

Q1. Which of the following statements about setpgid is true?

- A) A process can always change its PGID, even if it is the group leader.
- B) If pid is 0, the call applies to the calling process.**
- C) If pgid is 0, the process joins the group with the lowest PGID in the system.
- D) setpgid can only be called by the parent process.

Q2. What does the call setpgid(0, 0) do?

- A) It terminates the calling process's group.
- B) It creates a new process group whose PGID equals the PID of the parent.
- C) It sets the PGID of the calling process to its own PID, making it a group leader.**
- D) It assigns the calling process to the init (PID 1) group.

Q3. What does the call getpgid(0) return?

- A) The PID of the calling process.
- B) The PGID of the calling process.**
- C) The PGID of the parent process.
- D) The session ID of the calling process.

Consider the following pseudocode where a process installs a signal handler for **SIGINT** and blocks **SIGTERM** for the first 5 seconds.

```
void handler(int signum) {  
    printf("Received signal: %d\n", signum);  
}  
  
int main() {  
    block_signal(SIGTERM);  
    set_signal_handler(SIGINT, handler);  
  
    sleep(5);  
  
    unblock_signal(SIGTERM);  
    while (1);  
}
```

1. What happens if **SIGINT** is sent before 5 seconds?
2. What happens if **SIGTERM** is sent before 5 seconds?
3. What happens if **SIGTERM** is sent after 5 seconds?