

**St. Francis Institute of Technology  
Borivali (West), Mumbai-400103  
Information Technology Department**

**COURSE OUTCOMES**

**Semester III**

**Course name: C301 (Engineering Mathematics III)**

**Year of Study: 2021-22**

C301.1	Apply the Set theory and Relation concepts.
C301.2	Apply the Functions and define the recursive functions.
C301.3	Apply Laplace transform to different applications.
C301.4	Apply Inverse Laplace transform to different applications.
C301.5	Identify the permutations and combinations.
C301.6	Define variable and also identify the mapping.

**CO-PO Mapping**

<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
C01	3	3										
C02	3	3										
C03	3	3										
C04	3	3										
C05	3	3										
C06	3	3										

**CO-PSO Mapping**

<b>COs</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	
C01	3				
C02	3				
C03	3				
C04	3				
C05	3				
C06	3				

C302.1	ITC302.1 Students will be able to remember, understand, classify and apply the concepts of stacks, queues and linked list in real life problem solving.
C302.2	ITC302.2 Students will be able to understand, classify, apply and analyze the concepts trees in real life problem solving.
C302.3	ITC302.3 Students will be able to apply, illustrate and justify the concepts of graphs in real life problem solving.
C302.4	ITC302.4 Students will be able to list, understand, examine and analyze the concepts of sorting, searching techniques in real life problem solving.
C302.5	ITC302.5 Students will be able to use, identify and analyze the concepts of recursion, hashing in real life problem solving.
C302.6	ITC302.6 Students will be able to examine, analyze and justify different methods of stacks, queues, linked list, trees and graphs to various applications.

**CO-PO Mapping**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C01	3											
C02	2	3										
C03			3									
C04		3										
C05				3								
C06					3							

**CO-PSO Mapping**

COs	PSO1	PSO2	PSO3	PSO4
C01	3			
C02	3			
C03	3			
C04		3		
C05		3		
C06		3		

**Course name:ITC303(Database Management System)****Year of Study: 2021-22**

C303.1	Construct problem definition statements for real life applications and implement a database for the same.
C303.2	Design conceptual models of a database using ER modeling for real life applications and also construct queries in Relational Algebra.
C303.3	Create and populate a RDBMS, using SQL.
C303.4	Write queries in SQL to retrieve any type of information from a data base.
C303.5	Analyze and apply concepts of normalization to design an optimal database.
C303.6	Implement indexes for a database using techniques like B or B+ trees.

**CO-PO Mapping**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C01		3										
C02	3		3		2							
C03			3		3							
C04		3		3	3							
C05				3								
C06	3	3	2									

**CO-PSO Mapping**

COs	PSO1	PSO2	PSO3	PSO4	
C01	3				
C02		3			
C03		3			
C04		3			
C05		3			
C06	3	2			

**Course name: ITCC304 (Principles of Communication)****Year of Study: 2021-22**

C305.1	Students will be able to <i>describe</i> analog and digital communication systems and <i>differentiate</i> between them.
C305.2	Students will be able to <i>identify</i> different types of noise signals that affect communication systems and <i>apply</i> Fourier analysis to <i>analyze</i> communication systems
C305.3	Students will be able to <i>acquire</i> knowledge of modulation techniques and <i>design</i> AM/FM transmitter and receiver
C305.4	Students will be able to <i>describe</i> pulse analog and digital modulation techniques and <i>apply</i> sampling theorem to <i>evaluate</i> the fundamental relationship between channel bandwidth, digital symbol rate and bit rate
C305.5	Students will be able to <i>explain</i> types of digital band pass modulation techniques and multiplexing schemes.
C305.6	Students will be able to <i>describe</i> electromagnetic radiation and propagation of waves

**CO-PO Mapping**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C01	3											
C02	3											
C03	3											
C04	3											
C05	3											
C06	3											

**CO-PSO Mapping**

COs	PSO1	PSO2	PSO3	PSO4	
C01		3			
C02		3			
C03		3			
C04		3			
C05		3			
C06		3			

**Course name:ITC C305 (Paradigms and Principles of Computer programming) Year: 2021-22**

C305.1	To understand basic concepts of compilation and interpretation, compare and implement different programming paradigm concepts.
C305.2	To understand and implement imperative programming paradigm through object oriented constructs.
C305.3	To understand and implement declarative programming paradigm through functional programming
C305.4	To understand, formulate and implement declarative programming paradigm through logic programming
C305.5	To understand alternative paradigm through concurrent programming fundamentals and design, develop applications based on declarative paradigm
C305.6	To understand alternative paradigm through scripting languages and formulate applications based on real life applications

**CO-PO Mapping**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C01	3											
C02	2											
C03	2	2										
C04	2	2										
C05	2	2										
C06	3	2	2									

**CO-PSO Mapping**

COs	PS01	PS02	PS03	PS04	
C01	2				
C02	2				
C03	2				
C04	2				
C05	2				
C06	2				



**Course name: ITLC304 (Java Lab)**

**Year of Study: 2021-22**

C305.1	To explain the basic concepts of Core Java.
C305.2	To apply the concepts of Object Oriented Programming and show the relationships among them needed for solving a specific problem
C305.3	To use Inheritance and Packages for showing reusability of classes and interfaces.
C305.4	Implement the concept of Multithreading, exceptions and file handling for constructing robust applications
C305.5	Create GUI Applications using AWT event handling and Swing Components
C305.6	. Design GUI using JavaFX framework

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C01	2	3										
C02	2	3										
C03	2	3										
C04	2	3										
C05			3		2							
C06			3		2							

**CO-PSO Mapping**

COs	PS01	PS02	PS03	PS04	
C01	3				
C02	3				
C03	3				
C04	3				
C05	3				
C06	3				

