



'সমানো মন্ত্র: সমিতি: সমানী'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 4th Semester Examination, 2022

GE2-P2-ZOOLOGY (PRACTICAL)

Time Allotted: 2 Hours

Full Marks: 20

The figures in the margin indicate full marks.

The question paper contains four parts: GROUP-A, GROUP-B, GROUP-C and GROUP-D.

The candidates are required to answer any *one* from *four* groups.

Candidates should mention it clearly on the Answer Book.

GROUP-A

HUMAN PHYSIOLOGY

1. Write the principle for estimation of haemoglobin by Sahli's haemoglobinometer. Estimate the percentage of haemoglobin in your blood using Sahli's haemoglobinometer. 2+4=6

OR

Write the principle of blood grouping (ABO) and Rh-typing of human blood. Determine the blood group and Rh-type of your blood. 3+3=6

2. Identify the histological sections with reasons A, B & C. 3×3 = 9
3. Laboratory Note book 2
4. Viva-voce 3

GROUP-B

FOOD, NUTRITION AND HEALTH

1. Perform an experiment to detect adulteration in the supplied sample. Comment on the nature of adulteration, if any. 6

OR

Write down the principle of Gram staining. Prepare and stain a bacterial smear following Gram staining method from the supplied material. 2+4=6

2. Identify the specimens A, B & C 3×3 = 9
3. Laboratory Note book 2
4. Viva-voce 3

GROUP-C

ENVIRONMENT AND PUBLIC HEALTH

1. Write a brief note on pH. Determine pH of the samples provided. Comment on the nature of the samples on the basis of pH. $1\frac{1}{2}+2+1\frac{1}{2}=5$
2. Estimate the chlorinity of the water sample provided. Write down the principle for the estimation. $3\frac{1}{2}+1\frac{1}{2}=5$

OR

- Estimate the total hardness of the water sample provided. Write down the principle for the estimation. $3\frac{1}{2}+1\frac{1}{2}=5$
3. Report on visit to auto/vehicle pollution testing centre. $3+2=5$
 4. Laboratory Note book 2
 5. Viva-voce 3

GROUP-D

ANIMAL CELL BIOTECHNOLOGY

1. Write the principle and procedure of agarose gel electrophoresis of DNA. $3+4=7$
2. Write the principle and application of any two biotechnological techniques. $4\times 2 = 8$
3. Laboratory Note book 2
4. Viva-voce 3

—x—