

Q.3. Convert following expression from Infix to Prefix and Postfix.

a)  $K + L - M * N + (O \wedge P) * W / U / V * T + Q$ .

• Prefix

$$K + L - \underline{*MN} + \underline{O \wedge P} * W / U / V * T + Q$$

$$K + L - \underline{*MN} + \underline{*O \wedge P W} / U / V * T + Q$$

$$K + L - \underline{*MN} + \underline{/ * O \wedge P W U} / V * T + Q$$

$$K + L - \underline{*MN} + \underline{// * O \wedge P W U V} * T + Q$$

$$K + L - \underline{*MN} + \underline{* // * O \wedge P W U V T} + Q$$

$$\underline{+ KL} - \underline{*MN} + \underline{* // * O \wedge P W U V T} + Q$$

$$\underline{- + KL * MN} + \underline{* // * O \wedge P W U V T} + Q$$

$$\underline{+ - + KL * MN * // * O \wedge P W U V T} + Q$$

Prefix  $\Rightarrow + - + KL * MN * // * O \wedge P W U V T Q$

• Postfix

$$K + L - M * N + (O \wedge P) * W / U / V * T + Q$$

$$K + L - M * N + \underline{O \wedge P} * W / U / V * T + Q$$

$$K + L - \underline{MN *} + \underline{O \wedge P} * W / U / V * T + Q$$

$$K + L - \underline{MN *} + \underline{O \wedge P W *} / U / V * T + Q$$

$$K + L - \underline{MN *} + \underline{O \wedge P W * U /} / V * T + Q$$

$$K + L - \underline{MN *} + \underline{O \wedge P W * U / V /} * T + Q$$

$$K + L - \underline{MN *} + \underline{O \wedge P W * U / V / T *} + Q$$

$$\underline{KL +} - \underline{MN *} + \underline{O \wedge P W * U / V / T *} + Q$$

Postfix  $\Rightarrow KL + MN * - O \wedge P W * U / V / T * + Q +$

b

$$\text{Infix} = (A+B) * c - (D-E) * (F+G)$$

Operation :- opr1 + opr2 + etc

$$\text{Expression} \Rightarrow GF + ED - * CBA + * -$$

$$\text{Prefix} \Rightarrow -* + ABC *- DE + FG$$

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$$\text{Infix} = (A+B) * c - (D-E) * (F+G)$$

Operation = opr1 + opr2 + etc.

$$\text{Postfix} \Rightarrow AB + C * DE - FG + * -$$

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$$Q.4 \text{ Prefix} \Rightarrow 5+9-4 * (8-6/2) +1 \phi (7-8)$$

$$\text{Expression} = 37 - \phi 126/8 - 4 * 95 + - +$$

$$\text{Prefix} = + - + 59 * 4 - 8/621 \phi - 73.$$

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