UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 2nd Semester Examination, 2022

GE1-P2-ZOOLOGY (PRACTICAL)

Time Allotted: 2 Hours   Full Marks: 20

The figures in the margin indicate full marks.

The question paper contains Group-A, B, C and D.
The candidates are supposed to answer any *one* from the *four* Groups.
Candidates should clearly mention it in the Answer script.

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 and 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 and C. $3 \times 3 = 9$

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. (a) 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

  (b) 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 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

——×——