**Universidad de Puerto Rico**
**Recinto de Río Piedras**
**Facultad de Adminitración de Empresas**

**Answer the following questions. Be as brief as possible. This questions will help you to prepare for the exam. Don't forget to also study the presentations that are on the class website.**

1. Explain the difference between hardware and software.

2. What is an algorithm?

3. What is a programming language? Also, give 3 examples.

4. Explain the difference between a compiled language an interpreted language. Give an example of each one.

5. What is the von Neumann architecture? Explain each of the components.

6. Give two examples of non von Neumann architectures. Explain why they do not follow the von Neumann architectures.

7. What is parallel computing?

8. What is quantum computing?

9. What is a semiconductor? What is the substance from which most semiconductors are made?

10. How does flash memory differ from the memory in a PC? Are both solid state?

11. What is Moore's Law? What does it apply to?

12. Why is Moores Law important for managers? How does it influence managerial thinking?

13. What is e-waste? e-waste is a consequence of "law", which one.

14. Explain the practical an ethical problems brought by e-waste.

15. What is the long tail?

16. What "class" of software does Netflix use to make movie recommendations?

17. What is the cash conversion cycle?

18. What is a supercomputer?

19. What is cluster computing or distributed computing?

20. What is SaaS, PaaS, and IaaS?

21. Name businesses that are using supercomputing and grid computing? Describe these uses and the advantages they offer their adopting firms.

22. What is an Operating System?

23. What is Open Source Software? Give three examples, and one of them must be an Operating System.

24. What is Linux?

25. What is virtualization?

26. Explain what is a database, a database model (give and explain three examples), a DBMS, and SQL.

27. What is Hadoop?

28. What is ERP?

29. What is Net Neutrality?

30. What is a local area network (LAN)?

31. What is Ethernet?

32. What is a communication protocol.

33. What is the Internet, and the internet protocol stack?

34. What is TCP/IP?

35. What is encyption and decryption?

36. Explain the following concepts:

    (a) Malware (including worm, virus, and trojan).
    (b) Zero-day exploit.
    (c) SQL injection.
    (d) DDoS a attack.
    (e) Botnet.
    (f) Push-button hacking.

37. What is Business Inteligence (BI)?