

Semester Plan

Technology: Computer(66)

4th Semester, First & Second Shift

Course Name: Programming Language-2(6642) Theory

Teacher's Name: Md. Rabiul Awal

Instructor (Tech.) Computer

S.L	No. of Week	No. of Class	General Objectives	Specific Objectives	Necessary Equipment	Remarks
1	1	1	Understand Graphics Elements in C	1.1 State the concept of pixel and resolution 1.2 State the format and use of line(), rectangle(), bar(),bar3d(),Circle(),ellipse(), fillellipse()and sector()functions with example		
		2		1.3State the format and use of Arc(), pieslice(), drawpoly() and fillpoly() outtextxy() & settextstyle(), cleardevice(),delay(),sound() & nosound(), functions with example 1.4Mention the use of modified cprintf() and cscanf() functions for I/O operation. 1.5 Write program for developing color image using above graphics functions.		
2	2	1	Understand the principles of program Utilities in C	1.6 State the procedure of saving and loading an image in C. 1.7 Show the procedure to move text string on the screen.		
		2		2.1 Describe the principle of detecting a function key with software interrupt. 2.2 Show the use of system timer in C. 2.3 Describe the creation of mouse pointer in C.		
3	3	1	Understand the concept of object oriented programming (OOP)	2.1 State the procedure of showing text and numeric values in graphics mode 2.5 Show the procedure of moving object in C 2.6 Show the procedure of creating 3D object in C		
		2		3.1 Describe the software evolution. 3.2 Mention the drawbacks of traditional programming. 3.3 State the terms used in OOP-objects, classes, data abstraction, encapsulation, inheritance, polymorphism, message passing, and dynamic binding.		
4	4	1		3.4 Mention the name of some the OOP languages. 3.5 State the benefits of OOP. 3.6 Mention the application of OOP.		
		2		Class Test & Quiz Test		
5	5	1	Understand the overview of C++.	4.1 Write the features of C++ as OOP. 4.2 Describe the structure of C++ program. 4.3 State the features of classes in C++ 4.4 Describe the function overloading.		

S.L	No. of Week	No. of Class	General Objectives	Specific Objectives	Necessary Equipment	Remarks
5	5	2	Understand the overview of C++.	4.5 Describe the Input /Output Stream (IOS) and related classes of C++ 4.6 Describe constructor, copy constructor, destructor and friend functions in C++. 4.7 Write sample I/O program using C++ functions.		
6	6	1	Understand the features of Java	5.1 Describe the history of Java. 5.2 Describe Java development environment steps. 5.3 Mention the differences between Java and C++ 5.4 Mention the applications of Java.		
		2		5.5 Describe programming style and convention of Java. 5.6 Describe white space, identifiers, literals, comments, separators and keywords of Java. 5.7 Write the structure of Java program		
7	7	1	Understand the use of Data types, Variables, Arrays, Operators and Control Statements in Java	6.1 State the data types (primitives, non-primitive and literals) of Java programs. 6.2 Describe the declaration and dynamic initialization of variables in java. 6.3 Describe the scope and lifetime of variables in java. 6.4 State the process of accepting input from a user and option panes 6.5 Describe the control flow statements in Java. 6.6 Describe the use of arrays in Java. 6.4 Write Java programs using arrays, operators and control statements.		
		2	Understand Classes, Objects, Methods, and Constructors in Java	7.1 Describe the declaration (syntax) of class and object in Java. 7.1 State for assigning an object reference variables. 7.3 Define Method with syntax. 7.4 State the procedure of adding Method to class. 7.5 Describe the advantages of Method. 7.6 Describe the overloading Method in java. 7.7 Describe the constructor and overloading constructor in java. 7.8 Explain the instance variable hiding, and garbage collection. 7.9 Write java programs relating to class, object, method and constructor.		
8	8	1	Understand the inheritance and polymorphism	8.1 Define super class and sub class. 8.2 Describe the multilevel hierarchy of inheritance. 8.3 Describe the overridden methods in java. 8.4 Describe dynamic run-time polymorphism in java. 8.5 Describe the abstract and object classes in java. 8.6 Mention the uses of final keyword. 8.7 Write java programs relating to inheritance and polymorphism.		

S.L	No. of Week	No. of Class	General Objectives	Specific Objectives	Necessary Equipment	Remarks
		1	Class Test & Quiz Test			
9	9	2	Understand Packages and Interfaces	9.1 Define the packages with syntax 9.2 Describe the function of packages 9.3 Mention the different levels of class member access. 9.4 Define the interfaces with syntax. 9.5 Describe the implementation of interfaces. 9.6 Explain the nested interfaces. 9.7 Describe the variables in interfaces. 9.8 Write java programs that related to package and interface.		
10	10	1	Understand multithreaded programming	10.1 Define multithreaded programming with syntax. 10.2 Mention the different between processed-base and thread-based multitasking 10.3 Mention the several methods of thread class with state diagram. 10.4 Describe the way to create the several types of thread. 10.5 Describe the minimum, default and maximum thread priorities.		
		2		10.6 Describe the synchronization interthread communication method. 10.7 Describe the suspending, resuming and stopping threads. 10.8 Write java programs using multithreaded programming method.		
11	11	1	Understand Enumerations, Autoboxing, and Annotations (Metadata)	11.1 Define enumeration with syntax. 11.2 Mention the different between values () and value of () methods. 11.3 Describe the type wrappers in java program. 11.4 Describe the different types of Autoboxing/Unboxing. 11.5 Describe the Annotations with example.		
		2		11.6 Describe the different types of built-in annotations. 11.7 Mention the restrictions of annotations. 11.8 Write java programs that related to Enumerations, Autoboxing, and Annotations.		
12	12	1	Understanding I/O Operations	12.1 Describe the Byte stream and Character Stream Classes. 12.2 Describe the Reading Console Input and Writing Console Output. 12.3 Mention the constructors for creating File objects. 12.4 Describe the Reading and Writing files in java.		
		2		12.5 Describe flowchart of a complete java streams. 12.6 Describe the Random Access File Streams. 12.7 Write java programs relating I/O operation.		
13	13	1	Class Test & Quiz Test			

Semester Plan

Technology: Computer(66)

4th Semester, First & Second Shift

Course Name: Programming Language-2(6642) Practical

Teacher's Name: Md. Rabiul Awal

Instructor (Tech.) Computer

S.L	No. of Week	No. of Class	General Objectives	Specific Objectives	Necessary Equipment	Remarks
1	1	1		Write and execute C program for developing color images.	PC, C Compiler	
		2		Write and execute C program for moving text on the screen.	PC, C Compiler	
2	2	1		Practice of Past Jobs.	PC, C Compiler	
		2		Write and execute C program for detecting function key using software interrupt.	PC, C Compiler	
3	3	1		Write and execute C program for developing a system timer.	PC, C Compiler	
		2		Write and execute C program for moving object in C	PC, C Compiler	
4	4	1		Write and execute C program for creating 3D object in C		
		2	Class Test & Quiz Test			
5	5	1		Write and execute sample I/O program using C++ classes	PC, C Compiler	
		2		Write and execute sample I/O program using C++ functions	PC, C Compiler	
6	6	1		Install a Java Development Kit /Net beans software	Java Software	
		2		Write and execute java program for displaying text messages.	Java Software	
7	7	1		Write and execute java programs using arrays and control flow statements.	Java Software	
		2		Write and execute java programs using class, object, method and constructor.	Java Software	
8	8	1		Write and execute java programs using inheritance and polymorphism.	Java Software	
		2	Class Test & Quiz Test			Java Software
9	9	1		Write and execute java programs using package.	Java Software	
		2		Write and execute java programs using interface.	Java Software	
10	10	1		Write and execute java programs using multithreaded programming method.	Java Software	
11	11	2		Write and execute java programs using Enumerations, Autoboxing, and Annotations.	Java Software	
12	12	1		Write and execute java programs using I/O operation.	Java Software	
		2	Class Test & Quiz Test			Java Software