

TELANGANA STATE BOARD OF INTERMEDIATE EDUCATION: HYDERABAD

ANNUAL ACADAMIC PLAN 2024-25

ZOOLOGY

SECOND YEAR

Month & No. of Working days/ No. of periods	Test/Exam/EAPCET/NEET Classes to be conducted	Periods allotted for each topic.
June 23	Syllabus Dictation & Q.P model Explanation UNIT-I: HUMANANATOMYANDPHYSIOLOGY IA. Digestion and Absorption 1.11. Digestive system-Alimentary canal and digestive glands; 1.1.3 Digestive process (physiology of digestion) , peristalsis, absorption of digested food 1.1.6 Gastro Intestinal hormones, disorders of digestive system IB. Breathing and Exchange of gases 1.2.1. Respiratory organs 1.2.2. HumanRespiratorySystem 1.2.3. Mechanismofbreathing, 1.2.4 Respiratory volumes and capacities, Exchange of gases 1.2.6 Transport of gases 1.2.7 Regulation of respiratory movements. EAPCET AND NEET	01 02 02 02 02 02 02 01 02 02 02 01 02

JULY 24	1.2.8. Disorders of the Respiratory system.	01
	UNIT II A	
	BODY FLUIDS AND CIRCULATION	
	2.1 Lymphatic System	02
	2.2 Clotting of blood Circulating pathways	02
	2.3 Human cardio-vascular system	
	2.4 Cardiac cycle, double circulation; Regulation of cardiac activity	02
	2.5 Blood vessels, disorders of circulatory system: Hypertension, coronary artery disease(CAD), angina pectoris, heart failure	02
	IIB. Excretory products and their Elimination:	
	2.6 Modes of excretion-Ammonotelism, Ureotelism, Uricotelism, Excretory organs	01
	2.7 Human excretory system-structure of kidney and nephron;	02
	2.8 Urineformation, osmoregulation, Regulation of kidney function-Renin-Angiotensin-Aldosterone system, Atrial Natriuretic Factor, ADH and diabetes in sipidus	02
	2.9 Role of other organs in excretion	01
	2.10 Disorders: Uraemia, renalfailure, renal calculi, nephritis, Glomerul on ephritis, dialysis using artificial kidney	01
	UNIT TEST -1	01
	EAPCET/NEET	04
	Practical: Specimen Study	02

<p>AUGUST 24</p>	<p>UNIT–III: HUMANANATOMYANDPHYSIOLOGY-III IIIA. Musculo-Skeletal system: 3.1.1 Types of moment ,The muscle- structure of muscle ultra structure of skeletal muscle fibre, Contract ileproteins 3.1.2 Mechanisam of musclecon traction, Muscle Fatigue, Coricycle, types of Muscle Fibers 3.2 The skeleton 3.2.1Axial skeleton 3.2.2 Appendicular skeleton 3.3.1Joints,Structureofsynovialjoints 3.2.4 Disorders of the muscular and skeletal system: myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout IIIB. Neural control and Co-ordination: 3.5 Human NeuralSystem-Central nervous system, Peripheral nervous system, somatic nervous system and autonomic neural system 3.6 Generation and conduction of nerve impulse and synaptic Transmission 3.7 Reflex action and Reflex Arc. 3.8 Sensory reception and processing; Sense organs The Eye, mechanism vision, The Ear and mechanism of hearing, disorders of human neural system Disorders of Human Neural system- Alzheimer’s disease (AD), Meningitis, Parkinson’s Diseases, StrokeorCerebro-VascularAccident(CVA UnitTest–II EAPCET/NEET EAPCET/NEET TEST Practical’s: Specimens, types of Joints/Slides</p>	<p>01 02 02 01 02 01 01 01 02 01 01 01 01 04 01 02</p>
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<p>SEPTEMBER 22</p>	<p>UNIT-IV: HUMANANATOMYANDPHYSIOLOGY IVA. Endocrine system and Chemical co-ordination: 4.1 Endocrine glands and hormones: Human endocrine system-Hypothalamus, pituitary, Pineal, Thyroid, Parathyroid, Thymus, Adrenal, Pancreas, Gonads, Hormones of Kidney, Heart and gastro intestinal tract and Liver 4.2 Mechanism of hormone action (Elementary idea only); Role of hormones as messengers and regulators 4.3 Human hormonal disorders due to Hypo and hyper secretions: Dwarfism, acromegaly, Gigantism, cretinism, goiter, exophthalmicgoiter, myxedema, tetany, diabetes mellitus, diabetes insipidus, insulin shock Adison's disease, Cushing's syndrome UNIT TEST III EAPCET/NEET- CLASSES EAPCET/NEET- TEST Practical's: SPECIMENS</p>	<p>02 02 02 03 02 01 04 01 03</p>
<p>FIRST TERM HOLIDAYS 06-10-2024 TO 13-10-2024</p>		
<p>OCTOBER 19</p>	<p>IVB. Immune System: 4.4 Basicconceptsof immunology- Types of cellsof the immunesystem,organsof immunesystem 4.5 TypesofImmunity- InnateImmunity,AcquiredImmunity,ActiveandPassive Immunity,Humoralimmunity,Cellmediatedimmunity 4.6 Vaccination or Immunization 4.7 ImmunologicalDisorders- HIVandAIDS,Hypersensitivitydisorders,Autoimmune disorders,GraftRejections</p>	<p>01 01 01 01</p>

	HUMANREPRODUCTION	
	VA.Human Reproductive System:	
5.1	The Male Reproductiv esystem	01
5.2	The Female Reproductive System	01
5.3	Gametogenesis-Spermatogenesis & Oogenesis	01
5.4	Menstrual Cycle	01
5.5	Fertilization and development ,Implantation	01
5.6	Gastrulation	}
5.7	Extraembryonic membranes	
5.8	PlacentaFormation	
5.9	Parturition	
5.10	Lactation(elementary idea)	01
	VB. Reproductivehealth:	
5.12	Need for reproductivehealthandprevention of sexuallytransmitteddiseases(STD)	02
	Birthcontrol-Need and methods, contraception, barrier methods, intra urine devices ,oral contraceptive pills, surgical methods and medical termination of pregnancy (MTP)	01
5.13	Amniocentesis: in fertility and Assisted Reproductive Technology (ART)-IVF-ET, ZIFT, GIFT, ICSI, AI, Surrogacy	01
	EAPCET/NEET CLASSES	03
	Practicals: Charts	02

<p>NOVEMBER 24</p>	<p>UNIT-VI:GENETICS</p> <p>6.1 Heredity and variation: Morgan's experiment, With reference to Drosophila (Drosophila melanogaster Grey, Black body color; Long Vestigial Wings)</p> <p>6.2 Pleiotropy Co-dominance (Blood groups as example)</p> <p>6.3 Multiplealleles: Inheritance of blood groups and ABO' Blood types, Rh-Blood types, genetic control of Rh system, Erythroblastosisfoetalis</p> <p>6.4 Polygenic Inheritance</p> <p>6.5 Sex determination-Heterpgametic sex determination Male heterogamety, female heterogamety Sex determination in humans Genic balance theory, Barr bodies, Haplodiploidy in honey bees</p> <p>6.6 Sex – Linked inheritance–Sex linkage in Drosophila, Sex linked inheritance - in Human beings – Haemophilia, colorblindness mendeli and isordersin humans - Thalassemia, Haemophilia, Sickle celled anaemia, cystiefibrosis PKU, Alkaptonuria. Y linked inheritance, XY Linked inheritance</p> <p>6.7 Genetic disorders–Down's sysdrome, Turner's Syndrome and Klinefelter syndrome</p> <p>6.8 Human Genome Project</p> <p>6.9 DNA Finger Printing – protocol Application of DNA fingerprinting</p> <p>EAPCET/NEET CLASSES</p> <p>EAPCET/NEET–GRAND TEST-I</p> <p>Practicals: Charts</p>	<p>01</p> <p>01</p> <p>01</p> <p>01</p> <p>02</p> <p>01</p> <p>01</p> <p>02</p> <p>01</p> <p>01</p> <p>03</p> <p>01</p> <p>01</p>
<p>HALF YEARLY EXAMS – 18-11-2024 TO 23-11-2024</p>		

DECEMBER 23	UNIT-VII:ORGANIC EVOLUTION 7.1 Origin of life 02 7.2 Biological evolution 01 7.3 Evidences for biological evolution 01 (palaeontological, comparative anatomical, embryological and molecular evidences) 7.4 Theories of evolution: Lamarckism (in brief), Darwin's Theory of Evolution-Natural Selection with example – industrial melanism, mutation theory 02 7.5 Modern Synthetic theory of Evolution- or Neo 01 Darwinism 7.6 Mechanism of evolution Hardy-Weinberg Equilibrium; 02 II Evolutionary forces 02 Types of Natural Selection; Geneflow, Genetic load, genetic drift III Speciation Anagenesis, cladogenesis Allopatric speciation, } Sympatric speciation 02 7.7 A brief account of evolution 7.8 Origin and evolution of man UNIT TEST-IV 01 EAPCET/NEET CLASSES 04 EAPCET/NEET - TEST 01 Practical: Charts 04
JANUARY 22	UNIT-VIII:APPLIED BIOLOGY 8.1 Animal husbandry, Dairy farm management 01 8.2 Poultry farm management 8.3 Bee-Keeping 01 8.4 Fishery Management 8.5 Bio technological Applications in medicine 01 8.6 Vaccines 01 8.7 Molecular Diagnosis 01 8.8 Gene Therapy 8.9 Transgenic Animals 01 8.10 Cancer Biology 01

	8.11 Stemcells	01
	8.12 BiomedicalTechnology	01
	EAPCET/NEET CLASSES	04
	EAPCET/NEET GRAND TEST – II	01
	Practicals: Joints/Specimen study	01
SANKRANTHI HOLIDAYS – 11-01-2025to 16-01-2025		
PRE-FINALEXAMINATIONS–I FROM 20-01-2025 to 25-01-2025		
FEBRUARY 23	PRACTICAL EXAMINATION IPE 2025 (1st WEEK OF FEBRUARY)	23
MARCH 23	Theory Examinations IPE 2025 (1st WEEK OF MARCH) Last working Day 29-03-2025 IPASE 2025: Last week of May 2025 Date of Re-opening of colleges (2025-26) 2nd June 2025	23

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