# Web Application Programming Mid-Semester Exam

## **Format**

### Questions:

Multiple Choice Questions: 15 Coding Questions: 6

#### Time:

2 hours, both sections.

# **Syllabus**

**JavaScript** 

#### **JavaScript Variables**

- var Keyword
- let Keyword
- const Keyword
- var vs let vs const

#### **JavaScript Logging**

console.log()

#### **JavaScript Data Types**

- String
  - o String Methods
- Boolean
- Number
  - o Number Methods
- undefined
- null
- Symbol
- Array
- Object
- typeof Keyword

#### **JavaScript Operators**

- Arithmetic Operator
- Comparison Operator
- Logical Operator
- Assignment Operators

#### **Conditional Statements**

- if else
- switch case
- Ternary Operator

#### **JavaScript Loops**

- for Loop
- while Loop
- do while Loop
- Iteration Control Flow
  - o break Statement
  - o continue Statement

#### **JavaScript Functions**

- Function Declaration
- Arguments
- return Keyword
- Function Usage
- Rest and Spread Operators
- Types of Functions
  - Arrow Functions
  - Higher Order Functions
  - Callback Functions

#### **JavaScript Arrays**

- Creating and using Arrays
- Array Methods
  - JavaScript Array push()
  - JavaScript Array pop()
  - JavaScript Array shift()
  - JavaScript Array unshift()
  - JavaScript String split()
  - JavaScript Array join()
  - JavaScript Array sort()
  - JavaScript Array find()

- JavaScript Array includes()
- Array Iteration Methods
  - JavaScript Array forEach()
  - JavaScript Array map()
  - JavaScript Array filter()
  - JavaScript Array reduce()

#### **JavaScript Objects**

- Creating and using Objects
- Object Methods
  - JavaScript Object.keys()
  - JavaScript Object.values()
- Deep Copy & Shallow Copy

#### **JavaScript Asynchronous Programming**

- JavaScript Timers
  - o setTimeout
  - setInterval
- Promises
- Promise Chaining
- async functions
- async/await

#### **Data Fetching using JavaScript**

Using fetch()