

SECOND YEAR
PARASITOLOGY AND ENTOMOLOGY
CHAPTER 1: GENERAL INTRODUCTION

ESSAY

1. Discuss briefly the laboratory diagnosis of parasites?

- Microscopy
- Culture
- Serological test
- Skin test
- Molecular methods
- Animal inoculation
- Xenodiagnoses
- Imaging
- Haematology

2. Parasites?

- Definition
- Ectoparasites
- Endoparasites
- Free living parasites
- Obligate
- Facultative
- Accidental
- Abberant parasites

3. Host?

- Definition
- Definitive host
- Intermediate
- Paratenic
- Reservoir
- Accidental

4. Host – parasite relation ship?
 - Symbiosis
 - Commensalism
 - Parasitism

5. Discuss morphology of *E.hystolytica*?
 - Trophozoite
 - Cyst
 - Precyst
 - Figure

6. Describe the life cycle,pathogenesis and laboratory diagnosis of *E.histololytica*?
 - Life cycle-habitat
 - Cyst exystation
 - Encystation
 - Metacystic trophozoite
 - Pathogenesis-intestinal amoebiasis
 - Histolysin production
 - Crypt of liberkuhn
 - Amoebic ulcer
 - Flsk shaped
 - Clinical symptom
 - Extra intestinal amoebiasis-hepatic
 - Pulmonary
 - Metastatic
 - Cutaneous
 - Genitourinary
 - Diagnosis-both intestinal and extra intestinal

7. Non pathogenic amoebae?
 - *Entamoeba coli*
 - *E.hartmani*
 - *E.gingivalis*
 - *Endolimax nana*
 - *Iodamoeba buetschli*

8. Pathogenic free living amoebae?
 - N.fowleri
 - Acanthamoeba
 - Balamuthia
9. GAE ?
 - Acanthamoeba
10. PAM ?
 - N.fowleri
11. Giardiasis?
 - Morphology
 - Pathogenesis
 - Entero test
 - Figure
12. Trichomoniasis?
 - Morphology
 - Pathogenesis
 - Diagnosis
 - Figure
13. Various morphological stages of heamoflagellates?
 - Amastigote
 - Promastigot
 - Epimastigot
 - Trypomastigote,
 - Figure
14. Life cycle and diagnosis of trypanosoma brucei?
 - Detailed life cycle
 - Habitat
 - Diagnosis-microscopy
 - Culture
 - Imaging

- Serodiagnosis
 - Molecular diagnosis
 - Animal inoculation
15. Life cycle and diagnosis of trypanosome cruzi?
- Detailed life cycle
 - Habitat
 - Diagnosis-microscopy
 - Culture
 - Imaging
 - Serodiagnosis
 - Molecular diagnosis
 - Animal inoculation
16. Chagaz disease?
- Acute
 - Chronic
17. Pathogenesis and diagnosis of leishmania donovani?
- Kala azar or visceral leishmaniasis-changes in spleen
 - Liver
 - Bone marrow
 - Peripheral lymph nodes
 - Clinical features
 - PKDL
 - Diagnosis-direct and indirect evidence
18. PKDL
- Clinical features- depigmented macules
 - Erythematous patches
 - Nodular lesions
19. Morphological forms of leishmania dono vanii?
- Amastigote form- LD bodies
 - Promastigote form
 - Figure

20. Leishmania skin test?

- Montenegro test, principle and procedure

21. Describe briefly life cycle and diagnosis of malaria ?

- Detailed life cycle
- Diagnosis- demonstration of parasite by microscopy (thick and thin smear)
- Quantitative buffy coat smear
- Micro concentration technique
- Culture of malarial parasite
- Sero diagnosis
- Newer methods of diagnosis- fluorescence microscopy
- Rapid antigen detection test
- Molecular diagnosis

22. P.vivax

- Morphology
- Life cycle
- Pathogenesis
- Diagnosis

23. P.ovale

- Morphology
- Life cycle
- Pathogenesis
- Diagnosis

24. P.malaria

- Morphology
- Life cycle
- Pathogenesis
- Diagnosis

25. P.falciparum

- Morphology
- Life cycle
- Pathogenesis

- Diagnosis
26. Black water fever
- Causing agents, disease condition
27. Malignant tertian malaria
28. Cerebral malaria
29. Babesiosis?
- Life cycle
 - Pathogenesis
 - Clinical features
 - Diagnosis
30. Prophylaxis of malaria ?
- Malarial vaccine
 - Vector control strategies
 - Anti viral measures
 - Integrated control
 - Malaria control programme
31. Toxoplasmosis?
- Life cycle
 - Pathogenesis-congenital
 - Acquired
 - Ocular
 - Toxoplasmosis in immune compromised patients
32. Discuss in brief life cycle of *Cryptosporidium parvum*?
- Life cycle
33. Congenital toxoplasmosis ? 5 mark
- Causative agent
 - Clinical conditions
34. Sabin Feldman dye test ? 3 mark
- Principle and procedure

35. *Cryptosporidium parvum* ? 3 mark
- Morphology
 - Life cycle
 - Pathology
 - Diagnosis
36. Sarcocyst ? 3 mark
- Morphology
 - Life cycle
 - Pathology
 - Diagnosis
37. Describe briefly diagnosis of microsporidia ? 3 mark
- Microscopy
 - Cell culture
 - Molecular diagnosis
38. Enumerate the opportunistic parasitic infection seen in HIV patients and discuss briefly the life cycle and laboratory diagnosis of *pneumocystis jirovecii*? 10 mark
- *Cryptosporidium parvum*
 - *Isospora belli*
 - *E.histolytica*
 - *G.intestinalis*-microscopy
 - Biopsy
 - Serodiagnosis
 - Molecular diagnosis
 - Radiology
39. Write short notes on the morphology of *Balantidium coli* with suitable diagram ? 3 mark
- Morphology
 - Diagram
40. Discuss the life cycle and diagnosis of *Balantidium coli* ? 3 mark
- Life cycle
 - Diagnosis

41. .General features of helminths ? 5 mark
- Nematode
 - Trematoda
 - Cestoda
42. Differentiate between trematodes and nematodes ? 5 mark
- General differentiating features
43. Differentiate between cestodes and nematodes ? 5 mark
- General differentiating features
44. Describe the morphology, life cycle and diagnosis of *T.saginata*? 5 mark
- Morphology
 - Life cycle
 - Diagnosis
45. Describe the morphology, life cycle and diagnosis of *T.solium*?
- Morphology
 - Life cycle
 - Diagnosis
46. Describe the morphology, life cycle and diagnosis of *Echinococcus granulosus* ? 5 mark
- Morphology
 - Life cycle
 - Diagnosis
47. *H.nana* ? 5 mark
- Morphology
 - Figure
 - Life cycle
 - Pathogenesis
 - Diagnosis
48. *D.latum* ? 5 mark
- Morphology

- Life cycle
 - Pathogenesis
 - Figure
49. Hydatid cyst ? 3 mark
- Figure
 - Pericyst
 - Ectocyst
 - Endocyst
 - Hydatid fluid
 - Brood capsule
50. Casoni test ? 3 mark
- Skin test
 - Procedure
51. Sparganosis ? 3 mark
- Clinical condition
52. Cysticercus cellulose? 3 mark
- Clinical conditions
53. Cysticercus bovis ? 3 mark
- Clinical conditions
54. Differentiate between T.solium and T.saginata ? 3 mark
- Differentiating properties
55. General charecters of trematodes ? 3 mark
- Morphology
 - Pathogenesis
 - Life cycle
 - Diagnosis
56. General charecters of schistosomes ? 3 mark
- Morphology
 - Life cycle

- Pathology
 - Diagnosis
57. *Clonorchis sinensis* ? 5 mark
- Morphology
 - Life cycle
 - Pathology
 - Diagnosis
58. *Paragonimus* ? 5 mark
- Morphology
 - Life cycle
 - Pathology
 - Diagnosis
59. *Fasciolopsis buski* ? 5 mark
- Morphology
 - Life cycle
 - Pathology
 - Diagnosis
60. *Fasciola hepatica* ? 5 mark
- Morphology
 - Life cycle
 - Pathogenesis
 - Diagnosis
61. *Schistosoma haematobium* ? 5 mark
- Morphology
 - Life cycle
 - Pathology
 - Diagnosis
62. Differentiate between *S.hematobium*,*S.mansoni*,*S.japonicum* ? 3 mark
- Differentiating property of egg
 - Figure

63. General characters of phylum nematode ? 5 mark
- Morphology
 - Life cycle
 - Pathogenesis
 - Diagnosis
64. Classification of nematodes based on habitat ? 3 mark
- Small
 - Large intestine
 - Lymphatics
 - Skin
 - Mesentery
 - Conjunctiva
65. Visceral larva migrans ? 5 mark
- Pathogenesis
 - Clinical features
 - Diagnosis
 - Treatment
66. Cutaneous larva migrans ? 5 mark
- Pathogenesis
 - Clinical features
 - Diagnosis
 - Treatment
67. Name the various intestinal nematodes and describe briefly the life cycle of trichinella ?
5mark
- Name
 - Life cycle
68. Laboratory diagnosis of *Trichinella spiralis* ? 5 mark
- Direct
 - Indirect method
69. Describe the life cycle of *Trichuris trichiura* ? 3 mark

- Habitat
 - Life cycle
 - Infective form
70. Egg of *trichuris trichiura* ? 3 mark
- Features
 - Figure
71. Classify intestinal nematodes and describe the life cycle of *strongyloides* ? 5 mark
- Classification
 - Life cycle
72. Difference between filariform larve of hook worm and *strongyloides*? 3 mark
- Properties
73. Name the helminth that do not require any intermediate host and describe the life cycle of *Ancylostoma duodenale* ? 5 mark
- Life cycle
74. Clinical diseases in hook worm infection ? 3 mark
- Pathogenic conditions
75. Differentiate between *Ancylostoma duodenale* and *necator americanus* ? 3 mark
- Pathogenesis
76. List the parasite causing autoinfection and describe the life cycle of *enterobius vermicularis* ? 3 mark
- Life cycle
 - Habitat
 - Mode of entry
 - Infective form
77. Egg of *enterobius vermicularis* ? 3 mark
- Features
 - Figure
78. NIH swab ? 3 mark

- Features
 - Figures
79. Laboratory diagnosis of *enterobius vermicularis* ?
- Microscopy
 - NIH swab
 - Scotch tape method
80. Name the parasite causing pneumonitis and describe the life cycle and diagnosis of *Ascaris lumbricoides* ? 5 mark
- Life cycle
 - Habitat
 - Infective form
81. Clinical manifestation of ascariasis ? 3 mark
- Clinical conditions
82. Loefflers syndrome ? 3 mark
- Clinical features
83. Differentiate between fertilized and unfertilized egg of *Ascaris lumbricoides* ? 5 mark
- Features
 - Figures
84. Describe the life cycle and laboratory diagnosis of *Wuchereria bancrofti* ? 5 mark
- Life cycle
 - Direct evidence
 - Indirect
 - Immunodiagnosis
 - Molecular diagnosis
85. *Microfilaria* ? 5 mark
- Features
 - Figure
86. Pathogenesis of lymphatic filariasis ? 5 mark
- ADL

- Lymphangitis
- Lymphadenitis
- Lymphedema
- Lymphangiomas
- Hydrocele
- Lymphorrhagia
- Elephantiasis

87. Filariasis? 3 mark

- Clinical conditions

88. Brugia malayi ? 5 mark

- Morphology
- Life cycle
- Pathogenesis
- Diagnosis

89. Onchocerca volvulus ? 5 mark

- Morphology
- Life cycle
- Pathogenesis
- Diagnosis

90. Loa loa ? 5 mark

- Morphology
- Life cycle
- Pathogenesis
- Diagnosis

91. Differentiate between occult and classical filariasis ? 5 mark

- ADL
- Lymphangitis
- Lymphadenitis
- Lymphedema
- Lymphangiomas
- Hydrocele

- Lymphorrhagia
 - Elephantiasis
 - Clinical manifestations
 - Tropical pulmonary eosinophilia
92. Differentiate between micro filarial bancrofti and microfilaria malayi ? 5 mark
- Clinical features
93. Describe the life cycle and laboratory diagnosis of dracunculus medinensis ? 5 mark
- Life cycle
 - Diagnosis
94. Pathogenicity and clinical features of dracunculus medinensis ? 3 mark
- Dracunculiasis
 - Clinical features
95. Tissue nematodes ? 3 mark
- Name the nematodes
 - Features
96. Enumerate the various methods employed for examination of stool and describe in detailed the concentration methods of stool examination ? 10 mark
- Flootation-simple floatation
 - ZnSo₄ floatation
 - Sedimentation- formol ether sedimentation
 - Baermann concentration methods
97. Describe the various skin test used for the diagnosis in many parasitic infections? 5 mark
- Casonis test
 - MONTENEGRO test
 - Fairlys test
 - Skin test in bancroftian filariasis
98. Scotch tape method ? 3 mark
- Test for detecting enterobius vermicularis

99. Blood examination for malarial parasite ? 5 mark
- Thick smear
 - Thin smear
 - QBC
100. Blood examination for microfilaria ? 5 mark
- Wet mount
 - Stained smears
 - Concentration methods-sedimentation method
 - Membrane filtration concentration
 - Microhematocrite tube method
 - Buffy coat blood film
101. Entero test? 3 mark
- For giardia
 - Principle
 - Procedure
102. Casonis test ? 3 mark
- Test for hydatid cyst
103. Flootation method for stool examination ? 3 mark
- Principle
 - Procedure of simple floatation and ZnSO₄
104. Parasites which cause diarrhea
105. Hydatid diseases
- Clinical features
 - Complication
106. Protozoan parasites causing infection in AIDS Patients? –
- Enumerate the parasites
107. Parasites found in blood of human beings? –
- Enumerate the parasites
108. Dirofilaria

109. Cultivation of parasites
110. Exo erythrocytic shizogony of plasmodium vivax
111. What is nocturnal periodicity. Mention 2 parasites diseases it is noted
112. Enumerate Acid fast parasites
113. Three parasites found inside the large intestine of man
114. Dientamoeba fragilis
115. Life cycle and laboratory diagnosis of E.granulosus
 - Life cycle
 - Specimen collection transport and processing
116. Trophozoite of E.histolytica
 - Diagram
 - Detailed morphology
117. Life cycle of T.gondii
118. Life cycle of Ascaris lumbricoides
119. Lab diagnosis of pin worm
120. NNN Media
121. Auto infection
122. Structure of Trombicula autumnalis
123. Intermediate host with 2 examples
124. Gravid segments of T.solium and T.saginata
125. Larvae demonstrated in stool
126. Diagram of cyst of Giardnerella vaginalis
127. Dirofilaria
128. Non pathogenic amoeba species in man
129. River blindness
130. Three parasites demonstrated in urine
131. DEC provocation test

ENTOMOLOGY

1. Classification of arthropods of medical importance and explain its role in the transmission of disease ?
 - Class insect – (Mosquito,flies,human lice,fleas,redavid bug)
 - Class arachnida-(Ticks, Mites)
 - Class Crustacea – cyclops
2. Describe the morphology, life cycle and bionomics of anopheles mosquito. Mention briefly about its public health importance and control measures.
 - Morphology
 - Life cycle
 - Habits
 - Public health importance
 - Control measures
3. Describe the morphology, life cycle and bionomics of culex mosquito.Mention briefly about its public health importance and control measures.
 - Morphology
 - Life cycle
 - Habits
 - Public health importance
 - Control measures
4. Describe the morphology, life cycle and bionomics of aedes mosquito.Mention briefly about its public health importance and control measures.
 - Morphology
 - Life cycle
 - Habits
 - Public health importance
 - Control measures
5. Describe the morphology, life cycle and bionomics of mansonia mosquito. Mention briefly about its public health importance and control measures.
 - Morphology

- Life cycle
 - Habits
 - Public health importance
 - Control measures
6. Mosquito control measures.
- Anti-larval measures
 - Anti-adult measures
 - Protection against mosquito bite
7. Housefly and its medical importances and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
8. Sandfly and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance and control measures
9. Tsetse fly and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
10. Black fly and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
11. Head lice and its medical importance and control measures ?
- Morphology
 - Lifecycle

- Public health importance
 - Control measures
12. Body lice and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
13. Crab lice and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
14. Rat flea and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
15. Sand flea and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
16. Reduvid bug and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
17. Hard tick and its medical importance and control measures ?describe in detail the commonest disease transmitted by ticks in Kerala.
- Morphology

- Lifecycle
 - public health importance
 - Control measures
18. Soft tick and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - public health importance
 - Control measures
19. Trombiculid mites and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
20. Itch mite and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
21. Cyclops and its medical importance and control measures ?
- Morphology
 - Lifecycle
 - Public health importance
 - Control measures
22. Insecticides. and its classification?
- DDT
 - HCH
 - Malathion
 - Abate
 - Diazinon
 - Fenthion
 - Dichlorovos

- Propoxur
- Pyrethrum
- Synthetic pyrethroids
- Rotenone
- Mineral oils
- Paris green

3 MARKS

23. Blocked flea
24. Name two organophosphates used as insecticides?
25. Differences between hard tick and soft tick
26. Body louse and its relevance to human infections
27. Morphology and medical importance of sarcoptes scabei
28. Life cycle of house fly
29. Structure of trombicula autumnalis
30. Intermediate host with 2 examples
31. Bionomics of Aedes mosquitoes
32. Name 3 diseases transmitted by hard tick
33. Lifecycle of housefly
34. Tick borne parasitic infections