|  |  |
| --- | --- |
| **1. Prefix/Infix/Postfix Notation**  \* h \* (B + b) = (((1 / 2) \* h) \* (B + b))  = ((( / 1 2) \* h) \* (+ B b))  =((\* / 1 2 h) \* (+ B b))  = \* \* / 1 2 h + B b | 1. \* \* / 1 2 h + B b |
| **2. Prefix/Infix/Postfix Notation**  5 2 − 5 2 ↑ 5 2 \* + 2 2 ↑ + \* = (5 2 −) (5 2 ↑) (5 2 \*) + (2 2 ↑) + \*  = (5 ̶ 2) ( 52) (5 \* 2) + ( 22) + \*  = 3 (25 10 +) 4 + \*  = 3 (25 + 10) 4 + \*  = 3 (35 4 +) \*  = 3 (35 + 4) \*  = 3 39 \*  = 3 \* 39 = 117 | 1. 117 |
| **3. Bit-String Flicking**  01100 OR NOT (11000 AND 10101)  **=** 01100 OR NOT (10000)  = 01100 OR 01111  = 01111 | 1. 01111 |
| **4. Bit-String Flicking**  (LCIRC–2 (RSHIFT–1 (RCIRC–2 (LSHIFT–2 10101))))  = (LCIRC–2 (RSHIFT–1 (RCIRC–2 10100)))  = (LCIRC–2 (RSHIFT–1 00101))  = (LCIRC–2 00010)  = 01000 | 1. 01000 |
| **5. What Does This Program Do - Looping**  t is the number of multiples of 3  f is the number of multiples of 5  b is the number of even multiples of 15  d is the number of odd multiples of 15  t + f is the number of multiples of 3 or 5 with some repeats  b + d is the number of multiples of 15 which are already in t + f  Therefore w = t + d - (b + d) = t + d - b - d which is D. | **5.** D |