Dated 17/09/2024

2.3.1.

Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences and teachers use ICT- enabled tools including online resources for effective teaching and learning process.

S.No	List of student-centric methods	Activities
1	Experimental learning	Students in Laboratory
2	Group learning and problem-solving	Mushroom farming and vermicomposting
3	Enhancement of presentation creative and presentation skill	Seminar and poster presentation by the students
4	Self-defense and physical fitness	Learning self-defense and and physical fitness techniques
5.	ICT tools in teaching and learning and online study resources	ICT enabled seminar halls and class rooms, Wi-Fi enabled campus. Online resources created by faculty members
6	Participative Extracurricular activities	Swachhata abhiyan and tree plantation drive by students and faculty members

DIRECTOR
MODERN INSTITUTE OF TECHNOLOGY
DHALWALA, RISHIKESH

Experimental and participative learning and problem learning methodologies.


BS (Hons) Semester

Mushroom farming


video_20191204_1...
cc
GIF


fresh-n-loc
zipOUCH™
INS FRESHNESS LONGER
Contents: Mushroom
518 Gm.
Date: 10 Dec 2019
Multi-Layer

Vericomposting

Student's poster presentations


SCIENCE
ALA RISHIKESH
(BATCH 2017-19)
FOODBORNE DISEASE OUTBREAK
CANNING
JAN. 2019

Learning self-defense (15-20 March)

Practicing yoga

ICT-enabled classrooms and seminar halls.

(IT Department)

(Commerce Department)

Commerce Department

Science Department

Education Department

Wi-Fi Routers in the various departments on the campus

(Department of IT and CS)

Department of Pharmacy

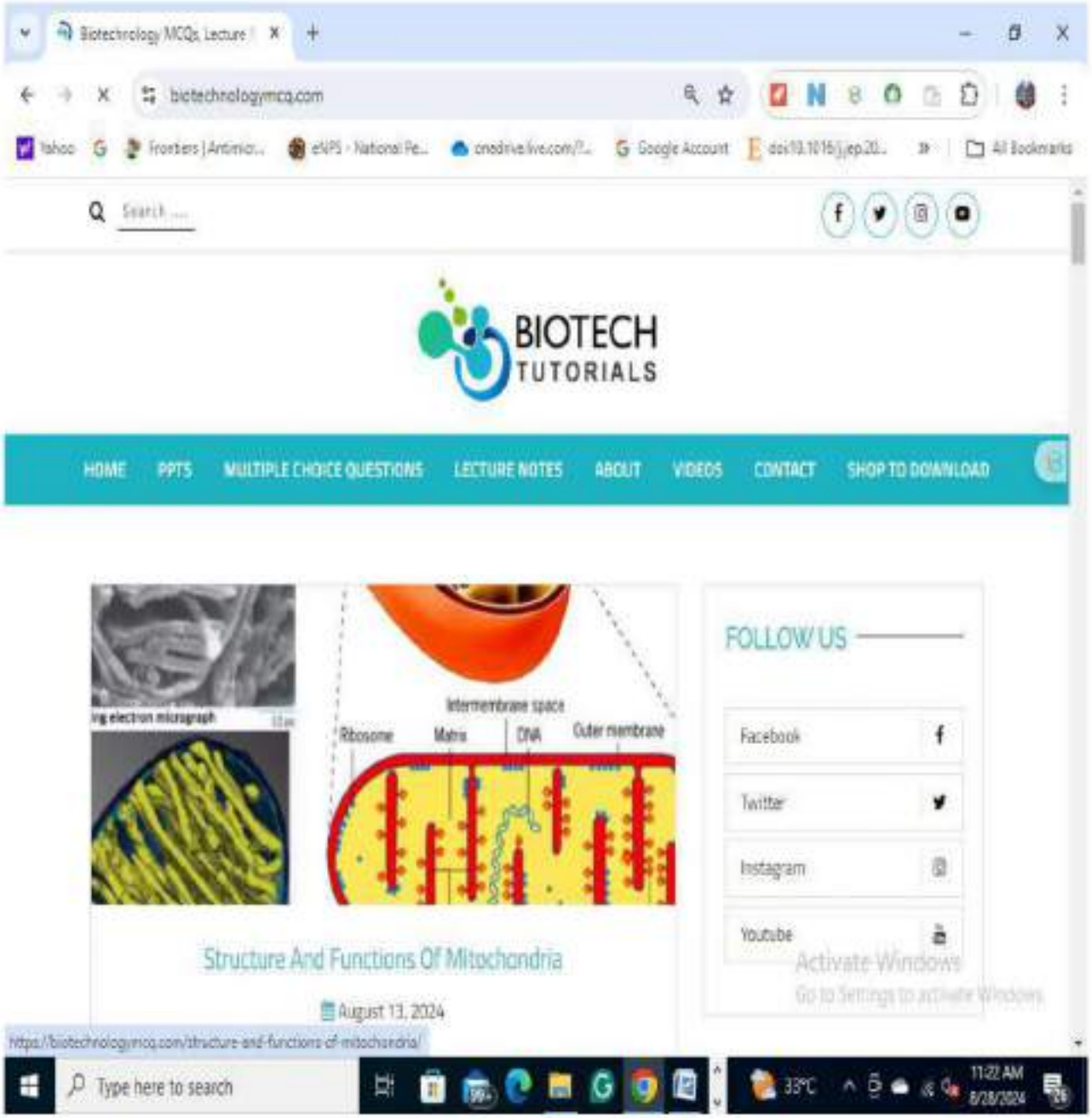
Department of Science

Department of Commerce

Online study material including PPTs, lecture notes, and multiple-choice question sets created by Faculties.

https://biotechnologymcq.com/

https://sites.google.com/view/dsbypp



- Bioenergetics I: Concept of free energy
- Bioenergetics II: Biological oxidation reduction
- Bioenergetics III: High Energy Compounds

Enzymes

- Enzyme Purification
- Introduction to enzymes I: Properties, Active site, Nomenclature and Classification
- Cofactors, Coenzymes and metal ions
- Factors affecting enzyme activity
- Enzyme II: Mechanism of enzyme action: ES complex, transition state, activation energy, binding energy, Hypothesis of enzyme action: Key and Lock theory, Induced fit theory, Classes of enzyme specificity
- Enzyme III: Progress curve, Michaelis Menten derivation, Determination of Vmax and Km, Catalytic efficiency (Kcat/Km) Lineweaver-Burk plot, Eadie-Hofstee Plot, Bi-substrate reactions (Sequential and double-displacement reaction) Effects of Temperature and pH on enzyme activities
- **Enzyme IV: Enzyme inhibition: Reversible (Competitive, Noncompetitive and Uncompetitive) and Irreversible inhibition of enzymes**
- Multifunctional enzyme Fatty Acid synthase
- **Enzyme VII: Catalytic Mechanisms: Acid and base catalysis; Covalent catalysis; Reaction Mechanism of Ribuse, Lysozyme and Chymotrypsin**
- **Enzyme VIII: Catalytic Mechanisms II: Metal Ion Catalysis; Catalysis By Approximation, Strain And Distortion**
- **Regulatory Strategies I: Allosteric Control of enzymes: Feedback Inhibition; Properties of Allosteric control; Models for Allosteric regulation: The Symmetry Model (MWC model); The Sequential Model (KNF model); Allosteric regulation of Aspartate Transcarbomylase (ATCase); Different forms of enzymes (Isozymes/Isoenzymes) Lactate dehydrogenase)**
- **Regulatory Strategies II: Proteolytic Activation (Zymogen Activation), Digestive Proteases: Fibrinogen And Prothrombin; Reversible Covalent Modification (Phosphorylation With Special Reference To Glycogen Phosphorylase)**
- **Intermediary metabolism**
- **Carbohydrate metabolism and its regulation**

Structure and functions of plant vacuoles
JULY 25, 2024

Structure and functions of Golgi body
JULY 16, 2024

Endoplasmic Reticulum
JULY 12, 2024

Peroxisomes and Glyoxisomes
JULY 11, 2024

Structure and function of endosome and lysosome
JULY 10, 2024

Fermentation in microorganisms
JUNE 11, 2024

Factors affecting enzyme activity
APRIL 7, 2024

Lambda and its Phage DNA Packaging
MARCH 21, 2024

- Amino acids structure and properties MCQ
  - Protein Classification MCQs
  - Protein Structure-I Primary and Secondary Structure
  - Protein Structure-II Tertiary and Quaternary Structures
- Carbohydrates:
  - Carbohydrate: structure, classification, properties and function MCQ
- Lipids
  - Lipid: Types Structures and Functions MCQs

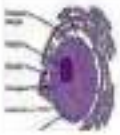
Enzymes

- Enzyme Part I **(Properties, Composition, Nomenclature and Classification)**
- Enzyme Kinetics (Michaelis-Menton equation and double substrate reaction)
- MCQs on Enzyme Inhibition
- MCQs on Enzyme Catalytic Mechanisms
- MCQs on Enzyme Regulatory strategies (Allosteric control, Zymogen activation, Isoenzyme and Reversible covalent modifications)

Carbohydrate Metabolism

- MCQ on Glycolysis, Energetics, Feeder pathways, Galactose metabolism, Lactic and alcoholic fermentation and Regulation of glycolysis with respect to Phosphofructokinase, Hexokinase and pyruvate kinase
- **MCQ on TCA (Citric acid/Krebs) cycle and anaplerotic reaction**
- MCQs on gluconeogenesis
- MCQs on Glyoxylate Cycle
- MCQs on Pentose Phosphate Pathway
- MCQs on electron carriers of Electron Transport Chain
- MCQs on respiratory complexes and inhibitors of Electron Transport Chain
- MCQs on Oxidative Phosphorylation, ATP-synthase, inhibitors and uncouplers
- MCQ on Glycogen Metabolism and regulation of Carbohydrate Metabolism
- MCQs on Fatty acid oxidation
- MCQs on Ketogenesis
- MCQs on amino acid catabolic pathways
- MCQs on biological nitrogen Fixation
- MCQs on amino acid biosynthesis
- MCQs on Cholesterol Metabolism
- MCQs on hyperlipidemia and disorders of cholesterol metabolism


MCQs on nucleus structure and functions


Structure and functions of nucleus

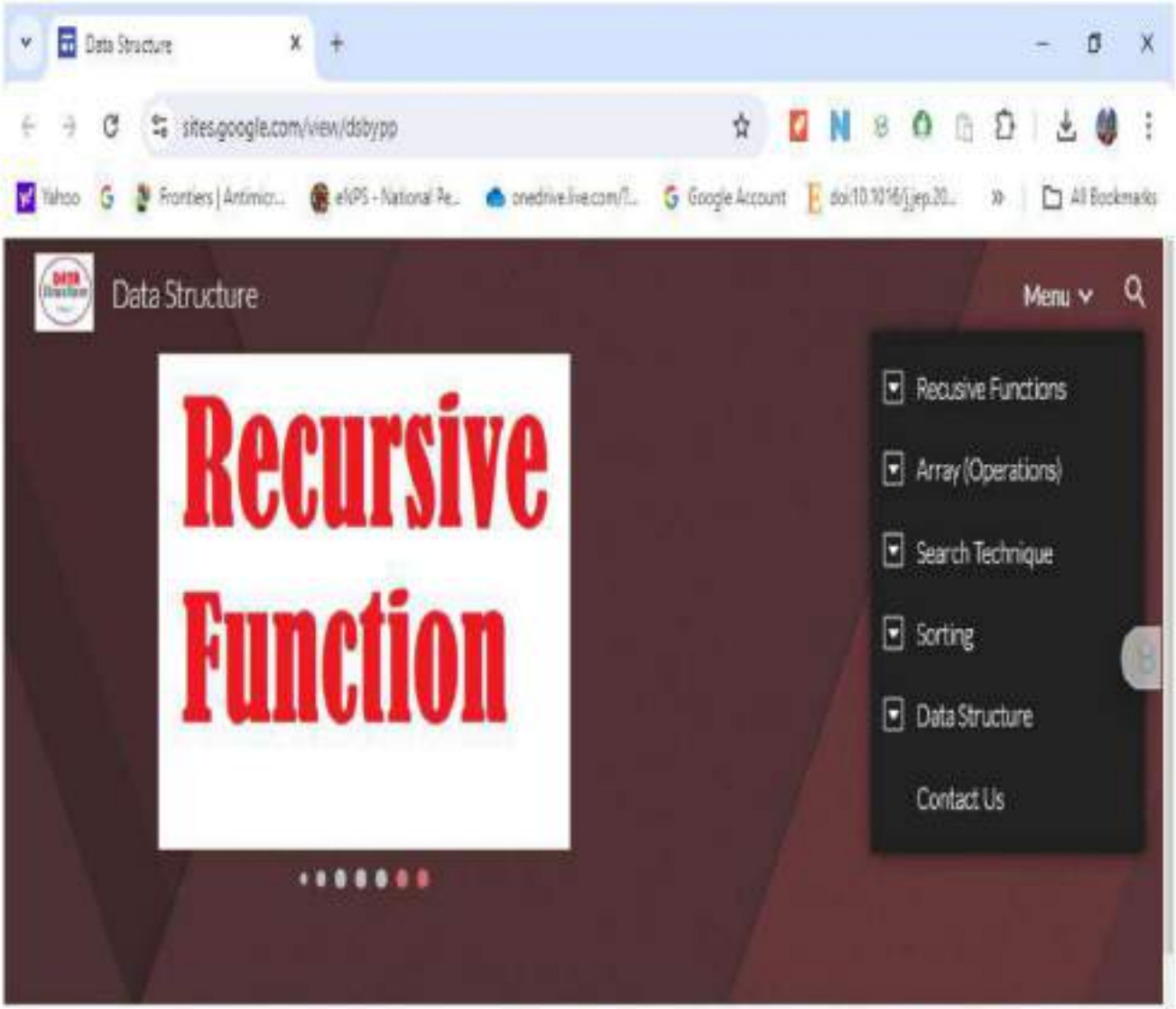

MCQs on Endoplasmic reticulum Golgi complex Lysosome and Peroxisome


Structure and functions of plant vacuoles


Structure and functions of Golgi body


Endoplasmic Reticulum


Peroxisomes and Glyoxysomes



Practical Examples of Data Structure Using Programming Language "C"

Most of the universities prefer these examples.

These programs are only for academic and experimental use.

Students can read/copy/distribute these programs.

Data Structure

Practical Examples of Data Structure Using Programming Language "C"

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About me

Dr. Pradeep Pokhriyal (HOD)

Department of Computer Science & Engineering

Modern Institute of Technology, Dhalwala Rishikesh

Ph.D(CS),M.Phil(CS),MCSE,MA(Edu),M.Sc.(CS),M.Sc.(Math)

Extracurricular activities

Cleanliness drive

Tree plantation


M.D. ADVENTURE
BIKE WORLD
ढालवाला, ऋषिकेश
विज्ञान विभाग