1. **Develop a c program to implement the Process system calls (fork (), exec(), wait(), create process, terminate process).**

PROGRAM

```c
#include <stdio.h>
#include <stdlib.h>
#include <sys/types.h>
#include <sys/wait.h>
#include <unistd.h>

int main() {
    pid_t pid;

    // Parent process
    printf("Parent process ID: %d\n", getpid());

    // Create a child process
    pid = fork();

    if (pid < 0) {
        perror("Fork failed");
        exit(1);
    } else if (pid == 0) {
        // Child process
        printf("Child process ID: %d\n", getpid());

        // Simulate "create process" by sleeping
        printf("Child process is sleeping for 5 seconds...\n");
        sleep(5);

        // Simulate "terminate process" by exiting
        printf("Child process is terminating...\n");
        exit(0);
    } else {
        // Parent process

        // Wait for the child to terminate
        int status;
        wait(&status);
        printf("Child process with ID %d terminated with status %d\n", pid,
WEXITSTATUS(status));
    }

    return 0;
}
```

OUTPUT

Parent process ID: 533
Child process ID: 537
Child process is sleeping for 5 seconds...
Child process is terminating...
Child process with ID 537 terminated with status 0