

**Student Names: Elif Güler, Samed Düzçay**  
**Student IDs: 2015400099, 2015400027**  
**Group ID: 5**  
**Session: 1**

## **CMPE 240 Experiment 2 Preliminary Work**

**Truth Table:**

<b>#</b>	<b>X4</b>	<b>X3</b>	<b>X2</b>	<b>X1</b>	<b>X0</b>	<b>F</b>
<b>0</b>	0	0	0	0	0	0
<b>1</b>	0	0	0	0	1	0
<b>2</b>	0	0	0	1	0	1
<b>3</b>	0	0	0	1	1	1
<b>4</b>	0	0	1	0	0	0
<b>5</b>	0	0	1	0	1	1
<b>6</b>	0	0	1	1	0	0
<b>7</b>	0	0	1	1	1	1
<b>8</b>	0	1	0	0	0	1
<b>9</b>	0	1	0	0	1	0
<b>10</b>	0	1	0	1	0	1
<b>11</b>	0	1	0	1	1	0
<b>12</b>	0	1	1	0	0	1
<b>13</b>	0	1	1	0	1	0
<b>14</b>	0	1	1	1	0	1
<b>15</b>	0	1	1	1	1	0
<b>16</b>	1	0	0	0	0	0
<b>17</b>	1	0	0	0	1	0
<b>18</b>	1	0	0	1	0	0
<b>19</b>	1	0	0	1	1	1
<b>20</b>	1	0	1	0	0	0
<b>21</b>	1	0	1	0	1	1
<b>22</b>	1	0	1	1	0	1
<b>23</b>	1	0	1	1	1	1
<b>24</b>	1	1	0	0	0	1
<b>25</b>	1	1	0	0	1	0
<b>26</b>	1	1	0	1	0	0
<b>27</b>	1	1	0	1	1	0
<b>28</b>	1	1	1	0	0	0
<b>29</b>	1	1	1	0	1	0
<b>30</b>	1	1	1	1	0	0
<b>31</b>	1	1	1	1	1	1

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**List of components used in the design:**

1. Multiplexer (8x1)
2. 2 AND gates
3. 3 NOT gates

**Circuit:**

