Name: _____

UDel CISC370-040 Final Exam, July 26, 2000

Be sure that you read each question and understand what it is asking.

1. *(5 pts)* What is the name of the object-oriented technique where different objects react differently to the same message?

2. *(5 pts)* What class does the toString() method belong to and what is this method supposed to do?

3. *(5 pts)* What are the conventional prefixes for mutator and accessor methods?

4. *(5 pts)* What is a class required to do if it implements an interface?

5. *(5 pts)* Describe how the Border layout manager arranges components.

6. *(5 pts)* How does the GridBag layout manager differ from the Grid layout?

7. *(5 pts)* Why, by default in a web browser, are applets not permitted to do file operations?

8. *(5 pts)* What host(s) can an applet make a network connection to, by default in a web browser?

9. *(5 pts)* In an applet what are the start() and stop() methods for? Give an example when they should be used.

10. *(5 pts)* How would you have a class use threads, if it already extends another class?

11. *(5 pts)* Why should only one thread execute a critical section at a time? How is this enforced in Java?

12. *(5 pts)* Why is it important that a cpu-intensive thread call yield() or sleep() on a uniprocessor?

13. *(5 pts)* Explain why the wait() and notify() mechanism is much better than busy waiting.

14. *(5 pts)* How does UDP differ from TCP? Why would you use UDP instead of TCP?

15. *(5 pts)* Describe how to set up both a TCP client and server in Java.

16. *(5 pts)* Discuss how the GET and POST methods of passing info to a CGI program differ. (i.e. how do they each pass data to the CGI)

17. *(5 pts)* How does RMI differ from CORBA?

18. *(5 pts)* Name and discuss the 5 steps needed to be done to run an RMI client and server.

19. *(5 pts)* Name 3 of the 4 fundamental transformation used in graphics and give examples of each.

20. *(5 pts)* The executeUpdate() method is used to execute many of the SQL commands, but not SELECT. What Java mehod should be used to do a SELECT?

21. *(0 pts)* BTW, some programmers like to keep their source code private and only distribute code in binary form. Java's bytecode style would seem like a good way of doing this in a portable way, instead of providing binary files for every platform. But these programmers should be aware that there is a Java decompiler available freely on the Net called jad which will decompile Java bytecode back to the source code.

Have a great rest of the summer!