1.

Neuron Truth Table

| Α | В | С | $B\overline{C} + AB$ | inequalities | out |
|---|---|---|----------------------|---|--------|
| 0 | 0 | 0 | 0 | 0 <t; t="1.5</td"><td>0<1.5</td></t;> | 0<1.5 |
| 0 | 0 | 1 | 0 | wc <t< td=""><td>-2<1.5</td></t<> | -2<1.5 |
| 0 | 1 | 0 | 1 | wb>=T | 3>=1.5 |
| 0 | 1 | 1 | 0 | wb+wc <t< td=""><td>1<1.5</td></t<> | 1<1.5 |
| 1 | 0 | 0 | 0 | wa <t< td=""><td>-1<1.5</td></t<> | -1<1.5 |
| 1 | 0 | 1 | 0 | wa+wc <t< td=""><td>-3<1.5</td></t<> | -3<1.5 |
| 1 | 1 | 0 | 1 | wa+wb>=T | 2>=1.5 |
| 1 | 1 | 1 | 0 | wa+wb+wc <t< td=""><td>0<1.5</td></t<> | 0<1.5 |

2. Possible threshold ranges for neuron $B\overline{C}+AB$ (+1, +3], exclusive