) Pterophyta (5) Lycophyta (2008)
- (6) Which one of the following is a feature that can be seen in Lycophyta but not in Pterophyta?
(1) Flagellated male gametes
(2) Sporangia attached to the upper surface of sporophylls
(3) Stem as a rhizome
(4) Gametophyte as a simple prothallus
(5) Vascular tissues containing lignified cells (2010)
- (7) Members of the group Lycophyta
(1) are aquatic.
(2) produce gametophytes which are non-photosynthetic.
(3) are always homosporous.
(4) Have no vascular tissues.
(5) depend on external water for fertilization. (2011)

- (8) Which of the following statements on the characteristics of kingdom Plantae is correct?
 (1) Cell walls contain peptidoglycan and cellulose.
 (2) Most of the lipids in the cell membrane are unbranched.
 (3) Glycogen and starch are the main storage food items.
 (4) Starting codon for protein synthesis is formyl methionine.
 (5) Some locomotory structures present in other kingdoms are found. (2012)
- (9) Following features were observed in a plant which is commonly found in moist terrestrial environments.
 (a) Vascular tissue (b) Dominant sporophyte
 (c) Requirement of external water for fertilization.
 This plant may most likely belong to the phylum.
 (1) Bryophyta (2) Lycophyta (3) Cycadophyta
 (4) Coniferophyta (5) Anthophyta (2015)
- (10) Which of the following features is not found in class Monocotyledoneae?
 (1) Perianth (2) Trimerous flower parts
 (3) Parallel venation in leaves (4) Tap root system
 (5) Scattered vascular bundles in the stem. (2015)
- (11) Which of the following is/are correct?
 (A) All terrestrial plants have vascular tissues.
 (B) All terrestrial plants are heterosporous.
 (C) All terrestrial plants have reproductive organs protected by a sterile cell layer.
 (D) All terrestrial plants except angiosperms do not show double fertilization in the life cycle.
 (E) All terrestrial plants produce seeds as an adaptation to terrestrial life. (2015)
- (12) Which of the following plants is evolutionarily closest to *Marchantia*?
 (1) *Anthoceros* (2) *Selaginella* (3) *Gnetum*
 (4) *Pogonatum* (5) *Nephrolepis* (2019-10)
- (13) In dicotyledonous plants
 (1) stamens produce megaspores that develop into pollen grains
 (2) pollen grain has two openings.
 (3) seeds are present within carpels.
 (4) perianth may be present
 (5) vascular bundles in the stem are scattered. (2019-11)
- (14) Spike mosses can be considered to be more similar to seed plants than club mosses do due to the presence of
 (1) stems (2) leaves (3) heterospory (4) strobili (5) dominant sporophyte (2020-11)

Diversity of organisms within kingdom Fungi

- (1) Fungi differ from bacteria because fungi
(1) are saprophytic. (2) have absorptive nutrition.
(3) produce antibiotics. (4) are eukaryotic.
(5) reproduce asexually. (2000)
- (2) Which of the following is correct regarding fungi?
(1) Spores are produced only during asexual reproduction.
(2) Diploid stage is represented in the vegetative phase.
(3) Heterothallism is of common occurrence.
(4) During reproduction fusion of cytoplasm and fusion of nuclei take place simultaneously.
(5) Flagellated cells are produced during reproduction. (2001)
- (3) Which of the following is incorrect?
(1) All Cyanobacteria are photoautotrophs.
(2) All viruses are parasitic.
(3) All bacteria are not chemoautotrophic.
(4) All fungi are not filamentous.
(5) All bacteria reproduce by binary fission. (2010)
- (4) A characteristic feature of fungi is
(1) having cell walls made up of peptidoglycan.
(2) having heterotrophic absorptive nutrition.
(3) ingestion of food and digestion.
(4) storing food as starch.
(5) reproduction by endospores. (2018-37)

Diversity of organisms within kingdom Animalia

External features of classes of Animal Phyla

Characteristic features of phylum chordata and classes of chordata

- (1) During a field survey, a student observed an animal with scaleless smooth skin and paired limbs in a fresh water pond. This animal is most likely to belong to the
(1) Class Osteichthyes (2) Class Chondrichthyes
(3) Class Amphibia (4) Class Reptilia
(5) Class Mammalia (2000)
- (2) A nematode can be easily distinguished from an annelid due to
(1) cylindrical shape (2) unsegmented body
(3) absence of suckers (4) absence of external gills
(5) absence of appendages (2000)
- (3) The invertebrate phylum that is evolutionarily most related to the Phylum Chordata is
(1) Arthropoda (2) Annelida (3) Echinodermata
(4) Mollusca (5) Platyhelminthes (2001)

- (4) A group of students studied the species diversity in freshwater and terrestrial ecosystems and grouped the organisms observed into different taxa. Organisms belonging to which of the following taxa/taxon may have been observed in both ecosystems?
 (A) Hirudinea (B) Insecta (C) Hydrozoa
 (D) Anthophyta (E) Bryophyta (2001)
- (5) What taxon/taxa contain marine life?
 (A) Chlorophyta (B) Bryophyta (C) Chondrichthyes
 (D) Reptilia (E) Lycophyta (2002)
- (6) Out of the following phylum-character pairs, which is incorrect?

<u>Phylum</u>	<u>Character</u>	
(1) Pterophyta	contains sori	
(2) Bryophyta	Has roots	
(3) Cycadophyta	Contains mega sporophylls	
(4) Mollusca	Has a ventral foot	
(5) Echinodermata	Has an endoskeleton	(2002)
- (7) A mature animal taken from a fresh-water pond had the following features.
 A) gills B) 2 eyes C) walking legs D) Dorsoventrally flattened body
 This animal could belong to the class
 (1) Nematoda (2) Annelida (3) Mollusca (4) Arthropoda (5) Chordata (2002)
- (8) The first group of animals to develop photoreceptors during evolution is?
 (1) Coelenterates (2) Flat worms (3) Annelids
 (4) Arthropods (5) Molluscs (2003)
- (9) Animals belonging to class Chondrichthyes
 (A) Have placoid scales
 (B) Have no operculum
 (C) Possess tail fins with two similar lobes.
 (D) Have skeletons made up of bone
 (E) Live both in fresh water and marine habitats. (2003)
- (10) Organisms belonging to which one of the following taxonomic groups is not seen in fresh water ponds of Sri Lanka?
 (1) Cyanobacteria (2) Cnidaria (3) Echinodermata
 (4) Chlorophyta (5) Mollusca (2005)
- (11) Which one of the following is not a characteristic feature of class Monocotyledonae?
 (1) Presence of adventitious roots.
 (2) Absence of pith in roots,
 (3) Presence of scattered vascular bundles in the root.
 (4) Presence of floral parts in multiples of three.
 (5) Presence of parallel venation in leaves. (2007)

- (12) Which one of the following groups of animals has the closest evolutionary relationship with chordates?
 (1) Annelids (2) Nematodes (3) Molluscs
 (4) Arthropods (5) Echinoderms (2007)
- (13) Ommatidia are found in
 (1) Flat worms (2) Annelids (3) Arthropods
 (4) Molluscs (5) Coelenterates (2007)
- (14) Which of the following statements is/are correct regarding members of the class Echinoidea?
 (A) Their locomotion is by tube feet.
 (B) They possess pedicellaria.
 (C) Some of them possess long arms.
 (D) Some of them possess flat disc shaped bodies.
 (E) Some of them lack an anus. (2007)
- (15) *Brittle stars* differ from other Echinoderms because they
 (1) possess pedicellaria (2) lack respiratory trees
 (3) possess spicules (4) lack an anus
 (5) possess tentacles (2008-4)
- (16) A shark differs from a skate due to the presence of
 (1) spiracles (2) ventral mouth (3) heterocercal caudal fin
 (4) lateral eyes (5) ventral fins (2008)
- (17) Which one of the following features is not unique to phylum Echinodermata?
 (1) Locomotion by tube feet.
 (2) Presence of ambulacral regions.
 (3) Respiration by respiratory trees.
 (4) Deuterostomic development.
 (5) Presence of water vascular system. (2009)
- (18) A student observed a dorsoventrally flattened soft bodied animal crawling on a wet surface in his home garden on a rainy day. Which one of the following is not likely to be present in this animal?
 (1) Circular muscles (2) Cilia (3) Anus
 (4) Longitudinal nerve cords (5) Excretory ducts (2010)
- (19) Some characteristics of three animals labelled A, B and C are as follows.
 (i) All three animals show bilateral symmetry and cephalization.
 (ii) Alimentary canals of A and B are complete while in C it is incomplete.
 (iii) Gills and dorsal hearts are present only in A and B.
 (iv) A has an exoskeleton, B has an endoskeleton and C does not have an exoskeleton or an endoskeleton.

The animals labelled A, B and C are respectively

(1) prawn, squid and tapeworm.

(2) snail, tilapia and earthworm.

(3) sea turtle, tuna and planaria.

(4) crab, snail and liver fluke.

(5) prawn, mussel and tapeworm.

(2011)

- (20) Which of the following characters could be seen in both Annelida and Echinodermata?

A – Well developed coelom

B – Nephridia

C – External fertilization

D – Gills

E – Larval stages

F – Cephalization

(1) B, D and E only

(2) A, C and D only

(3) A, C, D and E only

(4) A, C, D and F only

(5) A and E only

(2011)

- (21) Which of the following structures can be seen in all echinoderms?

(A) Central disc, spines, respiratory trees

(B) Arms, pedicellaria, cloaca

(C) Radial nerves, coelom, gonadal ducts

(D) Tube-feet, endoskeleton, water vascular system

(E) Anus, pinnules, eyespots

(2012)

- (22) A chordate possesses the following features.

a. External fertilization

b. Larval stages

d. Oviparity

c. Eyelids

Other features that could be found in this animal are

(A) limbs, homoiothermy and cartilage.

(B) scales, dermal glands and tail.

(C) 3-chambered heart, middle ear and bony skeleton.

(D) teeth, 10 pairs of cranial nerves and lungs.

(E) nictitating membrane, external auditory meatus and hair.

(2012)

- (23) Which of the following structures can be seen in Phylum Mollusca as well as in Phylum Platyhelminthes?

(1) Ganglia, gills, suckers

(2) Nerve cords, excretory ducts, anus

(3) Nerve ring, eye spots, mucous glands

(4) Chemoreceptors, tentacles, nephridia

(5) Statocysts, hooks, gonadal ducts

(2013)

- (24) Which of the following statements regarding the characteristic features of vertebrate classes with homoiothermic animals is correct?

(1) All vertebrate classes with homoiothermic animals have viviparous animals.

(2) All vertebrate classes with ovoviviparous animals have homoiothermic animals.

(3) All vertebrate classes with animals having nictitating membranes have homoiothermic animals.

(4) All vertebrate classes with homoiothermic animals have animals with 12 pairs of cranial nerves.

(5) All vertebrate classes with animals showing internal fertilization have homoiothermic animals.

(2013)

- (25) Which of the following phyla does not include animals that possess suckers?
 (1) Platyhelminthes (2) Annelida (3) Nematoda
 (4) Mollusca (5) Echinodermata (2014)
- (26) Which of the following groups includes an animal/animals that does/do not show internal fertilization?
 (1) *Planaria*, Butterfly, snail (2) shark, *Bipallum*, house fly
 (3) cockroach, mullet, liver fluke (4) *Ichthyophis*, tape worm, mosquito
 (5) parrot, dragonfly, skate (2014)
- (27) Few molluscs, some structures they possess and the environment they live are given in the following table.
- | <u>Mollusc</u> | <u>Structure</u> | <u>Environment</u> |
|----------------|--------------------|--------------------|
| A - Mussel | a - Eyes | i - Marine |
| B - Snail | b - Tentacles | ii - Fresh water |
| C - Oyster | c - Radula | iii - Terrestrial |
| D - Squid | d - External shell | |
- Which of the following 'mollusc-structure-environment' combination is correct?
 (1) C a i (2) B b iii (3) A c ii (4) D d i (5) C b i (2014-10)
- (28) An external feature of each of the specimens labelled as A, B, C and D is given below.
 A - Two dorsal fins
 B - Blackish longitudinal bands in the belly region.
 C - A yellow band on either side of the body
 D - Two spines separated from the anal fin
 Specimens A, B, C and D in correct sequence are
 (1) tuna, carangid, grey mullet and skate.
 (2) grey mullet, tuna, *Ichthyophis* and carangid.
 (3) carangid, shark, grey mullet and tuna
 (4) shark, *Ichthyophis*, skate and grey mullet
 (5) carangid, *Ichthyophis*, grey mullet and shark (2014-11)
- (29) Which of the following features can be used to distinguish an annelid from a nematode?
 (1) Well developed body cavity (2) Cuticle
 (3) Hydrostatic skeleton (4) Gonads with ducts
 (5) Cerebral ganglia (2015)
- (30) Which of the following features is/are common to insects and millipedes?
 (A) Body divided into head, thorax and abdomen.
 (B) Presence of one pair of antennae.
 (C) Presence of three pairs of legs in thorax.
 (D) Absence of legs in the abdomen.
 (E) Presence of an exoskeleton with chitin and calcium carbonate. (2015)
- (31) Which of the following animal groups is poikilothermic, oviparous and possesses 12 pairs of cranial nerves?
 (1) Chondrichthyes (2) Osteichthyes (3) Amphibia
 (4) Reptilia (5) Aves (2015)

- (32) Two phyla that include organisms having glycogen as the main stored food are
 (1) Chytridiomycota and Lycophyta (2) Zygomycota and Pterophyta
 (3) Chordata and Chrysophyta (4) Cycadophyta and Phaeophyta
 (5) Basidiomycota and Ascomycota (2016-9)
- (33) A student observed an animal with one pair of antennae, and one pair of appendages in each segment of the body. This animal belongs to class
 (1) Crustacea (2) Chilopoda (3) Diplopoda
 (4) Insecta (5) Arachnida (2016-10)
- (34) Which of the following feature/features can be seen in both chordates and molluscs?
 (A) Internal skeleton (B) Gills (C) Internal fertilization
 (D) Well developed eyes (E) Radula (2016-43)
- (35) Presence of internal fertilization and a nerve ring, and absence of a larval stage are the features of which of the following animals?
 (1) *Arenicola* (2) *Oecophylla* (3) *Earthworm*
 (4) *Bipalium* (5) *Spider* (2017-9)
- (36) When preparing a dichotomous key in the practical class to distinguish scorpion, millipede, cockroach, prawn and centipede, which of the following may be least useful?
 (1) Exoskeleton (2) Antennae (3) Eyes (4) Wings (5) Legs (2017-10)
- (37) Which of the following may be present in a bilaterally symmetrical coelomic animal with tentacles and without a ventral heart?
 (1) Spines (2) Nerve ring (3) Antennae (4) Gills (5) Pinnules
 (2018-9)
- (38) A poikilothermic animal with urica as the major nitrogenous waste may have which of the following structure/structures?
 (A) Gills (B) Four-chambered heart (C) Neck
 (D) Lungs (E) Beak (2018-44)
- (39) During the evolution of organisms, coelom was first developed in
 (1) Annelida. (2) Arthropoda. (3) Mollusca
 (4) Echinodermata. (5) Chordata (2019-8)
- (40) Which of the following structures can be seen in annelids as well as in arthropods?
 (1) Clitellum (2) Parapodia (3) Ventral nerve cord
 (4) Capillaries (5) Chitinous exoskeleton (2019-9)
- (41) Which of the following classes includes/include animals having internal fertilization as well as those having external fertilization?
 (A) Osteichthyes (B) Amphibia (C) Reptilia
 (D) Chondrichthyes (E) Aves (2019-42)

(42) Some structures seen among animals are as follows

Protonephridia, mantle and nematocysts

Organisms showing each of the above structures in correct sequence are

(1) *Obelia*, hook worm and *Fasciola*

(2) *Planaria*, slug and jellyfish

(3) *Taenia*, pin worm and *Obelia*

(4) *Fasciola*, earthworm and *Hydra*

(5) Sea cucumber, snail and *Obelia*

(2020-10)

(43) Several features seen among some chordates are as follows.

A – Keratinized structures

B – Internal fertilization

C – Parthenogenesis

D – Marine life

Which of the above features can be seen in the organisms of classes Reptilia, Aves and Mammalia?

(1) A and B only

(2) A and C only

(3) B and D only

(4) A, B and C only

(5) A, B and D only

(2020-12)

Unit 3

Hierarchy of taxa

(1)	4	(2)	4	(3)	3	(4)	2	(5)	2	(6)	4
(7)	4	(8)	5								

Hierarchy of taxa

(1)	5	(2)	4	(3)	2	(4)	5	(5)	5	(6)	3
(7)	1	(8)	1	(9)	3	(10)	1	(11)	2	(12)	4

Diversity of organism within domain bacteria.

(1)	5	(2)	5
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Diversity of organisms within kingdom Protista

(1) 5 (2) 5

Diversity of organisms within kingdom Plantae

(1) 4 (2) 3 (3) 5 (4) 2 (5) 5 (6) 2
(7) 5 (8) 2 (9) 2 (10) 4 (11) 4 (12) 4
(13) 3 (14) 3

Diversity of organisms within kingdom Fungi

(1) 4 (2) 3 (3) 5 (4) 2

Diversity of organisms within kingdom Animalia**External features of classes of Animal Phyla****Characteristic features of phylum chordata and classes of chordata**

(1) 3 (2) 2 (3) 3 (4) 1 (5) 2 (6) 2
(7) 3 (8) 1 (9) 5 (10) 3 (11) 2 (12) 5
(13) 3 (14) 1 (15) 4 (16) 4 (17) 4 (18) 3
(19) all (20) 3 (21) 4 (22) 4 (23) 3 (24) 4
(25) 3 (26) 3 (27) 2 (28) 2 (29) 1/5 (30) 3
(31) 4 (32) 5 (33) 2 (34) 5 (35) 4 (36) 1
(37) 4 (38) 5 (39) 1 (40) 3 (41) 3 (42) 2
(43) 5