|  |  |  |  |
| --- | --- | --- | --- |
| **Name:** | **Lee Yan Cheng** | **Lab Group#:** | **B10** |
| **Student Id:** | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **A** | **0** | **1** | **9** | **9** | **1** | **4** | **1** | **B** | |  | |

Step 1. **[4pts]**

|  |  |  |  |
| --- | --- | --- | --- |
| **a** | **b** | **c** | **F** |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 |

Step 2. **[1 pt]**

|  |
| --- |
| F(a, b, c) = *****m* ( 2, 3, 5, 7 ). |

Step 3. **(space are given at the back of this answer sheet)**

Step 4. **[3 pts]**

|  |
| --- |
| F(a, b, c)  = (a’.b.c’) + (a’.b.c) + (a.b’.c) + (a.b.c)  = (a’.b).(c’ + c) + (a.c).(b’ + b) (distributive law)  = (a’.b).(1) + (a.c).(1) (complement law)  = (a’.b) + (a.c) (identity law) |

Step 3. **[4pts]**

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| [Note: You can handrawn and paste a photo / scan here.] |