

Anjuman Islam Janjira Degree College of Science, Murud Janjira
Academic Calender 2023-24

F.Y.B.Sc. Zoology Paper - I Sem I

Date	Topic
	Unit I: Wonders of animal world
07-03-2023	Echolocation in Bats and Cetaceans
07-04-2023	Echolocation in Dolphins and Whales
07-05-2023	Mechanism of Pearl formation in Mollusca
07-10-2023	Bioluminescence in Animals: Noctiluca, Glow worm, (Mechanism and use for the animal)
07-11-2023	Bioluminescence in Animals: Firefly, Angler Fish (Mechanism and use for the animal)
07-12-2023	Regeneration in Animals - Earthworm (Annelida) and Lizard (Reptile)
17/7/2023	Mimicry in Butterflies and its significance: Great Eggfly and Common Crow.
18/7/2023	Mimicry in Butterflies and its significance: Common Palmfly and Plain Tiger.
19/7/2023	Mechanism of Coral formation and types of Coral reefs
24/7/2023	Bird migration: Definition, types and factors inducing bird migration
25/7/2023	Adaptive features of desert animals: Reptiles (Phrynosoma) and Mammals (Camel)
26/7/2023	Breeding and Parental care in: Pisces - Ovo-viviparous (Black Molly/Guppy),
31/7/2023	Mouth brooders (Tilapia), Brood pouches (Sea horse)
08-01-2023	Amphibia - Mouth brooders (Darwin's Frog), Egg carriers (Midwife Toad)
08-02-2023	Mammals - Egg-laying (Duck-billed Platypus), Marsupials (Kangaroo)
08-07-2023	Aves: Brood Parasitism (Cuckoo)
	Unit:II Biodiversity and its conservation
08-08-2023	Introduction to Biodiversity - Definition, Concepts
08-09-2023	Introduction to Biodiversity - Scope and Significance
14/8/2023	Levels of Biodiversity - Introduction to Genetic, Species and Ecosystem Biodiversity
21/8/2023	Introduction of Biodiversity Hotspots- (Western Ghats)
21/8/2023	Introduction of Biodiversity Hotspots- (Indo- Burma Border)
22/8/2023	Values of biodiversity - Direct use value
23/8/2023	Values of biodiversity - Indirect use value
28/8/2023	Threats to Biodiversity - Habitat loss and Man-Wildlife conflict
29/8/2023	Biodiversity conservation and management: Conservation strategies: in situ, ex-situ.
30/8/2023	Biodiversity conservation and management: Conservation strategies: National parks, Sanctuaries and Biosphere reserves.
09-04-2023	Introduction to International efforts : Convention on Biological Diversity (CBD),

09-05-2023	International Union for Conservation of Nature and Natural Resources (IUCN), United Nations Environment Program - World Conservation Monitoring Centre (UNEP-WCMC)
09-06-2023	National Biodiversity Action Plan, 2002
09-11-2023	Introduction to Indian Wildlife (Protection) Act, 1972 and Convention for International Trade of endangered species
	Unit:III Footsteps to follow
09-12-2023	Dr. Hargobind Khorana (Genetic code)
13/9/2023	Dr. Hargobind Khorana (Genetic code)
18/9/2023	Dr. Varghese Kurien (Amul – White revolution)
25/9/2023	Dr. Varghese Kurien (Amul – White revolution)
25/9/2023	Dr. Salim Ali (Ornithologist)
26/9/2023	Dr. Salim Ali (Ornithologist)
27/9/2023	Anna Hazare (Water Conservation-Ralegan Siddhi)
10-03-2023	Anna Hazare (Water Conservation-Ralegan Siddhi)
10-04-2023	Baba Amte (Anandvan)
10-09-2023	Baba Amte (Anandvan)
10-10-2023	Kiran Mazumdar Shaw (Biocon)
10-11-2023	Kiran Mazumdar Shaw (Biocon)
16/10/2023	Gadre Fisheries (Surimi)
17/10/2023	Gadre Fisheries (Surimi)
18/10/2023	Revision

F.Y.B.Sc. Zoology Paper - II Sem I

DATE	Topic
	Unit I: Laboratory safety and Units of Measurement
07-01-2023	Introduction to good laboratory practices
07-01-2023	Introduction to good laboratory practices
07-06-2023	Use of safety symbols: meaning, types of hazards and precautions
07-08-2023	Use of safety symbols: meaning, types of hazards and precautions
07-08-2023	Units of measurement: Calculations and related conversions of each: Metric system- length (meter to micrometer).
07-12-2023	Units of measurement: Calculations and related to weight (gram to microgram), Volumetric (Cubic measures)
13/07/2023	Temperature: Celsius, Fahrenheit, Kelvin
15/07/2023	Concentrations: Percent solutions, ppt, ppm, ppb dilutions.
15/07/2023	Concentrations: Normality, Molarity and Molality.
20/07/2023	Biostatistics: Introduction and scope, diagrams).
22/07/2023	Biostatistics: Sampling and its types
22/07/2023	Biostatistics: Central Tendencies (mean, median, mode)
27/07/2023	Biostatistics: Tabulation, Graphical representations (Histograms).
08-03-2023	Biostatistics: Tabulation, Graphical representations (bar diagrams).
08-05-2023	Biostatistics: Tabulation, Graphical representations (pie diagrams).

Unit 2: Animal Biotechnology	
08-05-2023	Biotechnology: Scope and achievements of Biotechnology (Fishery, Animal Husbandry, Medical, Industrial)
08-10-2023	Transgenesis: Retro viral method
08-12-2023	Transgenesis: Nuclear transplantation method
08-12-2023	Transgenesis: DNA microinjection method and Embryonic stem cell method
17/08/2023	Transgenesis: Embryonic stem cell method
19/08/2023	Cloning (Dolly)
19/08/2023	Ethical issues of transgenic and cloned animals
23/08/2023	Applications of Biotechnology: DNA fingerprinting: Technique in brief and its application in forensic science (Crime Investigation)
24/08/2023	Applications of Biotechnology: DNA fingerprinting: application in forensic science (Crime Investigation)
26/08/2023	Applications of Biotechnology: Recombinant DNA in medicines (recombinant insulin)
26/08/2023	Applications of Biotechnology: Gene therapy: Ex-vivo
31/08/2023	Applications of Biotechnology: Gene therapy: In vivo
09-02-2023	Green genes: Green Fluorescent Protein (GFP) from Jelly fish-valuable as reporter genes used to detect food poisoning.
09-02-2023	Gene therapy: Severe Combined Immunodeficiency (SCID),
09-07-2023	Gene therapy: Cystic Fibrosis
Unit 3: Instrumentation	
09-09-2023	Microscopy: Construction, principle and applications of dissecting microscope.
09-09-2023	Microscopy: Construction, principle and applications of compound microscope.
13/09/2023	Colorimetry and Spectroscopy - Principle and applications.
14/09/2023	Colorimetry and Spectroscopy - Principle and applications.
16/09/2023	pH - Sorenson's pH scale, pH meter - principle and applications.
16/09/2023	pH meter - principle and applications.
30/09/2023	Centrifuge - Principle and applications (clinical).
30/09/2023	Centrifuge - Principle and applications (ultra centrifuges).
10-05-2023	Chromatography - Principle and applications (Partition and Adsorption)
10-07-2023	Chromatography - Principle and applications (Partition and Adsorption)
10-07-2023	Electrophoresis - Principle and applications (AGE)
10-12-2023	Electrophoresis - Principle and applications (AGE)
14/10/2023	Electrophoresis - Principle and applications (PAGE)
14/10/2023	Electrophoresis - Principle and applications (PAGE)
19/10/2023	Doubt clearance/Test/revision