



called

a) Ambiguous b) Unambiguous c) Regular d) None of the mentioned

j) What is top-down parser?

k) What is Regular expression?

l) Define :Language processor

m) Define: Preprocessor

n) Compare NFA and DFA

**Attempt any four questions from Q-2 to Q-8**

**Q-2 Attempt all questions (14)**

(a) What is code optimization? Explain different types of code optimization.

(b) Explain different data structure used in design of macro processor.

**Q-3 Attempt all questions (14)**

(a) Explain cousin of compiler.

(b) What is role of lexical analyzer? Explain different input buffering technique.

**Q-4 Attempt all questions (14)**

(a) Conversion from Regular Expression to DFA without constructing NFA of  $(a + b)^*abb$

(b) Design LL(1) parsing table for the following grammar and check it is ll(1) or not:

$A \rightarrow AcB \mid cC \mid C$  ,  $B \rightarrow bB \mid b$  ,  $C \rightarrow CaB \mid BbB \mid B$

**Q-5 Attempt all questions (14)**

(a) Construct syntax tree and DAG for  $(a + b) * (a + b + c) * (a + b + c + d)$

(b) Write a note on Linker and loader.

**Q-6 Attempt all questions (14)**

(a) Write a note on Phases of compiler.

(b) Explain following 1.Left recursion 2. Left factoring

**Q-7 Attempt all questions (14)**

(a) What is peephole optimization? Explain different techniques of it

(b) Construct LR (0) item set for the given grammar.

$S \rightarrow AaAb \mid BbBa$  ,  $A \rightarrow \epsilon$  ,  $B \rightarrow \epsilon$ .

**Q-8 Attempt all questions (14)**

(a) Write a note on static memory and dynamic memory allocation

(b) Write a note on syntax directed Translated mechanism.

