

**TELANGANA STATE BOARD OF INTERMEDIATE EDUCATION, HYDERABAD**

**ACADEMIC YEAR 2020-2021**

**30% DELETED CONTENT IN VIEW OF COVID-19 PANDEMIC**

**INTERMEDIATE 2<sup>nd</sup> YEAR ZOOLOGY SYLLABUS**

**UNIT-I Human Anatomy and Physiology-I**

**Unit I A: Digestion and absorption**

Alimentary canal and digestive glands; Role of digestive enzymes and gastrointestinal hormones; Peristalsis, digestion, absorption and assimilation of proteins, carbohydrates and fats, egestion, Calorific value of proteins, carbohydrates and fats (for box item-not to be evaluated); Nutritional disorders: Protein Energy Malnutrition (PEM), indigestion, constipation, vomiting, jaundice, diarrhea, Kwashiorkor.

**UNIT III: Human Anatomy and Physiology-III**

**Unit IIIA: Muscular and Skeletal system**

Skeletal system and its functions; Joints. *(to be dealt with relevance to practical syllabus)*; Disorders of the muscular and skeletal system: myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout, regormortis.

**Unit III B: Neural control and co-ordination**

Reflex action; Sensory perception; Sense organs; Brief description of other receptors; Elementary structure and functioning of eye and ear.

**UNIT VII: Organic Evolution**

Origin of Life, Biological evolution and Evidences for biological evolution (palaeontological, comparative anatomical, embryological and molecular evidences); Theories of evolution: Lamarckism (in brief), Darwin's theory of Evolution -Natural Selection with example (Kettlewell's experiments on Bistonbitularia), Mutation Theory of Hugo De Vries; Modern synthetic theory of Evolution - Hardy-Weinberg law ; Types of Natural Selection; Gene flow and genetic drift; Variations (mutations and genetic recombination); Adaptive radiation - viz., Darwin's finches and adaptive radiation in marsupials; Human evolution; Speciation - Allopatric, sympatric; Reproductive isolation.

**UNIT VIII: Applied Biology**

Bio-medical Technology : Diagnostic Imaging X-ray, CTscan, MRI, ECG, EEG; ELISA.

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