

# Rani Rashmoni Green University

M.Sc. 3<sup>rd</sup> Semester Examination, 2025

Subject: NUTRITION AND PUBLIC HEALTH

Course Code- GNPHT-31 (Unit – 1: Epidemiology and Disease Ecology  
Unit-2: Parasitology)

Time: 2hrs

FM=40

1. Answer any four out of six questions from the followings:

4×2=8

- What do you mean by vector competence?
- Name the causative organisms of lymphatic filariasis and their common mosquito vectors.
- Write the composition of ORS.
- Write two differences between the trophozoite and cyst of Giardia.
- How Sickle cell trait is related with malaria?
- Differentiate chronic hepatitis and acute hepatitis.

2. Answer any four out of six questions from the following:

4×4=16

- Write a short note on descriptive epidemiology.
- What are the major host-related and social risk factors of tuberculosis?
- Explain the importance of antigen tests in filariasis diagnosis (ICT/FTS).
- Explain the mode of action of AB toxin in cholera.
- Describe Kaposi sarcoma as an opportunistic infection.
- Mention two key features of Amoebapore. Write the structure of amoebapore-A. 2+2

3. Answer any two out of four questions from the following:

2×8=16

- Differentiate between latent and active tuberculosis. Explain DOTS strategy and its relevance to TB control. 4+4
- Why does Giardia not require any intermediate host? Describe the lifecycle of Giardia with a suitable diagram. 2 +4+2
- Write down the morphological features of *Plasmodium falciparum*. Why it is termed as cerebral malaria? 5+3
- Read the given passage carefully and answer the questions as follow:  
During 2018, at ABC Primary Health centre, Catering population of **45,000** following data was collected:
  - Total 3800 blood slides for fever cases were collected.
  - Total 680 slides were found to be positive including 340 for *Plasmodium vivax*, 300 for *Plasmodium falciparum* and 40 for mixed infection.

Calculate the following epidemiological indicators- **API**, **ABER**, **SPR** and **Annual Falciparum Incidence Rate**. 2+2+2+2