

Syllabus – EAID CAA Placement Test
Biology
Topics:

1	Chemistry of Life
	<ul style="list-style-type: none"> • Biological macromolecules: Composition, energy values, primary functions • Properties of water and its role in living organisms • Enzymes: Roles, effects of pH and temperature on chemical reactions • Cellular processes: Photosynthesis and cellular respiration.
2	Living Organisms' Organization and Development
	<ul style="list-style-type: none"> • Cell structure and function • Major body systems and processes in living organisms • Interaction of body systems to maintain homeostasis
3	Inheritance of Traits
	<ul style="list-style-type: none"> • Cell growth and division: Chromosome behavior, consequences of errors • Gene expression and regulation in eukaryotes and prokaryotes • Genetic variations: Mendelian and non-Mendelian genetics
4	Genetic Technology
	<ul style="list-style-type: none"> • Genetic engineering: Impact on medicine, industry, agriculture
5	Evolution
	<ul style="list-style-type: none"> • Evolutionary processes: Natural selection, genetic drift
6	Diversity of Life
	<ul style="list-style-type: none"> • Classification of living organisms • Importance of biodiversity and impact of human activity
7	Ecological Interdependence
	<ul style="list-style-type: none"> • Ecological concepts: Biomes, ecosystems, communities, habitats, niches • Community interactions and biogeochemical cycles • Energy flow: Food chains and webs • Effects of biotic and abiotic factors on ecosystem stability