CPSC 231 Midterm Review: Fall 2005

Part I: Multiple choice (select the best answer to each question)

1. In what room is the CPSC 231 tutorial for the spring 2005 session held?
   a. MS211
   b. ICT211
   c. MS707
   d. ICT707
   e. There's a tutorial for this class???!!!

Answer: a

2. Which of the following UNIX commands could you use to view the contents of a directory?
   a. cd
   b. ls
   c. rm
   d. (a) & (c)
   e. None of the above

Answer: b

3. Which area of Computer Science focuses primarily on representing information in a way that makes the information easier to find and use?
   a. Graphics
   b. Artificial Intelligence
   c. Data bases
   d. Information Visualization
   e. Human-Computer Interaction

Answer: d

4. Which of the alternatives below correctly rank the following storage devices from the lowest to the highest storage capability for the computers of today?
   a. Hard drives, CD, DVD
   b. CD, DVD, Hard drives
   c. DVD, CD, Hard drives
   d. CD, Hard drives, DVD
   e. None of the above

Answer: b

5. What is the base ten equivalent of the decimal number 27?
   a. 10
   b. 1B
   c. 27
   d. 33
   e. 11011

Answer: C

6. What is the binary equivalent of the octal number 36?
   a. 8
   b. 30

c. 36
d. 11110
e. None of the above

Answer: d

7. What will be the output of the following program? (<SP> is used to show a space)

```
program outputExample (output);
begin
   write('hel':3);
   writeln('@':3);
end.
```

a. hel@
b. 'hel':3'@':3
c. hel<SP><SP>@
d. <SP><SP>hel@
e. hel@<SP><SP>

Answer: c

8. What will be the output of the following program?

```
program decision1 (output);
begin
   var x : integer;
   x := 1;
   if (x < 1) then
      write('x under 1;');
   if (x < 2) then
      write('x under 2;');
   if (x < 3) then
      write('x under 3;');
   if (x < 4) then
      write('x under 4;');
end.
```

a. x under 1
b. x under 2
c. x under 2;x under 3;x under 4;
d. x under 1; x under 2;x under 3;x under 4;
e. None of the above

Answer: c

9. What will be the output of the following program?

```
program loop1 (output);
begin
   var i : integer;
   for i := 100 to 10 do
      write(i, ' ');
   writeln('All done!');
end.
```

a. All done!
b. 1 All done!
c. 100 99 98…12 11 10 All done!

d. 100 99 98…3 2 1 All done!
e. 10 11 12…98 99 100 All done!

Answer: a

Part II: Short answer

Question 1: In the space provided below trace the output of the following program.

```
program practiceFun (output);

var
   var1 : integer;
   var2 : integer;

procedure proc  (var3 : integer; var var4 : integer);
var
   var2 :  integer;
begin
   var2 := 10;
   var3 := 20;
   var4 := 30;
   writeln('3:', var2);
   writeln('4:', var3);
   writeln('5:', var4);
end;

function fun (var2 : integer):integer;
begin
   fun := var2 + 1;
end;

begin
   var var2 :  integer;

   var1  := 1;
   var2  := 2;
   writeln('1:', var1);
   writeln('2:', var2);
   proc(var1, var2);
   writeln('6:', var1);
   writeln('7:', var2);

   begin
     var var2 : integer;

     var2  := 0;
     var2  := fun(var2);
     writeln('8:', var1);
     writeln('9:', var2);
   end;

   writeln('10:', var1);
   writeln('11:', var2);
end.
```

<< **Write your answer here** >>

1:1
2:2
3:10
4:20
5:30
6:1
7:30
8:1
9:1
10:1
11:30

Question 2: Write the code that will display all the even numbers between 1 and 100 (inclusive). All the numbers are to appear on one line and will be followed by a space: "2 4 6 8 10…96 98 100"

```
program loop2 (output);

begin
  var i : integer;
  for i := 1 to 100 do
  begin
    if (i MOD 2 = 0) then
      write(i, ' ');
  end;
end.
```

<< **End of answer space** >>

JT: Liked the practice exam, then you'll love the real thing!