

Question 1

```
#include <stdio.h>

#include <sys/types.h>

#include<signal.h>

#include <unistd.h>

int main()

{

int pid=fork();

if (pid != 0)

{

printf("parent of %d\n", pid);

printf("I am the parent with ppID= %d\n", getppid());

printf ("\nReady to murder the parent!\n");

kill(pid,SIGTERM);

sleep(120);

}

else if(pid==-1)

{

printf("Error");

}

else

{

printf("Child pid = %d\n", pid);

printf("I am the child with PID= %d\n",getpid() );

}

return 0;

}
```

Outputs

```
noman@noman-siddique:~$ gedit lab6.c
noman@noman-siddique:~$ gcc lab6.c -o a
noman@noman-siddique:~$ ./a
parent of 6906
I am the parent with ppID= 2612

Ready to murder the parent!
noman@noman-siddique:~$
```

While sleep

```
noman@noman-siddique:~$ ps au
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
noman    1831  0.0  0.1 172988  6256 tty2      Ssl+  22:14   0:00 /usr/lib
noman    1834  1.8  3.7 675164 120612 tty2      Sl+   22:14   1:10 /usr/lib
noman    1888  0.0  0.3 197388 10772 tty2      Sl+   22:14   0:00 /usr/lib
noman    2612  0.0  0.1  19856  4644 pts/0      Ss    22:15   0:00 bash
noman    5960  0.0  0.1  19856  4756 pts/1      Ss+   22:46   0:00 /bin/bas
noman    6905  0.0  0.0   2496    520 pts/0      S+    23:17   0:00 ./a
noman    6906  0.0  0.0      0      0 pts/0      Z+    23:17   0:00 [a] <defu
noman    6910  0.5  0.1  19856  5136 pts/2      Ss    23:17   0:00 bash
noman    6917  0.0  0.1  20468  3400 pts/2      R+    23:17   0:00 ps au
noman@noman-siddique:~$
```

After sleep

```
noman@noman-siddique:~$ ps au
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
noman    1831  0.0  0.1 172988  6256 tty2      Ssl+  22:14   0:00 /usr/li
noman    1834  1.8  3.7 675180 120448 tty2      Sl+   22:14   1:12 /usr/li
noman    1888  0.0  0.3 197388 10772 tty2      Sl+   22:14   0:00 /usr/li
noman    2612  0.0  0.1  19856  4644 pts/0      Ss+   22:15   0:00 bash
noman    5960  0.0  0.1  19856  4756 pts/1      Ss+   22:46   0:00 /bin/ba
noman    6910  0.0  0.1  19856  5144 pts/2      Ss    23:17   0:00 bash
noman    6987  2.0  0.1  20468  3476 pts/2      R+    23:19   0:00 ps au
noman@noman-siddique:~$
```

Question 2

```
#include <stdio.h>

#include <unistd.h>

#include <signal.h>

#include <sys/types.h>

int main()
{
    int pid;

    pid=fork();
```

```

if(pid==0)

{printf("Child pid = %d\n", pid);

printf("I am Child with PID = %d\n", getpid());

printf ("\nReady to murder the parent!\n");

kill (getppid(), 9);

sleep(120);

}

else

{

printf("PARENT exxecute first \n");

printf("PARENT OF %d\n",pid);

printf("I am Parent with ppid = %d\n",getppid());

}

return 0;

}

```

Output

```

PARENT exxecute first
PARENT OF 15303
I am Parent with ppid = 14408
Child pid = 0
I am Child with PID = 15303

Ready to murder the parent!

```

Ps au while sleeping

```

noman@noman-siddique:~$ ps au
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   T
noman    18935   0.0   0.2 172988   6540 tty2     Ssl+  23:36   0
noman    18937   0.7   1.9 530388  62012 tty2     Sl+   23:36   0
noman    18991   0.0   0.4 197388  14244 tty2     Sl+   23:36   0
noman    20084   0.4   0.1  19856   5120 pts/0    Ss    23:39   0
noman    20093   0.0   0.1  20468   3496 pts/0    R+    23:39   0
noman@noman-siddique:~$

```

Ps au After sleeping

```
noman@noman-siddique:~$ ps au
```

USER	PID	%CPU	%MEM	VSZ	RSS	TTY	STAT	START	TIME
noman	18935	0.0	0.2	172988	6540	tty2	Ssl+	23:36	0:00
noman	18937	0.7	1.9	530388	62012	tty2	Sl+	23:36	0:00
noman	18991	0.0	0.4	197388	14244	tty2	Sl+	23:36	0:00
noman	20084	0.4	0.1	19856	5120	pts/0	Ss	23:39	0:00
noman	20093	0.0	0.1	20468	3496	pts/0	R+	23:39	0:00

```
noman@noman-siddique:~$
```