CS123: Introduction to Information Systems
Midterm Exam: Lectures 1 through 4

TEST NO. **53132**

Bubble test instructions:

- *On your blank bubble test form,* **clearly print 1) your full NAME; 2) the five-digit TEST NO. shown above-right**; 3) this class number SUBJECT; and 4) today's DATE
- Use a #2 pencil
- When you have completed this test, turn in both this question sheet *and* your filled-in bubble test form

General instructions:

- Please sit separated from others by at least one seat
- **This test is "closed-book"**: You *may not* use notes/books/electronics, except as directed
- Check both sides of each page for questions!
- Multiple-choice responses are listed in random order. Expect no pattern.

Multiple Choice (2 points each)

On your bubble test form, fill in the one best response below.

1. In information systems, 1) what produces *feedback*, and 2) what's the purpose of *processing*?

   A. 1) processing and/or output; 2) feedback
   B. 1) processing and/or output; 2) creating new value
   C. 1) information; 2) producing data
   D. 1) output; 2) generating knowledge
   E. 1) input; 2) gathering raw facts

2. In information systems, what do these terms mean? 1) *knowledge*, 2) *data*, and 3) *information*

   A. 1) raw facts, such as an employee number; 2) added value through organization and processing; 3) awareness and understanding to support a task or make a decision
   B. 1) added value through organization and processing; 2) raw facts, such as an employee number; 3) awareness and understanding to support a task or make a decision
   C. 1) awareness and understanding to support a task or make a decision; 2) added value through organization and processing; 3) raw facts, such as an employee number
   D. none of these
   E. 1) awareness and understanding to support a task or make a decision; 2) raw facts, such as an employee number; 3) added value through organization and processing

3. The four primary activities of an information system are Input, Output, Feedback, and _____.

   A. Database
   B. Storage

C. Processing
D. Data
E. Knowledge

4. The value of information is directly linked to how it helps decision-makers achieve their organization's _____.

A. cost reduction initiatives
B. profits
C. quality improvement measures
D. customer relationship management
E. goals

5. Which of these information systems directly supports reporting for routine and recurring information needs?

A. TPS (Transaction Processing System)
B. DSS (Decision Support System)
C. Knowledge Management System (KMS)
D. MIS (Management Information System)
E. data-mining system

6. Which of these information systems directly supports finding solutions to specific problems?

A. data-mining system
B. Knowledge Management System (KMS)
C. DSS (Decision Support System)
D. TPS (Transaction Processing System)
E. MIS (Management Information System)

7. _____ consists of computer programs that specify the operation of the computer.

A. Hardware
B. Software
C. Networking
D. Media
E. Telecommunications

8. Which of the following statements describes a characteristic of a highly competitive industry?

A. Companies partner with competitors to slow their rapid growth
B. Companies show a lot of product differentiation
C. Companies focus on more competitive advantage
D. Each of these
E. Companies have few competitors

9. Customer relationship management programs help companies manage _____.

A. 1) programs to retain loyal customers
B. 2) finished product inventory
C. 3) marketing and advertising
D. all of these
E. (1) and (3)

10. A common type of information system used in business is designed for _____.

A. electronic and mobile commerce
B. report generation
C. each of these
D. decision support
E. transaction processing

11. A/an _____ uses computer servers, distributed storage devices, and networks to connect distributed components together.

A. storage area network
B. RAID storage device
C. CPU register area
D. digital video disk
E. virtual tape

12. _____ help(s) perform maintenance, diagnose problems, and monitor computer performance.

A. Databases
B. Application software
C. A storage area network
D. Utility programs
E. The operating system

13. Applications request services from the operating system through a well-defined _____.

A. hardware interface
B. medium
C. ALU
D. application programming interface
E. utility program

14. A risk involved with using an application service provider (ASP) or Software as a Service (SaaS) provider is _____.

A. sensitive information could be compromised
B. none of these
C. the provider could be incapable of keeping its servers and network up and running consistently

D. a disaster could disable the provider's data center
E. each of these

15. One advantage of proprietary software over off-the-shelf software is that _____.
A. the software is likely to meet the basic business needs that are common across organizations
B. involvement in the development offers control over the results
C. it is used by industry leaders
D. the initial cost is lower
E. the software is likely to be of high quality because many customer firms have tested the software and helped identify its bugs

16. RAID storage devices provide data storage that is _____.
A. sequential-access
B. fault-tolerant
C. extremely low-cost
D. volatile
E. more energy-efficient

17. A type of memory whose contents are not lost if the power is turned off is called _____.
A. grid
B. RAM
C. none of these
D. multicore
E. nonvolatile

18. Application software interacts with system hardware through _____.
A. SaaS
B. utility programs
C. the operating system
D. Enterprise Resource Planning
E. memory management

19. _____ is a standardized data manipulation language developed in the 1970s that helps users query and update databases.
A. SQL
B. DDL
C. Schema
D. Access
E. DML

20. _____ is/are an information-analysis tool that involves the automated discovery of patterns and relationships in a data warehouse.

A. Data mining
B. DBMS
C. Competitive intelligence
D. Entity Relationships
E. Online Analytical Processing (OLAP)

21. A tool that database designers use to visualize and discuss the logical relationships among data is _____.

A. a database file
B. an entity-relationship diagram
C. a data modelling language
D. a schema
E. a primary key

22. The smallest piece of data used by a computer is called a _____.

A. record
B. terrabyte
C. field
D. bit
E. character

23. What's the proper order of the typical hierarchy of data?

A. records > fields > databases > characters > files
B. fields > records > characters > files > databases
C. characters > fields > records > files > databases
D. characters > records > fields > files > databases
E. databases > records > fields > files > characters

24. As long as tables in a relational database share one common _____, the tables can be linked to provide useful information and reports.

A. attribute
B. file
C. entity
D. concurrency
E. record

25. A collection of fields about a specific item is called a(n) _____.

A. attribute
B. record
C. primary key
D. file
E. join

26. A(n) _____ specifies to the DBMS (Database Management System) the logical *and* physical structure of data and the relationships among the data.

A. schema
B. API
C. entity relationship diagram
D. SQL query
E. data manipulation language

27. Basic database manipulations include _____, which eliminates columns in a relational database.

A. relational
B. projecting
C. linking
D. selecting
E. joining

28. A database is a collection of integrated and related _____.

A. fields
B. files
C. attributes
D. entity relationships
E. records

29. _____ is/are the standard means for formatting Web page content.

A. Telecommunications
B. IP addresses
C. HTML (Hypertext Markup Language)
D. A URL
E. HTTP (Hypertext Transport Protocol)

30. A _____ interconnects two or more networks

A. IP packet
B. firewall
C. Web server
D. local area network
E. wide area network

31. With the IP protocol, data is grouped into _____ to be routed by various paths through a network

A. URLs
B. bits
C. messages

D. packets
E. bytes
F. records

32. A(n) _____ is a Web address that specifies the exact location of a Web page using alphanumeric characters.

A. HTML
B. URL
C. IP address
D. IP packet
E. none of these

33. The Web made possible which of these services or capabilities?

A. 1) the Internet
B. (2) and (3)
C. 2) email
D. 3) Web-browsing
E. each of these

34. _____ is a network protocol that enables traffic to be routed among all the networks connected to the Internet.

A. Wi-Fi
B. HTTP
C. ISO seven-layer model
D. XML
E. IP (Internet Protocol)

35. Individuals and small organizations usualy connect their devices to the Internet through a/an _____.

A. HTTP system
B. Web server
C. personal proxy server
D. Internet service provider
E. email provider

36. Telecommunications elements include _____.

A. 3) modems
B. 2) HTTP
C. 1) transmission media
D. (1) and (3)
E. Web services

37. A _____ converts a telecommunications signal from digital or analog form into another form.

A. IP packet
B. multiplexer
C. transmission media
D. Web server
E. modem

Total Points: 74
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