# Section A

## Debounce time of XYZ button

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Experiment ID°** | EXP\_001 | | **Experiment scenario writing** | |
| **Exp. reference** | Book1, Pg1,Section1 | | **Date** | 21/2/2020 |
| **Author Comments** | None | | **Author** | Edison |
| **Exp. Method** | Automatic |
| **Formula Used** | Calculated energy Ea = (VL x IL) x T  (Watt-sec) | | **Exp. Status** | InProgress |
| **Exp. Type** | Type1 |
| **Exp. execution:** | **SW Used** |  | **Date :** |  |
| **HW Used** |  | **Tester :** |  |
| **Other details** |  |
| **Goal :** | To check the debounce time of the XYZ button is t1 (500 ms) | | | |
| **Description Summary:** | -Initialize the system -Press [XYZ] button -Wait [450] ms as ([less than debounce time]) -Release [XYZ] button -Check Signal [XYZ\_Signal] is received within [250] ms -Press [XYZ] button -Wait [550] ms as ([more than debounce time]) -Release [XYZ] button -Check Signal [XYZ\_Signal] is received within [250] ms | | | |
| **Test Mean :** | **🞎Tool1 🞎 Tool2 🞎 Tool3** | | | |

| **S.#** | **Procedure** | | **Expected value** | **Obtained value** | |
| --- | --- | --- | --- | --- | --- |
|  | | Initialize the system |  | |  |
|  | | Press [XYZ] button |  | |  |
|  | | Wait [450] ms as ([less than debounce time]) |  | |  |
|  | | Release [XYZ] button |  | |  |
|  | | Check Signal [XYZ\_Signal] is received within [250] ms | signal [XYZ\_Signal] = [00] | |  |
|  | | Press [XYZ] button |  | |  |
|  | | Wait [550] ms as ([more than debounce time]) |  | |  |
|  | | Release [XYZ] button |  | |  |
|  | | Check Signal [XYZ\_Signal] is received within [250] ms | signal [XYZ\_Signal] = [01] | |  |
| Conclusion (OK, NOK, NOT DONE) | | | Select Test Result | |

## Debounce time of ABC button

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Experiment ID°** | EXP\_002 | | **Experiment scenario writing** | |
| **Exp. reference** | Book1, Pg1,Section2 | | **Date** | 21/2/2020 |
| **Author Comments** | This test will fail if EXP\_001 failed | | **Author** | Bose |
| **Exp. Method** | Automatic |
| **Formula Used** | Calculated energy Ea = (VL x IL) x T  (Watt-sec) | | **Exp. Status** | InProgress |
| **Exp. Type** | Type1 |
| **Exp. execution:** | **SW Used** |  | **Date :** |  |
| **HW Used** |  | **Tester :** |  |
| **Other details** |  |
| **Goal :** | To check the debounce time of the ABC button is t2 (70 ms) | | | |
| **Description Summary:** | -Initialize the system -Press [ABC] button -Wait [60] ms as ([less than debounce time]) -Release [ABC] button -Check Signal [ABC\_Signal] is received within [250] ms -Press [ABC] button -Wait [80] ms as ([more than debounce time]) -Release [ABC] button -Check Signal [ABC\_Signal] is received within [250] ms | | | |
| **Test Mean :** | **🞎Tool1 🞎 Tool2 🞎 Tool3** | | | |

| **S.#** | **Procedure** | | **Expected value** | **Obtained value** | |
| --- | --- | --- | --- | --- | --- |
|  | | Initialize the system |  | |  |
|  | | Press [ABC] button |  | |  |
|  | | Wait [60] ms as ([less than debounce time]) |  | |  |
|  | | Release [ABC] button |  | |  |
|  | | Check Signal [ABC\_Signal] is received within [250] ms | signal [ABC\_Signal] = [00] | |  |
|  | | Press [ABC] button |  | |  |
|  | | Wait [80] ms as ([more than debounce time]) |  | |  |
|  | | Release [ABC] button |  | |  |
|  | | Check Signal [ABC\_Signal] is received within [250] ms | signal [ABC\_Signal] = [01] | |  |
| Conclusion (OK, NOK, NOT DONE) | | | Select Test Result | |

# Section B

## Truth table of Logic Gates - AND

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Experiment ID°** | EXP\_003 | | **Experiment scenario writing** | |
| **Exp. reference** | Book1, Pg20,Section5 | | **Date** | 22/2/2020 |
| **Author Comments** | None | | **Author** | Ali |
| **Exp. Method** | Automatic |
| **Formula Used** | None | | **Exp. Status** | InProgress |
| **Exp. Type** | Type2 |
| **Exp. execution:** | **SW Used** |  | **Date :** |  |
| **HW Used** |  | **Tester :** |  |
| **Other details** |  |
| **Goal :** | Check the Truth table of Logic Gates - AND | | | |
| **Description Summary:** | -Initialize the system -Set Powersupply [B1] to [05][00] volts -Set Selector to [AND] gate -Set Signal [A] to [0] -Set Signal [B] to [0] -Set Signal [A] to [0] -Set Signal [B] to [0] -Set Signal [A] to [0] -Set Signal [B] to [1] -Set Signal [A] to [1] -Set Signal [B] to [0] -Set Signal [A] to [0] -Set Signal [B] to [0] | | | |
| **Test Mean :** | **🞎Tool1 🞎 Tool2 🞎 Tool3** | | | |

| **S.#** | **Procedure** | | **Expected value** | **Obtained value** | |
| --- | --- | --- | --- | --- | --- |
|  | | Initialize the system |  | |  |
|  | | Set Powersupply [B1] to [05][00] volts |  | |  |
|  | | Set Selector to [AND] gate |  | |  |
|  | | Set Signal [A] to [0] |  | |  |
|  | | Set Signal [B] to [0] | Signal [C] = [0] | |  |
|  | | Set Signal [A] to [0] |  | |  |
|  | | Set Signal [B] to [0] | Signal [C] = [0] | |  |
|  | | Set Signal [A] to [0] |  | |  |
|  | | Set Signal [B] to [1] | Signal [C] = [0] | |  |
|  | 28 | Set Signal [A] to [1] |  |  | |
|  | 29 | Set Signal [B] to [0] | Signal [C] = [0] |  | |
|  | 30 | Set Signal [A] to [0] |  |  | |
|  | 31 | Set Signal [B] to [0] | Signal [C] = [1] |  | |
| Conclusion (OK, NOK, NOT DONE) | | | Select Test Result | |