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(20516)

Roll No.

B. Sc. (Biotech.)-I Year

NS-3456

B. Sc. (Biotechnology) Examination, May 2016

BIO-PHYSICS

(B-102)

(New)

Time : Three Hours] [Maximum Marks : 50

Note : Attempt any Five questions. All questions carry equal marks.

1. Draw the structure of Eye (human). Explain its working and defects. 10
2. Why pH ranges from 0-14 only? Explain the concept of buffers. 10
3. What are the high energy biomolecules? Explain their role in energy transductions. 10

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

- (a) pKa
- (b) Isoelectric point
- (c) Proton hopping
- (d) Enzymes.

5. Explain the following : 5×2

- (a) Enzyme substrate reactions
- (b) Antigen antibody interactions.

6. Explain the Intra and Inter-nuclear interactions in biological systems. 10

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

- (a) Chirality
- (b) Hormones
- (c) Photosynthesis
- (d) Vision faults.

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8. What is Lambert-Beer law? Explain in detail. 10

9. Explain the primary and secondary structure of proteins. 10

10. Explain the laws of thermodynamics. How they become applicable on biological systems? 10