Homework 7-**SOLUTIONS**

Part I

1. **Using Formatted Input and the Subsetting IF Statement**

```
data AU_trainees US_trainees;
   drop Country;
   infile "&path\sales1.dat";
   input  @1 Employee_ID 6.
          @21 Last_Name $18.
          @43 Job_Title $20.
          @64 Salary Dollar8.
          @73 Country $2.
          @87 Hire_Date mmddyy10.;
   if Job_Title = 'Sales Rep. I';
   if Country = 'AU' then output AU_trainees;
   else if Country='US' then output US_trainees;
run;

title 'Australian Trainees';
proc print data=AU_trainees noobs;
run;

title 'US Trainees';
proc print data=US_trainees noobs;
run;
title;
```

2. **Working with Mixed Record Types**

```
data AU_sales US_sales;
   drop Country;
   infile 'sales3.dat';
   input  @1 Employee_ID 6.
          @21 Last_Name $18.
          @43 Job_Title $20.;
   input @10 Country $2. @;
   if Country = 'AU' then do;
      input @1 Salary dollarx8.
            @24 Hire_Date ddmmyy10.;
      output AU_sales;
   end;
   else if Country = 'US' then do;
      input @1 Salary dollar8.
            @24 Hire_Date mmddyy10.;
      output US_sales;
   end;
run;
```

```
title 'Australian Sales Staff';
proc print data=AU_sales noobs;
run;

title 'US Sales Staff';
proc print data=US_sales noobs;
run;
title;
```

Part II

1. **Extracting Characters Based on Position**

```
data work.small;
   set orion.newcompetitors;
   Country = substr(ID,1,2);
   Store_Code=left(substr(ID,3));
   if substr(Store_Code,1,1) = '1';
   City=propcase(City);
run;

title 'New Small-Store Competitors';
proc print data=work.small noobs;
   var Store_Code Country City Postal_Code;
run;
title;
```

2. **Searching Character Values and Explicit Output**

```
data work.split;
   set orion.employee_donations (obs=10);
   PctLoc=find(Recipients,'%');
   /* Position in which the first '%' occurs */
   if PctLoc > 0 then do;
     Charity=substr(Recipients,1,PctLoc);
     output;
     Charity=substr(Recipients,PctLoc+3);
     output;
   end;
   /* If '%' was found, then there's more than one recipient */
   /* Use PctLoc+3 for the '%, ' before the second charity */
   else do;
     Charity=trim(Recipients)!!' 100%';
     output;
   end;
```

```
    drop PctLoc Recipients;
run;
```

Part III

1. **Using a Text String with Column Pointer Controls**

```
data seminar_ratings;
    infile "&path\seminar.dat";
    input Name $15.  @'Rating:' Rating 1.;
run;

title 'Names and Ratings';
proc print data=seminar_ratings;
    run;
title;
```

2. **Converting U.S. Postal Codes to State Names**

```
data states;
    set orion.contacts;
    keep ID Name Location;
    Location = zipnamel(substr(right(address2),20,5));
run;

proc print data=states noobs;
run;
```