

### T-3

(1) Explain about the Directed Acyclic Graph (DAG) and construct the DAG for  $((a+a)+(a+a))+((a+a)+(a+a))$ .  
[BL-3]

(2) Write the short note on:

a) Abstract syntax tree

b) Polish notation

[BL-2]

(3) Evaluate the prefix and postfix expression for  $A=(20+(-5)*6+12)$ . Also convert the Expression  
“a or b and not c” into three address code.

[BL-3]

### T-4

(1) Explain in detail the importance of type checking. Also give the difference between Static and Dynamic checking.

(2) Explain the functions of an error handler in a compiler, including error reporting, error classification, and error recovery strategies.

(3) Discuss the uses of symbol tables in compilers and describe the storage allocation information stored in symbol tables.