一、 **Mark each statement *true* or *false*   (2 points each)**

1. A grammar is ambiguous if it has two different derivations or two different parse trees for a sentence..

2. If a grammar is LR(l), but not LALR(l).   There are not shift-reduce conflicts in its parsing table of LALR(1).

二、 **Single Choice   (2 points each)**

1、 In the Top-Down Parsing, the action (   ) will never be used.

   [A] Shift   [B] Match   [C] Generate   [D] Accept

2、 In the Top-Down Parsing, the action (   ) will never be used.

   [A] Shift   [B] Match   [C] Generate   [D] Accept

3、 IF one CFG grammar contains two non-terminals 'A','B' and two terminal 'a','b', where 'A' is the start symbol, then the Follow set of 'A' may be (   )

   [A] {a, b}   [B] {a, b, $}   [C] {a, b, ε}   [D] {a, b, B}

三、 **Questions   (40 cents)**

1、 Convert the following regular expression   (a|b)*abb(a|b)*   to the minimum deterministic finite automata. **(10 cents)**

2、 Consider the following grammar of simplified C declarations:
   declaration → *type*   *var-list*
   type → **int | float**
   var-list → **identifier**, *var-list* | **identifier**
   (a) Left factor this grammar.   (**5 cents**)
   (b) Construct First and Follow sets for the nonterminals of the resulting grammar.(**10 cents**)
   (c) Construct the LL(1) parsing table for the resulting grammar.   **(10 cents)**
   (d) Show the actions of the corresponding LL(1) parser, give the input string
      int x,y,z.   **(5 cents)**