




<p>3. Identify why the best way to develop and maintain a large program is to divide it into several smaller program modules. Discuss how functions are invoked.</p> <p>4. Describe how C++ stores values in arrays. Define how to declare an array.</p> <p>5. Understand how to declare pointers. Discuss the different ways to pass a pointer to a function.</p> <p>6. Define how structures operate. Discuss the difference between a structure and a class.</p> <p>7. Define file processing. Describe</p>	<p>2.7 Illustrate how to use the break and continue program control statements</p> <p>3.1 Demonstrate how to construct programs modularly from pieces called functions</p> <p>3.2 Demonstrate how to create new functions.</p> <p>3.3 Describe the mechanisms used to pass information between functions</p> <p>3.4 Describe simulation techniques using random number generation</p> <p>3.5 Illustrate how the visibility of identifiers is limited to specific regions of programs</p> <p>3.6 Describe how to write and use functions that call themselves.</p> <p>4.1 Discuss the array data structure</p> <p>4.2 Illustrate the use of arrays to store, sort and search lists and tables of values</p> <p>4.3 Describe how to declare an array, initialise an array and refer to individual elements of an array</p> <p>4.4 Describe how to pass arrays to functions</p> <p>4.5 Describe the basic sorting techniques</p> <p>4.6 Describe how to declare and manipulate multiple-subscript arrays</p> <p>5.1 Describe how to use pointers</p> <p>5.2 Illustrate how to use pointers to pass arguments to functions by reference</p> <p>5.3 Describe the close relationships among pointers, arrays and strings</p> <p>5.4 Describe the use of pointers to functions</p> <p>5.5 Demonstrate how to declare and use arrays of strings</p> <p>6.1 Define the software engineering concepts of encapsulation and data hiding</p> <p>6.2 Describe the notions of data abstraction and abstract data types (ADTs)</p> <p>6.3 Create C++ ADTs, namely, classes</p> <p>6.4 Describe how to create, use and destroy class objects</p> <p>6.5 Describe how to control access to object data members and member functions</p> <p>6.6 Analyse the value of object orientation.</p>
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input/output header files.	7.1	Describe how to create, read, write and update files
	7.2	Familiarise with sequential-access file processing
	7.3	Familiarise with random-access file processing
	7.4	Specify high-performance unformatted I/O operations
	7.5	Describe the differences between formatted-data and raw-data file processing
	7.6	Build a transaction-processing program using random-access file processing

Recommended Learning Resources: C++ Programming

Text Books	<ul style="list-style-type: none"> • C++: A Beginner's Guide by Herbert Schildt. ISBN-10: 0072232153 • The C++ Programming Language by Bjarne Stroustrup. ISBN-10: 0201700735 • The C++ Standard Library: A Tutorial and Reference by Nicolai M. Josuttis. ISBN-10: 0201379260
Study Manuals 	BCE produced study packs
CD ROM 	Power-point slides
Software 	C++ Programming