

**Faculty of IT & Computer Application**

**Scheme of
BCA (Bachelor of Computer Applications)-
Cloud Computing (-In Association with AWS)
Academic Programme- July 2021-22**

**Total Credits for the Batch 2021-24 = 132 Credits**

|  |  |  |
| --- | --- | --- |
| **Semester wise credit** | **Credits** | **Minimum Credit for degree** |
| **I** | **II** | **III** | **IV** | **V** | **VI** | **Total** |
| **22** | **22** | **24** | **24** | **24** | **16** | **132** | **132** |

|  |  |
| --- | --- |
| **Semester – I** | **Semester – II** |
| **Course Code** | **Course Name** | **L****(Hr.)** | **T (Hr.)** | **P(Hr.)** | **Credits** | **Type** | **Course Code** | **Course Name** | **L(Hr.)** | **T (Hr.)** | **P(Hr.)** | **Credits** | **Type** |
| BCA201 | Operating System | 3 | 0 | 0 | 3 | CORE | BCA209 | Database Management System | 3 | 1 | 0 | 4 | CORE |
| BCA202 | Programming in C | 3 | 1 | 0 | 4 | CORE | BCA210 | Object Oriented Programming using C++  | 3 | 1 | 0 | 4 | F |
| BCA204 | Computational Thinking and Problem Solving | 2 | 1 | 0 | 3 | F | AWS 002A | Introduction to Cloud Architecture | 3 | 0 | 0 | 3 | CORE |
| AWS001A | Cloud Computing Fundamentals | 3 | 0 |   | 3 | CORE | BCA212 | Database Management System Lab | 0 | 0 | 2 | 1 | CORE |
| BCA205 | Computer Programming Lab | 0 | 0 | 2 | 1 | CORE | BCA213 | Project Lab using C++ | 0 | 0 | 2 | 1 | F |
| BCA206 | Computer Systems Organization lab | 0 | 0 | 2 | 1 | CORE |   | Environmental Studies | 2 | 0 | 0 | 2 | ID |
| BCA207 | Computational Thinking and Problem Solving Lab | 0 | 0 | 2 | 1 | F |   | Culture Education-II | 2 | 0 | 0 | 2 | F |
| BCA208 | Seminar | 0 | 0 | 2 | 1 | CORE |   | Professional Skills | 2 | 0 | 0 | 2 | F |
|   | Communication Skills | **2** | **0** | **2** | 3 | ID |   | Open Elective-I | 3 | 0 | 0 | 3 | GE |
|   | Culture Education-I | 2 | 0 | 0 | 2 | ID |   |   |   |   |   |   |   |
|  | **Total** | 15 | 2 | 10 | 22 |   |   | **Total** | 17 | 2 | 6 | 22 |   |

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| **Semester – III** | **Semester – IV** |
| **Course Code** | **Course Name** | **L(Hr.)** | **T (Hr.)** | **P(Hr.)** | **Credits** | **Type** | **Course Code** | **Course Name** | **L(Hr.)** | **T (Hr.)** | **P(Hr.)** | **Credits** | **Type** |
| BCA216 | Data Structures and Algorithms  | 3 | 1 | 0 | 4 | F | BCA222 | Advance Java  | 3 | 0 | 0 | 3 | CORE |
| BCA217 | Programming in JAVA | 3 | 1 | 0 | 4 | CORE | BCA223 | Programming in Python | 3 | 0 | 0 | 3 | CORE |
| BCA218 | Statistical and Numerical Methods | 3 | 0 | 0 | 3 | ID | BCA224 | Software Engineering  | 3 | 0 | 0 | 3 | F |
| AWS 003A | Cloud Security  | 4 | 0 | 0 | 4 | CORE | BCA225 | Web Technologies  | 3 | 0 | 0 | 3 | F |
| BCA219 | Project Programming Lab in PHP | 0 | 0 | 2 | 1 | CORE |  AWS 004A | Elective I/ AWS Academy Cloud Foundation Course  | 3 | 0 | 0 | 3 | CORE |
| BCA220 | Data Structures Lab | 0 | 0 | 2 | 1 | F | BCA226 | Project Lab (Web Technologies) | 0 | 0 | 2 | 1 | F |
| BCA221 | Project Lab using JAVA | 0 | 0 | 2 | 1 | CORE | BCA227 | Project Lab in Advance Java | 0 | 0 | 2 | 1 | CORE |
|   | Life Skills -I (Personality Development) | 1 | 0 | 0 | 1 | F | BCA228 | Project Lab in Python | 0 | 0 | 2 | 1 | CORE |
|   | Value Education-I | 1 | 0 | 0 | 1 | F |   | Life Skills - II (Aptitude) | 1 | 0 | 0 | 1 | F |
|   | Life Skills -I Lab | 0 | 0 | 2 | 1 | F |   | Value Education and Ethics-II | 1 | 0 | 0 | 1 | F |
|   | Open Elective-II | 3 | 0 | 0 | 3 | GE |   | Life Skills - II Lab | 0 | 0 | 2 | 1 | F |
|   |   |   |   |   |   |   |   | Open Elective-III | 3 | 0 | 0 | 3 | GE |
|  | **Total** | **18** | **2** | **8** | **24** |   |   | **Total** | 20 | 0 | 8 | 24 |   |

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| **Semester – V** |  **Semester – V** |
| **Course Code** | **Course Name** | **L(Hr.)** | **T (Hr.)** | **P(Hr.)** | **Credits** | **Type** | **Course Code** | **Course Name** | **Credits** | **Type** |
| BCA229 | Computer Networks | 3 | 0 | 0 | 3 | CORE | **BCA242** | **Industrial Training/Internship/Dissertation Project Presentation** | **16** | **CORE** |
| BCA230 | Cryptography and Cyber Security  | 3 | 0 | 0 | 3 | CORE |
| BCA231 | Mobile Application Development | 2 | 0 | 0 | 2 | F |
| BCA232 | Mobile Application Development Lab | 0 | 0 | 2 | 1 | F |
| BCA233 | Cryptography Lab | 0 | 0 | 2 | 1 | CORE |
| BCA234 | UNIX and Shell Programming Lab | 0 | 0 | 2 | 1 | CORE |
| BCA235 | Project | 0 | 0 | 2 | 1 | CORE |
| AWS 005A | AWS Academy Cloud Developing | 3 | 0 | 0 | 3 | CORE |
|   | Elective – I (202/300) | 3 | 0 | 0 | 3 | CORE |
|   | Elective – I (202/300) | 3 | 0 | 0 | 3 | CORE |
|   | Open Elective-IV | 3 | 0 | 0 | 3 | GE |
|   | **Total** | **20** | **0** | **8** | **24** |   |