

**TECNIA INSTITUTE OF ADVANCED STUDIES**

**NAAC Grade "A" Institute**

**Department of Information Communication and Technology (ICT)**

**Bachelor of Computer Application (BCA)**

**GGSIPIU w. e. f. as on 2011-12 Onwards**

**Course per-semester**

**FIRST SEMESTER**

| <b>Code No.</b> | <b>Paper</b>                                 | <b>Course</b>         | <b>L</b> | <b>T/P</b> | <b>Credits</b> |
|-----------------|--|-----------------------|----------|------------|----------------|
| BCA 101         | Mathematics – I                              | Core Course Theory    | 3        | 1          | 4              |
| BCA 103         | Technical Communication                      | Core Course Theory    | 3        | 0          | 3              |
| BCA 105         | Introduction to Programming Language using C | Core Course Theory    | 3        | 1          | 4              |
| BCA 107         | Introduction to Computers & IT               | Core Course Theory    | 3        | 1          | 4              |
| BCA 109         | Physics                                      | Core Course Theory    | 3        | 1          | 4              |
| BCA 151         | Practical – I C Prog.Lab                     | Core Course Practical | 3        | 1          | 4              |
| BCA 153         | Practical – II IT Lab                        | Core Course Practical | 3        | 0          | 3              |
| BCA 155*        | Communication Skills                         | Core Course Practical | 0        | 4          | 2              |

## SECOND SEMESTER

| Code No. | Paper                      | Course                | L | T/P | Credits |
|----------|----------------------------|-----------------------|---|-----|---------|
| BCA 102  | Mathematics – II           | Core Course Theory    | 3 | 1   | 4       |
| BCA 104  | Principles of Management   | Core Course Theory    | 3 | 0   | 3       |
| BCA 106  | Digital Electronics        | Core Course Theory    | 3 | 1   | 4       |
| BCA 108  | Data Structure Using C     | Core Course Theory    | 3 | 1   | 4       |
| BCA 110  | Database Management System | Core Course Theory    | 3 | 1   | 4       |
| BCA 152  | Practical – III DS Lab     | Core Course Practical | 0 | 6   | 3       |
| BCA 154  | Practical – IV DBMS Lab    | Core Course Practical | 0 | 6   | 3       |
| BCA 156* | Cyber Ethics               | Core Course Practical | 2 | 0   | 2       |

## THIRD SEMESTER

| Code No. | Paper                                  | Course Type           | L | T/P | Credits |
|----------|--|-----------------------|---|-----|---------|
| BCA 201  | Mathematics – III                      | Core Course Theory    | 3 | 1   | 4       |
| BCA 203  | Computer Architecture                  | Core Course Theory    | 3 | 1   | 4       |
| BCA 205  | Front End Design Tool VB.Net           | Core Course Theory    | 3 | 1   | 4       |
| BCA 207  | Principles of Accounting               | Core Course Theory    | 3 | 0   | 3       |
| BCA 209  | Object Oriented Programming using C++. | Core Course Theory    | 3 | 1   | 4       |
| BCA 251  | Practical – V .NET Lab                 | Core Course Practical | 0 | 6   | 3       |
| BCA 253  | Practical – VI C++ Lab                 | Core Course Practical | 0 | 6   | 3       |
| BCA 255* | Software Development Skills            | Core Course Practical | 2 | 0   | 2       |

#### FOURTH SEMESTER

| Code No. | Paper                          | Course Type           | L | T/P | Credits |
|----------|--------------------------------|-----------------------|---|-----|---------|
| BCA 202  | Mathematics – IV               | Core Course Theory    | 3 | 1   | 4       |
| BCA 204  | Web Technologies               | Core Course Theory    | 3 | 1   | 4       |
| BCA 206  | Java Programming               | Core Course Theory    | 3 | 1   | 4       |
| BCA 208  | Software Engineering           | Core Course Theory    | 3 | 1   | 4       |
| BCA 210  | Computer Networks              | Core Course Theory    | 3 | 1   | 4       |
| BCA 252  | Practical – VII Java Lab       | Core Course Practical | 0 | 6   | 3       |
| BCA 254  | Practical – VIII Web Tech Lab  | Core Course Practical | 0 | 6   | 3       |
| BCA 256* | Personality Development Skills | Core Course Practical | 2 | 0   | 2       |

#### FIFTH SEMESTER

| Code No. | Paper                    | Course Type                | L   | T/P | Credits |
|----------|--------------------------|----------------------------|-----|-----|---------|
| BCA 301  | Operating System         | Core Course Theory         | 3   | 1   | 4       |
| BCA 303  | Computer Graphics        | Core Course Theory         | 3   | 1   | 4       |
| BCA 305  | E- Commerce              | Core Course Theory         | 3   | 1   | 4       |
| BCA 307  | Software Testing         | Ability Enhancement Course | 3   | 1   | 4       |
| BCA 351  | Practical – IX CG Lab    | Core Course Practical      | 0   | 8   | 4       |
| BCA 355* | Summer Project/ Training | Core Course Practical      | 0   | 0   | 2       |
| BCA 357  | Minor Project            | Core Course Practical      | --- | 8   | 4       |

## SIXTH SEMESTER

| Code No.  | Paper                           | Course Type                  | L    | T/P | Credits |
|-----------|---------------------------------|------------------------------|------|-----|---------|
| BCA 302   | Data Ware Housing & Data Mining | Core Course Theory           | 3    | 1   | 4       |
| BCA 304   | Mobile Computing                | Core Course Theory           | 3    | 1   | 4       |
| BCA 306   | Linux Environment               | Core Course Theory           | 3    | 1   | 4       |
| BCA 312   | Artificial Intelligence         | Discipline Specific Elective | 3    | 1   | 4       |
| BCA 352   | Practical – X Linux Lab         | Core Course Practical        | 0    | 4   | 2       |
| BCA 356   | Major Project                   | Core Course Practical        | ---- | 10  | 5       |
| BCA 358** | Seminar                         | Core Course Practical        | 2    | 0   | 2       |