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**The West Bengal University of Health Sciences**  
**B.Sc. in Medical Microbiology 3<sup>rd</sup> Semester March-April, 2026 Examination**  
**Subject : Parasitology**

Time : 2 hrs.

Full Marks : 50

Attempt all questions

1. Tick the correct answer : 10 x 1
- a) The infective stage of *Leishmania donovani* being transmitted to humans is:  
i) Amastigote    ii) Promastigote    iii) Epimastigote    iv) Trypomastigote
  - b) *Acanthamoeba* infection of cornea commonly results in:  
i) Keratitis    ii) Conjunctivitis    iii) Uveitis    iv) Cataract
  - c) The principal advantage of thin smear over thick smear is:  
i) Higher sensitivity    ii) Better species identification    iii) Faster preparation    iv) Detection of cysts
  - d) The quadrinucleate cyst is the mature infective stage of:  
i) *Entamoeba coli*    ii) *Entamoeba histolytica*    iii) *Dientamoeba fragilis*    iv) *Acanthamoeba*
  - e) *Acanthamoeba* infection of the CNS leads to:  
i) Primary amoebic meningoencephalitis    ii) Granulomatous amoebic encephalitis  
iii) Cerebral malaria    iv) Hydatid cyst
  - f) The ring form seen in peripheral blood smear corresponds to:  
i) Sporozoite    ii) Trophozoite of *Plasmodium*    iii) Gametocyte    iv) Merozoite
  - g) *Enteromonas hominis* is primarily identified in:  
i) Blood smear    ii) CSF    iii) Stool specimen    iv) Skin scraping
  - h) *Balantidium coli* is unique among intestinal protozoa because it is:  
i) Flagellated    ii) Ciliated    iii) Non-motile    iv) Sporozoan
  - i) Sporulation of *Isospora* occurs:  
i) Inside human intestine    ii) In bloodstream    iii) In external environment    iv) In vector
  - j) Skin lesions in PKDL contain:  
i) Sporozoites    ii) Promastigotes    iii) Amastigotes    iv) Microfilariae
2. Answer **any four** of the following questions : 4 x 2
- a) What are preservative fluids used for stool examination? Mention two with their purpose.
  - b) Differentiate between biological vector and mechanical vector with examples.
  - c) Define PKDL.
  - d) What is a reservoir host? Give one example.
  - e) Mention the differences between mutualism and commensalism.
  - f) Mention two morphological forms of haemoflagellates.
3. Answer **any four** of the following questions : 4 x 4
- a) Describe the life cycle of *Giardia lamblia* and correlate it with the clinical manifestations.
  - b) Explain the preparation, staining, and interpretation of thin and thick blood smears in malaria diagnosis.
  - c) Describe the laboratory diagnosis and clinical importance of *Trichomonas vaginalis* infection.
  - d) Classify helminths of medical importance and describe their general morphological features.
  - e) Write down the erythrocytic stage of *Plasmodium* species in human host.
  - f) Write a short note on collection and examination of blood parasites including concentration methods.
4. Answer **any two** of the following questions :
- a) Explain the structure, life cycle, clinical features, and laboratory diagnosis of *Naegleria*. 3+3+1+1
  - b) Explain the principles and techniques used for detection and identification of intestinal parasites including direct and concentration methods. 4+4
  - c) Describe the structure, life cycle, clinical features, and prevention of *Entamoeba histolytica*. 3+3+1+1

