

# **GUJARAT TECHNOLOGICAL UNIVERSITY**

## **M.E. Computer Engineering (IT Systems and Network Security)**

### **Semester: II**

Subject Name: **Application Security**

Subject Code: **725101**

#### **Course Content:**

Concepts of scripting language, Documenting Functions, object, Indenting Code, Testing Modules, Native Datatypes, Introducing Dictionaries , Defining Dictionaries, Modifying Dictionaries, Deleting Items From Dictionaries, Introducing Lists, Defining Lists, Adding Elements to Lists, Searching Lists, Deleting List Elements, Using List Operators, Introducing Tuples, Declaring variables, Referencing Variables, Assigning Multiple Values at Once, Formatting Strings, Mapping Lists, Joining Lists and Splitting Strings , Historical Note on String Methods, Using Optional and Named Arguments, Using type, str, dir, and Other Built-In Functions, Object References, Filtering Lists, Objects and Object-Oriented, Exceptions and File Handling, Regular Expressions, Security Concepts, Injection, Cross-Site Scripting (XSS) , Broken Authentication and Session Management, Insecure Direct Object References, Cross-Site Request Forgery (CSRF), Security Misconfiguration, Insecure Cryptographic Storage , Failure to Restrict URL Access, Insufficient Transport Layer Protection, Invalidated Redirects and Forwards

#### **Text Book:**

1. Head First Python by Paul Barry, Packt

#### **Reference Book:**

1. Network Security Essentials Stallings, Stallings William.