

Faculty of Life Sciences
Aligarh Muslim University, Aligarh
Syllabus for Ph.P. Admission Test. 2022-23 onwards

Section-A

(Common to all Departments of the Faculty)

Research Aptitude/ Research Methodology

- Identification/designing of a research problem hypothesis/objectives/proof of concept
- Biodiversity and its conservation
- Biogeographic zones of the world and india « Classification of plants and animals
- Adaptations in animals and plants
- Concept of ecosystem, food web, food chain and ecological pyramids
- Environmental pollution its causes and effects
- Productivity primary, net and gross
- Biomagnification
- Sampling theory and sampling design
- Species area curve
- Buffer system, mole concept, solution preparation
- Measurement of pH of biological samples
- Concept of titration
- Preservation techniques of biological specimens
- Separation of biomolecules by electrophoresis and chromatography
- Microscopic techniques
- Spectrophotometry Principles and its applications
- Principles and applications of centrifugation
- Data and its types
- Data summarization, analysis and interpretation
- Basic concept of probability mean, mode, median
- Biostatistical tests
 - o Student's t test
 - o Chi square test
 - o One way ANOVA
 - o Correlation coefficient
 - o Regression analysis
- Bioethical and biosafety measures