#### Semester -3&4

# Paper Code –BCA- 202 & BCA-207

# **Paper Name- Data Structures:**

- 1. The subject intended to teach the Data Structures that are used to store different type of values in computer languages.
- 2. Different types of data structures are available in their syllabus.
- 3. Data Structures –I contains basics about all the data structures like array, linked list, stack, queue, tree, graph.
- 4. Data Structures –II contains the detailed study and applications of the data structures in various searching, sorting algorithms.
- 5. File storage also helps the students to understand the working of different files in our system.
- 6. After studying the subject the students are able to understand how data is stored and accessed in which manner in the memory device and how our programs use those values.

#### Semester : 3

# Paper Code -203

# **Paper Name- Introduction to Database System:**

- 1. The subject provides a detailed coverage of the topics related to the design, use and implementation of database systems.
- 2. Students become familiar with the introduction of database systems.
- 3. Details of database system Architecture, various data models help them to understand the database systems.
- 4. Students study Relational Algebra along with SQL commands in detail and become familiar how the databases can be used in any programming languages.
- 5. SQL commands help them to understand how to deal with the database stored in a system and how to make a new database and how to update any value in the database.

#### Semester: 3

Paper Code: BCA-201

### **Paper Name: Introduction to Operating System**

- 1. This subject helps the students to clearly understand how computers work under the hood.
- 2. Students learn the interface, deadlock concepts in detail which give idea about the problems and overcoming methodologies in an operating system
- 3. This subject helps the students to get an idea about internal operation of computer and arrangement of files inside the computer

- 4. The subject helps the students how to encrypt and decrypt their data, various types of operating system
- 5. The subject helps them to understand the memory management, device management and various scheduling algorithm which help them to utilize the computer processor

Semester: 4

Paper Code: BCA-206

Paper Name: WEB DESIGNING

- 1. This subject helps the students to Better Understand the Web and become professional Web developers
- 2. Knowing the basics of HTML and CSS, used to create web pages is a skill that will always be useful for the computer science students.
- 3. The subject helps the students to Create Websites quite easily and Start as a web Career.
- 4. The subject gives detail knowledge of hosting a website, necessary protocols for hosting ,Client server technology, web casting etc
- 5. It gives in-depth knowledge of HTML, DHTML, various attributes used in it.
- 6. Students can write code for web sites and web-based applications using the Hyper Text Markup Language (HTML).
- 7. This paper help the students to code sites, update sites, write technical documentation and stay on top of new web-based technologies.

Semester: 4

Paper Code: BCA-209

### **Paper Name: Software Engineering**

- 1. This paper helps the students to learn about systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software.
- 2. Learning Designing the software, planning the software help to get a clear idea about the estimation of cost during the creation of software.
- 3. The complexity of software is clearly explained by various methods helps the students to get idea about the problem solving technique
- 4. This paper helps to design, code, and implement new software also helps the students to understand the style of coding in creating software.
- 5. It also explain the various testing methods, its uses and maintenance techniques during the creation of software
- 6. It helps the student to develop the creative minds behind computers or programs.