

Anjuman Islam Janjira Degree College of Science, Murud Janjira
Academic Calender 2022-2023
F.Y.B.Sc. Zoology Paper - I Sem I

Date	Topic
Unit I: Wonders of animal world	
07-03-2022	Echolocation in Bats and Cetaceans
07-04-2022	Echolocation in Dolphins and Whales
07-05-2022	Mechanism of Pearl formation in Mollusca
07-10-2022	Bioluminescence in Animals: Noctiluca, Glow worm, (Mechanism and use for the animal)
07-11-2022	Bioluminescence in Animals: Firefly, Angler Fish (Mechanism and use for the animal)
07-12-2022	Regeneration in Animals - Earthworm (Annelida) and Lizard (Reptile)
17-07-2022	Mimicry in Butterflies and its significance: Great Eggfly and Common Crow.
18-07-2022	Mimicry in Butterflies and its significance: Common Palmfly and Plain Tiger.
19-07-2022	Mechanism of Coral formation and types of Coral reefs
24-07-2022	Bird migration: Definition, types and factors inducing bird migration
25-07-2022	Adaptive features of desert animals: Reptiles (Phrynosoma) and Mammals (Camel)
26-07-2022	Breeding and Parental care in: Pisces - Ovo-viviparous (Black Molly/Guppy),
31-07-2022	Mouth brooders (Tilapia), Brood pouches (Sea horse)
08-01-2022	Amphibia - Mouth brooders (Darwin's Frog), Egg carriers (Midwife Toad)
08-02-2022	Mammals - Egg-laying (Duck-billed Platypus), Marsupials (Kangaroo)
08-07-2022	Aves: Brood Parasitism (Cuckoo)
Unit:II Biodiversity and its conservation	
08-08-2022	Introduction to Biodiversity - Definition, Concepts
08-09-2022	Introduction to Biodiversity - Scope and Significance
14-08-2022	Levels of Biodiversity - Introduction to Genetic, Species and Ecosystem Biodiversity
21-08-2022	Introduction of Biodiversity Hotspots- (Western Ghats)
21-08-2022	Introduction of Biodiversity Hotspots- (Indo- Burma Border)
22-08-2022	Values of biodiversity - Direct use value
23-08-2022	Values of biodiversity - Indirect use value
28-08-2022	Threats to Biodiversity - Habitat loss and Man-Wildlife conflict
29-08-2022	Biodiversity conservation and management: Conservation strategies: in situ, ex-situ.
30-08-2022	Biodiversity conservation and management: Conservation strategies: National parks, Sanctuaries and Biosphere reserves.
09-04-2022	Introduction to International efforts : Convention on Biological Diversity (CBD),
09-05-2022	International Union for Conservation of Nature and Natural Resources (IUCN), United Nations Environment Program - World Conservation Monitoring Centre (UNEP-WCMC)
09-06-2022	National Biodiversity Action Plan, 2002
09-11-2022	Introduction to Indian Wildlife (Protection) Act, 1972 and Convention for International Trade of endangered species
Unit:III Footsteps to follow	
09-12-2022	Dr. Hargobind Khorana (Genetic code)
13-09-2022	Dr. Hargobind Khorana (Genetic code)

18-09-2022	Dr. Varghese Kuriem (Amul –White revolution)
25-09-2022	Dr. Varghese Kuriem (Amul –White revolution)
25-09-2022	Dr. Salim Ali (Ornithologist)
26-09-2022	Dr. Salim Ali (Ornithologist)
27-09-2022	Anna Hazare (Water Conservation-Ralegan Siddhi)
10-03-2022	Anna Hazare (Water Conservation-Ralegan Siddhi)
10-04-2022	Baba Amte (Anandvan)
10-09-2022	Baba Amte (Anandvan)
10-10-2022	Kiran Mazumdar Shaw (Biocon)
10-11-2022	Kiran Mazumdar Shaw (Biocon)
16-10-2022	Gadre Fisheries (Surimi)
17-10-2022	Gadre Fisheries (Surimi)
18-10-2022	Revision

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

DATE	Topic
Unit I: Laboratory safety and Units of Measurement	
07-01-2022	Introduction to good laboratory practices
07-01-2022	Introduction to good laboratory practices
07-06-2022	Use of safety symbols: meaning, types of hazards and precautions
07-08-2022	Use of safety symbols: meaning, types of hazards and precautions
07-08-2022	Units of measurement: Calculations and related conversions of each: Metric system- length (meter to micrometer).
07-12-2022	Units of measurement: Calculations and related to weight (gram to microgram), Volumetric (Cubic measures)
13-07-2022	Temperature: Celsius, Fahrenheit, Kelvin
15-07-2022	Concentrations: Percent solutions, ppt, ppm, ppb dilutions.
15-07-2022	Concentrations: Normality, Molarity and Molality.
20-07-2022	Biostatistics: Introduction and scope, diagrams).
22-07-2022	Biostatistics: Sampling and its types
22-07-2022	Biostatistics: Central Tendencies (mean, median, mode)
27-07-2022	Biostatistics: Tabulation, Graphical representations (Histograms).
08-03-2022	Biostatistics: Tabulation, Graphical representations (bar diagrams).
08-05-2022	Biostatistics: Tabulation, Graphical representations (pie diagrams).
Unit 2: Animal Biotechnology	
08-05-2022	Biotechnology: Scope and achievements of Biotechnology (Fishery, Animal Husbandry, Medical, Industrial)
08-10-2022	Transgenesis: Retro viral method
08-12-2022	Transgenesis: Nuclear transplantation method
08-12-2022	Transgenesis: DNA microinjection method and Embryonic stem cell method
17-08-2022	Transgenesis: Embryonic stem cell method
19-08-2022	Cloning (Dolly)
19-08-2022	Ethical issues of transgenic and cloned animals
23-08-2022	Applications of Biotechnology: DNA fingerprinting: Technique in brief and its application in forensic science (Crime Investigation)
24-08-2022	Applications of Biotechnology: DNA fingerprinting: application in forensic science (Crime Investigation)
26-08-2022	Applications of Biotechnology: Recombinant DNA in medicines (recombinant insulin)

26-08-2022	Applications of Biotechnology: Gene therapy: Ex-vivo
31-08-2022	Applications of Biotechnology: Gene therapy: In vivo
09-02-2022	Green genes: Green Fluorescent Protein (GFP) from Jelly fish-valuable as reporter genes used to detect food poisoning.
09-02-2022	Gene therapy: Severe Combined Immunodeficiency (SCID),
09-07-2022	Gene therapy: Cystic Fibrosis
Unit 3: Instrumentation	
09-09-2022	Microscopy: Construction, principle and applications of dissecting microscope.
09-09-2022	Microscopy: Construction, principle and applications of compound microscope.
13-09-2022	Colorimetry and Spectroscopy - Principle and applications.
14-09-2022	Colorimetry and Spectroscopy - Principle and applications.
16-09-2022	pH - Sorenson's pH scale, pH meter - principle and applications.
16-09-2022	pH meter - principle and applications.
30-09-2022	Centrifuge - Principle and applications (clinical).
30-09-2022	Centrifuge - Principle and applications (ultra centrifuges).
10-05-2022	Chromatography - Principle and applications (Partition and Adsorption)
10-07-2022	Chromatography - Principle and applications (Partition and Adsorption)
10-07-2022	Electrophoresis - Principle and applications (AGE)
10-12-2022	Electrophoresis - Principle and applications (AGE)
14-10-2022	Electrophoresis - Principle and applications (PAGE)
14-10-2022	Electrophoresis - Principle and applications (PAGE)
19-10-2022	Doubt clearance/Test/revision