JHARKHAND Rai University
RANCHI

PRACTICE SET
End Semester Examination, May 2026

Program: BMLT
Semester: IV
Subject: Parasitology & Cytology
Subject Code: 42ABMT407

Course Outcome:
On the completion of the Course, the students will be able to:

Course Outcomes	Description
CO1	Understand parasite classification and characteristics, focusing on protozoa and helminths, forming a strong foundation in parasitology for accurate diagnosis and treatment.
CO2	Identifying and managing protozoal infections, including morphology, life cycles, symptoms, and laboratory diagnosis.
CO3	Develop expertise in diagnosing and treating malaria, covering Plasmodium species identification, morphology, life cycles, and treatment.
CO4	Acquire competence in identifying and treating nematode and cestode infections, including morphology, life cycles, symptoms, and laboratory diagnosis.
CO5	Demonstrate proficiency in cytology techniques such as exfoliative cytology, FNAC, imprint cytology, and hormonal marker assessment, enabling accurate detection.

1. **Section A : 10 Marks Question covering All units (Total No. of questions 30)**
2. **Section B : 20 Marks Question covering All units (Total No. of questions 10)**

UNIT I
Section A (10 marks)

1. Define parasites and explain their general characteristics and classification in detail. **[CO1, Remember, LOT]**
2. Describe the classification of protozoa with suitable examples. **[CO1, Understand, LOT]**
3. Explain the general characteristics of medically important protozoa. **[CO1, Understand, LOT]**

4. Describe the classification and general characteristics of Aschelminths. **[CO1, Understand, LOT]**
5. Analyze the differences between protozoa and helminths based on morphology and life cycle. **[CO1, Analyze, HOT]**
6. Explain the classification and characteristics of Platyhelminths. **[CO1, Understand, LOT]**

Section B (20 marks)

7. Design a comprehensive classification system for parasites based on morphological features, life cycle patterns, and host interactions, with suitable examples. **[CO1, Create, HOT]**
8. Evaluate the importance of understanding parasite biology in disease control, including its role in prevention, treatment, and epidemiological studies. **[CO1, Evaluate, HOT]**

UNIT II

Section A (10 marks)

9. Describe the morphology, life cycle, and pathogenicity of *Entamoeba histolytica*, highlighting its mode of transmission. **[CO2, Understand, LOT]**
10. Explain the morphology and life cycle of *Giardia lamblia*, including its infective stage and transmission. **[CO2, Understand, LOT]**
11. Describe the morphology and clinical features of *Leishmania*, with reference to the disease it causes. **[CO2, Understand, LOT]**
12. Explain the life cycle and pathogenicity of *Trypanosoma*, including its vector and host interaction. **[CO2, Understand, LOT]**
13. Describe the laboratory diagnosis and treatment of intestinal protozoal infections, including commonly used techniques. **[CO2, Apply, LOT]**
14. Analyze the differences between intestinal and blood protozoa in terms of habitat, transmission, and disease caused. **[CO2, Analyze, HOT]**

Section B (20 marks)

15. Analyze intestinal and blood protozoa with respect to their transmission, life cycle patterns, and pathological effects on the host. **[CO2, Analyze, HOT]**
16. Evaluate different treatment strategies for protozoal infections, considering drug mechanisms, effectiveness, and limitations. **[CO2, Evaluate, HOT]**

UNIT III

Section A (10 marks)

17. Describe the morphology and life cycle of *Plasmodium*, including its stages in human and mosquito hosts. **[CO3, Understand, LOT]**
18. Explain the symptoms and pathogenicity of malaria, highlighting its effects on red blood cells and organs. **[CO3, Understand, LOT]**
19. Compare the life cycle stages of the malaria parasite in human and mosquito hosts, highlighting key processes. **[CO3, Analyze, HOT]**

20. Explain the laboratory diagnosis of malaria, including microscopic and rapid diagnostic techniques. **[CO3, Apply, LOT]**

21. Describe the treatment and control of malaria, including commonly used drugs and preventive measures. **[CO3, Apply, LOT]**

22. Evaluate the different diagnostic techniques for malaria and their effectiveness in early detection. **[CO3, Evaluate, HOT]**

Section B (20 marks)

23. Evaluate the life cycle and pathogenicity of *Plasmodium*, explaining its transmission, host interactions, lab diagnosis, treatment and disease progression. **[CO3, Evaluate, HOT]**

24. Evaluate the diagnostic and treatment strategies for malaria, considering their effectiveness, limitations, and recent advancements. **[CO3, Evaluate, HOT]**

UNIT IV

Section A (10 marks)

25. Describe the morphology and life cycle of *Ascaris lumbricoides*, including its mode of transmission and infective stage. **[CO4, Understand, LOT]**

26. Explain the morphology and pathogenicity of *Enterobius vermicularis*, highlighting its transmission and symptoms. **[CO4, Understand, LOT]**

27. Describe the life cycle and laboratory diagnosis of *Strongyloides stercoralis*, including its unique features. **[CO4, Understand, LOT]**

28. Explain the morphology and life cycle of *Taenia* species, including their host interaction and transmission. **[CO4, Understand, LOT]**

29. Analyze the differences between nematodes and cestodes in terms of structure, life cycle, and habitat. **[CO4, Analyze, HOT]**

30. Describe the life cycles of *Ascaris lumbricoides* and *Taenia* species, highlighting their key stages. **[CO4, Understand, LOT]**

Section B (20 marks)

31. Design a comprehensive diagnostic approach for helminth infections, including sample collection, identification, and confirmation methods. **[CO4, Create, HOT]**

32. Evaluate the treatment and control measures of helminthiasis, considering drug therapy and preventive strategies. **[CO4, Evaluate, HOT]**

UNIT V

Section A (10 marks)

33. Define cytology and explain its importance in disease diagnosis, especially in detecting cellular abnormalities. **[CO5, Remember, LOT]**

34. Describe exfoliative cytology and explain its applications in identifying pathological conditions. **[CO5, Understand, LOT]**

35. Analyze the differences between FNAC and biopsy in terms of procedure, advantages, and diagnostic value. **[CO5, Analyze, HOT]**

36. Analyze the differences between FNAC and biopsy in terms of procedure, advantages, and diagnostic value. **[CO5, Analyze, HOT]**

37. Describe the principles involved in the detection of malignant cells, including morphological changes. **[CO5, Understand, LOT]**

38. Explain the PAP smear test and its clinical applications in screening and diagnosis. **[CO5, Apply, LOT]**

Section B (20 marks)

39. Design a comprehensive cytological diagnostic workflow for cancer detection, including sample collection, processing, and interpretation. **[CO5, Create, HOT]**

40. Evaluate the advantages and limitations of FNAC and PAP smear techniques in clinical diagnosis. **[CO5, Evaluate, HOT]**

Summary Sheet

CO Wise

CO	Q. No	Marks
CO1	1,2,3,4,5,6,7,8	100
CO2	9,10,11,12,13,14,15,16	100
CO3	17,18,19,20,21,22,23,24	100
CO4	25,26,27,28,29,30,31,32	100
CO5	33,34,35,36,37,38,39,40	100
Total		**500**

Unit Wise

Unit	Q. No	Marks
Unit 1	1,2,3,4,5,6,7,8	100
Unit 2	9,10,11,12,13,14,15,16	100
Unit 3	17,18,19,20,21,22,23,24	100
Unit 4	25,26,27,28,29,30,31,32	100
Unit 5	33,34,35,36,37,38,39,40	100
Total		**500**

Blooms Taxonomy Level (BTL) Wise

BTL	Q. No	Marks
LOT	1,2,3,4,6,9,10,11,12,13,17,18,20,21,25,26,27,28,30,33,34,37,38	230
HOT	5,7,8,14,15,16,19,22,23,24,29,31,32,35,36,39,40	270
Total		**500**

Prepared By: Muskan Kumari

Disclaimer: -This is a Practice set. The Question in End term examination will differ from the Practice set. This Practice set is meant for practice only.