BHARATHIAR UNIVERSITY: COIMBATORE 641 046

B. Sc. Chemistry – Revised Scheme of Examinations (CBCS Pattern)

*(For the students admitted during the academic year 2021 – 22 onwards)*

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **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 | Core Paper I – General Chemistry - I | 7 | 3 | 50 | 50 | 100 | 4 |
| III | Core Practical I (Inorganic Qualitative Analysis) | 3 | 3 | - | - | - | - |
| III | Allied A: Paper I# (or) | 6 | 3 | 50 | 50 | 100 | 4 |
| Allied A: Paper I@ | 4 | 3 | 30 | 45 | 75 | 3 |
| III | Allied A: Practical@ | 2 | - | - | - | - | - |
| IV | Environmental Studies\* | 2 | 3 | - | 50 | 50 | 2 |
|  | **Total** | **30** |  | **180** | **245** | **425** | **17** |
|  | **Semester II** | | | | | | |
| I | Language – II | 6 | 3 | 50 | 50 | 100 | 4 |
| II | English – II | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core Paper II – General Chemistry - II | 7 | 3 | 50 | 50 | 100 | 4 |
| III | Core Practical I (Inorganic Qualitative Analysis) | 3 | 3 | 50 | 50 | 100 | 4 |
| III | Allied A: Paper II# (or) | 6 | 3 | 50 | 50 | 100 | 4 |
| Allied A: Paper II@ | 4 | 3 | 30 | 45 | 75 | 3 |
| III | Allied A: Practical@ | 2 | 3 | 25 | 25 | 50 | 2 |
| IV | Value Education – Human Rights\* | 2 | 3 | - | 50 | 50 | 2 |
|  | **Total** | **30** |  | **255** | **320** | **575** | **23** |
|  | **Semester III** | | | | | | |
| I | Language – III | 6 | 3 | 50 | 50 | 100 | 4 |
| II | English – III | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core Paper III – Inorganic Chemistry - I | 3 | 3 | 50 | 50 | 100 | 4 |
| III | Core Paper IV – Physical Chemistry - I | 3 | 3 | 50 | 50 | 100 | 4 |
| III | Allied B: Paper I# (or) | 6 | 3 | 50 | 50 | 100 | 4 |
| Allied B: Paper I@ | 4 | 3 | 30 | 45 | 75 | 3 |
| III | Core Practical II (Volumetric and Organic Analysis) | 3 | - | - | - | - | - |
| III | Allied B: Practical@ | 2 | - | - | - | - | - |
| IV | Skill based Subject 1: Chemistry of Natural and Synthetic Fibers | 2 | 3 | 30 | 45 | 75 | 3 |
| IV | Tamil\*\* / Advanced Tamil\* (OR) Non-  major elective - I (Yoga for Human Excellence)\* / Women’s Rights\* | 1 | 3 | - | 50 | 50 | 2 |
|  | **Total** | **30** |  | **260** | **340** | **600** | **24** |



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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Semester IV** | | | | | | |  |
| I | Language – IV | 6 | 3 | 50 | 50 | 100 | 4 |
| II | English – IV | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core Paper V – Organic Chemistry - I | 4 | 3 | 50 | 50 | 100 | 4 |
| III | Core Practical II (Volumetric and Organic Analysis) | 3 | 6 | **30** | **45** | **75** | **3** |
| III | Allied B: Paper II# | 6 | 3 | 50 | 50 | 100 | 4 |
| Allied B: Paper II@ | 4 | 3 | 30 | 45 | 75 | 3 |
| III | Allied B: Practical@ | 2 | 3 | 25 | 25 | 50 | 2 |
| IV | Skill based Subject 2: Technology of Dyeing of Natural Fibers | 2 | 3 | **25** | **25** | **50** | **2** |
|  | **Naan Mudhalvan Skill Course - Digital Skills for Employability –**  **Office Fundamentals** [http://kb.naanmudhalvan.in/Special:](http://kb.naanmudhalvan.in/Special) Filepath/Microsoft\_Course\_Details.xlsx | **2** | ***-*** | **25** | **25** | **50**\*\* | **2** |
| IV | Tamil\*\* / Advanced Tamil\* (OR) Non-major elective - II (General Awareness)\* | 1 | 3 | - | 50 | 50 | 2 |
|  | **Total** | **30** |  | **285** | **365** | **650** | **26** |
|  | **Semester V** | | | | | | |
| III | Core PaperVI (Inorganic Chemistry II) | 5 | 3 | 50 | 50 | 100 | 4 |
| III | Core Paper VII (Spectroscopy) | 5 | 3 | 50 | 50 | 100 | 4 |
| III | Core Paper VIII (Electrochemistry) | 5 | 3 | 50 | 50 | 100 | 4 |
| III | Core Paper IX (Analytical Chemistry) | 4 | 3 | 50 | 50 | 100 | 4 |
| III | Core Practical III (Gravimetric And Physical) | 5 | - | - | - | - | - |
| III | Elective I | 4 | 3 | 50 | 50 | 100 | 4 |
| IV | Skill based Subject 3: Water &  Effluent Treatment And Pollution Control | 2 | 3 | 30 | 45 | 75 | 3 |
|  | **Naan Mudhalvan Skill Course – Advanced technology for Employability in Life Science** |  |  | **25** | **75** | **100** | **2** |
|  | **Total** | **30** |  | **305** | **370** | **675** | **25** |
|  | **Semester VI** | | | | | | |
| III | Core Paper X (Organic Chemistry II) | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core Paper XI (Physical Chemistry II) | 6 | 3 | 50 | 50 | 100 | 4 |
| III | Core Practical III (Gravimetric And Physical) | 5 | 6 | 50 | 50 | 100 | 4 |
| III | Elective II | 4 | 3 | 30 | 45 | 75 | 3 |
| III | Elective III | 4 | 3 | 30 | 45 | 75 | 3 |
| III | Core Practical for Elective Subjects | **3** | 3 | 50 | 50 | 100 | 4 |
| IV | Skill Based Subject 4: (Textile Chemistry Practical) | **2** | 3 | 30 | 45 | 75 | 3 |
|  | Extension Activities @ | - | - | 50 | - | 50 | 2 |
|  | **Naan Mudhalvan Skill Course- Employability Readiness – IBM Skills build**\* | **-** | - | - | - | - | - |
|  | **Total** | **30** |  | 340 | 335 | 675 | 27 |
|  | **Grand Total** | **180** |  | 1625 | 1975 | 3600 | 142 |

***Note***

***#*** For subjects without practical.

***@*** For subjects with practical.

\* No Continuous Internal Assessment (CIA). Only University Examinations.

\*\* No University Examinations. Only Continuous Internal Assessment (CIA).

\*\* **Naan Mudhalvan – Skill courses- external 25 marks will be assessed by Industry and internal 25 marks will be offered by respective course teacher.**

**Semester IV Skill based Subject 2: Technology of Dyeing of Natural Fibers University examination will be**

**conducted for 45 marks (As per the existing pattern of examination ) and it will be converted for 25 marks .**

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| **Allied Subjects(Colleges can choose any two subjects)** | | |
| **1. Mathematics, 2. Physics, 3. Botany, 4. Zoology, 5. Biochemistry** | | |
| **List of Elective papers** | | |
| **(Colleges can choose any one of the paper as electives)** | | |
| **Elective – I** | **A** | Polymer Chemistry |
| **B** | Agro Industrial Chemistry |
| **C** | Pharmaceutical Chemistry |
| **Elective – II** | **A** | Leather Chemistry |
| **B** | Chemistry of Plant Based Products |
| **C** | Dye Chemistry |
| **Elective – III** | **A** | Analytical Chemistry II Lab Techniques |
| **B** | Environmental Chemistry |
| **C** | Textile Chemistry |

Students are encouraged to register through the website [www.naanmudhalvan.tn.gov.in](http://www.naanmudhalvan.tn.gov.in/) and takeup thecourses to enhance their skills .