

SHRI R.L.T. SCIENCE COLLEGE, AKOLA
Department Of Zoology
BSc I/ Sem I (CBCS Pattern)

QUESTION BANK

MULTIPLE CHOICE QUESTION

UNIT I

Phylum Protozoa

- 1) Which class does the malarial parasite belong to ?
 - a) Dinophyceae
 - b) Sarcodina
 - c) Ciliat
 - a) Sporozoa
- 2) Protozoa are classified on the basis of _____
 - a) **Locomotory organs**
 - b) Shape
 - c) Number of nuclei
 - d) Size
- 3) A protozoan is defined as _____
 - a) Motile prokaryotic unicellular protist
 - b) Motile eukaryotic unicellular protist
 - c) Motile eukaryotic unicellular photosynthetic protist
 - d) Motile eukaryotic multicellular protist
- 4) Protozoa are generally not _____
 - a) Multicellular
 - b) Microscopic
 - c) Lacking cell walls
 - d) Eukaryotic
- 5) Number of motility structures of flagellated cells is _____
 - a) greater than ciliated cells
 - b) Lesser than ciliated cells
 - c) equal to ciliated cells
 - d) None of these
- 6) The trophozoite of plasmodium lives in _____
 - a) Erythrocytes of man
 - b) Liver cells
 - c) Stomach of mosquito
 - d) Blood plasma
- 7) The infective stage of Entamoeba histolytica is _____
 - a) Trophozoite
 - b) Minuta form
 - c) Mature cyst
 - d) Trophic form
- 8) Sporogony of malaria parasite occurs in _____
 - a) Liver of man
 - b) RBC of man
 - c) Stomach wall of mosquito
 - d) Salivary gland of mosquito
- 9) The shivering, a characteristic symptom of malaria, occurs when _____

- a) Sporozoites enters the blood
 - b) Metacryptozoites are liberated from the liver cells
 - c) Merozoites are liberated from RBC with toxin
 - d) Schizonts are formed in the RBC
- 10) Unicellular eukaryotes are grouped in _____
- a) Monera
 - b) Protista
 - c) Archaea
 - d) Fungi

UNIT II

Phylum Porifera

- 1) Members of phylum porifera are
 - a) Mostly freshywater animals but few are marine entities
 - b) Mostly marine animals but few are freshwater entities**
 - c) Exclusively fresh water animals
 - a) Exclusive marine animals
- 2) These are multicellular grade entity _____
 - a) Bertebrates
 - b) Sponges**
 - c) Prokaryotes
 - d) Coplenterates
- 3) Animal of phylum Porifera are characterised by _____
 - a) Diploblastic organisation
 - b) Canal system**
 - c) Coelom
 - d) Coelenteron
- 4) Digestion in sponges _____
 - a) Intracellular**
 - b) Intercellular
 - c) Both a and b
 - d) Extracellular
- 5) The only fresh water sponges is _____
 - a) Scypha
 - b) Euspongia
 - c) Spongilla**
 - d) Oscarella

Phylum coelenterate

- 6) The class of coelenterate in which the medusa and polyp both are found in one animal is _____
 - a) Anthozoa
 - b) Hydrozoa
 - c) Scyphozoa
 - d) None of the above
- 7) This is a characteristic feature of coelenterata _____
 - a) Polyp
 - b) Gastrovascular cavity
 - c) All are marina
 - d) Presence of tentacles around mouth
- 8) Which of the following is incorrect statement _____
 - a) Polyp produce medusae
 - b) Medusae produce polyp sexually

- c) Polyp produce medusa sexually d) Obelia shows metagenesis
- 9) Physalia is a coelenterate which is also known as _____
- a) Sea penb b) Sea fan
- c) Portuguese man of war d) Sea anemone
- 10) Nematocysts are the organs of _____
- a) Sensation b) Reproduction
- c) Defence and offence d) Respiration

UNIT III

Phylum Plathelminthes

- 1) Fasciola hepatica is _____
- a) Hermaphrodite, self fertilize b) Hermaphrodite, cross fertilize
- c) Unisexual d) **Both (a) and (b)**
- 2) Which of the following animals does not have a body composed of many segments _____
- a) Grass hopper b) **Flatworm**
- c) Earthworm d) Lobster
- 3) Which one of the example of plathelminth _____
- a) Trypanosoma b) **Fasciola**
- c) Wuchereria d) Plasmodium
- 4) Anus is absent in _____
- a) **Fasciola** b) Periplaneta
- c) Pheretima d) Unio
- 5) In helminthes, flame cells are component of their _____
- a) Reproductive system b) **Excretory system**
- c) Nervous system d) Respiratory system
- 6) In the life cycle of Liver Fluke the sheep get infection when they ingest _____
- a) **Encysted cercariae** b) Miracidia
- c) Sporocysts d) Rediae
- 7) Which of the following swim by ciliary action _____
- a) Adult Fasciola b) Miracidium redia/Cercaria of Fasciola
- c) **Miracidium larvba of Fasciola** d) Unio
- 8) Solenocytes and Nephridia are respectively found in _____
- a) **Platyhelminthes and Annelids** b) Annelids and Nematodia
- c) Cnidaria and Mollusca d) Mollusca and Protozoa

- 9) Platyhelminthes represents an examples of _____
- a) Cellular grade organisation b) Tissue grade organisation
c) **Organ-system grade organisation** d) Tissue-organ grade organisation
- 10) Pseudocoelom is not found in _____
- a) Ascaris b) Ancylostoma
c) **Fasciola** d) None of these
- 11) The correct sequence of various larvae in liver fluke is _____
- a) Miracidium, Sporocyst, Cercaria, redia, metacercaria
b) **Miracidium, Sporocyst, redia, Cercaria,**
c) Sporocyst, redia, miracidium, Cercaria, metacercaria
d) Cercaria, Sporocyst, redia, Miracidium, metacercaria
- 12) In Cercaria stage of Fasciola hepatica leads to _____
- a) Sporocyst b) Redia
c) Miracidium d) **Metacercaria**
- 13) Fasciola caused the disease called _____
- a) Amoebiasis b) **Fascioliasis**
c) Diarrhoea d) Typhoid
- 14) Which drugs used for treatment of Fascioliasis is _____
- a) Hexachloroethane b) Filicin
c) Praziquantel d) Both A and B

Phylum Aschelminthes

- 1) Ascaris have definite reddish tint caused by the presence of _____
- a) Plasma b) **Haemoglobin**
c) RBC d) Blood
- 2) Caestodes are distinguished between two tapeworms _____
- a) Cestodes b) Nematodes
c) Fasciol d) None
- 3) Cysticercus is the larva of _____
- a) Liver Fluke b) **Tapeworm**
c) Ascaris d) Mollusca
- 4) Tapeworms obtain their food from _____
- a) Mouth b) Suckers
c) **Outer surface** d) All the above
- 5) The body cavity of ascaris is pseudocoel because _____
- a) It contains large cells termed pseudocoelocytes

- b) **It is bound extremely by muscle layer and internally by intestines**
 c) It has very little parenchyma d) It is filled with pseudocoelomic fluid
- 6) Ascaris lumbricoides lives intestine of _____
 a) Sheep and goat b) **Monkey**
 c) Homo Sapines d) Pi8g
- 7) The life cycle of Ascaris lumbricoids an intermediate host which is _____
 a) **Cattle** b) Snail
 c) Man d) None of above
- 8) The life span of Ascaris is _____
 a) More than 30 days b) **1 – 2 years**
 c) 6 months d) 8 – 10 months
- 9) The infected stage of Ascaris is _____
 a) Egg b) Fourth Juvenile
 c) **Second Juvenile** d) Adult worm itself
- 10) The exterior of Ascaris is covered by _____
 a) Pellicle b) Epidermis
 c) Sclerites d) **Cuticle**
- 11) The disease caused by hook worm is called _____
 a) Ascariasis b) **Elephantiasis**
 c) Ancylostomiasis d) Enterobiasis
- 12) Elephantiasis caused by _____
 a) **Wuchereria bancrofti** b) Ascaris lumbricoides
 c) Enterobius vermicelli's d) Fasciola hepatica
- 13) Ascaris normally inhabits the lumen of _____
 a) Stomach b) **Small intestine**
 c) Appendix d) Large intestine
- 14) Respiration of Ascaris is _____
 a) Cutaneous b) Aerobic
 c) **Anaerobic** d) Both b and c
- 15) The mode of nutrition is Ascaris is _____
 a) Holozoic b) Holophytic
 c) **Saprozoic** d) Sppophytic

Unit IV

Phylum-Annelida

- 1) Annelids show advancement over the nematode in having _____
 a) Metameric segmentation b) True coelom
 c) Closed circulator system d) **All of above**

- 2) Anticoagulant secreted by leech is _____
 - a) Heparin
 - b) **Hirudinea**
 - c) Fasciol
 - d) None
- 3) Leech belongs to the class _____
 - a) Oligochaeta
 - b) **Hirudinea**
 - c) Polycheta
 - d) Chaetopoda
- 4) The Excretory units of Annelids are _____
 - a) Uriniferous tubules
 - b) Flame cells
 - c) **Nephridiasurface**
 - d) Nephrostomes
- 5) The 1st body segment of earthworm is _____
 - a) Peristome
 - b) **Peristomium**
 - c) Prostomium
 - d) Protosteome
- 6) The mode of feeding in Leech is _____
 - a) Herbivorous
 - b) **Carnivorous**
 - c) Omnivorous
 - d) Sanguinivorous
- 7) In earthworm fertilization occurs in _____
 - a) **Oviduct**
 - b) Water
 - c) Coon
 - d) Bothcd
- 8) Nereis is commonly called _____
 - a) Earthworm
 - b) **Clamworm**
 - c) Ringworm
 - d) Roundworm
- 9) Hemoglobin is dissolved in plasma in _____
 - a) **Earthworm**
 - b) Ascaris
 - c) Tapeworm
 - d) Insects
- 10) Male genital aperture of earthworms is located in the segment _____
 - a) 13
 - b) 14
 - c) 19
 - d) **18**
- 11) Annelids are _____
 - a) Radially symmetrical
 - b) Externally segmented
 - c) **Triploblastic**
 - d) Pseudocoelomate
- 12) A definite number of body segment is found in _____
 - a) **Leech**
 - b) Earthworm
 - c) Tapeworm
 - d) Slug
- 13) Closed blood vascular system, liver cell in the blood and chitinous setae or parapodia are the characteristics of _____
 - a) Arthropoda
 - b) Nematoda **intestine**
 - c) Annelida
 - d) None of those
- 14) The typhlosole in earthworm is related with _____

- a) Excretion
b) **Absorption**
c) Respiration
d) Reproduction
- 15) In which of the following class of annelid one pair ovaries and several pair testes are found _____
a) Archiannelida
b) **Hiradinea**
c) Oligochaeta
d) Polychaeta
- 16) The coelom appeared first in course of evolution in _____
a) Echinodermata
b) **Annelida**
c) Chordata
d) Aschelmintha
- 17) Suctorial mouth occurs in _____
a) Butterfly
b) **Leech**
c) Taenia
d) Cockroach

Phylum- Arthropoda

- 1) Spiracles found in cockroach _____
a) 2 pairs in thorax, 10 pairs in abdomen
b) 2 pairs in thorax, 6 pairs in abdomen
c) **2 pairs in thorax, 8 pairs in abdomen**
d) 2 pairs in thorax, 4 pairs in abdomen
- 2) Cephalothorax is found in the _____
a) **Arthropoda**
b) Annelida
c) Nematoda
d) Protozoa
- 3) The process of conversion of small cockroach to adult cockroach called as _____
a) Moulting
b) **Metamorphosis**
c) Ecdysis
d) Transformato
- 4) Cockroach belongs to class _____
a) **Hexapoda**
b) Apoda
c) Myriapoda
d) Cephalopoda
- 5) The arthropods do not possess _____
a) True coelom
b) Exoskeleton
c) Haemocod
d) **Malphigian body**
- 6) In cockroach, the excretory organ are _____
a) **Malphigian tubules**
b) Nephridia
c) Malphigian corpuscles
d) Solenocytes
- 7) To which order the Periplaneta americana belongs _____
a) **Diptera**
b) Orthoptera
c) Hemiptera
d) None of above

- c) Three d) Both a and b
- 4) The study of mollusc is called _____
- a) Mycology b) **Malocology**
c) Phycology d) Parasitology
- 5) Soft bodies animals are called as _____
- a) Annelid b) **Mollusca**
c) Coelenterated d) None of these
- 6) The body type of echinoderm organism is _____
- a) Bilaterally symmetrical b) Is not symmetrical
c) **Body is radially symmetrical** d) Asymmetrical body
- 7) The ampullae open into a _____ stone canal
- a) O - shaped b) d - shaped
c) P - shaped d) **S – shaped**
- 8) Starfishes have _____ arms
- a) **5** b) 4 c) 6 d) 2
- 9) Pila belongs to Phylum _____
- a) Cnidaria b) **Mollusca**
c) Nematoda d) Echinodermata
- 10) The colour of the aboral surface is _____
- a) Yellow b) Green
c) Red d) Light orange and Purple colour

Phylum Echinodermata

- 1) The Balanoglossus animal length of varies from
- a) 0.1 meter b) 1 Meter
c) 2 to 2.5 meter d) None of these
- 2) The Balanoglossus body is _____
- a) Symmetrical b) Asymmetrical
c) Laterally d) **Bilaterally symmetrical**
- 3) Which following animal belongs to phylum Hemichordata _____
- a) Ant b) Octopus
c) Nereis d) **Balanoglossus**
- 4) Body is bilaterally symmetrical and Triploblastic in _____
- a) **Hemichordata** b) Annelida
c) Mollusca d) Coelenterate
- 5) Balanoglossus belongs to the Class _____
- a) Hexapoda b) **Enteropneusta**

12. A _____ forms 5 to 8 rediae.
13. The cercaria swim about in water for _____ days.
14. In aschelminths _____ usually present and cilli absent.
15. In aschelminths _____ reproduction does not occur.
16. _____ is elongated, cylindrical and tapering at both ends.
17. The female ascaris is _____ than male ascaris.
18. There the _____ of ascaris is a triradiate aperture.
19. _____ are olfactory chemoreceptors.
20. There is a short post anal tail which is _____ in the female, but _____ in the male
21. The _____ ha muscular walls having radial muscles fibres which dilate the lumen.
22. The intestine has no _____ layer.
23. The intestine is followed by the hindgut or _____ which is also flattened dorsoventrally.
24. The rectum also has large _____ rectal glands.
25. Male possesses pre and post anal papillae which are absent in _____.
26. Testis of _____ is a long, thread like coiled tube.
27. The Ejaculatory duct bears a number of _____ whose secretion helps in copulation.
28. The two spicules pouches unite and join the _____.
29. The rachis is enriched round by group of developing _____.
30. The vagina opens by a transverse _____ or _____ which lies mid-ventrally.
31. Life span of ascaris is _____ months.
32. In _____ Body is triploblastic, bilaterally symmetrical, elongated and vermiform.
33. Hirundinaria is a common Indian _____ found in freshwater tanks, ponds, lakes.
34. Cattle leech full grown specimen may attain the length of _____ cm.
35. On the _____ is a median longitudinal black stripe.
36. In leech the external segmentation _____ correspond with the internal segmentation.
37. Each end of the body of leech bears a hollow muscular organ, the _____.

38. It is oval in outline and is placed on the ventral surface of _____.
39. It is formed by the _____ of last seven somites.
40. The _____ are primarily meant for adhesion and locomotion.
41. The _____ of leech is a straight tube extending throughout the length of the body.
42. The alimentary canal consists of the stomodaeum, the mesenteron and the _____.
43. _____ it consist of pre-oral, chamber, buccal cavity and pharynx.
44. The buccal cavity leads into _____ muscular pharynx.
45. _____ consists of esophagus, crop, stomach and intestine.
46. The _____ is the largest region of the alimentary canal.
47. _____ is a small heart structure lying in the nineteenth segment.
48. _____ consists of rectum only.
49. The rectum opens by a dorsal _____ in the twenty-sixth segment.
50. The secretion of these glands contains an anticoagulant substances called _____.
51. _____ secretes mucus in the crop.
52. _____ of digested food takes place in intestine and stomach.
53. Leeches are _____.
54. The _____ organs consists of testis sacs, vasa efferentia, epididymis, atrium etc.
55. The spermatogonia float in the coelomic fluid within each testis-sac and develop into _____.
56. All the vas efferentia of one side opens into the common _____ of that side.
57. Atrium is a pyriform sac situated in the _____ and _____ segments.
58. The prostate chamber possesses thick muscular walls covered over with several layers of _____.
59. The spermatozoa produced in the testis-sac are stored in the _____.
60. The _____ organs consists of a pair of ovisac, a pair of oviducts, vagina etc.
61. The coiled ovaries remain floating in the _____ enclosed within the ovisac.
62. The _____ opens into a pear-shaped muscular vagina.
63. The vagina is a large pear-shaped muscular bag lying in the posterior part of the _____ segment.

64. Fertilization occurs in vagina i.e. it is _____.
65. _____ are triploblastic, bilaterally symmetrical and metameracally segmented animals.
66. In arthropodas cilia are entirely _____ from all parts of body.
67. The adult cockroach measures from _____ cm in length and about 1 cm in width.
68. The entire body of cockroach is covered by a hard brown coloured _____
69. The head is said to be formed by the fusion of _____ segments.
70. In orthopods abdomen consists of _____ segments.
71. The hindgut is relatively broader than the _____.
72. _____ of cockroach included in salivary glands, the glandular cell of the midgut and hepatic caeca.
73. The presence of food is detected by the sensory receptors present on the _____ and maxillary palps.
74. The environmental air enters into and escapes from the tracheae through the _____ or _____.
75. The _____ are opened and closed by valves regulated by sphincter muscles.
76. The network of elastic closed, branching and silvery white tubes called _____.
77. Inspiration and expiration take places through the _____.
78. The co-ordinating centres in thoracic ganglia are stimulated and respond lack of _____ and also to an excess of CO₂.
79. _____ are ectodermal in origin like the nephridia of Annelida.
80. The cockroaches are _____ that is sexes are separate.

Answers

- 1) Anterior end, 2) absent 3) Fasciola hepatica, 4) Alimentary canal, 5) Flkame cell,
- 6) Male reproductive system, 7) gonopore, 8) Oviduct\ 9) capsule, 10) Somatic cells,
- 11) Miracidium larva, 12) Sporocyst, 13) 2 to 3, 14) cuticle, 15) Asexual, 16) ascharis lumbricoides, 17) longer, 18) mouth, 19) amphids, 20) Straight or sharply curved,
- 21) pharynx, 22) muscle, 23) rectum, 24) unicellular, 25) female, 26) Ascaries, 27) prostatic gland, 28) cloaca, 29) ova, 30) gonopore or valve, 31) 9 to 12,
- 32) Annelida, 33) cattle leech, 34) 30 to 35 cm, 35) dorsal side, 36) Doest not, 37) suckers,
- 38) anterior end, 39) fusion, 40) two suckers, 41) Alimentary canal, 42) porictodaetsum,
- 43) stomoduem, 44) Thick-walled, 45) Mesenteron, 46) crop, 47) stomach, 48) proctodaeum,
- 49) anus, 50) Hirudin, 51) gland cells, 52) absorption, 53) Hermaphrodite,
- 54) Male Reproductive system, 55) Spoermatozoa, 56) Bas

deferens, 57) 9th and 10th, 58) unicellular prostate gland, 59) epididymis, 60) Female Reproductive system, 61) hgaemoeolomic, 62) common oviduct, 63) 11th , 64) Internal, 65) Arthropods, 66) Absent, 67) 2 ro 4, 68) exoskeleton, 69) siz embryonic, 70) 10, 71) midgut, 72) Digestive gland, 73) antennae, 74) Spiracles / Stigmata, 75) Spiracles, 76) Tracheae, 77) Spiracles, 78) oxygen, 79) Malpighion tubules, 80) dioecious,

ANSWER IN ONE SENTENCES

Phylum Platyhelminthes / Aschelmenthes

1) Which type of body symmetry present in platyhelminthes?

Ans: Platyhelminthes possess the bilateral symmetry.

2) Sexes of platyhelminthes are united means.

Ans: Sexes of platyhelminthes are united means its hermaphrodite animal.

3) Fasciola hepatica belongs to order

Ans: It is belongs to order 'Digenia'.

4) life cycle of F.hepatica is

Ans: Life cycle of Fasciola hepatica is digenetic (Required 2 hosts to complete it's life cycle).

5) Flame cells are also called as?

Ans: F.cells are also called as 'Protonephridia'.

6) What type of body shape of Aschelmenthes is?

Ans: It's has worm like, cylindrical & flattened body shape.

7) Ascaris lumbricoides belongs to class

Ans: It's belongs to class 'Nematoda'.

8) Ascaris have a definite raddish tint caused by presence of?

Ans: Reddish tint is because of hemoglobin.

9) The mouth of Ascaris is

Ans: Mouth is a 'triradiate aperture'.

10) In nematodes the later-ventral lip have a lateral papilla each cuticular excavation called as.

Ans: It's called as 'Amphid'.

11) Digestion process in Ascaris facilitated by the enzymes like.

Ans: It is facilitated with enzymes like proteases, amylase, lipase

12) Digestive system of *Ascaris lubricoides* consist of?

Ans: It's consist of mouth/Pharynx/Intestine/Rectum.

13) What is called monarchic?

Ans: Testis in male *Ascaris* is single in number called as monarchic.

14) *F.hepatica* commonly called as.

Ans: It's called as 'Liver fluke'.

15) How many hosts present for *F.hepatica*?

Ans: Required 2 hosts (Primary host sheep, secondary host gastropod mollusc). 16) Give the name of disease caused by *F.hepatica*.

Ans: Disease: Fascioliasis.

17) Disease caused due to *Ascaris*.

Ans: Disease: Ascariasis.

18) Sexual dimorphism occurs in.

Ans: It's occurs in *Ascaris*.

19) What is the size of Female *Ascaris*?

Ans: It is about 20-41 cm long/4-6 in diameter.

20) *Fasciola hepatica* is found in.

Ans: It is found in the bile passage of the sheep.

21) What difference occurs in Male/ female *Ascaris*?

Ans: Difference in there body length.

22) Osmoregulatory organ of *F.hepatica* is.

Ans: Osmoregulatory organ of *F.hepatica* is Flame cells.

Phylum Annelida/Arthropoda

1) Body segmentation is of type.

Ans: It is metamericly segmented.

2) What is the sucker?

Ans: Each end of body of leech bears a hollow muscular organ called 'sucker'.

3) *Hirudinaria granulosa* commonly known as.

Ans: it is commonly known as 'Cattle leech'.

4) Alimentary canal of leech consists of.

Ans: It consist of Stomodaeum,mesenteron,proctodaeum.

5) Which substance does the secretion of salivary glands contains?

Ans: It contains hirudin or acticoagulin.

6) What is the habit of leech?

Ans: It is Sangivivorous in habit.

7) Body cavity of arthropoda is.

Ans: haemocoel (The true coelom is reduced to the spaces of the genital and excretory organ).

8) Which type of animal cockroach is?Ans:It is nocturnal animal.

9) Digestive system of cockroach consists of.

Ans: It is consists of Alimentary canal, digestive glands.

10) Give the significance of gizzard.

Ans: It contains Chitinised teeth helps in grinding of food.

11) Gizzard divided into two parts called as.

Ans: A) Anterior armarium B) Posterior Stomodaeal valve.

12) Lining of armarium has contains.

Ans: Six highly chitinised teeth.

13) The presence of food is detected by which organ in cockroach?

Ans: Detected by sensory receptors present on the antennae/ maxillary palps

14) What is peritreme?

Ans: Spiracal is slit like aperture in an oval sclerotised area guarded by an annular sclerite called 'peritreme'.

15) What is Tracheae?

Ans: The haemocoel of terrestrial insects including cockroach contains of a system of network of elastic,closed, branching, salivary white tubes called 'Tracheae'.

16) Tracheal trunks are connected by.

Ans: It is connected by transverse commissures.

17) Which is the main excretory organ in cockroach?Ans: Excretory organ: Malpighian tubules.

18) The male reproductive system consists of.

Ans: Pair of testis,Vasa deferentia,ejaculatory duct,utricular gland, phallic gland and external genitalia.

19) What is spermatophores?

Ans: The sperms produced from testes, while cockroach is still young are brought by Vasa deferentia into seminal vesicles for storage the sperm in seminal vesicles are glued together in the form of bundles called as 'Spermatophores'.

20) Function of vitellarium in ovaries.

Ans: It receives the oocytes from the zone of germarium one by one and constitutes the largest part of the ovariole.

Phylum: Hemichordata

1) Body of Hemichordates divided into.

Ans: Three distinct parts: Proboscis, collar, trunk

2) Which organ earlier was regarded as notochord?

Ans: It is buccal diverticulum.

3) Alimentary canal is.

Ans: It is completed, straight, U-shaped tubes.

4) Excretory organ present in Hemichordates?

Ans: Single glomerulus present in the Proboscis.

5) Balanoglossus belongs to which class?

Ans: It belongs to class 'Enteropneusta'.

6) Balanoglossus means.

Ans: Balano-acorn, glossa-tongue

7) Which characters has gives name 'acorn worm' to this group?

Ans: The Proboscis sits in the collar somewhat like an acorn in its cup, this gives name 'acorn worm' to this group.

8) Function of cavities and water pores in proboscis and collar.

Ans: It's helps in burrowing habit.

9) Body wall of Balanoglossus is made up of?

Ans: Outer epidermis and inner musculature.

10) Affinities with annelida of Balanoglossus were suggested by.

Ans: It is suggested by Spengel (1893).

11) Affinities with Echinoderms of Balanoglossus were suggested by

Ans: It is suggested by Metschikoff (1865).

SHORT ANSWER QUESTIONS

(3 Mark Each)

Unit I:- Classification of non-chordata and Phylum Protozoa

- 1) Describe ultrastructure of sporozoite
- 2) Describe Endo-Erythrocytic Schizogony
- 3) Essay on ultrastructure of trapozoite
- 4) Draw well labelled diagram of life cycle of P. vivax
- 5) Describe Sporogony
- 6) General characters of phylum protozoa
- 7) Describe types of malaria.
- 8) Brief on control of malaria.
- 9) Describe Amoebiasis.
- 10) Describe prevention and control of Amoebiasis
- 11) Life cycle of Entamoeba

Unit 2:- Phylum porifera and phylum coelenterata

- 1) General characters of porifera
- 2) Describe external features of scypha.
- 3) Describe types of cell found in sycon
- 4) Describe spicules of sypha.
- 5) Describe significance of canal system.
- 6) Draw diagram of canal system in sycon
- 7) General character of phylum coelenterate
- 8) Describe external features of metridium
- 9) Brief on coral reef
- 10) Fringing reef
- 11) Barrier reef
- 12) Atoll reef
- 13) Economic importance of coral reefs

Unit 3:- Phylum platyhelminthes and phylum Aschyhelminthes

- 1) General characters of phylum platyhelminthes

- 2) Describe external features of Fasciol hepatica.
- 3) Describe Flame cell
- 4) Male reproductive system of F. Hepatica
- 5) Female reproductive system of F. Hepatica
- 6) Describe Mehlis gland
- 7) General character of Aschelminthes.
- 8) Habit and habitat of Ascaris lubricoides.
- 9) External features of A. Lubricoides.
- 10) Digestive system in Ascaris.
- 11) Excretory system in Ascaris.
- 12) Male reproductive system in Ascaris.
- 13) Female reproductive system in Ascaris.
- 14) Life cycle of Ascaris (Diagram only).

LONG ANSWER QUESTIONS

(7 Marks each)

Unit I

- 1) Explain the sexual phase in the life cycle of Plasmodium vivax
- 2) Explain the life cycle in mosquito with diagram
- 3) Describe the ultrastructure of sporozoite with diagram
- 4) Explain the disease of malaria with sign symptoms and treatment
- 5) Write prevention and control of amoebiasis.

Unit II

- 1) Describe the coral reefs and their types
- 2) Explain the canal system and its significance
- 3) Explain the economic importance of coral reef
- 4) Describe the external features of Metridium
- 5) Explain the coral with their types.

Unit III

- 1) Describe the excretory system of Fasciola hepatica
- 2) Explain male reproductive system of Fasciol hepatica
- 3) Describe the digestive system of Ascaris
- 4) Explain the Female reproductive system of Ascaris
- 5) Life cycle of Ascaris in details.

Unit IV

- 1) Describe the external features of Periplaneta
- 2) Explain the Respiratory system of Periplaneta
- 3) Explain the exc retory system of Periplaneta.
- 4) Explain the ditgestive system of Hirudinaria
- 5) Describe the Reproductive system of Periplaneta in details

Unit V

- 1) Describe reproductive system of Pila
- 2) Explain the Respiratory system of Pila
- 3) Explain the water vascular system in asterians
- 4) Describe the External features of Asterias
- 5) Describe the mechanism of respiration of Pila with diagram,

Unit VI

- 1) Describe larval forms and their significance
- 2) Explain parasitic adaptations in helminthes?