

Question	Answer
What is biology?	Biology is the science of life forms and living processes.
What does the living world comprise?	The living world comprises an amazing diversity of living organisms.
What distinction could early man easily perceive?	Early man could perceive the difference between inanimate matter and living organisms.
Name some inanimate objects deified by early man.	Wind, sea and fire.
What common feature was shared by many animate and inanimate objects for early man?	They evoked a sense of awe or fear.
What systems developed from the systematic description of life forms?	Systems of identification, nomenclature and classification.
What was the biggest spin-off of studies on living organisms?	Recognition of similarities shared among living organisms horizontally and vertically.
What revelation led to movements for conservation of biodiversity?	That all present-day living organisms are related to each other and to all organisms that ever lived on Earth.
What central question of evolutionary biology did Ernst Mayr emphasize?	The origin of species diversity.
What important biological concept did Ernst Mayr pioneer?	The currently accepted definition of a biological species.
Name the three major biology prizes awarded to Ernst Mayr.	Balzan Prize (1983), International Prize for Biology (1994), and Crafoord Prize (1999).
What happens to the variety of organisms when the observation area increases?	The range and variety of organisms increase.
Why would a dense forest contain more kinds of organisms?	Because dense forests have a greater number and kinds of living organisms.
What does each different kind of plant, animal, or organism represent?	A species.
How many species are known and described according to the text?	Between 1.7 to 1.8 million species.
What is biodiversity?	The number and types of organisms present on Earth.
What continues to happen as new and old areas are explored?	New organisms are continuously identified.
Why do local names of plants and animals create confusion?	Because local names vary from place to place, even within a country.

Question	Answer
Why is there a need to standardise the naming of living organisms?	So that a particular organism is known by the same name all over the world.
What is nomenclature?	The process of standardising the naming of living organisms.
What is identification in biology?	Correctly describing an organism and knowing to which organism the name belongs.
What is the role of scientists in scientific naming?	They establish procedures to assign scientific names to organisms.
What does ICBN stand for?	International Code for Botanical Nomenclature.
What does ICZN stand for?	International Code of Zoological Nomenclature.
Why are scientific names important?	They ensure each organism has only one universally accepted name.
What are the two components of a scientific name?	Generic name and specific epithet.
What is Binomial nomenclature?	A system of naming organisms using two components.
Who introduced binomial nomenclature?	Carolus Linnaeus.
What is the scientific name of mango?	*Mangifera indica*.
In which language are biological names generally written?	Latin.
How are biological names written in print?	In italics.
How are biological names written when handwritten?	The two words are separately underlined.
Which part of a biological name begins with a capital letter?	The genus name.
Which part of a biological name begins with a small letter?	The specific epithet.
In biological nomenclature, how does the genus name begin?	With a capital letter.
In biological nomenclature, how does the specific epithet begin?	With a small letter.
Give an example illustrating genus and specific epithet formatting.	*Mangifera indica*.
Why is classification necessary?	Because it is nearly impossible to study all living organisms individually.

Question	Answer
What is classification?	The process by which anything is grouped into convenient categories based on easily observable characters.
What is the scientific term for categories used in classification?	Taxa.
What do taxa represent?	Categories at different levels.
Give examples of taxa mentioned in the text.	Plants, animals, mammals, dogs, wheat, rice, and cats.
What does the example of dogs and mammals show about taxa?	Taxa can exist at different hierarchical levels.
What is taxonomy?	The process of classification of living organisms into different taxa based on characteristics.
Which features form the basis of modern taxonomic studies?	External and internal structure, cell structure, developmental process, and ecological information.
Which four processes are basic to taxonomy?	Characterisation, identification, classification, and nomenclature.
On what basis were the earliest classifications made?	Uses of various organisms.
What is systematics?	The branch of study dealing with different kinds of organisms, their diversities, and relationships among them.
What title did Linnaeus use for his publication?	*Systema Naturae*.
What was later included in the scope of systematics?	Identification, nomenclature, and classification.
What relationships does systematics take into account?	Evolutionary relationships between organisms.
What does taxonomic category mean?	A category that is part of the overall taxonomic arrangement.
What is taxonomic hierarchy?	All taxonomic categories together constitute the taxonomic hierarchy.
What is a taxon?	A rank or unit of classification.
Why are insects considered a taxonomic category?	Because they are organisms sharing common features like three pairs of jointed legs.
What common taxonomic categories developed from studies of organisms?	Kingdom, phylum/division, class, order, family, genus, and species.
Which is the lowest taxonomic category?	Species.
What is the basic requirement for placing organisms into categories?	Knowledge of the characters of organisms.

Question	Answer
What helps in identifying similarities and dissimilarities among organisms?	Knowledge of characters of individuals or groups of organisms.
What is a species according to taxonomic studies?	A group of individual organisms with fundamental similarities.

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