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Department of Computer Science & Engineering

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Course Title: Compiler

①

Ans to the ques No-1-(a)

Types of Compiler: Compiler are divided into three parts-

① Single pass Compiler. ② Two pass Compilers. ③ Multipass Compiler. The Compiler was word first used in the early 1950s by Carole murray Hopper. Steps for language processing system are: preprocessor, Interpreter, Assembler, linker, Loader.

phases of Compiler:

The phases of compiler design are lexical analysis, syntax analysis, semantic analysis, intermediate code generation, code optimisation, and code generation.

Ans to the ques No-1(b)

Disadvantages of compiler:

- ① Compilation time
- ② Error detection.
- ③ portability
- ④ Execution Speed
- ⑤ Lack of flexibility
- ⑥ Resource consumption

Advantages of compiler:

- ① Improved performance
- ② portability
- ③ Increased security
- ④ Debugging support
- ⑤ No dependencies.

②

Ans to the ques no-1-(c)

Compiler design helps full implementation of high-level programming languages, supports optimization for computer architecture parallelism. A compiler is a program that translates a high level language (for C, C++, and Java) into a low-level language (object program or machine program).

Top-down parsing: Top-down parsing in Computer Science is a parsing strategy where one first looks at the highest level of the parse tree and works down the parse tree by using the rewriting rules of a formal grammar. LL parsers are a type of parser that use a top-down parsing strategy.

Bottom-up parsing: Bottom parsers work by shifting symbols onto a stack until they fill the top of stack containing a right-hand side of a production. The stack is then "reduced" by replacing the production's right-hand side by its left-hand side.

③

Ans to the ques no-2 (a)

Natural language processing is an inter disciplinary subfield of Computer science and linguistics. It is primarily concerned with giving computers the ability to support and manipulate human language.

Ans to the ques no-2 (b)

A cross compiler is a compiler capable of creating executable code for a platform other than the one on which the compiler is running for example, a compiler that runs on a pc but generates code that runs on an Android smart phone is a cross compiler.

Ans to the ques no-2 (c)

A source to source translator. Source-to-source compiler (or compiler). Source compiler, or transpiler is a type of translation that takes the source code of a program written in a programming language written in a programming language as its input and produces an equivalent source code in the same or a different programming language.