Task 3. [CO1]: Illustrate System calls of UNIX operating system (fork, exec, getpid, exit, wait) using Cygwin Tools

A) Program that creates a file with a 4K bytes free space. Such files are called files with holes.

B) Execute the program that copies the contents of an existing file into another file. The names of the two file should be read as an input from the command line.

C) You have to use three processes, one which creates the pipe and spawns the producer process and the consumer process. Close the pipe when you do not need it. Print out messages on what is going on. It is asked to deal with the case when either the consumer or the producer finishes first without the use of a particular message. You are allowed to use a special message from the producer if you have a problem

AIM:

To write a C program to create a file, Read a file and write a file

ALGORITHM:

Step1:Start the program.

Step2:Create the file using create function and assign a variable to it.

Step3:If the value of the variable is less then print file cannot be created ,otherwise print file is created.

Step4:Stop the program.

Program

Create file

```
#include<sys/types.h>
#include<fcntl.h>
int main()
{
int fd;
//creat("input.txt",O_RDWR);
fd=open("input.txt",O_RDWR);
write(fd,"Hello world",12);
close(fd);
return 0;
}
```

Read File

```
#include<stdio.h>
#include<fcntl.h>
int main()
{
 int fd;
char *c=(char *)calloc(100,sizeof(char));
fd=open("input.txt",O_RDONLY);
read(fd,c,10);
printf("read char :\n %s",c);
return 0;
}
```

Write File

```
#include<stdio.h>
```

```
#include<fcntl.h>
#include<string.h>
int main()
{
int fd;
fd=open("myfile.txt",O_RDWR);
write(fd,"Jagan",strlen("Jagan"));
close(fd);
return 0;
}
```