

- (b) Write three address codes for following expression and generate final code by clearly showing register descriptors and address descriptors. $x = a * (b - c) - d / (e + -f)$.

Q-5 Attempt all questions (14)

- (a) Construct a predictive parser for the grammar
 $E \rightarrow E+T \mid T$
 $T \rightarrow T*F \mid F$
 $F \rightarrow F^? \mid (E) \mid 0 \mid 1$
- (b) Construct a syntax directed translation schema that translates arithmetic expressions from infix into postfix notation. Show the application of your scheme to string “3*4+5*2”

Q-6 Attempt all questions (14)

- (a) Find LR(0) items for following grammar and construct SLR parsing table.
 $S \rightarrow A a A b$
 $S \rightarrow B b B a$
 $A \rightarrow \epsilon$
 $B \rightarrow \epsilon$
- (b) For following grammar find operator precedence function values.
 $E \rightarrow E+E \mid E*E \mid E^E \mid (E) \mid id$

Q-7 Attempt all questions (14)

- (a) List the major steps of relocation and linking algorithms. Explain in brief.
(b) Explain principle sources of code optimization in detail.

Q-8 Attempt all questions (14)

- (a) What is nested macro? Explain with suitable example.
(b) Explain various parameter passing methods in detail.

