Republic of the Philippines

**BOHOL ISLAND STATE UNIVERSITY**

**MAIN CAMPUS**

**COLLEGE OF ENGINEERING AND ARCHITECTURE**

Tel: 038-4113289 Telefax: 038-5017516

6300 Tagbilaran City

*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: CARLEEN C. RABINO SUBJECT: CpE 412

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

ID NO.: 244807

**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>

main()

{

char str[100],temp;

int i=0,count=0,q,k;

printf(“Enter the string : “);

gets(str);

count=0;

k=strlen(str)-1;

for(q=0;q<=k;q++){

if(str[q]==’a’||str[q]==’b’){

if(str[q]==’b’){

count++;

}

}

}

if(count>=5){

printf(“Accepted”);

}||

else{

printf(“\nInvalid”);

}

return 0;

}