## 

| Sl.No | Course Code | Course Title                                    |
|-------|-------------|---|
| 1     | CA1CMT01    | Computer Fundamentals                           |
| 2     | CA2CMT02    | Programming in C Language (Theory)              |
| 3     | CA2CMP01    | Software Lab-I (Programming in C Language)      |
| 4     | CA3CMT03    | Web Technology and Programming                  |
| 5     | CA4CMT04    | Visual Programming Techniques                   |
| 6     | CA4CMP02    | Software Lab- II(Visual Programming Techniques) |

#### 1. COMPUTER FUNDAMENTALS

| CO<br>No. | Expected Course Outcome  | Learning<br>Domains * | PO<br>No |
|-----------|--|-----------------------|----------|
| On cor    | mpletion of the course, the students were able to  |                       |          |
| 1         | Understand the basic computing concepts, logical organization of digital computers, and hardware components of a digital computer with input and output, peripheral devices. | U                     | 1        |
| 2         | Recognize and differentiate between different generations of computers, various types of computers, and primary versus secondary storage devices.                            | U                     | 1        |
| 3         | Master binary, octal, and hexadecimal number systems and understand different methods for number systems conversion.   | U                     | 1        |
| 4         | Understand the fundamental concepts, postulates, and theorems of Boolean algebra and apply Boolean algebra to simplify logical expressions.                                  | U, A                  | 1,2      |
| 5         | Identify and analyze logic gates and convert logical expressions into corresponding logic circuits.  | An                    | 2        |
| 6         | Classify operating systems into types and analyze the features of specific operating systems.  | An                    | 2        |

## 2. PROGRAMMING IN C LANGUAGE

| CO<br>No. | Expected Course Outcome   | Learning<br>Domains * | PO<br>No |
|-----------|---|-----------------------|----------|
| On cor    | npletion of the course, the students were able to   |                       | •        |
| 1         | Understand the fundamentals of programming and to design an algorithm and flowchart for a given problem.                      | U                     | 1        |
| 2         | Understand key structured programming constructs: constants, variables, declarations, Operators, expressions, I/O statements. | U                     | 1        |
| 3         | Understand the conditional, iterative and structured data type to write C programs.   | U                     | 1        |
| 4         | Identify and apply the loops and decision-making statements to solve problems.  | А                     | 2        |
| 5         | Understand the use of built in functions, user defined functions, pointers, structures and Unions and storage classes.        | U                     | 1        |
| 6         | Develop C programs by applying the C programming constructs and hence to acquire problem solving skill.                       | А                     | 2        |

#### 3. SOFTWARE LAB I

| CO<br>No. | Expected Course Outcome  | Learning<br>Domains * | PO<br>No |  |  |
|-----------|--|-----------------------|----------|--|--|
| On con    | On completion of the course, the students were able to   |                       |          |  |  |
| 1         | Perform different office applications such as word processing, spread sheet and presentation using MS Office Packages. | A                     | 2        |  |  |
| 2         | Develop logic and solve different programming problems.  | A                     | 2        |  |  |

## 4. WEB TECHNOLOGY AND PROGRAMMING

| CO<br>No.  | Expected Course Outcome   | Learning<br>Domains * | PO<br>No |  |
|--|---|-----------------------|----------|--|
| On completion of the course, the students were able to |   |                       |          |  |
| 1  | Understand the basics of networking, network types, transmission media and topologies | U                     | 1        |  |
| 2  | Understand the transmission Media, network connecting devices and LAN Topologies.     | U                     | 1        |  |

| 3 | Identify and analyze the most appropriate networking architecture and technologies.                                    | An | 2 |
|---|--|----|---|
| 4 | Understand the fundamentals of Internet, and the principles of web design using HTML.                                  | U  | 1 |
| 5 | Design and development of web-pages and web-<br>applications   | A  | 2 |
| 6 | Identify diverse internet security threats such as malware and comprehend the significance internet security measures. | U  | 1 |

# 5. VISUAL PROGRAMMING TECHNIQUES

| CO<br>No. | Expected Course Outcome  | Learning<br>Domains * | PO<br>No |
|-----------|--|-----------------------|----------|
| On cor    | npletion of the course, the students were able to  |                       |          |
| 1         | Understand the database and database fundamentals  | U                     | 1        |
| 2         | Familiarize Visual Basic IDE and Visual Basic's basic concepts such as forms, controls, events, procedure and subroutines etc. | U                     | 1        |
| 3         | Design user interfaces and implement event driven programming using VB controls.   | A                     | 2        |
| 4         | Assess the use of MDI applications, distinguishing between MDI parent forms and child forms.                                   | An                    | 2        |
| 5         | Understand data access methods such as Jet, DAO, ADO, and OLEDB, and apply Visual Basic Data Control for database access.      | U, A                  | 1,2      |

### 6. SOFTWARE LAB II

| CO<br>No. | Expected Course Outcome  | Learning<br>Domains * | PO<br>No |
|-----------|--|-----------------------|----------|
| On com    | pletion of the course, the students were able to                         |                       |          |
| 1         | Develop simple webpages and websites using Hyper<br>Text Markup Language | A                     | 2        |
| 2         | Develop graphical user interface applications using VB                   | A                     | 1        |
| 3         | Develop different types of VB applications and record them               | A                     | 2        |