

## Pre-PhD Subjects List

**LTPS: 3-0-0-0**

| S.No | Paper 1                 | Subject Code |
|------|-------------------------|--------------|
| 1    | RESEARCH<br>METHODOLOGY | 21RES104     |

| SNO | PAPER 2                                            | Subject Code | PAPER 3                                      | Subject Code |
|-----|----------------------------------------------------|--------------|----------------------------------------------|--------------|
| 1   | Information Retrieval System                       | 21CS201      | Big Data Analytics                           | 21CS301      |
| 2   | Data Ware Housing And Mining                       | 21CS202      | Cloud Computing                              | 21CS302      |
| 3   | Computer Networks                                  | 21CS203      | Distributed Databases                        | 21CS303      |
| 4   | Data Center Virtualization                         | 21CS204      | Research Foundations for Pattern Recognition | 21CS304      |
| 5   | Network Security                                   | 21CS205      | Soft Computing                               | 21CS305      |
| 6   | Evolution of Architectures                         | 21CS206      | Software Engineering                         | 21CS306      |
| 7   | Software Testing And Quality Assurance             | 21CS207      | Cryptography & Network Security              | 21CS307      |
| 8   | Foundations of Data Science for Extensive Research | 21CS208      | Web Security                                 | 21CS308      |
| 9   | Advanced Data Structures                           | 21CS209      | Wireless Sensor Networks                     | 21CS309      |
| 10  | Digital Image Processing                           | 21CS210      | Software Project Management                  | 21CS310      |
| 11  | Bio-Informatics                                    | 21CS211      | Artificial Intelligence                      | 21CS311      |
| 12  | Software Reliability                               | 21CS212      | Virtual and Augmented Reality                | 21CS312      |
| 13  |                                                    |              |                                              |              |
| 14  | Deep Learning                                      | 21CS213      | Data Security & Privacy                      | 21CS313      |
| 15  | Distributed Computing                              | 21CS214      | Wireless Communication and Mobile Computing  | 21CS314      |
| 16  | Mobile Cloud                                       | 21CS215      | Parallel Algorithms                          | 21CS315      |
| 17  | Financial Engineering & Business Intelligence      | 21CS216      | Blockchain and Cryptocurrencies              | 21CS316      |
| 18  | Quantum computing                                  | 21CS217      | Machine Learning                             | 21CS317      |
| 19  | Object Oriented Analysis and Design                | 21CS218      | Speech Processing                            | 21CS318      |
| 20  | Advances in Computing                              | 21CS219      | Natural Language Processing                  | 21CS319      |
| 21  | Signal Processing                                  | 21CS220      | Cloud Security                               | 21CS320      |

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|----|-------------------------------|---------|---------------------|---------|
| 22 | Artificial Neural<br>Networks | 21CS221 | Cognitive Computing | 21CS321 |
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