

## BE Semester- VIII (Information Technology) Question Bank

### (Language Processor)

All questions carry equal marks (10 marks)

Q.1	What are the basic functions of language translator?
Q.2	Draw a block diagram of phases of a compiler and indicate the main functions of each phase.
Q.3	Give the translate scheme to convert an expression grammar into three address code.
Q.4	Discuss the various forms of object code.
Q.5	Define and explain syntax directed translator.
Q.6	What is a flow graph? Explain how flow graph can be constructed for a given Program.
Q.7	Translate the expression – $(a+b)*(c+d) + (a+b+c)$ into quadruple, triple and indirect triple.
Q.8	what is dangling reference in storage allocation? Explain with an example
Q.9	List out some typical semantic errors .Explain how they can be rectified?
Q.10	Differentiate Positional and keyword parameter.
Q.11	Write and explain the features of Assembly Language programming.
Q.12	What is static checking? Give some example of static checks.
Q.13	Compare the various forms of three address code
Q.14	Write a short note on assembler directive and give example.
Q.15	Explain how loop invariant components can be eliminated.
Q.16	Explain any two machine dependent code optimization techniques
Q.17	Explain in detail the optimization technique “Strength Reduction”
Q.18	Discuss Loop optimization techniques in detail.
Q.19	List review guidelines for formal technical reviews.
Q.20	Explain with an example the abstract machine code form of Intermediate code.
Q.21	Explain the reasons for separating lexical analysis phase from syntax analysis
Q.22	Discuss various symbol table organization techniques
Q.23	Eliminate ambiguities from the following grammar $S \rightarrow iEtSeS \mid iEtS \mid a$ $E \rightarrow b \mid c \mid d$
Q.24	What is an LL (1) grammar? Explain about it with an example.
Q.25	Write a short not on type conversion with example.
Q.26	Which data structure will be used to implement a symbol table in an efficient way? Give reasons.
Q.27	What is type system? Discuss static and dynamic checking of types.
Q.28	Explain the generic issues in the design of code generator.
Q.29	What is a DAG. Explain its application.
Q.30	How Declarative state and Assembler directives are processed by an assembler.
Q.31	Explain lexical analysis in detail.

Q.32	Distinguish SLR, LALR grammar.
Q.33	What is meant by Macro definition? Explain the data structures used in a Macro Processor.
Q.34	Discuss and analyze about all the allocation strategies in run-time storage Environment.
Q.35	What is a flow graph. Explain how flow graph can be constructed for a given Program.
Q.36	Discuss an algorithm for processing Macro Definition.
Q.37	Explain how the symbol table space can be reused. Explain through an example.
Q.38	Convert the following arithmetic expression into syntax tree and three address code. $b * 3 (a + b)$
Q.39	Explain the memory requirement for variant I and variant II of intermediate Code of an assembler design.
Q.40	Explain recursive decent parser using suitable example.