```
GenStencilPoints[n1_, type_] := Module[{n = n1, t = type, i, j, k, StencilPoints},

  If[type ≤ 2,
   StencilPoints = Table[0, {j, n}, {i, n + n^2}];

For[i = 1, i ≤ n, i++,
StencilPoints[[i, 2 * i]] = -1;
StencilPoints[[i, 2 * i - 1]] = 1
   ];

i = 2 * n + 1;

For[ k = 1, k ≤ n, k++,
For[ j = k + 1, j ≤ n, j++,
StencilPoints[[k, i]] = 1;
StencilPoints[[k, i + 1]] = -1;

If[type == 1,
StencilPoints[[j, i]] = 1;
StencilPoints[[j, i + 1]] = -1
,
StencilPoints[[j, i]] = -1;
StencilPoints[[j, i + 1]] = 1
];
     i = i + 2;
]]];

  If[type == 5,
   StencilPoints = Table[0, {j, n}, {i, 2 n^2}];
For[i = 1, i ≤ n, i++,
StencilPoints[[i, 2 * i]] = -1;
StencilPoints[[i, 2 * i - 1]] = 1
   ];

i = 2 * n + 1;

For[ k = 1, k ≤ n, k++,
For[ j = k + 1, j ≤ n, j++,
StencilPoints[[k, i]] = 1;
StencilPoints[[k, i + 1]] = -1;
StencilPoints[[k, i + 2]] = 1;
StencilPoints[[k, i + 3]] = -1;

StencilPoints[[j, i]] = 1;
StencilPoints[[j, i + 1]] = -1;
StencilPoints[[j, i + 2]] = -1;
StencilPoints[[j, i + 3]] = 1;

     i = i + 4;
```

```
]]];

  Transpose[StencilPoints]
 ]

GenStencilPoints[3, 5]
```

```
{{1, 0, 0}, {-1, 0, 0}, {0, 1, 0}, {0, -1, 0}, {0, 0, 1}, {0, 0, -1},
 {1, 1, 0}, {-1, -1, 0}, {1, -1, 0}, {-1, 1, 0}, {1, 0, 1}, {-1, 0, -1},
 {1, 0, -1}, {-1, 0, 1}, {0, 1, 1}, {0, -1, -1}, {0, 1, -1}, {0, -1, 1}}
```