

**C. ABDUL HAKEEM COLLEGE (AUTONOMOUS),**  
**MELVISHARAM - 632 509.**

**SEMESTER EXAMINATIONS, NOVEMBER – 2018**

**M.Sc., ZOOLOGY**

**P15EZL301 – BIOPHYSICS (ELECTIVE)**

**SEMESTER III**

**Time: Three Hours**

**Maximum: 75 Marks**

**SECTION - A (5 X 6 = 30 Marks)**

**Answer ALL Questions.**

1. a) Write a note on the electron configuration of an atom.  
(Or)
- b) Explain Van der Waal's forces.
2. a) Define free energy.  
(Or)
- b) Explain the significance of exergonic reactions.
3. a) Write a note on the principle of Polarizing microscope.  
(Or)
- b) List out the applications of Phase contrast microscope.
4. a) Give an account on the IR spectroscopy.  
(Or)
- b) Give a brief account on Autoradiography.
5. a) Explain refraction.  
(Or)
- b) Give a note on the biological aspects of vision.

**SECTION - B (3 X 15 = 45 Marks)**

**Answer ANY THREE Questions.**

6. Describe the biological aspects of forces involved in biomolecules.

7. Explain Bioluminescence with examples.

8. Describe the structure of SEM.

9. Explain the effects of UV on biological systems.

10. Give a brief note on the measurement of bioelectricity of brain.

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