

① Convert the following Infix Expression to Postfix expression

a)  $((A+B)+C) \wedge (D-E)$

② Evaluate the given infix Expression to the postfix expression using stack  $((a/(b-c)+d)*(e-a)*c)$

③ Convert the following Infix Expression to postfix expression

a)  $(A+B \wedge C) * D + E \wedge 5$

b)  $a \&\&b || c || ! (e > f)$

c)  $A + B - C * D / E + F$

d)  $(A+B) * D + E / (F + A * D) + C$

e)  $A * (B+C) / D - G$

f)  $(A + B * C / D - E + F / G / (H + I))$

g)  $(A+B) * C - D / E * (F/G)$

h)  $((A+B) * D) \uparrow (E-F)$

i)  $(a * b + c / d) * (e + f \uparrow g)$

j)  $A + B \uparrow C * (D/E) - F \% G$

④ Convert the infix string into prefix string with stack operation show the content of stack in each step!

a)  $((A+B) * (C-D))$

b)  $(P + (Q * R) - (S / T \uparrow U) * V) * W$

c)  $P * Q \uparrow R - S / T + (U/V)$

d)  $(A+B-C+D * E / F \wedge G)$

e)  $(A+B \wedge C) * D + E \wedge 5$

f)  $A / B \wedge C + D * E - A * C$

g)  $(A - B / C) * (D * E - F)$

h)  $((a/(b-c)+d) * (e-a) * c)$

$$b) A + B - C * D / E + F \$ G / (I + J).$$

$$i) ((A + B) * (C - D)) / (E + F).$$

$$j) P * Q \uparrow R - S / T + [U / V]$$

$$k) (q - p) * (y + x).$$

$$l) A + B - C * D / E + F$$

$$m) P * Q \uparrow R - S / T + (U / V).$$

$$n) A + B - C * D / E + F$$

$$o) ((A + B) * D) \wedge (E - F).$$

$$p) ((A + B) * C) \wedge (D - E) \quad \text{Inf prefix / postfix}$$