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NEPNY—40—2023

FACULTY OF SCIENCE

M.Sc. (NEP) (First Year) (First Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

BIOTECHNOLOGY

Paper SBTTC-403

(Biochemistry)

(Tuesday, 26-12-2023)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—80

N.B. :— (i) Question No. 1 is compulsory.

(ii) Of the remaining attempt any three questions.

(iii) Draw neat and labelled diagram wherever required.

1. Write brief notes on the following :

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(a) Hemoglobin buffer

(b) Vitamin B

(c) Ramchandran plot

(d) Biological significance of DNA.

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(2)

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2. (a) Explain Henderson-Hasselbach equation. 10
- (b) Describe in detail chemical bonds. 10
3. (a) Define carbohydrates. Describe in detail its classification. 10
- (b) Describe structure and functions of fat soluble vitamins. 10
4. (a) Define proteins. Describe in detail classification of proteins. 10
- (b) Describe in detail classification of enzymes. 10
5. (a) Describe types of RNA. 10
- (b) Explain physical properties of DNA. 10
6. Write brief notes on the following : 20
 - (a) Concept of acids and bases
 - (b) Classification of lipids
 - (c) Amino acids
 - (d) Z-DNA.

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