

2025
RANI RASHMONI GREEN UNIVERSITY
ENVIRONMENTAL SCIENCE
SEMESTER-III
SUBJECT CODE: GEST-31
Full Marks: 40
Time: 2 Hours

Candidates are required to give their answer in their own words as far as practicable.

Unit-1: Answer any four out of the following six questions. (2×4 = 8)

1. What is the infective stage of *Taenia saginata* to humans?
2. Write the characteristic features of the trophozoite of *Plasmodium*.
3. What is homeostasis? Name one stress hormone.
4. How does cadmium cause damage to cells?
5. What is NOEL?
6. What do you mean by a teratogen?

Unit-2: Answer any four out of the following six questions. (4×4 = 16)

7. Write the worldwide distribution of *Anopheles sundaicus* and its impact on human health.
8. Describe in brief the morphology of adult *Culex quinquefasciatus*.
9. Discuss the control measures of the intermediate host of *Dracunculus medinensis*
10. Give an example of a symbiotic relationship between a vector and host and explain the relationship with a suitable example.
11. Classify carcinogens and explain their mode of action.
12. Explain the formation of micronuclei and their relevance in genotoxicity testing.

Unit-3: Answer any two out of the following four questions. (8×2 = 16)

13. Describe in detail the morphology, life cycle, pathogenesis and treatment procedures of *Taenia saginata*. (4+4 = 8)
14. Write the differences between the trophozoite and cyst of *Giardia*. Describe the causes of *Giardia* infection in humans. (3+5 = 8)
15. Discuss major DNA repair pathways with special reference to BER, NER, HR, and NHEJ. (8)
16. Explain in detail the molecular mechanisms by which xenobiotics induce oxidative stress and cellular injury. (8)