N (Printed Pages 3)

(20517) Roll No. 1693569 17

B.Sc.(Micro.) I Year.

3488

B.Sc. (Micro.) Examination, May 2017

BIOCHEMISTRY

(B-105)

Time : Three Hours] *[Maximum Marks : 50*

Note : Attempt any **five** questions. **All** questions carry equal marks.

1. Define carbohydrates & classify them and also discuss important properties of each type with example. 10

2. Discuss the primary secondary, tertiary and quaternary structure of proteins giving suitable example. 10

3. Write short notes on the following : $2\frac{1}{2} \times 4 = 10$

   (i) All types of nucleosides in Nucleic acid

P.T.O.

(ii) Functions of glutathione

(iii) Physical & chemical properties of water

(iv) Buffer solutions with examples.

4. Discuss the different types of bond/linkages found in bimolecules. 10

5. Describe the structure & properties of fatty acids found in Lipids & also discuss the biological importance of lipids. 10

6. Write short notes on the following : 2×5=10

(i) Phospholipids.

(ii) Optical isomerism in Glucose

(iii) Peptide bond

(iv) Potolysis of water

(v) Nitrogenase

7. What are different classes of enzymes and also give the examples of each class. 10

8. (a) Explain oxidative phosphorylation 5

(b) Symbiotic and non symbiotic nitrogen fixation. 5

(20518)
B. Sc. (Micro.)- I Year

Roll No. R170935135026

3488

B. Sc. (Micro.) Examination, May 2018

BIOCHEMISTRY

(B-105)

Time : Three Hours] *[Maximum Marks : 50*

Note : Attempt any *five* questions. All questions carry equal marks.

1. Describe different types of structure found in proteins with suitable examples. 10

2. Discuss in detail the isomerisms occur in carbohydrates with examples. 10

3. Differentiate between the following : 5×2=10
   (a) B-DNA and Z-DNA
   (b) Isoenzyme and coenzyme
   (c) Nucleosides and nucleotides
   (d) Symbiotic and non-symbiotic nitrogen fixation
   (e) Acidic and basic amino acids.

4. (a) Explain the different types of bond found in proteins. 5

(b) Explain oxidative phosphorylation. 5

5. Write short notes on the following : 2½×4

(a) Heteropolysaccharides

(b) Sphingosine

(c) Glutathione

(d) pH scale and its biological importance.

6. Discuss in detail the various factors which affects the enzyme activity. 10

7. Describe the different types of lipids and their functions. 10

8. Describe in detail the glycolysis. 10

(20519) Roll No. R1809351300005

Total Questions : 8] [Printed Pages : 2

3488

B.Sc. (Micro.) Ist Year Examination, May-2019

BIOCHEMISTRY

(B-105)

[B.Sc. (Micro)]

Time : 3 Hrs.] *[M.M. : 50*

Note :– (i) Attempt any *five* questions. All questions carry equal marks.

(ii) Marks allocated to each part of a question are given.

(iii) Candidates are advised to read the question paper carefully and answer the questions accordingly.

(iv) Answers should be brief and to the point.

1. Explain the following terms :

(a) pH

(b) Buffer

(c) Micromolecules

(d) Macromolecules

(e) Polarity of water 2×5=10

2. Write short notes on the following :

(a) Sphingosine

(b) Cholesterol 5,5

3. Describe the structure of DNA. Differentiate between A, B and Z DNA. 5,5

4. Describe in detail the various factors which affect the enzyme action. 10

5. Write short notes on the following :

(a) Classification of aminoacid

(b) Classification of carbohydrates 5,5

6. Describe in details C_3 cycle and how it differ from C_4 cycle. 10

7. Describe in detail the process of glycolysis. How many molecules of ATP are formed during complete oxidation of a glucose molecule. 8,2

8. Write short notes on the following :

(a) Lipids

(b) Nitrogen fixation 5.5