**Question 06**

**(A+B)\*(C+D)**

|  |  |  |
| --- | --- | --- |
| Infix character scanned | Stack | Postfix Expression |
| ( | ( |  |
| A | ( | A |
| + | (+ | A |
| B | (+ | AB |
| ) | (+) | AB+ |
| \* | \* | AB+ |
| ( | ( | AB+\* |
| C | ( | AB+\*C |
| + | (+ | AB+\*C |
| D | (+ | AB+\*CD |
| ) | (+) | AB+\*CD |
|  |  | **AB+\*CD+** |

**(A+B)\*C**

|  |  |  |
| --- | --- | --- |
| Infix character scanned | Stack | Postfix Expression |
| ( | ( |  |
| A | ( | A |
| + | (+ | A |
| B | (+ | AB |
| ) | (+) | AB+ |
| \* | \* | AB+ |
| C | \* | AB+C |
|  |  | **AB+C\*** |

**A+B\*C**

|  |  |  |
| --- | --- | --- |
| Infix character scanned | Stack | Postfix Expression |
| A |  | A |
| + | + | A |
| B | + | AB |
| \* | +\* | AB |
| C | +\* | ABC |
|  |  | **ABC\*+** |

**3+4\*5/6**

|  |  |  |
| --- | --- | --- |
| Infix character scanned | Stack | Postfix Expression |
| 3 |  | 3 |
| + | + | 3 |
| 4 | + | 3 4 |
| \* | +\* | 3 4 |
| 5 | +\* | 3 4 5 |
| / | +\* | 3 4 5 / |
| 6 | +\* | 3 4 5 / |
|  |  | **3 4 5 /\*+** |