#1. Which of the following is NOT correct about fork?

A. The new process created by fork is called the child process

B. This function is called once and return once

C. The only difference in the returns is that the return value in the child is 0, whereas the return value in the parent is the process ID of the new child

D. The reason the child’s process ID is returned to the parent is that a process can have more  
than one child

E. There is no function that allows a process to obtain the process IDs of  
its children.

Answer: B) This function is called once but returns twice. Section 8.3 page 229

#2. Which of the following is NOT a property of the parent inherited by the child?

A. Real user ID

B. Real group ID

C. Effective user ID

D. Effective group ID

E. Other IDs

Answer: E) Other IDs is not included. Section 8.3 page 233

#3. Which of the following is NOT a difference between the parent and child?

A. The return values from fork

B.The process IDs

C. Parent process IDs

D. File locks set by the parent are inherited by the child

E. Pending alarms are cleared for the child

Answer D) File locks set by the parent are NOT inherited by the child. Section 8.3 page 233

#4. How many different exec functions are there?

A. 4

B. 5

C. 6

D. 7

E. 8

Answer D) There are seven different exec functions, but we’ll often simply refer to ‘‘the exec  
function,’’ which means that we could use any of the seven functions. Section 8.10 page 249

#5. What do all seven exec functions return on error?

A. 0

B. -1

C. 1

D. NULL

E. No return

Answer B) All seven return: -1 on error. Section 8.10 page 249

#6. What do all seven exec functions return on success?

A. 0

B. -1

C. 1

D. NULL

E. No return

Answer E) All seven no return on success. Section 8.10 page 249

#7. How many types of return values for system?

A. 2

B. 3

C. 4

D. 5

E. 6

Answer B) Because system is implemented by calling fork, exec, and waitpid, there are  
three types of return values. Section 8.13 page 265

#8. If either the fork fails or waitpid returns an error other than EINTR, system \_\_\_\_

A. returns -1 with errno set to indicate the error

B. returns 1 with errno set to indicate the error

C. returns 0

D. returns NULL

E. No return

Answer A) If either the fork fails or waitpid returns an error other than EINTR, system  
returns -1 with errno set to indicate the error. Section 8.13 page 265

#9. What happens if we call system from a set-user-ID program?

A. The program compiles and runs normally

B. The program compiles and runs with bug

C. Creates a security hole and should never be attempted

D. Creates a security hole and should be attempted

E. Exit program

Answer C) What happens if we call system from a set-user-ID program? Doing so creates a  
security hole and should never be attempted. Figure 8.24 shows a simple program that  
just calls system for its command-line argument. Section 8.13 page 267

#10. If cmdstring is a null pointer, system returns \_\_\_\_\_only if a command processor  
is available

A. -1

B. 1

C. 0

D. nonzero

E. No return

Answer D) If cmdstring is a null pointer, system returns nonzero only if a command processor  
is available. This feature determines whether the system function is supported on a  
given operating system. Section 8.13 page 265.