



# Dayananda Sagar University

## Faculty of Basic and Applied Sciences

### Ph. D Entrance Test- 2024

### Syllabus for Ph. D Entrance Test in Life Sciences

### (Biochemistry/Biotechnology/Microbiology)

**Note:** Candidate will choose one among B-1, B-2, and B-3 depending on his/her area of research

#### PART B

**(B-1) Biochemistry:** as per the general syllabus of M.Sc. Biochemistry.

Basic concepts of chemistry, physiology, immunology, molecular biology, enzymology, metabolism, bioenergetics, cell signaling, endocrinology, proteomics, analytical techniques & other subjects taught in M.Sc. biochemistry.

**(B-2) Biotechnology:** as per the general syllabus of M.Sc. Biotechnology

Recombinant DNA technology, plant and animal biotechnology, techniques in molecular biology, genomics, eco-toxicology, bioprocess technology, genetic engineering, immunotechnology, classical & advanced genetics, basics of zoology & other subjects taught in M.Sc. Biotechnology

**(B-3) Microbiology:** as per the general syllabus of M.Sc. Microbiology

General, Eukaryotic, environmental, food and dairy microbiology, microbial physiology and growth kinetics, microbial genetics, sterilization, agricultural and medical microbiology & fermentation technology along with other subjects taught under M.Sc. Microbiology.