**Assignment No. 1**

Question 1: Mention the difference between interpreter and compiler.

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| **Difference Between Compiler and Interpreter** | | |
| Sr. No. | Compiler | Interpreter |
| 1 | Compiler converts a program into machine code as a whole. | 1. Interpreter converts a program into machine code one statement at one time. |
| 2 | Compiler creates object code file. | 2. Interpreter does not creates object file |
| 3 | Compiler program execution process is fast. Once program is compiled successfully an object code file is produced. Now this object code file is executed. No need of re-compilation unless we change the source code. | 3. Interpreter program execution process is slow. Because every time we want to run a program it is interpreted again. |
| 4 | Where in compiler Error detection and removal is comparatively difficult. Because compiler will show a list of many errors in the whole program. | 4. Where in Interpreter error detection is instant and correction is relatively simple and easy, since only one line is translated at a time and if any error, then error message is displayed. We can correct one error at a time easily. |