

2)

(a) C Program to show usage of Fork operation and wait status macro.

```
⇒ #include <unistd.h>
```

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

```
#include <sys/wait.h>
```

```
#include <stdlib.h>
```

```
#include <fcntl.h>
```

```
int main ( int argc, char * argv[ ] )
```

```
{
    int fd, exitStatus;
```

```
    int exitval = 10;
```

```
    fd = open ( argv[1], O_WRONLY | O_CREAT |
    O_TRUNC, 0664 );
```

```
    write (fd, "Original Process writes\n", 1);
```

```
    switch (fork()) {
```

```
        case 0 : write (fd, "child Process writes\n", 20)
```

```
                close (fd);
```

```
                printf ("child : Terminating with
```

```
exit value %d\n", exitval);
```

```
                exit (exitval);
```

```
                break;
```

```
        default : wait (&exitStatus);
```

```
        printf ("Parent : child terminated &
```

```
exit value %d\n", WEXITSTATUS (exitStatus));
```

```
        write (fd, "Parent Process writes\n", 20);
```

```
        exit (20);
```

```
    }
```

2) (b) Shell program to check if permission of two files are same.

=>

```
#!/bin/sh
```

```
if [ $# -ne 2 ]
```

```
then
```

```
echo "Please enter 2 arguments"
```

```
elif [ !-e $1 -o !-e $2 ]
```

```
then
```

```
echo "File does not exist".
```

```
else
```

```
Per1='ls -l $1 | cut -C 2-10'
```

```
Per2='ls -l $2 | cut -C 2-10'
```

```
if [ $Per1 = $Per2 ]
```

```
then
```

```
echo "Permissions are identical"
```

```
echo "Permission is $Per1"
```

```
else
```

```
echo "Permissions are not identical"
```

```
echo "Permission of $1 is $Per1"
```

```
echo "Permission of $2 is $Per2"
```

```
fi
```

```
fi
```