

**Note: All Questions are Compulsory**

**Q.1 Answer the Following.(Any Two)**

**10 M**

1. Explain the importance of flowchart.
2. Write an algorithm for addition of two numbers.
3. Explain any four symbols used in flowchart.
4. What are the various stages in the development of a computer program?

**Q.2. Answer the Following.(Any Two)**

**10 M**

1. What is mean by variable? How we declare and initialize variable?
2. What is mean by escape sequence? Explain any four Escape codes.
- 3 Write a note on define constant.
4. Explain the use of preprocessors directives in C++.

**Q.3. Answer the Following.(Any Two)**

**10 M**

1. Explain for loop with proper example.
2. Differentiate between while - do while loop.
3. Write a C++ program to find whether entered number is positive or negative.
4. Differentiate between break and continue statement.

**Q.4. Answer the Following.(Any Two)**

**10 M**

1. Explain following string functions  
1) Strcpy 2) strcmp 3) strcat 4) strlen
2. What is inline function? Explain its need.
3. Define function. Also explain function prototype in details.
4. Differentiate between builtin function and userdefine function.

**Q.5. Answer the Following.(Any Two)**

**10 M**

1. Explain passing arrays to function.
2. Define array. What are the different types of arrays?
3. Write program in C++ to display Fibonacci series.
4. Explain different ways in which single and multidimensional arrays can be initialized.

**Q6. Answer the Following.(Any Two)**

**10 M**

1. Write program in C++ to show the use of pointer.
2. What is mean by Structure? How we can create structure? Explain with example.
3. Write a short note on Vector.
4. Write a C++ program which will show the use of Structure.

**Q7. Answer the Following.(Any Three)**

**15 M**

1. Differentiate between algorithm and flowchart.
- 2 Explain following operators in C++.  
1) Conditional 2) Logical 3) Arithmetic
3. Write short notes on manipulators in C++.
4. Explain functions overloading with proper programming example.
5. Write program in C++ to add, update and delete a single value from a single dimensional array.
6. Explain how memory allocation is performed using pointers.