Dr. Ambedkar Institute of Technology, Bengaluru-560056 Outcome Based Education(OBE) and Choice Based Credit System B.E. Name of the programme: Computer Science & Business Systems

Tentative Scheme of Teaching and Examination effective from the Academic Year 2024-25

2022 Scheme

V SEMESTER

| | | | | Teaching | Teaching Hours / Week Examinati | | | ation | | | | | |
|-----|------|------------|---|--------------------|---------------------------------|-----|---------|-------|---------|-------|-------|-------|-----------|
| | | | | Department (TD) | | | | | | | | | Credits |
| | | | | and Question | | | Practic | | Duratio | | | Total | |
| Sl. | | and Course | Course Title | Paper Setting | Lectur | ial | al/ | Study | n in | Marks | SEE | Mark | |
| No | Code | | | Board (PSB) | e | | Drawin | , | hours | | Marks | S | |
| | | | | | | | g | | | | | | |
| | | | | | L | T | P | S | | | | | |
| 1 | HSMS | 22CBT501 | · · | IP CB/MBA | 3 | 0 | 0 | | 03 | 50 | 50 | 100 | 3 |
| | | | Management & Entrepreneurship | | | | | | | | | | |
| 2 | IPCC | 22CBU502 | Automata Theory & Introduction to Compilers | CB/CS/IS | 3 | | 2 | | 03 | 50 | 50 | 100 | 4 |
| 3 | IPCC | 22CBU503 | Cloud Computing | CB/CS/IS | 3 | 0 | 2 | | 03 | 50 | 50 | 100 | 4 |
| 4 | PCCL | 22CBL504 | Java Programming Lab | CB/CS/IS | 0 | 0 | 2 | | 03 | 50 | 50 | 100 | 1 |
| 5 | PEC | 22CBT505x | Professional Elective Course | CB/CS/IS | 3 | 0 | 0 | | 03 | 50 | 50 | 100 | 3 |
| 6 | PROJ | 22CBM506 | Mini Project | CB/CS/IS | 0 | 0 | 4 | | 03 | 100 | | 100 | 2 |
| 7 | AEC | 22RMT507 | Research Methodology and IPR | EEE department | 2 | 2 | 0 | | 02 | 50 | 50 | 100 | 3 |
| 8 | MC | 22CVT508 | Environmental Studies | TD: CV PSB: CV | 2 | 0 | 0 | | 02 | 50 | 50 | 100 | 2 |
| 9 | HS | 22CDN509 | Aptitude and Verbal Ability Skills | Placement Cell | 2 | 0 | 0 | | | 50 | | 50 | PP/ NP |
| | | 22NSN510 | National Service Scheme (NSS) | NSS coordinator | | | | | | | | | |
| | MC | 22PEN510 | Physical Education (PE) (Sports and | Physical Education | 0 | 0 | 2 | | | 100 | | 100 | PP/ |
| 10 | | | Athletics) | Director | | | | | | | | | NP |
| | | 22YON510 | Yoga | Yoga Teacher | | | | | | | | | |
| | | | | | | | | То | tal | 500 | 300 | 800 | 22 |

PCC: Professional Core Course, PCCL: Professional Core Course laboratory, UHV: Universal Human Value Course, MC: Mandatory Course (Non-credit), AEC: Ability Enhancement Course, SEC: Skill Enhancement Course, L: Lecture, T: Tutorial, P: Practical, S= Self-Study CIE: Continuous Internal Evaluation, SEE: Semester End

| Evaluation. K: The letter in the course code indicates common to al the stream of Engineering. PROJ: Project /Mini Project. PEC: Professional Elective Course | | | | | | | | | |
|---|--|--|------|--|--|--|--|--|--|
| Professional Elective Course 22XXT505x | | | | | | | | | |
| 22CBT505A Behavioral Economics 22CBT505C Industrial Psychology | | | | | | | | | |
| | | | v 65 | | | | | | |
| 22CBT505B | 22CBT505B Computational Finance & Modeling 22XXT505D | | | | | | | | |
| ZZOZIOOZ COMPUTATIONALI MARICE A MOUCHING ZZANIZOZ | | | | | | | | | |
| | | | | | | | | | |

Professional Core Course (IPCC): Refers to Professional Core Course Theory Integrated with practicals of the same course. Credit for IPCC can be 04 and its Teaching–Learning hours (L : T : P) can be considered as (3 : 0 : 2) or (2 : 2 : 2). The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper. For more details, the regulation governing the Degree of Bachelor of Engineering /Technology (B.E./B.Tech.) 2022-23

National Service Scheme /Physical Education/Yoga: All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga(YOG) with the concerned coordinator of the course during the first Week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the Degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of Degree.

Mini-project work: Mini Project is a laboratory-oriented/hands on course that will provide a platform to students to enhance their practical knowledge and skills by the development of small systems/applications etc. Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary Mini- project can be assigned to an individual student or to a group having not more than 4 students.

CIE procedure for Mini-project:

- (i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two faculty members of the Department, one of them being the Guide. The CIE marks awarded for the Mini-project work shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batches mates.
- (ii) Interdisciplinary: Continuous Internal Evaluation shall be group-wise at the college level with the participation of all the guides of the project. The CIE marks awarded for the Mini-project, shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

No SEE component for Mini-Project.

Professional Elective Courses (PEC): A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses that are added supplement the latest trend and advanced technology in the selected stream of Engineering. Each group will provide an option to select one course. The minimum number of students' strengths for offering a professional elective is 10. However, this conditional shall not be applicable to cases where the admission to the program is less than 10.

Dr.Ambedkar Institute of Technology, Bengaluru-560056

Outcome Based Education(OBE) and Choice Based Credit System

B.E. Name of the programme: Computer Science & Business Systems

Tentative Scheme of Teaching and Examination effective from the Academic Year 2024-25

2022 Scheme

| VI SEME | STER | | | | | | | | | | | |
|------------------------|-----------|-------------------------------------|--|--------------------------------------|------------------------|---------|---------|---------|-------------|-------|-------|-----|
| | | | Teaching Department Teaching Hours /Week | | | | | Examin | Examination | | | |
| | | (TD) and Question | | | | | | | | | Cred | |
| | | | Paper Setting Board | Theory | Tutor | Practic | Self - | Duratio | CIE | | Total | ts |
| Course and Course Code | | Course Title | (PSB) | Lectur | | al/ | Study | n in | Marks | SEE | Marks | |
| | | | , | e | | Drawi | | hours | | Marks | | |
| | | | | | | ng | | | | | | |
| | | | | L | Т | P | S | | | | | |
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| | | | | | | | | | | | | |
| IPCC | 22CBU601 | Computer Networks | CB/CS/IS | 3 | 0 | 2 | | 03 | 50 | 50 | 100 | 4 |
| PCC | 22CBT602 | Machine Learning | CB/CS/IS | 3 | 2 | 0 | | 03 | 50 | 50 | 100 | 4 |
| PEC | 22CBT603x | Professional Elective Course | CB/CS/IS | 3 | 0 | 0 | | 03 | 50 | 50 | 100 | 3 |
| OEC | 22CBT604x | Open Elective Course-I | CB/CS/IS | 3 | 0 | 0 | | 03 | 50 | 50 | 100 | 3 |
| PROJ | 22CBP605 | Major Project Phase I | CB/CS/IS | 0 | 0 | 4 | | 03 | 100 | | 100 | 2 |
| PCCL | 22CBL606 | Machine Learning Lab | CB/CS/IS | 0 | 0 | 2 | | 03 | 50 | 50 | 100 | 1 |
| | | | CB/CS/IS | If the course is offered as a Theory | | ed as a | | | | | 1 | |
| | 22CBT607x | Ability Enhancement Course/ | | | | 01 | 50 | 50 | 100 | | | |
| AEC/SDC | OR | Skill Development Course V | | 1 | 0 | 0 | | | | | | |
| | 22CBL607x | | | If co | course is offered as a | | ed as a | | | | | |
| | | | | practical | | | | | | | | |
| | | | | 0 | 0 | 2 | | | | | | |
| HS | 22CDN608 | Analytical and Reasoning Skills | Placement Cell | 2 | 0 | 0 | | | 50 | | 50 | PP/ |
| | | | | | | 1 | | | | | | NP |
| | 22NSN609 | National Service Scheme (NSS) | NSS coordinator | | | | | | | | | |
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| MC | 22PEN609 | Physical Education (PE) (Sports and Athletics) | Physical Education Director | 0 | 0 | 2 | | | 100 | | 100 | PP/ NP |
|----|----------|--|--------------------------------|---|---|---|--|-------|-----|-----|-----|-----------|
| | 22YON609 | Yoga | Yoga Teacher | | | | | | | | | |
| | | | | | | | | | | 300 | 800 | 18 |
| | | | | | | | | Total | | | | |

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| Pr | Professional Elective Course: 22XXT603x | | | | | | | | | | |
|--|---|--|---|--|--|--|--|--|--|--|--|
| 22CBT603A | Financial & Cost Accounting | 22CBT603C | Modern Day Robotics & Its Industrial Applications | | | | | | | | |
| 22CBT603B Information security 22CBT603D Modern Web Applications | | | | | | | | | | | |
| Open 1 | Open Elective Course 22XXT604x | | | | | | | | | | |
| 22CBT604A | Data Mining & Analytics | Introduction to Innovation, IP Management & Entrepreneurship | | | | | | | | | |
| 22CBT604B | International Business | 22XXT604D | | | | | | | | | |
| | Management | | | | | | | | | | |
| | | | | | | | | | | | |

| Ability Enhancement Course / Skill Enhancement Course-V 22XXT607x OR 22XXL607x | | | | | | | | |
|--|--|-----------|--|--|--|--|--|--|
| | Business Communication & Value Science III | | Image Processing & Pattern Recognition | | | | | |
| 22CBX607A | | 22CBX607C | | | | | | |
| | Enterprise System | | | | | | | |
| 22CBX607B | | 22XXX607D | | | | | | |
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not be applicable to cases where the admission to the program is less than 10.

Open Elective Courses:

Students belonging to a particular stream of Engineering and Technology are not entitled to the open electives offered by their parent Department. However, they can opt for an elective offered by other Departments, provided they satisfy the prerequisite condition if any. Registration to open electives shall be documented under the guidance of the Program Coordinator/ Advisor/Mentor. The minimum numbers of students' strength for offering Open Elective Course is 10. However, this condition

shall not be applicable to class where the admission to the program is less than 10.

Project Phase-I: Students have to discuss with the mentor /guide and with their help he/she has to complete the literature survey and prepare the report and finally define the problem statement for the project work.