**Department of Computer Science & Engineering**

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| **SEMESTER–4** | |
| Course Code: **17CS45** | Course Name: **Object Oriented Concepts** |
| Course Teacher: **Mr. Parikshith Nayaka S K** and **Ms. Shilpa** | |
| **Course Outcomes:** After studying this course, students will be able to, | |
| |  |  |  |  | | --- | --- | --- | --- | | **CO Numbers** | **Course Outcomes** | **Blooms Level** | **Target Level** | | 17CS45.1 | **Explain** and **apply** the object-oriented concepts for solving simple problems using C++features. | Understand (L2)  Apply (L3) | 2 | | 17CS45.2 | **Illustrate** JAVA Buzzwords and **apply** Object Oriented constructs and semantics for a given simple problem. | Understand (L2)  Apply (L3) | 2 | | 17CS45.3 | **Elucidate** the need of classes, inheritance, packages, exception handling and interface in JAVA language and **develop** simple programs of JAVA for corresponding problem statement. | Understand (L2)  Apply (L3) | 2 | | 17CS45.4 | **Explain** the need of multithreaded programming and the event handling procedure in JAVA languageand **develop** simple programs of JAVA for a given problem statement. | Understand (L2)  Apply (L3) | 2 | | 17CS45.5 | **Write** a JAVA program to **create** an appropriate user interface using Applet and swing components for a given problem statement. | Apply (L3) | 2 | | |
| **CO-PO/PSO Mapping Matrix:** | |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **CO Numbers** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** | **PSO1** | **PSO2** | **PSO3** | | 17CS45.1 | 2 | 2 | 2 | 1 | 1 |  |  |  |  |  |  |  | 2 | 2 |  | | 17CS45.2 | 2 | 1 | 2 | 1 | 1 |  |  |  |  |  |  |  | 2 | 1 |  | | 17CS45.3 | 1 | 2 | 2 | 1 | 1 |  |  |  |  |  |  |  | 1 | 2 |  | | 17CS45.4 | 2 | 2 | 2 | 1 | 2 |  |  |  |  |  |  |  | 2 | 2 |  | | 17CS45.5 | 2 | 2 | 2 | 2 | 2 |  |  |  | 2 |  |  |  | 2 | 2 |  | | Average | 1.8 | 1.8 | 2 | 1.2 | 1.4 |  |  |  | 2 |  |  |  | 1.8 | 1.8 |  |  |  |  |  |  | | --- | --- | --- | --- | | **CO** | **POs** | **Level** | **Justification** | | 17CS45.1 | PO1 | 2 | Basic programming construct in C++ contributes to the enrichment of fundamental knowledge in computer programming in moderate level | | PO2 | 2 | Concepts of OOP principles will contribute in enhancement of fundamental knowledge of Object oriented concepts in moderate level. | | PO3 | 2 | Three principles of OOP will contribute in designing the solution to problem in computer science engineering in moderate level | | PO4 | 1 | Classes and object, namespaces concepts will contribute in conduct and investigating complex problems in the computer programming in low level. | | PO5 | 1 | Implementation of the programs using C++ programming will contribute in usage of modern tools in low level. | | PSO1 | 2 | Basic programming construct in C++ contributes to the enrichment of Professional skills in computer programming in moderate level | | PSO2 | 2 | Concepts of OOP principles will contribute in enhancement of Problem solving skills in moderate level. | | 17CS45.2 | PO1 | 2 | Basic programming construct in Java contributes to the enhancement of fundamental knowledge in computer programming in moderate level. | | PO2 | 1 | Fundamental concepts of java programming language will contribute in analysing the problems in low level. | | PO3 | 2 | Concepts of Data types,conditional statement, iterative statement will contribute in designing the problems in moderate level. | | PO4 | 1 | Type casting and conversion, concepts will contribute in low level for investigating complex problems. | | PO5 | 1 | Implementation of the basic programs using Java programming will contribute in usage of modern tools in low level. | | PSO1 | 2 | Basic programming construct in Java contributes to the enhancement of professional skills in computer programming in moderate level. | | PSO2 | 1 | Fundamental concepts of java programming language will enhances problem solving skills in low level. | | 17CS45.3 | PO1 | 1 | Concepts of classes, inheritance will contribute in gaining basic engineering knowledge of object oriented concepts in low level. | | PO2 | 2 | Packages, interfaces concepts will contribute in analysing the problems of object oriented concepts in moderate level. | | PO3 | 2 | Packages, inheritance concepts will contribute in designing the solution to the problem in moderate level. | | PO4 | 1 | Knowledge of interfaces will contribute in investigating complex problem in low level. | | PO5 | 1 | Implementation of inheritance, packages programs will contribute in usage of modern tools in low level. | | PSO1 | 1 | Concepts of classes, inheritance will contribute in enhancement of professional skills in low level. | | PSO2 | 2 | Packages, interfaces concepts will contribute in enhancement of problem solving skills in moderate level. | | 17CS45.4 | PO1 | 2 | Multithreading concepts in object oriented concepts will help to gain engineering knowledge in moderate level. | | PO2 | 2 | Event listener and event handling concepts will contribute in enhancement of problem analysis in moderate level. | | PO3 | 2 | Event handling mechanism will contribute in designing the solution to the real world problems in moderate level. | | PO4 | 1 | Concepts of event listener will contribute in investigating complex problems in low level. | | PO5 | 1 | Designing of program using event listener and event action will contribute in usage of modern tools in moderate level. | | PSO1 | 2 | Multithreading concepts in object oriented concepts will help to improve professional skills in moderate level. | | PSO2 | 2 | Event listener and event handling concepts will contribute in enhancement of problem solving skills in moderate level. | | 17CS45.5 | PO1 | 2 | Applet concepts will contribute in enhancement of computer engineering knowledge in moderate level. | | PO2 | 2 | Swings concepts will contribute in enhancement of problem analysis skills in moderate level. | | PO3 | 2 | Creating interfaces using applet concept will help to improve knowledge of designing the solution to real world problems in moderate level. | | PO4 | 2 | Swings and applet concepts will contribute in enhancement of investigating complex problem in moderate level. | | PO5 | 2 | Designing the program using applets and swings will contribute in the usage of modern tools in moderate level. | | PO9 |  | GUI concepts will contribute in individual and team work in moderate level. | | PSO1 | 2 | Applet concepts will contribute in enhancement of Professional skills in moderate level. | | PSO2 | 2 | Swings concepts will contribute in enhancement of problem solving skills in moderate level. | | |

**Course Teacher IQAC Member**

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**IQAC Chairman**

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