**BHARATHIARUNIVERSITY::COIMBATORE641046**

**B.Sc.ArtificialIntelligenceandMachineLearning(CBCSPATTERN)**

(*Forthestudentsadmittedfromtheacademicyear****2021-2022****andonwards*)

**SchemeofExamination**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Part** | **TitleoftheCourse** | **Hours/ Week** | **Examination** | | | | **Credits** |
| **Duration**  **In Hours** | **Maximum Marks** | | |
| **CIA** | **CEE** | **Total** |
|  | **SemesterI** | | | | | | |
| I | Language-I | 6 | 3 | 50 | 50 | 100 | 4 |
| II | English-I | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core1:ObjectOriented ProgramminginC++ | 4 | 3 | 50 | 50 | 100 | 4 |
| III | Core2:DataStructures | 4 | 3 | 50 | 50 | 100 | 4 |
| III | CoreLab1: ProgrammingLab– C++ | 3 | 3 | 50 | 50 | 100 | 4 |
| III | Allied1:DiscreteMathematics | 5 | 3 | 50 | 50 | 100 | 4 |
| IV | EnvironmentalStudies\* | 2 | 3 | - | 50 | 50 | 2 |
|  | **Total** | **30** |  | **300** | **350** | **650** | **26** |
|  | **SemesterII** | | | | | | |
| I | Language–II | 6 | 3 | 50 | 50 | 100 | 4 |
| II | English–II | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core3:JavaProgramming | 5 | 3 | 50 | 50 | 100 | 4 |
| III | CoreLab2:ProgrammingLab -Java | 4 | 3 | 50 | 50 | 100 | 4 |
| III | CoreLab3:InternetBasicsLab | 2 | 3 | 25 | 25 | 50 | 2 |
| III | Allied2:AppliedMathematics | 5 | 3 | 50 | 50 | 100 | 4 |
| IV | ValueEducation– HumanRights\* | 2 | 3 | - | 50 | 50 | 2 |
|  | **Total** | **30** |  | **275** | **325** | **600** | **24** |
|  | **SemesterIII** | | | | | | |
| III | Core4:Programmingin Python | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core5: FuzzylogicandNeuralNetworks | 6 | 3 | 50 | 50 | 100 | 4 |
| III | CoreLab4:PythonProgrammingLab | 5 | 3 | 50 | 50 | 100 | 4 |
| III | Allied3:DesignandAnalysisofAlgorithms | 6 | 3 | 50 | 50 | 100 | 4 |
| III | SkillbasedSubject1:InternetofThings | 5 | 3 | 30 | 45 | 75 | 3 |
| IV | Tamil\*\*/ AdvancedTamil\*(OR)Non- majorelective- I(YogaforHumanExcellence)\*/  Women’s Rights\* | 2 | 3 | - | 50 | 50 | 2 |
|  | **Total** | **30** |  | **230** | **295** | **525** | **21** |
|  | **SemesterIV** | | | | | | |
| III | Core6:ArtificialIntelligence&KnowledgeRe presentation | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core7:RProgramming | 6 | 3 | 50 | 50 | 100 | 4 |
| III | CoreLab 5:RProgrammingLab | 3 | 3 | 25 | 25 | 50 | 2 |
|  | Naan Muthalvan- Skill Course Office Fundamentals - Lab  [http://kb.naanmudhalvan.in/Bharathiar\_](http://kb.naanmudhalvan.in/Bharathiar_University_(BU)) [University\_(BU)](http://kb.naanmudhalvan.in/Bharathiar_University_(BU)) | 3 |  | 25 | 25 | 50 | 2 |
| III | Allied4:MachineLearning -Basics | 6 | 3 | 50 | 50 | 100 | 4 |
| III | SkillbasedSubject2Lab:CapstoneProject Work(Based on AI&Machine Learning) | 4 | 3 | 30 | 45 | 75 | 3 |
| IV | Tamil\*\*/Advanced Tamil\* (OR) Non- majorelective-II(GeneralAwareness\*) | 2 | 3 | - | 50 | 100 | 2 |
|  | **Total** | **30** |  | **230** | **295** | **525** | **21** |

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **SemesterV** | | | | | | |
| III | Core8: MachineLearningTechniques | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core9: DeepLearning | 6 | 3 | 50 | 50 | 100 | 4 |
| III | CoreLab6:Machine LearningLab | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Elective-IBusiness DataAnalytics/Social NetworkAnalysis/SoftwareAgents | 6 | 3 | 50 | 50 | 100 | 4 |
| III | SkillbasedSubject 3:EthicalHacking | 6 | 3 | 30 | 45 | 75 | 3 |
| IV | Naan Muthalvan – Skill Course – Cloud and IT Essentials for Employability | 2 |  | 25 | 75 | 100 | 2 |
|  | **Total** | **32** |  | **255** | **320** | **575** | **21** |
|  | **SemesterVI** | | | | | | |
| III | Core10:NaturalLanguageProcessing | 6 | 3 | 50 | 50 | 100 | 4 |
| III | CorePaperXIProject WorkLab%% | 4 | - | 60 | 90 | 150 | 6 |
| III | Core Practical –VII :Natural LanguageProcessingLab | 5 | 3 | 50 | 50 | 100 | 4 |
| III | Elective – II : Artificial Neural  NetworksandFuzzySystems/WebApplication Security/FundamentalsofRobotics | 5 | 3 | 50 | 50 | 100 | 4 |
| III | Elective–III:Embedded Systems  /PrinciplesofSecureCoding/ Open SourceSoftware | 5 | 3 | 50 | 50 | 100 | 4 |
| III | SkillBasedSubject4CapstoneProject  Work Phase II (Based on AI & MachineLearning) | 3 | 3 | 30 | 45 | 75 | 3 |
|  | 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/PBL](http://kb.naanmudhalvan.in/images/1/19/PBL_Google.pdf) | 2 |  | 25 | 25 | 50 | 2 |
| [\_Google.pdf](http://kb.naanmudhalvan.in/images/1/19/PBL_Google.pdf)  (or) Android APP Development **$**  [http://kb.naanmudhalvan.in/images/0/08/Android](http://kb.naanmudhalvan.in/images/0/08/Android_App_Dev.pdf)  [\_App\_Dev.pdf](http://kb.naanmudhalvan.in/images/0/08/Android_App_Dev.pdf) |
| V | ExtensionActivities\*\* |  | - | 50 | - | 50 | 2 |
|  | **Total** | **30** |  | **365** | **360** | **725** | **29** |
|  | **GrandTotal** | **182** |  | **1655** | **1945** | **3600** | **142** |

* \*NoContinuousInternalAssessment(CIA).OnlyUniversityExaminations.
* \*\*NoUniversityExaminations. OnlyContinuousInternalAssessment(CIA).
* **#** Govt – Non-Autonomous Colleges, **$** Aided – Non-Autonomous Colleges, **@** Self - Financing **(**Non – Autonomous).
* NaanMudhalvan – skill courses- external marks will be assessed by Industry and internal will be offered by respective course teacher.