**OS LAB ( 3B experiment answer)**

**Q1:-**

#include <stdio.h>

#include<unistd.h>

int main()

{

int a=5,b=10,pid;

printf("Before fork a=%d b=%d \n",a,b);

pid=fork();

if(pid==0) {

a=a+1;

b=b+1;

printf("In child a=%d b=%d \n",a,b);

} else

{

sleep(1);

a=a-1;

b=b-1;

printf("In Parent a=%d b=%d \n",a,b);

}

return 0;

}

Q02:-

#include <stdio.h>

#include<unistd.h>

int main()

{

int a=5,b=10,pid;

printf("Before fork a=%d b=%d \n",a,b);

**pid=vfork();**

if(pid==0) {

a=a+1;

b=b+1;

printf("In child a=%d b=%d \n",a,b);

} else

{

sleep(1);

a=a-1;

b=b-1;

printf("In Parent a=%d b=%d \n",a,b);

}

return 0; }

Q 03:-

#include<stdio.h>

#include<unistd.h>

int main()

{

fork();

fork();

fork();

printf("SRMIST\n");

return 0;

}

8 TIMES SRMIST will be printed 23

Q04:-

#include <stdio.h>

#include<unistd.h>

int main() {

int pid,n,oddsum=0,evensum=0,i;

printf("Enter the value of n :");

scanf("%d",&n);

pid=fork();

// Complete the program

**if (pid==0)**

**{**

**for(i=1;i<=n;i=i+2)**

**oddsum+=i;**

**printf("Sum of odd number is %d\n",oddsum);**

**}**

**else**

**{**

**sleep(1);**

**for(i=0;i<=n;i=i+2)**

**evensum+=i;**

**printf("Sum of even number is %d\n",evensum);**

**}**

**return 0;**

**}**

Q 05:-

2n-1

Q 06:-

#include<stdio.h>

#include<unistd.h>

int main()

{

int pid;

pid=fork();

**if(pid==0){**

**printf("In child......\n child ID is %d Parents ID is %d \n",getpid(),getppid());**

**}**

**else**

**{**

**sleep(1);**

**printf("In parents ......\n child Id is %d parent ID is %d \n",pid,getpid());**

**}**

**return 0;**

**}**

Q 07:-

#include <stdio.h>

#include<unistd.h>

int main()

{

fork();

fork()&&fork()||fork();

fork();

printf("Yes ");

return 0;

}

**20 times yes will be printed as output**