

16.216: ECE Application Programming

Fall 2011

Lecture 29: Key Questions
November 21, 2011

1. Describe how character arrays can be used to represent strings in C.

2. Describe the C functions used for:
 - a. Copying one string to another

- b. Comparing two strings

c. Checking the number of characters in a string

d. Concatenating two strings together

3. **Example:** What does the following program print?

```
int main() {
    char s1[15];
    int n1;
    char s2[10] = ".216";
    int n;

    strncpy(s1, "16", 15);
    n1 = strlen(s1);
    printf("s1 = %s\n", s1);
    printf("Length of s1 = %d\n\n", n1);

    printf("%c\n\n", s1[1]);

    strncat(s1,s2,10);
    n1 = strlen(s1);
    printf("s1 = %s\n", s1);
    printf("Length of s1 = %d\n\n", n1);

    // Assume user inputs: ABC ABD
    printf("Enter two strings:");
    scanf("%s%s", s1, s2);
    n = strncmp(s1, s2, 15);
    if (n > 0)
        printf("%s > %s\n", s1, s2);
    else if (n < 0)
        printf("%s < %s\n", s1, s2);
    else
        printf("%s == %s\n", s1, s2);
    return 0;
}
```