Following are the Practicum Topics allotted to the I Semester Students of 1IT2 section Section: 1IT2

| S. No | Roll Number of the Student | Practicum Topic Allotted | Practicum under the Course | Course Faculty |
|----------|----------------------------------|---|----------------------------------|--------------------|
| 1 | B24IT065 | Taylor's series expansion in simple pendulum | DCODE | Dr. V. Anand |
| 2 | B24IT066 | Fitting a straight line of best fit for the data: The weights of a calf taken at weekly intervals. | DCODE | Dr. V. Anand |
| 3 | B24IT067 | Fitting a Second-degree polynomial curve for the data: The weights of a calf taken at weekly intervals. | DCODE | Dr. V. Anand |
| 4 | B24IT068 | Logistic growth model with application to understand the species growth. | DCODE | Dr. V. Anand |
| 5 | B24IT069 | Application of Fibonacci sequence: Occurrence of spirals in nature. | DCODE | Dr. V. Anand |
| 6 | B24IT070 | Geometric series application to a bouncing ball problem. | DCODE | Dr. V. Anand |
| 7 | B24IT071 | Natural law of growth model with application to real world problem: Study the population growth | DCODE | Dr. V. Anand |
| 8 | B24IT072 | Formation of simultaneous differential equations for a given data. | DCODE | Dr. V. Anand |
| 9 | B24IT073 | Numerical Approximation of Solutions: Modified Euler's method | DCODE | Dr. V. Anand |
| 10 | B24IT074 | Application of Linear differential equation: A mixing problem in chemical industry | DCODE | Dr. V. Anand |
| 11 | B24IT075 | Interpretation for statistical data through Rolle's theorem | DCODE | Dr. V. Anand |
| 12 | B24IT076 | LCR Circuit: Application to Differential Equations. | DCODE | Dr. V. Anand |
| 13 | B24IT077 | Rank Correlation Coefficient: Estimating the correlation between two groups. | DCODE | Dr. V. Anand |
| 14 | B24IT078 | Analysis of pH Levels in Common Household Solutions and Their Practical Applications | EC | Dr. V. Sunil Kumar |
| 15 | B24IT079 | Investigating the Corrosion Rate of iron metals in Different Environments | EC | Dr. V. Sunil Kumar |
| 16 | B24IT080 | Analyzing of Portable Turbidity Meters: Dissection and Operational Analysis of Market | EC | Dr. V. Sunil Kumar |
| 17 | B24IT081 | Exploring Glucometer Technology: A Study of Its | EC | Dr. V. Sunil Kumar |

| | | Mechanisms and Performance | | |
|----|----------|---|-----|--------------------|
| 18 | B24IT082 | Investigating the RO Water Purification System in Use at Our College: Principles and Operational Insights | EC | Dr. V. Sunil Kumar |
| 19 | B24IT083 | Exploring the Functionality of Pulse Oximeters for Design and Manufacturing | EC | Dr. V. Sunil Kumar |
| 20 | B24IT084 | Analyzing Acid Mixture Concentrations by Potentiometric Techniques and Their Practical Uses | EC | Dr. V. Sunil Kumar |
| 21 | B24IT085 | Analyzing Water Quality Parameters in Groundwater and Drinking Water Based on WHO Guidelines | EC | Dr. V. Sunil Kumar |
| 22 | B24IT086 | Examining Dye Detection Through Colorimetric Analysis and their applications | EC | Dr. V. Sunil Kumar |
| 23 | B24IT087 | Analyzing Acid Mixture Concentrations by Conductometric Techniques and Their Practical Uses | EC | Dr. V. Sunil Kumar |
| 24 | B24IT088 | Synthesis of metal nanoparticles (Ag/Au/Pd) and its applications in various | EC | Dr. V. Sunil Kumar |
| 25 | B24IT089 | Investigating the Properties of biodegradable Plastics and their applications | EC | Dr. V. Sunil Kumar |
| 26 | B24IT090 | Analysis and Testing of Micronutrients Present in Soil and their applications | EC | Dr. V. Sunil Kumar |
| 27 | B24IT091 | 4-bit Binary Adder-Subtractor | DLD | Dr. B. Kiran Kumar |
| 28 | B24IT092 | 4-bit Binary Carry Look-Ahead Adder | DLD | Dr. B. Kiran Kumar |
| 29 | B24IT093 | 7-Segment Display Decoder | DLD | Dr. B. Kiran Kumar |
| 30 | B24IT094 | 4:1 Multiplexer implementation using Boolean function | DLD | Dr. B. Kiran Kumar |
| 31 | B24IT095 | Traffic Light Controller using Counters and Flip-Flops | DLD | Dr. B. Kiran Kumar |
| 32 | B24IT096 | 8-bit Gray Code to Binary Code Converter using Flip- Flops | DLD | Dr. B. Kiran Kumar |
| 33 | B24IT097 | 4-bit Binary Multiplier using Adders and Shift Registers | DLD | Dr. B. Kiran Kumar |
| 34 | B24IT098 | 8-bit ALU (Arithmetic Logic Unit) with Addition, Subtraction, AND, OR | DLD | Dr. B. Kiran Kumar |
| 35 | B24IT099 | SR Flip-Flop implementation | DLD | Dr. B. Kiran Kumar |
| 36 | B24IT100 | 4-bit Synchronous Binary Counter | DLD | Dr. B. Kiran Kumar |

| 37 | B24IT101 | 4-bit Asynchronous Binary Counter | DLD | Dr. B. Kiran Kumar |
|----|----------|--|------|--------------------|
| 38 | B24IT102 | Realization of Full Adder using 8:1 Multiplexer | DLD | Dr. B. Kiran Kumar |
| 39 | B24IT103 | 4-bit Comparator using Multiplexer and Logic Gates | DLD | Dr. B. Kiran Kumar |
| 40 | B24IT104 | Customer loan management system in Bank | PPSC | Dr. P. Kamakshi |
| | | Details of loan, previous repayment and transactions, | | |
| | | accept or reject loan application | | |
| 41 | B24IT105 | Food assistance system for senior citizens | PPSC | Dr. P. Kamakshi |
| | | Maintaining the details of senior citizens, their food details | | |
| | | as per the health chart, additional requirement and billing | | |
| 42 | B24IT106 | Student academic report system – | PPSC | Dr. P. Kamakshi |
| | | To store student details, marks, courses, grades, backlogs | | |
| 43 | B24IT107 | Hospital Management System | PPSC | Dr. P. Kamakshi |
| | | Manage patient information, appointments, and medical | | |
| | | records | | |
| 44 | B24IT108 | Hotel booking software | PPSC | Dr. P. Kamakshi |
| | | Select hotel, book rooms, cost as per facilities demanded, | | |
| | | billing | | |
| 45 | B24IT109 | Bike servicing system | PPSC | Dr. P. Kamakshi |
| | | Managing details of two wheeler problems, owner details, | | |
| | | no of vehicles, maintenance charge, price of the product | | |
| | | required for repair, and billing | | |
| 46 | B24IT110 | Healthcare service provider system | PPSC | Dr. P. Kamakshi |
| | | Maintain details regular health check-ups, details of | | |
| | | customer, health check-up reports, dispatch of reports and | | |
| | | notification to customer and billing | | |
| 47 | B24IT111 | Housekeeper provider system | PPSC | Dr. P. Kamakshi |
| | | Maintain details of housekeepers, record of housekeepers, | | |
| | | service provided such as cooking, washing, dusting, and | | |
| | | dog walking etc., charges for the services and billing | | |
| 48 | B24IT112 | Vehicle booking system | PPSC | Dr. P. Kamakshi |
| | | Maintain the details of vehicle available, customer details | | |
| | | and requirement, billing | | |
| 49 | B24IT113 | Food Ordering System | PPSC | Dr. P. Kamakshi |
| | | Implement an ordering system for restaurants, handling | | |
| | | orders, menus, and billing | | |
| 50 | B24IT114 | Quiz Application | PPSC | Dr. P. Kamakshi |
| | | Create a simple quiz with multiple-choice questions and | | |
| | | score tracking | | |

| 51 | B24IT115 | Complete information of textbooks in Library Management System – Track books, authors, and borrower information, including issuing and returning books | PPSC | Dr. P. Kamakshi |
|----|----------|---|------|--------------------------|
| 52 | B24IT116 | Bus ticket booking system Select bus, book tickets, cost as per facilities demanded, billing | PPSC | Dr. P. Kamakshi |
| 53 | B24IT117 | Artificial Intelligence Powered Tools in Academic Writing: To Use or Not to Use | ECRW | Dr. Asmathunisa Begum |
| 54 | B24IT118 | Role of Language Laboratory in Developing Language Skills (LSRW) of Under Graduate Students | ECRW | Dr. Asmathunisa Begum |
| 55 | B24IT119 | Women in the Short Story "Bhikharini" ("The Beggar Woman") of Rabindranath Tagore | ECRW | Dr. Asmathunisa Begum |
| 56 | B24IT120 | "A Bagful of Words" – Language Activity to Enhance the Spoken and Written Skills of Learners | ECRW | Dr. Asmathunisa Begum |
| 57 | B24IT121 | Sudha Murty: An Inspiring Journey of Philanthropy and Success | ECRW | Dr. Asmathunisa Begum |
| 58 | B24IT122 | Unveiling the Power of Cosmetics as Self Esteem Booster among Girls and Boys | ECRW | Dr. Asmathunisa Begum |
| 59 | B24IT123 | Success Depends on the Choices We Make – Shiv Khera | ECRW | Dr. Asmathunisa Begum |
| 60 | B24IT124 | Developing Students' Writing Skills by Using Picture as an Alternative Media | ECRW | Dr. Asmathunisa Begum |
| 61 | B24IT125 | Vocabulary Building Activity-Words in a Word/ Word Generator | ECRW | Dr. Asmathunisa Begum |
| 62 | B24IT126 | Wit Humour and Satire in R.K. Narayan's Short Story "An Astrologer's Day" | ECRW | Dr. Asmathunisa Begum |
| 63 | B24IT127 | The Financial Strain on Byjus: Unraveling the EdTech Giant's Crisis | ECRW | Dr. Asmathunisa Begum |
| 64 | B24IT128 | The Inspirational Success Story of Amazon's Founder-Jeff Bezos | ECRW | Dr. Asmathunisa Begum |