



# Modern Institute of Technology


Affiliated to H.N.B. Garhwal University (A Central University), Srinagar Garhwal, Sri Dev Suman Uttarakhand University, Tehri Garhwal & Uttarakhand Board of Technical Education, Roorkee. Approved by PCI, NCTE, AICTE, UGC Recognised Under Section 2(f)

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 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.**













## Mushroom farming





video\_20191204\_1...



CC















## Vericomposting















## Student's poster presentations











Learning self-defense (15-20 March)





Practicing yoga



ICT-enabled classrooms and seminar halls.

(IT Department)

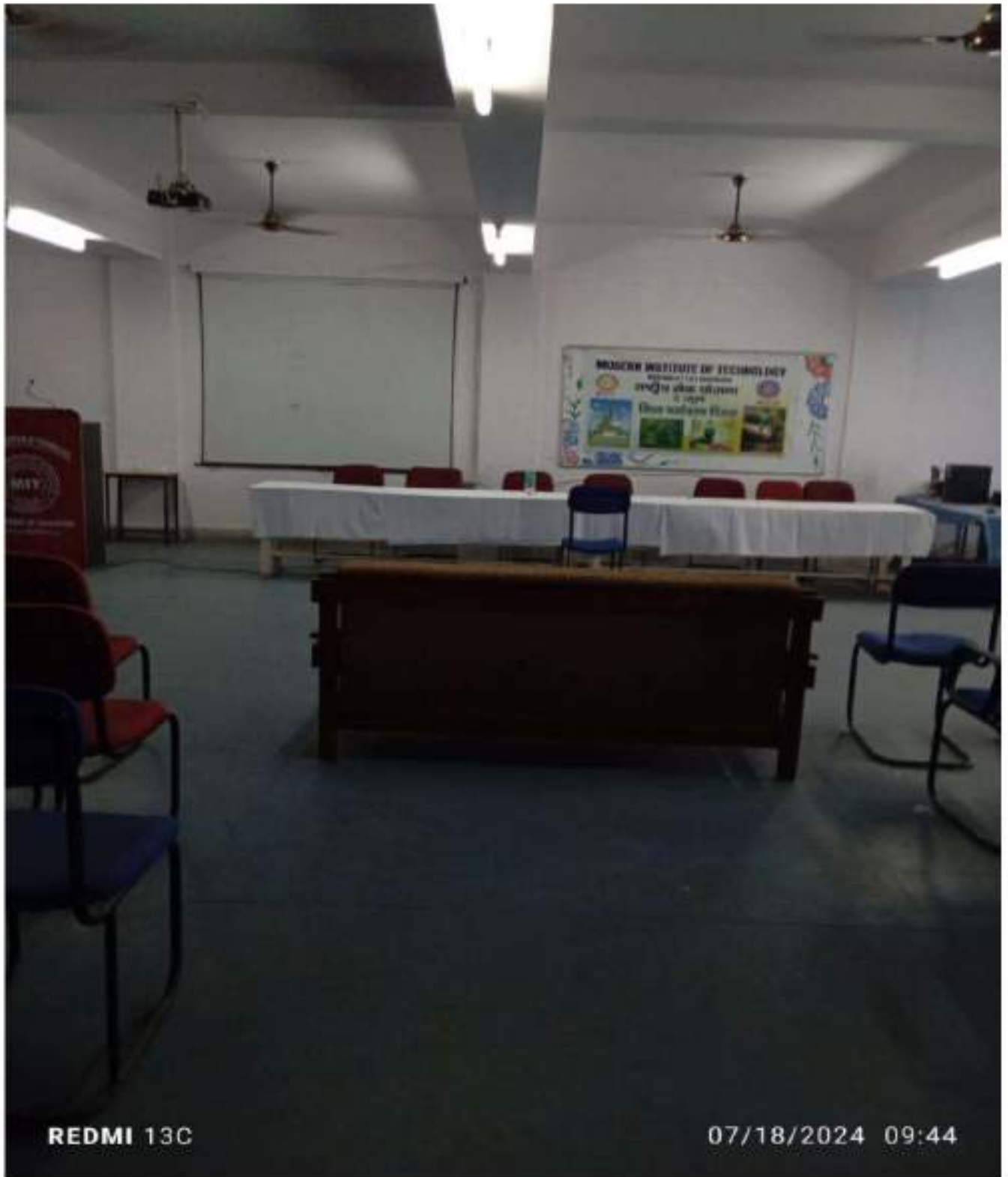


(Commerce Department)





Commerce Department



REDMI 13C

07/18/2024 09:44

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>

The screenshot shows a web browser window with the address bar displaying [biotechnologymcq.com](https://biotechnologymcq.com/). The website header includes the logo for "BIOTECH TUTORIALS" and a navigation menu with the following items: HOME, PPTS, MULTIPLE CHOICE QUESTIONS, LECTURE NOTES, ABOUT, VIDEOS, CONTACT, and SHOP TO DOWNLOAD. The main content area features a post titled "Structure And Functions Of Mitochondria" dated August 13, 2024. The post includes a diagram of a mitochondrion with labels for Intermembrane space, Ribosome, Matrix, DNA, and Outer membrane. There are also social media follow buttons for Facebook, Twitter, Instagram, and Youtube. The browser's taskbar at the bottom shows the Windows logo, a search bar, and various application icons, along with system information like 33°C and 11:22 AM on 8/28/2024.

- 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  $V_{max}$  and  $K_m$ , Catalytic efficiency (k<sub>cat</sub>/K<sub>m</sub>) 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 Ribase, Lipase 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 Transcarbamoylase (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

Activate Windows  
Go to Settings to activate Windows.



- Amino acid 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

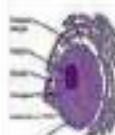
- Enzyme Part I (Properties, Composition, Nomenclature and Classification)
- Enzyme Kinetics (Michaelis-Menten equation and double substrate reaction)
- MCQs on Enzyme Inhibition
- MCQs on Enzyme Catalytic Mechanisms
- MCQs on Enzyme Regulatory strategies (Allosteric control, Zymogen activation, Isoenzyme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

### Carbohydrate Metabolism

- MCQ on Glycolysis, Energetics, Fucose pathway, 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 Lipoproteins and disorders of cholesterol metabolism



MCQs on nucleus structure and functions  
AUGUST 6, 2024



Structure and functions of nucleus  
AUGUST 1, 2024



MCQs on Endoplasmic reticulum Golgi complex lysosome and Peroxisome  
AUG 28, 2024



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 Glyoxysomes  
Go to Settings to activate Windows.  
Stop for Prank

Browser window showing the URL `sites.google.com/view/dsbypp`. The address bar includes navigation icons (back, forward, refresh) and a star icon for bookmarks. The browser's toolbar shows various extension icons (N, B, G, etc.) and a download icon. The bookmark bar contains links for Yahoo, Frontiers | Antimicrobiol..., eXPS - National Re..., onedrive.live.com/..., Google Account, and doi:10.1016/j.jep.20...

The website header features a logo for 'Data Structure' on the left and a 'Menu' dropdown on the right. The main content area displays the title 'Recursive Function' in large, bold, red text. Below the title is a horizontal row of seven colored dots (white, white, white, white, white, red, white). The navigation menu is open, listing the following items: Recursive Functions, Array (Operations), Search Technique, Sorting, Data Structure, and Contact Us.

The main content area contains the following text:  
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.  
A large, semi-transparent watermark 'DSBYPP' is overlaid on the text.

The Windows taskbar at the bottom shows the search bar with the text 'Type here to search'. The task view button is visible. The system tray on the right displays the temperature as 33°C, the time as 11:44 AM, and the date as 8/28/2024.

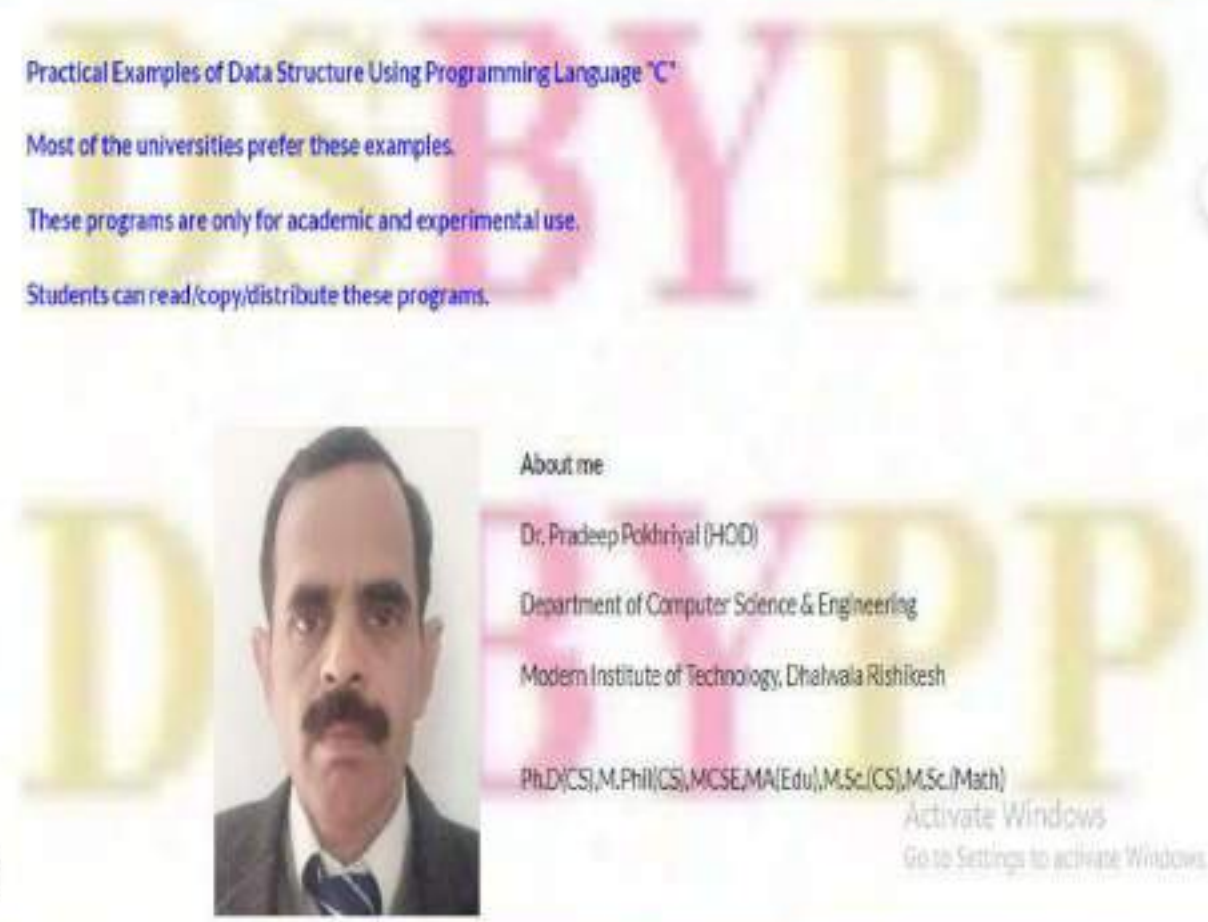


### Practical Examples of Data Structure Using Programming Language "C"

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#### About me

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Activate Windows  
Go to Settings to activate Windows.

Extracurricular activities

Cleanliness drive









## Tree plantation







