Republic of the Philippines

**BOHOL ISLAND STATE UNIVERSITY**

**MAIN CAMPUS**

**COLLEGE OF ENGINEERING AND ARCHITECTURE**

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*Vision: A premiere S&T university for the formation of world class and virtuous human resource for sustainable development in Bohol and the Country.*

*Mission: BISU is committed to provide quality higher education in the arts and sciences, as well as in the professional and technological fields: undertake research and development, and extension services for the sustainable development of Bohol and the country.*

NAME: CELMAR JOHN S. ORTIZ SUBJECT: CpE 412

YR/SEC: BSCPE 4 INSTRUCTOR: ENGR. MAX ANGELO PERIN

ID NO.:552069

**PROGRAMMING ASSIGNMENT #0-M**

c. L= {w ϵ {a,b}\* | w contains at least 5 occurences of **b**}

­

**a,b**

**b**

**b**

**b**

**b**

**a**

**a**

**a**

**a**

**a**

|  |  |  |
| --- | --- | --- |
| δ | a | b |
| 0 | 0 | 1 |
| 1 | 1 | 2 |
| 2 | 2 | 3 |
| 3 | 3 | 4 |
| 4 | 4 | 5 |
| 5 | 5 | 5 |

M= {q0,q1,q2,q3,q4,q5}, {a,b}, δ, {q0}, {q5}

**Deterministic Finite Automata (DFA)**

**CODE:**

|  |
| --- |
|  |

|  |
| --- |
| #include<stdio.h> |
|  | #include <string.h> |
|  |  |
|  | int main() |
|  | { |
|  | char str[100]; |
|  | int i,len,count=0; |
|  |  |
|  | printf("\n Enter string : "); |
|  |  |
|  | gets (str); |
|  | len=strlen(str); |
|  |  |
|  |  |
|  | for (i=0;i<=len;i++) |
|  | { |
|  | if (str[i]=='b') |
|  | { |
|  | count++; |
|  | } |
|  | if(count>5) |
|  | { |
|  | printf ("\n invalid input"); |
|  | return 0; |
|  | } |
|  | } |
|  | if (count==0) |
|  | { |
|  | printf ("\n invalid input"); |
|  | } |
|  | else |
|  | { |
|  | printf ("VALID"); |
|  | } |
|  | return 0; |
|  | } |