



'সমানো মন্ত্র: সমিতি: সমানী'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 3rd Semester Examination, 2021

GE2-P1-ZOOLOGY

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

**The question paper contains PAPER-1A, PAPER-1B, PAPER-1C.
Candidates are required to answer any *one* from the *three* PAPERS and
they should mention it clearly on the Answer Book.**

PAPER-1A

ANIMAL DIVERSITY

GROUP-A

1. Answer any *five* questions from the following: 1×5 = 5
- (a) What is choanocyte?
 - (b) What is the definitive host of *Plasmodium vivax* ?
 - (c) Name the excretory organ of earthworm.
 - (d) What is pseudocoelom? Give an example where it is found.
 - (e) Give two internal characteristic feature of class Mammalia.
 - (f) Define metamerism.
 - (g) What is catadromous fish?
 - (h) Give the scientific name of Himalayan salamander.

GROUP-B

2. Answer any *three* questions from the following: 5×3 = 15
- (a) Write the five unique characters of phylum Annelida.
 - (b) State the general characters of Class Reptilia.
 - (c) Write a note on the Canal system in *Sycon* sp.
 - (d) Write a short note on integumentary glands in mammals.
 - (e) Explain the mechanism of pearl formation.

GROUP-C

3. Answer any *two* questions from the following: 10×2 = 20
- (a) What is polymorphism? Describe polymorphism in phylum Cnidaria with examples. 2+8
 - (b) What is 'Signet ring' stage? Describe the life cycle of *Plasmodium vivax* with suitable diagrams. 2+8
 - (c) Describe the poison apparatus in snakes. Distinguish between poisonous and non-poisonous snakes. 6+4
 - (d) Describe the different types of migration in fishes with suitable examples.

PAPER-1B

INSECT VECTORS AND DISEASES

GROUP-A

1. Answer any *five* questions from the following: 1×5 = 5
- (a) Name the causative agent of Plague.
 - (b) What are merozoites?
 - (c) Define vector with example.
 - (d) Give one example of flea-borne disease.
 - (e) What is zoonosis?
 - (f) Where are sporozoites formed?
 - (g) Sand fly acts as a vector of _____ disease.
 - (h) What is head capsule?

GROUP-B

2. Answer any *three* questions from the following: 5×3 = 15
- (a) Describe the symptoms of Chikungunya.
 - (b) Explain in brief the host-vector relationship.
 - (c) Differentiate between carrier, vectors and reservoirs.
 - (d) Briefly describe the pathogenicity of phlebotomus fever.
 - (e) Mention the periodicity and epidemiology of microfilaria. 2½ + 2½

GROUP-C

3. Answer any *two* questions from the following: 10×2 = 20
- (a) Discuss major symptoms, epidemiology and treatment of Leishmaniasis.
 - (b) Give an account of adaptive radiation among the hemipteran vectors.

- (c) Write the name of the vector for Typhus fever. Explain its symptoms and control measures.
- (d) Discuss the causative agent, major symptoms, epidemiology and treatment measures of Dengue hemorrhagic fever.

PAPER-1C
AQUATIC BIOLOGY

GROUP-A

1. Answer any *five* questions from the following: 1×5 = 5
- (a) What is the full form of BOD?
 - (b) What is Eutrophication?
 - (c) What are osmoregulators?
 - (d) What is coral bleaching?
 - (e) Name one instrument used to measure turbidity.
 - (f) What is continental shift?
 - (g) Define nutrient cycle.
 - (h) What is limnology?

GROUP-B

2. Answer any *three* questions from the following: 5×3 = 15
- (a) Point out the conservation and management steps taken to protect the wet land.
 - (b) Physico-Chemical environment of aquatic ecosystem influence the distribution of aquatic organisms — Explain with suitable example.
 - (c) What are the important adaptations of deep sea animals?
 - (d) What are the causes and effects of thermal pollution?
 - (e) Write a short note on aquatic biomass.

GROUP-C

3. Answer any *two* questions from the following: 10×2 = 20
- (a) Point out the salient ecological features of different intertidal zones.
 - (b) Explain in brief the theories of coral reef formation.
 - (c) Explain the mechanism of Eutrophication. Add a note on its prevention and reversal. 5+5
 - (d) Write an account on morphological and physiological adaptations of hill stream fishes.

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