TELANGANA STATE BOARD OF INTERMEDIATE EDUCATION, HYDERABAD

ACADEMIC YEAR 2020-2021

30% DELETED CONTENT IN VIEW OF COVID-19 PANDEMIC

INTERMEDIATE 2nd YEAR ZOOLOGY PRACTICAL SYLLABUS

A. VERTEBRATE SLIDES OF MAMMAL

- 1. T.S. of stomach
- 2. T.S. of intestine
- 3. T.S. of liver
- 4. T.S. of pancreas

B. OSTEOLOGY – JOINTS

- 1. Ball and socket joint
- 2. Hinge joint
- 3. Pivot joint
- 4. Gliding joint

C. PHYSIOLOGY EXPERIMENTS

- 1. Identification of presence of lipids/fats in the given samples.
- 2. Identification of presence of starch in the given samples.

D. DISSECTIONS AS MODELS THROUGH UNLABELLED MODELS OR CHARTS

(Human)

1. Digestive system

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INTERMEDIATE 2nd 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 Malnutrion (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.