

FGM Government College, Adampur			
Lesson Plan of Year 2021-2022(Odd Semester)			
Department- ZOOLOGY			
Programme Name- B.Sc-III Year(5th sem.)		Course Name- Applied Zoology I&II	
Teacher- DEVENDER KUMARI			
Month	Week	Topic	Assignments/test
october	2nd	Types of host , parasitism ,symbiosis,commensalism, reservoir , zoonosis	
	3rd	Transmission, Preventionand control of tuberculosis, typhiod	
	4th	Brief account of Rickettsia prowazekii, Borrelia recurrentis.	
November	1st	Life history , Pathogenicity of Trypanosoma gambiense , Treponema pallidium	1st Assignment
	2nd	Life history Treponema pallidium	
	3rd	Life history and Pathogenicity of Aneylostoma duodenale	
	4th	Life history and pathogenecity of wuchereria bancrofti.	
December	1st	Biology , control and damage caused by Helicverpa armigera, Pyrilla perpyssella , Papilio demoleus	Minor test 1st
	2nd	Biology,control and damage caused by callosobruchus, sitiphilus oryzae and Tribolium castaneum.	
	3rd	Medical importance and control of Pediculus humanus corporis, and Anopheles	
	4th	Medical importance and control of culex, Aedes, Xenopsylla cheopis. Preservation and artifical insuination in cattle	
Jan.	1st	Induction of early puberty and synchronization of estrus in cattle.	
	2nd	Principle of poultry breeding , management of breeding stock and broilers	
	3rd	Processing and preservation of eggs. Genetic improvement in aquaculture industry	
	4th	Induced breeding and transportation of fish seed.	
Signature			

FGM Government College, Adampur			
Lesson Plan of Year 2021-2022(Odd Semester)			
Department- ZOOLOGY			
Programme Name- B.Sc-I Year(1st sem.)		Course Name- Animal diversity-II	
Teacher- DEVENDER KUMARI			
Month	Week	Topic	Assignments/test
october	2nd	General characters and classification of Phylum Enchinodermata up to classes.	1st Assignment
	3rd	General characters and classification	
	4th	Water vascular system in Asteroidea,general characters and classification of Agnatha , Pisces.	
November	1st	Osmoregulation in fishes , general characters	
	2nd	Classification of amphibia and reptilia up to orders.	
	3rd	Pareutal care up to order , poisonous and non poisonous snakes.	
	4th	Poison apparatus and biting mechanism in snakes.	
December	1st	General features and classification of class aves up to order.	Minor test 1st
	2nd	Genersl features and classification of mammals up to order .	
	3rd	Flight adoptation in birds .	
	4th	Origin of mammals.	
Jan.	1st	Group discussion	
	2nd	Revision	
	3rd	Presentation	
	4th	Problem /doubts are taken	
			Signature

FGM Government College, Adampur			
Lesson Plan of Year 2021-2022(Odd Semester)			
Department- ZOOLOGY			
Programme Name- B.Sc-I Year(1st sem.)		Course Name- Animal diversity-I	
Teacher-Kavita Devi			
Month	Week	Topic	Assignments/test
october	2nd	Kingdom Protista, Phylum Porifera,	1st Assignment
	3rd	Phylum Cnidaria	
	4th	Phylum Platyhelminthes, Kingdom Protista-Phylum Protozoa: Characters, classification and locomotion	
November	1st	Phylum Porifera: Characters, Classification and canal System in Sycon	
	2nd	Phylum Coelenterata: Characters, classification and Polymorphism	
	3rd	Phylum Platyhelminthes: Characters, Classification and life History of Ascaris	
	4th	Phylum Nematelminthes: Characters, Classification	
December	1st	Phylum Nematelminthes: Life History of Ascaris	Minor test 1st
	2nd	Phylum Nematelminthes: Characters, Classification	
	3rd	Phylum Nematelminthes: Life History of Ascaris	
	4th	General characters and Classification up to classes of Phylum Annelida, Metamerism in Annelida	
Jan.	1st	General characters and Classification up to classes of Phylum Arthropoda, Vision in Arthropoda insects	
	2nd	General characters and Classification up to classes of Phylum mollusca, Torsion in Gastropods	
	3rd	Presentation	
	4th	Problem /doubts are taken	
Signature			

<b>FGM Government College, Adampur</b>			
<b>Lesson Plan of Year 2021-22(Odd Semester)</b>			
<b>Programme Name- B.Sc-II (3rd sem.)</b>		<b>Department- Zoology</b>	
		<b>Course Name- Physiology and Biochemistry-I</b>	
<b>Teacher- Kavita Devi</b>			
<b>Month</b>	<b>Week</b>	<b>Topic</b>	<b>Assignments/test</b>
october	2nd	Structure of a neuron, Resting membrane potential, Graded potential	<b>1st Assignment</b>
	3rd	Origin of Action potential and its propagation in myelinated and non-myelinated nerve fibres	
	4th	Ultra-structure of skeletal muscle	
November	1st	Molecular and Chemical basis of muscle contraction	
	2nd	Physiology of digestion in the alimentary canal	
	3rd	Absorption of carbohydrates	
	4th	Proteins, lipids	
December	1st	Pulmonary ventilation	<b>Minor test 1st</b>
	2nd	Respiratory volumes and capacities.	
	3rd	Transport of Oxygen and carbon dioxide in blood	
	4th	Structure of nephron	
Jan.	1st	Mechanism of Urine formation	
	2nd	Counter-current Mechanism	
	3rd	Composition of blood	
	4th	Hemostasis, Structure of Heart, Origin and conduction of the cardiac Impulse, Cardiac cycle	
			<b>Signature</b>

<b>FGM Government College, Adampur</b>			
<b>Lesson Plan of Year 2021-22(Odd Semester)</b>			
<b>Programme Name- B.Sc-II (3rd sem.)</b>		<b>Department- Zoology</b>	
<b>Teacher- Kavita Devi</b>		<b>Course Name- Physiology and Biochemistry-II</b>	
<b>Month</b>	<b>Week</b>	<b>Topic</b>	<b>Assignments/test</b>
october	2nd	Physiology of male reproduction hormonal control of spermatogenesis	<b>1st Assignment</b>
	3rd	Physiology of female reproduction	
	4th	Hormonal control of menstrual cycle	
November	1st	Hormonal control of menstrual Structure	
	2nd	Function of pituitary, thyroid	
	3rd	Function of pituitary parathyroid, pancreas and adrenal	
	4th	Glycolysis, Krebs Cycle	
December	1st	Pentose phosphate pathway	<b>Minor test 1st</b>
	2nd	Gulconeogenesis	
	3rd	Glycogen metabolism, Review of electron transport chain	
	4th	Biosynthesis and Beta-oxidation of palmitic acid,	
Jan.	1st	Transamination, Deamination and Urea	
	2nd	Introduction, Mechanism of Action of	
	3rd	Enzyme kinetics	
	4th	Inhibition and Regulation	
			<b>Signature</b>

<b>FGM Government College, Adampur</b>			
<b>Lesson Plan of Year 2021-2022(Even Semester)</b>			
<b>Department- ZOOLOGY</b>			
<b>Programme Name- B.Sc-I Year(2nd sem.)</b>		<b>Course Name- COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY OF VERTEBRATES-I</b>	
<b>Teacher- DEVENDER KUMARI</b>			
<b>Month</b>	<b>Week</b>	<b>Topic</b>	<b>Assignments/test</b>
April	1st	Derivatives of integument w.r.t.	<b>1st assignment</b>
	2nd	Derivatives of glands and digital tips	
	3rd	Evolution of visceral arches	
	4th	Brief account of alimentary canal and	
may	1st	Brief account of Gills, lungs, air sacs and	<b>Class discussions&amp; Unit Test</b>
	2nd	Evolution of heart and aortic arches	
	3rd	Evolution of Succession of kidney,Evolution of urinogenital ducts,	
	4th	Comparative account of brain, Comparative account of brain, Types of receptors	
		<b>Revision till exams</b>	
<b>Signature</b>			

<b>FGM Government College, Adampur</b>			
<b>Lesson Plan of Year 2021-2022(Even Semester)</b>			
<b>Department- ZOOLOGY</b>			
<b>Programme Name- B.Sc-III Year(6th sem.)</b>		<b>Course Name- Insect, Vectors and Diseases-I</b>	
<b>Teacher- DEVENDER KUMARI</b>			
<b>Month</b>	<b>Week</b>	<b>Topic</b>	<b>Assignments/test</b>
April	1st	General Features of Insects, Morphological features, Head eyes, Types of antennae, Mouth parts w.r.t. feeling habits, Brief introduction of Carrier and vectors(mechanical and biological vector),	<b>1st assignment</b>
	2nd	Reservoirs, Host-vector relationship, Vectorial capacity, Adaptations as vectors, Host Specificity, Classification of insects up to orders, detailed features of orders with insects as vectors-Deptera	
	3rd	Siphonaptera, Siphunculata, Hemiptera,	
	4th	Depterans as important insect vectors- Mosquitoes, Sand fly, Houseflies;	
may	1st	Siphonaptera, Siphunculata, Hemiptera, Depterans as important	<b>Class discussions&amp; Unit Test</b>
	2nd	insect vectors- Mosquitoes, Sand fly, Houseflies;	
	3rd	Study of mosquito-borne diseases- Malaria, Dengue, Chikungunya, Viral encephalitis,	
	4th	Filariasis; Control of mosquitoes	
		<b>Revision till exams</b>	
			<b>Signature</b>

FGM Government College, Adampur			
Lesson Plan of Year 2021-2022(Even Semester)			
Department- ZOOLOGY			
Programme Name- B.Sc-III Year(6th sem.)		Course Name- Insect, Vectors and Diseases-II	
Teacher- DEVENDER KUMARI			
Month	Week	Topic	Assignments/test
April	1st	Study of sand fly-borne diseases- Visceral Leishmaniasis, Cutaneous Leishmaniasis, Phlebotomus fever,	<b>1st assignment</b>
	2nd	Control of Sand fly. Study of house fly as important mechanical vector, <del>Miasis. Control of house fly.</del>	
	3rd	Fleas as important insect vectors; Host-specificity,	
	4th	Study of Flea-borne diseases- Plague, Typhus fever; Control of fleas	
may	1st	Human louse (Head, Body and Pubic louse) as important insect vectors; <del>Study of louse-borne</del>	<b>Class discussions&amp; Test 2nd Assignment</b>
	2nd	diseases -Typhusfever, Relapsing <del>fever, Typhus fever</del>	
	3rd	Blood-sucking bugs; Chagas disease,	
	4th	Bed bugs as mechanical vectors, Control and prevention measures	
		<b>Revision till exams</b>	
			<b>Signature</b>



<b>FGM Government College, Adampur</b>			
<b>Lesson Plan of Year 2021-2022(Even Semester)</b>			
<b>Department- ZOOLOGY</b>			
<b>Programme Name- B.Sc-I Year(2nd sem.)</b>		<b>Course Name- COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY OF VERTEBRATES-I</b>	
<b>Teacher- DEVENDER KUMARI</b>			
<b>Month</b>	<b>Week</b>	<b>Topic</b>	<b>Assignments/test</b>
April	1st	Derivatives of integument w.r.t. glands	<b>1st assignment</b>
	2nd	Derivatives of integument	
	3rd	Digital tips	
	4th	Evolution of visceral	
may	1st	Brief account of alimentary canal	<b>Class discussions&amp; Test 2nd Assignment</b>
	2nd	Digestive glands	
	3rd	Gills	
	4th	Lungs, air sacs	
		<b>Revision till exams</b>	
<b>Signature</b>			

<b>FGM Government College, Adampur</b>			
<b>Lesson Plan of Year 2021-2022(Even Semester)</b>			
<b>Programme Name- B.sc.1st 2nd sem.Zoology</b>		<b>Department- Zoology</b>	
<b>Teacher- Kavita Devi</b>		<b>Course Name- Comparative Anatomy and Developmental Biology1&amp; 2(ZOO</b>	
<b>Month</b>	<b>Week</b>	<b>Topic</b>	<b>Assignments/test</b>
April	1st	Evolution of Heart and aortic arches	<b>Assignment</b>
	2nd	Succession of kidney and evolution of urinogenital ducts	
	3rd	comparative account of brain and types of receptors	
	4th	Introduction and scope of development briefly Gametogenesis:Spermatogenesis and Oogenesis w.r.t. mammals	
May	1st	Vitellogenesis in birds,Fertilization external(amphibian) internal (mammals),blocks to polyspermy	<b>Class discussions&amp; Unit Test</b>
	2nd	Early Development of frog and humans (structure of mature egg and its membranes)	
	3rd	cleavage,fate map upto formation of gastrula,types of morphogenetic	
	4th	Fate of germ layers,Neurulation in frog embryo and implantation of embryo in humans	
June	1st	formation of human placenta and functions,other types of placenta on basis of histology. Metamorphic events in frog life cycle and its hormonal regulation	<b>Class Test</b>
	2nd	Fundamental processes in development (brief idea)-Gene activation,determination,induction,differentiation,morphogenesis,intercellular communication, cell movements and cell death	
		<b>Revision till exams</b>	
<b>Signature</b>			

<b>FGM Government College, Adampur</b>			
<b>Lesson Plan of Year 2021-2022(Even Semester)</b>			
<b>Programme Name- B.Sc.2nd. Zoology 4th sem.</b>		<b>Department- Zoology</b>	
<b>Teacher- Kavita Devi</b>		<b>Course Name- Genetics and Evolutionary Biology</b>	
<b>Month</b>	<b>Week</b>	<b>Topic</b>	<b>Assignments/test</b>
April	1st	Mendel's work,Genetic variation,Molecular basis of Genetic information,Chromosome theory of inheritance,methods of honey extraction(indigenous and modern)	<b>1st Assignment and 1st Unit Test</b>
	2nd	Incomplete and co dominance,multiple and lethal alleles,Epistasis and Pleiotropy,Sex linked inheritance,Bee diseases and enemies control and preventive measures	
	3rd	,beehives-Newton and Langstroth,Bee Pasturage	
	4th	Somatic cell genetics,chromosomal mutations,induced vs spontaneous and Back vs Suppressor mutations,Chromosomal mechanisms and Dosage compensation	
may	1st	Major Events in history of Life,Theories of organic evolution,selection of bee species for Apiculture	<b>Class discussions&amp; Unit Test</b>
	2nd	Fossils and geological time Scale,Phylogeny of Horse,Organic Variations	
	3rd	Reproductive isolating mechanisms,Natural and Artificial Selection,Products of Apiculture Industry(Honey,Bee Wax,Propolis,pollens etc.)	
	4th	Biological species concept and speciation,Types of Evolution	
june	1st	Mass Extinction, Bee keeping industry-recent efforts	<b>2nd Assignment and 2nd Unit Test</b>
	2nd	Modern Methods in employing Artificial beehives for cross pollination in horticultural gardens.	
		<b>Revision till exams</b>	
<b>Signature</b>			

<b>FGM Government College, Adampur</b>			
<b>Lesson Plan of Year 2021-2022(Even Semester)</b>			
<b>Department- ZOOLOGY</b>			
<b>Programme Name- B.Sc-II Year(4th sem.)</b>		<b>Course Name- APICULTURE</b>	
<b>Teacher- DEVENDER KUMARI</b>			
<b>Month</b>	<b>Week</b>	<b>Topic</b>	<b>Assignments/test</b>
April	1st	History, Classification and Biology of Honey	<b>1st assignment</b>
	2nd	Bees Social Organization of Bee Colony	
	3rd	Artificial Bee rearing (apiary)	
	4th	Beehives-Newton and langstroth Bee Pasturage	
may	1st	Selection of Bee Species for Apiculture Methods	<b>Unit Test</b>
	2nd	Selection of Bee Species	
	3rd	Extraction of Honey (Indigenous and Modern)	
	4th	Extraction of Honey (Indigenous and Modern)	
		<b>Revision till exams</b>	
<b>Signature</b>			