

SENIOR DIVISION

<p>1. Prefix/Infix/Postfix Notation Write the following postfix expression in prefix: $A B C + * B C * / A 2 \uparrow C - B C - / +$</p>	1.
<p>2. Prefix/Infix/Postfix Notation Define $n! = n * (n-1) * (n-2) * \dots * 3 * 2 * 1$ where n is an integer. Evaluate the following prefix expression if $a = 8$ and $b = 6$: $/ ! a * ! - a b ! b$</p>	2.
<p>3. Bit-String Flicking Evaluate the following expression: (LSHIFT-2 (10110 AND (NOT 00100))) OR (RCIRC-1 (RSHIFT-1 (11011 AND (LCIRC-2 10001))))</p>	3.
<p>4. Bit-String Flicking Solve for X (5-bit string) in the following equation: (RSHIFT-1 (LCIRC-2 X)) OR (NOT(RCIRC-3(LSHIFT-1 00100))) = 11110</p>	4.
<p>5. LISP Evaluate the following LISP expression: (CDR (CAR (REVERSE (CDR '((2 (a 3) b) c (d 4 5) (e (f 6) g))))))</p>	5.