RANI RASHMONI GREEN UNIVERSITY

M.Sc. Fourth Semester Examination, 2025

Subject: NUTRITION AND PUBLIC HEALTH

COURSE CODE: GNPHT-41

(UNIT-1: MEDICAL ENTOMOLOGYAND VECTOR BIOLOGY;
UNIT-2: VECTOR– CONTROL)

Time-2hrs **FM=40**

Answer any 3 from each unit and two from any unit of your choice from the following questions: 8×5 =40

Unit:1

1. Explain the pathogenesis of Kala-azar. 5
2. What is sequestration in malaria? Describe the mechanism of sequestration in *Plasmodium falciparum* infection. 2+3
3. Explain the terms: Sof ttick and hard tick. 2.5+2.5
4. Describe the egg laying behavior and larval character of Anopheles mosquito. 5
5. Describe the lifecycle of *Wuchereria bancrofti*. Discuss the clinical manifestations of Lymphatic f ilariasis. 2.5+2.5
6. Write short Notes on any two of the following- 2.5×2

   a) Plague
   b) Japanese encephalitis
   c) Plasma Leakage
   d) Clinical Manifestation of *Leishmaniasis*

Unit:2

7. What is realized natality? Describe convex and concave survivorship curve of population with suitable examples. 2+3

8. Definekeystonespecies.Parasiteshaveagreatroleinchangingthekeystonespeciesinanecosystem, explain, with suitable examples. 2+3

9. Describe the role of temperature in spreading infections of *Ascaris* and *Trichuris.* What is vector? 3+2

10. Write the Scientific name, part of the plant used and used as mosquito repellent of the following plants: Lemon grass, neem. 2.5+2.5

11. Write a note on use of larvivorous fish to control mosquitoes. Elaborate the larvivorous efficiencies of guppy fish. 3+2

12. Write short Notes on any two the following- 2.5×2

a) Signet ring stage of *Plasmodium*

b) Microfilarial in intermediate host

c) Parapox virus as changer of biodiversity

d) Carrying capacity