CET3014B: Microprocessor Architectures & Internet of Things

I N D E X

Sr. No.	Title	Page	Date	Signature of Batch I/C
1.	Study of IoT architecture,development platforms and various ARM SOCs such as Raspberry Pi/ESP8266 boards/Beagle board/Arduino Uno etc. To perform OS installation used to build IoT devices.			
2.	To interface sensors such as temperature or ultrasonic or gas sensors with Raspberry Pi/BeagleBone Black Board/TinkerCAD Arduino,etc and display readings on console.			
3.	To interface simple actuators such as DC/Servo/Stepper motor ,Relays etc with Raspberry Pi / BeagleBone Black Board/TinkerCAD Arduino Uno.			
4.	Consider a suitable scenario of traffic signaling inside a crossroads and demonstrate traffic control using Raspberry Pi/ Beaglebone Black Board/Tinker CAD Arduino Uno etc.			
5.	To stimulate an operation of obstacle detection and notifying it with a buzzer or LED using Raspberry Pi / Beaglebone Black Board/Tinker CAD Arduino Uno etc.			
6.	To sense the data from sensors and send it to the cloud system.			
7.	Write X86/64 ALP to add an array of N hexadecimal numbers.			
8.	Write X86/64 ALP to perform BCD to Hex and Hex to BCD conversion.			
9.	Write X86/64 ALP to display the contents of system registers GDTR, IDTR, LDTR, TR and MSW (Machine Status Word).			
10.	Write X86 Assembly Language Program (ALP) to simulate COPY command in ubuntu using file operations.			
11.	Write X86/64 ALP to perform sorting operations. (Ascending / Descending).			

CERTIFICATE

Certified that Mr./Ms. of Class **S.Y.B.Tech. (CSE)** Division Roll No._has completed the laboratory work in the subject Microprocessor Architectures & Internet of Things during the semester IV of the academic year **2022-23**.

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CET2002B: Database Management System

I N D E X

Sr. No.	Title	Page	Date	Signature of Batch I/C
1.	Design an ER Diagram for different case studies.			
2.	Design and develop SQL DDL statements for different systems.			
3.	SQL-DML (Insert, update, delete) and SELECT statement with WHERE clause and SQL Operators.			
4.	SQL Queries: group functions, join and nested queries.			
5.	SQL Queries on Functions- Single row, Aggregate functions, Data sorting, Subquery, Group by- Having, set operations. View TCL commands.			
6.	Stored procedures and functions in PL/SQL.			
7.	Create Triggers using PL/SQL			
8.	Create a cursor using PL/SQL.			
9.	Design XML Schema and write XQuery to display the data.			
10.	Create a JSON document and write the JSON query to display the data.			

CERTIFICATE

This is to certify that Mr. / Ms. _____ of class S. Y. B. Tech. Computer Science and Engineering, Division _____ Roll No._____ has completed the laboratory work in the subject Database Management Systems (CET2002B) during the Trimester-VI of the Academic Year 2022-23.

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CET2001B: Advanced Data Structures

I N D E X

Sr. No.	Title	Page	Date	Signature of Batch I/C
1.	Implement polynomial operations using circular linked list. Create, Display, Addition and Evaluation			
2.	Implement binary tree using c++ and perform following operations- creation and traversal.			
3.	Implement dictionary using a binary search tree where dictionary stores keywords and their meanings. Perform operations- Insert, Delete, Copy, Create mirror image and display level wise.			
4.	Implement threaded binary tree and perform inorder transversal.			
5.	Consider a friends network on Facebook social website. Model it as a graph to represent each node as a user and a link to represent the friend relationship between them using adjacency list representation and perform DFS & BES traversals.			
6.	A business house has several offices in different countries; they want to lease phone lines to connect them with each other and the phone company charges different rent to connect different pairs of cities. Business house wants to connect all its offices with a minimum total cost. Solve the problem using Prim's algorithm.			
7.	Read the marks obtained by students of second year in an online examination of a particular subject. Find out maximum and minimum marks obtained in that subject. Use heap data structure and heap sort			
8.	Implement direct access file using hashing (linear probing with & without replacement) perform. following operations on it : a)Create database b) Display database c) Add record d) Search record e) Modify record			
9.	AVL Trees.			

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This is to certify that Mr. / Ms. _____ of class S. Y. B. Tech. Computer Science and Engineering, Division _____ Roll No._____ has completed the laboratory work in the subject Advanced Data Structures (CET2001B) during the Trimester-VI of the Academic Year 2022-23.

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CET1046B: Object Oriented Concepts with C++ and Java

I N D E X

CERTIFICATE

This is to certify that Mr. / Ms. _____ of class S. Y. B. Tech. Computer Science and Engineering, Division _____ Roll No._____ has completed the laboratory work in the subject **Object Oriented Concepts with C++ and Java** (**CET1046B)** during the Trimester-VI of the Academic Year 2022-23.

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