

# BHARATHIAR UNIVERSITY::COIMBATORE641046

**B. Sc. Computer Science (CBCS PATTERN)**

(*For the students admitted from the academic year****2022-2023 onwards***)

# Scheme of Examination

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Part** | **Title of the Course** | **Hours/Week** | **Examination** | **Credits** |
| **Duration****In Hours** | **Maximum Marks** |
| **CIA** | **CEE** | **Total** |
|  | **Semester I** |
| I | Language-I | 6 | 3 | 50 | 50 | 100 | 4 |
| II | English-I | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core1:Computing Fundamentals and C Programming | 4 | 3 | 50 | 50 | 100 | 4 |
| III | Core2:Digital Fundamentals and Computer Architecture | 4 | 3 | 50 | 50 | 100 | 4 |
| III | CoreLab1: Programming Lab-C | 3 | 3 | 50 | 50 |  100 | 4 |
| III | Allied1:Mathematical Structures for Computer Science | 5 | 3 | 50 | 50 | 100 | 4 |
| IV | Environmental Studies\*  | 2 | 3 | - | 50 | 50 | 2 |
|  | **Total** | **30** |  | **300** | **350** | **650** | **26** |
|  | **Semester II** |
| I | Language–II | 6 | 3 | 50 | 50 | 100 | 4 |
| II | English–II **&** | 4 | 3 | 25 | 25 | 50 | 2 |
|  | Naan Muthalvan –Skill Course  Effective English <http://kb.naanmudhalvan.in/images/c/c7/Cambridge_Course_Details.pdf> |  2 |  | 25 | 25 | 50 | 2 |
| III | Core3:C++ Programming | 5 | 3 | 50 | 50 | 100 | 4 |
| III | CoreLab2: Programming Lab-C++ | 4 | 3 | 50 | 50 | 100 | 4 |
| III | CoreLab3:Internet Basics | 2 | 3 | 25 | 25 | 50 | 2 |
| III | Allied2:Discrete Mathematics | 5 | 3 | 50 | 50 | 100 | 4 |
| IV | Value Education– Human Rights\* | 2 | 3 | - | 50 | 50 | 2 |
|  | **Total** | **30** |  | **275** | **325** | **600** | **24** |
|  | **Semester III** |
| I | Language – III | 4 | 3 | 50 | 50 | 100 | 4 |
| II | English – III **&** | 4 | 3 | 25 | 25 | 50 | 2 |
| III | Core4:Data Structures | 4  | 3 | 50 | 50 | 100 | 4 |
| III | Core5:Java Programming |  4 | 3 | 50 | 50 | 100 | 3 |
| III | CoreLab4:Programming Lab –Java | 3 | 3 | 25 | 25 |  50 | 2 |
| III | Allied3:Computer BasedOptimization Techniques **&** |  5 | 3 | 25 | 25 | 50 | 2 |
| III | Skill based Subject1: Software EngineeringAnd Software Project Management | 4 | 3 | 30  | 45  | 75  | 3  |
| IV | Tamil\*\*/ Advanced Tamil\*(OR)Non-major elective-I(Yoga for Human Excellence)\*/ Women’s Rights\* | 2 | 3 | - | 50 | 50 | 2 |
| IV | Naan Muthalvan –Skill Course - Programming Essentials for Employability | 2 |  | 25 | 75 | 100 | 2 |
|  | **Total** | **32** |  | **280** | **395** | **675** | **24** |
|  | **Semester IV** |
| I | Language – IV | 4  | 3 | 50 | 50 | 100 | 4 |
| II | English – IV **&** | 4 | 3 | 25 | 25 | 50 | 2 |
| III | Core6: System Software and Operating System |  4 | 3 | 50 | 50 | 100 | 3 |
| III | Core7:Linux and Shell Programming | 4 | 3 | 50 | 50 | 100 | 3 |
| III | CoreLab 5:Linux and Shell P rogramming Lab | 3 | 3 | 25 | 25 | 50 | 2 |
|  | Naan Muthalvan – Skill CourseOffice Fundamentals - Lab[http://kb.naanmudhalvan.in/Bharathiar\_University\_(BU)](http://kb.naanmudhalvan.in/Bharathiar_University_%28BU%29) |  2 |  | 25 | 25 | 50 | 2 |
| III | Allied4:Business Accounting **&** | 4 | 3 |  25 |  25 | 50 |  2 |
| III | Skill based Subject 2 Lab: Software Project Management-Lab | 3 | 3 | 25 | 25 | 50 | 2 |
| IV | Tamil\*\*/Advanced Tamil\* (OR) Non-major elective-II(General Awareness\*) | 2 | 3 | - | 50 | 50 | 2 |
|  | **Total** | **30** |  | **275** | **325** | **600** | **22** |

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|  | **Semester V** |
| III | Core 8:RDBMS & Oracle | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core 9:Visual Basic | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core 6:Programming Lab–VB&Oracle | 6 | 3 | 25 | 25  |  50 | 4 |
| III | Elective - I PYTHON Programming/Computer Networks/ Organizational Behavior | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Skill based Subject 3: Software Testing | 6 | 3 | 30 | 45 | 75 | 3 |
| IV | Naan Muthalvan – Skill Course – Cloud and IT Essentials for Employability | 2 |  | 25 | 75 | 100 | 2 |
|  | **Total** | **32** |  | **230** | **295** | **525** | **21** |
|  | **Semester VI** |
| III | Core10:Graphics & Multimedia | 5 | 3 | 50 | 50 | 100 | 4 |
| III | Core11:Project Work Lab%% | 5 | 3 | 60 | 90 | 150 | 6 |
| III | CoreLab7: Programming Lab–Graphics &Multimedia | 5 | 3 | 25  | 25 | 50  | 3 |
| III | Elective–II:Network Security andCryptography / Artificial Intelligence and Expert Systems / Web Technology | 5 | 3 | 50 | 50 | 100 | 4 |
| III | Elective–III:Data Mining/Open SourceSoftware/ Internet of Things (IoT) | 5 | 3 | 50 | 50 | 100 | 4 |
| III | Skill Based Subject 4(Lab): Software Testing Lab | 3 | 3 | 25 | 25 |  50 | 2 |
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| Naan Muthalvan –Skill Course Cyber Security **@**[http://kb.naanmudhalvan.in/images/7/71/Cyb](http://kb.naanmudhalvan.in/images/7/71/Cybersecurity.pdf) [ersecurity.pdf](http://kb.naanmudhalvan.in/images/7/71/Cybersecurity.pdf)(or) Machine Learning **#** [http://kb.naanmudhalvan.in/images/1/19/PB](http://kb.naanmudhalvan.in/images/1/19/PBL_Google.pdf) [L\_Google.pdf](http://kb.naanmudhalvan.in/images/1/19/PBL_Google.pdf)(or) Android APP Development **$**<http://kb.naanmudhalvan.in/images/0/08/Android_App_Dev.pdf> |

 | 2 |  |  25 |  25 | 50 | 2 |
| V | Extension Activities\*\* |  | - | 50 | - | 50 | 2 |
|  | **Total** | **30** |  | **335** | **315** | **650** | **27** |
|  | **Grand Total** |  **184** |  | **1695** | **2005** | **3700** |  **144** |

* \*No Continuous Internal Assessment (CIA), University Examinations Only.
* \*\*No University Examinations, Continuous Internal Assessment (CIA) Only.
* **&** University semester examination (CEE) will be conducted for 50 marks (As per existing pattern of Examination) and it will be converted for 25 marks.
* **#** Govt – Non-Autonomous Colleges, **$** Aided – Non-Autonomous Colleges, **@** Self - Financing Colleges **(**Non –Autonomous).
* Naan Mudhalvan – skill courses- external marks will be assessed by Industry and internal will be offered by respective course teacher.