Lab 4 – Character Strings – Suggested Answers

Q1: Suggested Answer

```
char *sweepSpace1(char *str)
{
  int i, j=0, len;
  len=strlen(str);
  for ( i=0; i < len; i++){
    if (str[i] != ' '){
      str[j] = str[i];
      j++;
    }
  }
  str[j] = '\0';
  return str;
}
char *sweepSpace2(char *str)
{
  int i=0, j=0, len;
  len=strlen(str);
  for ( i=0; i < len; i++){
    if (*(str+i) != ' '){
      *(str+j) = *(str+i);
      j++;
    }
  }
  *(str+j) = '\0';
  return str;
}
```

Q2: Suggested Answer

```
void readNames(char nameptr[][80], int *size)
{
  int i;
  printf("Enter size: \n");
  scanf("%d", size);
  printf("Enter %d names: \n", *size);
  for (i=0; i < *size; i++)
    scanf("%s", nameptr[i]);
}
int findTarget(char *target, char nameptr[][80], int size)
{
  int i;
  for (i=0; i<size; i++) {
    if (strcmp(nameptr[i], target) == 0)
      return i;
  }
  return -1;
}
```

Q3: Suggested Answer

```
int palindrome(char *str)
{
  int len, i;
  char *p1, *p2;

  i=0; len=0;
  while (*(str+i)!='\0') {
    i++;
    len++;
  }
  p1=str;
  p2=str+len-1;
  while (p1<p2){
    if (*p1 != *p2)
      break;
    else {
      p1++;
      p2--;
    }
  }
  if (p1<p2)
    return 0;
  else
    return 1;
}
```