

CS580U Exam Sample Questions

1. Which of the following is *not* a valid escape sequence?

- (a) `\n`
- (b) `\\`
- (c) `\~`
- (d) `\”`

ANS: (c)

2. Consider the following *correct* segment of a *correct* C program:

```
p = 2;
while (p < 2000) {
    p = 2 * p;
}
```

What is the value of `p` *after* this while loop completes its execution?

- a) 1023
- b) 1024
- c) 2047
- d) 2048

ANS: (d)

3. What is produced by a `for` statement with a correct body and with the following header

```
for (i = 20; i >= 2; i += 2)
```

- a) a syntax error
- b) a divide-by-zero error
- c) an infinite loop
- d) the even values of `i` from 20 down to 2.

ANS: (c)

4. Which is *not* an ANSI standard library function?

- a) `printf`
- b) `main`
- c) `scanf`
- d) `pow`

ANS: (b)

5. Advantages of `typedef` do *not* include

- (a) making programs more portable by allowing data types to be easily changed to meet system specifications.
- (b) making type names shorter.
- (c) making programs more readable.
- (d) increasing the efficiency of accessing `struct` member variables.

ANS: (d)

6. Which of the following does *not* initialize all of the array elements to 0?

(a)

```
int b[2][2];  
b[0][0] = b[0][1] = b[1][0] = b[1][1] = 0;
```

(b) `int b[2][2] = {0};`

(c)

```
int b[2][2];  
for (int i = 0; i < 2; ++i) {  
    for (int j = 0; j < 2; ++j) {  
        b[i][j] = 0;  
    }  
}
```

(d) all of the above initialize all of their elements to 0.

ANS: (d)

7. Which is a correct form of the `#include` directive

a) `#include 'filename'`

b) `#include /filename/`

c) `#include #filename`

d) `#include <filename>`

ANS: (d)