

CISC 7500X Midterm Exam

Short-answer questions. Each question is worth 5-points. Leaving an answer blank earns 1-point (writing a wrong answer earns 0-points).

1. Consider a scenario where there might be a high number of devices trying to access the network at once, which type of LAN (contention-based or token-based) do you think would be more efficient and why?
2. What is a data model? What does it contain? What are the objectives of data modeling? What are some different approaches to data modeling?
3. How can ERP systems help improve communication and collaboration between different departments within a company?
4. List key operational uses of an ERP system.
5. List key Non-operational uses of an ERP system.
6. List differences between Operations and Analytics.
7. Explain the potential drawbacks of a single database and the reasons why organizations might choose to maintain separate databases despite the benefits of a consolidated approach?
8. Explain the key differences between batch and online processing.
9. What factors are pushing organizations to adopt service-oriented architectures, and what factors are holding them back?
10. Differentiate between a two-tier client/server system and a three-tier client/server system. Differentiate between a fat client and a thin client. Why would a firm choose one of these approaches over the others when implementing a client/server system?

11. Explain the concept of Software-as-a-Service (SaaS) and describe at least one application area in which SaaS is becoming important. Do you think the use of SaaS will expand, and why or why not?
12. Explain both data warehousing and data mining. How are they related?
13. Describe the primary components of a decision support system, and how they interact.
14. How do supervised and unsupervised learning differ in their approach to uncovering patterns within data?
15. Name two common unsupervised learning methods, and what inherent challenges do they present compared to supervised training methods?
16. What is a proxy metric used for in machine learning, and how does it relate to data analysis?
17. Define and contrast the following pairs of terms: dot-com and bricks-and-clicks, intranet and extranet, B2C and B2B.
18. Analyze how candidates in the current political election appear to be leveraging the Internet as part of their campaign, or not.
19. Briefly explain and give examples of business process re-engineering.
20. Company XYZ is offering online training classes. They notice that during classes, most students silently sit in listen-only mode. They wish to differentiate themselves by having more interactive courses, where students participate with the instructor, as well as with each other.
 - (a) What technologies or techniques can XYZ corporation use to enable more interactivity among students?
 - (b) How would XYZ corporation go about implementing such techniques?
 - (c) How would the technique work to get students to interact more?