



Modern Institute of Technology

Affiliated to H.N.B. Garhwal University [A Central University], Srinagar Garhwal, Sri Dev Somon 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

R.
DIRECTOR
MODERN INSTITUTE OF TECHNOLOGY
DHALWALA, RISHIKESH

Experimental and participative learning and problem learning methodologies.











Mushroom farming











Vericomposting









Student's poster presentations



MODERN INSTITUTE OF TECHNOLOGY
Established in 1993, Deemed to be University (Central University), Deemed to be University,
Approved by AICTE, NCTE and PCI, NAAC Accredited B+ Grade
Dhulewadi, Dist. Nashik, Maharashtra

DEPARTMENT OF BIOTECHNOLOGY AND MICROBIOLOGY PROBIOTICS
A. KOTI BHAVITTE, SUKDEEPAL SINGH KHE, RAJPRAMAT SINGH, R. RAJENDRA SINGH (Chairman)
M.Sc. Microbiology, 2nd Semester, 2012-13

Probiotic foods are defined as foods containing live microorganisms which actively improve health of consumers by improving the balance of microflora in the gut/tissues in appropriate sufficient numbers.

REASONS FOR CONSUMPTION

- Production of antibiotic compounds
- Consumption for therapeutic purposes
- Improvement of intestinal flora
- Improvement of immune response
- Improvement of water quality
- Balance of microflora requirements

ADVISORS FOR PROJECTS

- Academic project leaders
- Practical and service
- Scientific research
- High quality research
- Use of probiotics based products in daily life

CHARACTERISTICS OF PROBIOTICS

- It should be safe to eat
- It should contain living microorganisms in sufficient numbers
- It should remain in its active form until consumed
- It should have pre-fermentation activity
- It should pass through the stomach acid
- It should remain stable for long storage time
- It should increase the beneficial aspect of the body
- It should have the ability to colonize the gastrointestinal tract

APPLICATIONS OF PROBIOTICS

- Discovered in the gut microbiome
- Micro
- Having ability to trigger immune system
- Probiotic bacteria used to get rid of disease-causing bacteria

APPLICATIONS OF MICROBIOLOGY

- Prevention of food poisoning, diarrhea and infections
- It is useful, since it can help reduce disease incidence
- In people having an infection, the presence of microorganisms in the body, it can cause potential threat problems to the body
- It can be used to reduce the incidence of disease
- Microbes are present with certain pharmaceutical drugs leading to the production of toxicity in consuming such drugs

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Acids
Fermentation
Enzymes
Antibiotics
Antimicrobial agents
Food preservatives
Microbial processes
Microbial products
Microbial wastes
Microbial control
Microbial ecology
Microbial physiology
Microbial genetics
Microbial biochemistry
Microbial taxonomy
Microbial systematics
Microbial ecology
Microbial physiology
Microbial genetics
Microbial biochemistry
Microbial taxonomy
Microbial systematics

Two students are standing in front of a poster. The student on the left is wearing a white shirt and a tie, and the student on the right is wearing a black sweater over a white shirt. The poster has a green border and features the 'MIT' logo at the top.





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/dsbyp>

The screenshot shows a web browser window with the following details:

- Title Bar:** Biotechnology MCQs, Lecture /
- Address Bar:** biotechnologymcq.com
- Toolbar:** Back, Forward, Stop, Refresh, Home, Stop, Refresh, Bookmarks, Google Account, DOI:10.1016/j.jep.2024.102024, All Bookmarks.
- Search Bar:** Search ...
- Social Media Buttons:** Facebook, Twitter, Instagram, YouTube.
- Logo:** BIOTECH TUTORIALS with a stylized blue and green circular logo.
- Navigation Bar:** HOME, PPTS, MULTIPLE CHOICE QUESTIONS, LECTURE NOTES, ABOUT, VIDEOS, CONTACT, SHOP TO DOWNLOAD.
- Content Area:**
 - Image:** A composite image showing a transmission electron micrograph of mitochondria and a schematic diagram of mitochondrial structure. The schematic labels include: Intermembrane space, Ribosome, Matrix, DNA, Outer membrane.
 - Section Title:** Structure And Functions Of Mitochondria
 - Date:** August 13, 2024
 - URL:** https://biotechnologymcq.com/structure-and-functions-of-mitochondria/
- Follow Us:** Links for Facebook, Twitter, Instagram, and YouTube.
- System Status:** Activate Windows, Go to Settings to activate Windows.
- Taskbar:** Shows the Start button, a search bar with "Type here to search", pinned icons for File Explorer, Edge, Mail, Google Sheets, Google Slides, Google Sheets, Google Sheets, and Google Sheets, system tray icons for battery, volume, network, and date/time (11:22 AM, 8/28/2024).

biochemistry PPTs - Biotech MC

biotechnologymcq.com/biochemistry-ppts/

W Yahoo G Frontiers | Antimicrobials eNPS - National Pe... onedrive.live.com/... Google Account E doi:10.1016/j.jep.20... All Bookmarks

- 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
- Co-factors: Coenzymes and metal ions
- Factors affecting enzyme activity
- Enzyme I 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 II: Progress curve, Michaelis-Menton derivation, Determination of V_{max} and K_m , Catalysis efficiency (Km/M), Lineweaver-Burk plot, Eadie-Hofstee Plot, Bi-substrate reactions (Sequential and double-displacement reaction) Effects of Temperature and pH on enzyme activities
- Enzyme III: Enzyme inhibition Reversible (Competitive, Noncompetitive and Uncompetitive) and Irreversible inhibition of enzymes
- Multifunctional enzymes Fatty Acid synthase
- Enzyme VII Catalytic Mechanisms: Acid and base catalysis; Covalent catalysis; Reaction mechanism of Ribase, 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 (MMC model); The Sequential Model (KMF model); Allosteric regulation of Aspartate Transcarbamoylase (ATCase); Different forms of enzymes (heterozymes/homozymes) Lactate dehydrogenase
- Regulatory Strategies II: Proteolytic Activation (Zymogen Activation), Digestive Proteases: Fibronectin and Prothrombin; Reversible Covalent Modification (Phosphorylation With Special Reference To Glycogen Phosphorylase)
- Intermediate metabolism
- Carbohydrate metabolism and its regulation

Structure and functions of plant vacuoles
May 25, 2024

Structure and functions of Golgi body
May 16, 2024

Endoplasmic Reticulum
May 13, 2024

Peroxisomes and Glyoxosomes
May 11, 2024

Structure and function of endosome and lysosome
May 10, 2024

Fermentation in microorganisms
May 11, 2024

Factors affecting enzyme activity
May 7, 2024

Activate Windows
Link to ACTIV3 Page
One clickarnings to activate Windows.
May 21, 2024

Waiting for www.google-analytics.com...

5: Rate of glycolysis in the absence of O₂ (Pasteur effect)

Type here to search

11:24 AM 3/28/2024

Biochemistry MCQs - Biotech II

biotechnologymcq.com/multiple-choice-questions/biochemistry-mcqs/

Yahoo eNPS - National Pe... onedrive.live.com/ Google Account doi:10.1016/j.jep.20... All Bookmarks

• Protein: basic structure and properties MCQ
• Protein Classification MCQ
• 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 MCQ

Enzymes

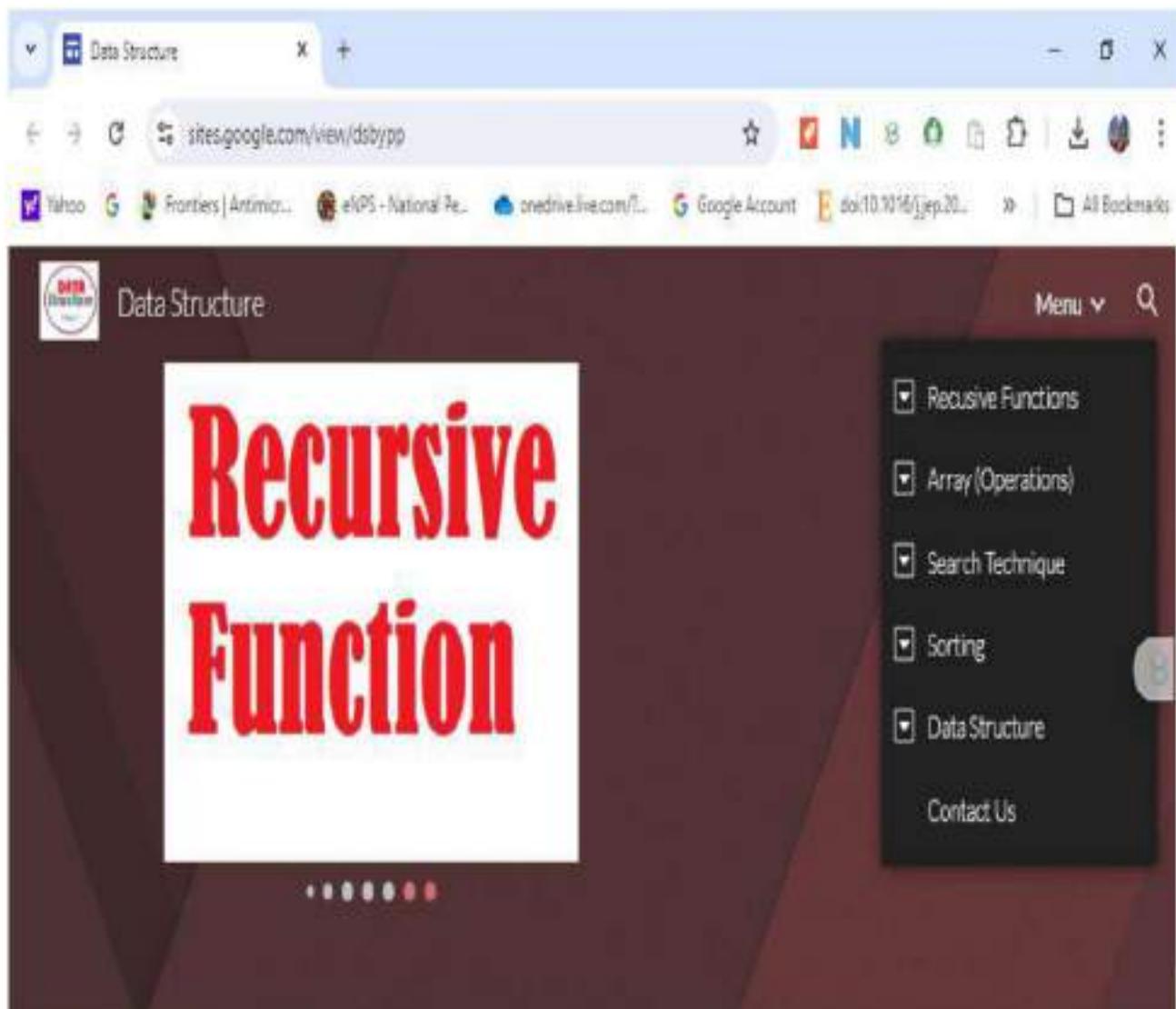
- Enzyme Part I (Properties, Composition, Nonenzymes and Classification)
- Enzyme Kinetics (Michaelis-Menton equation and double substrate reaction)
- MCQs on Enzyme Inhibition
- MCQs on Enzyme Catalytic Mechanisms
- MCQs on Enzyme Regulatory strategies (Allosteric control, Zymogen activation, Isoenzyme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

Carbohydrate Metabolism

- MCQs on Glycolysis, Bioenergetics, Fodder pathways, Galactose metabolism, Lactic and alcoholic fermentation and Regulation of glycolysis with respect to Phosphofructokinase, Hexokinase and Pyruvate kinase
- MCQs on TCA (Citric acid/Nielsen cycle and tricarboxylic acid)
- 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-syntase, Inhibitors and uncouplers
- MCQs 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
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
Activate Windows
Go to Settings to activate Windows
Stop for Probes

Type here to search 11:26 AM 33°C 8/28/2024



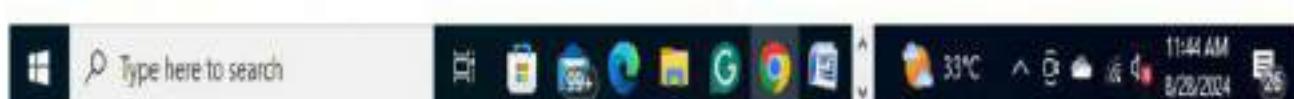
Practical Examples of Data Structure Using Programming Language 'C'

Most of the universities prefer these examples;

These programs are only for academic and experimental use.

Students can read/copy/distribute these programs.

Activate Windows
Go to Settings to activate Windows



A screenshot of a Microsoft Edge browser window showing a website for "Data Structure".

The address bar shows the URL: sites.google.com/view/dsbypp

The page content includes:

- A large watermark-like logo in the background with the text "BYPP" in yellow and pink.
- A header with a circular logo containing "DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING" and the text "Data Structure".
- A menu bar with "Menu" and a search icon.
- Text about practical examples of Data Structures using C language, academic use, and distribution rights.
- A portrait photo of Dr. Pradeep Pokhriyal.
- An "About me" section with his title, department, institute, and qualifications (Ph.D(CS), M.Phil(CS), MCSE, MA(Edu), M.Sc.(CS), M.Sc.(Math)).
- A Windows taskbar at the bottom with the Start button, search bar, pinned icons for File Explorer, Task View, Edge, File History, Google Chrome, and File Explorer, system tray icons for battery, signal, and date/time (11:45 AM, 4/28/2024), and a weather icon showing 33°C.

Extracurricular activities

Cleanliness drive





Tree plantation





