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## Winter 2018 ITEC 1010-M Midterm Examination

### Instructions:

- Read all questions carefully
- York exam rules are in effect;
- no electronic devices allowed.
- Answers written in pencils will not be remarked – Use Pen
- There are 9 pages including the cover page with 2 parts.
- Time limit: 120 min.
- If you have read and understood the instructions initial here.

Part	Marks	Score
A	55	<u>42</u>
B	20	<u>14</u>
Total	75	<u>56</u>

**Part A: Multiple Choice – Choose the option with the best fit. [55 Marks]**

1. Calligraph Publishing Inc.'s information system allows its customers to access the system to retrieve information on new releases, inventory levels, and more. This must be a \_\_\_\_\_.
- a. enterprise IS                      c. personal IS,  
b. group IS                              d. none of these answers
2. In terms of information systems, Wikipedia would be an example of \_\_\_\_\_.
- a. a group IS                              c. a personal IS  
b. an enterprise IS                      d. an organizational complement
3. Providing value to a \_\_\_\_\_ is the primary goal of any organization.
- a. service                                  c. product  
b. Competitor                              d. Stakeholder
4. The process of defining relationships among data to create useful information requires \_\_\_\_\_.
- a. an information system                      c. Knowledge  
b. a formal education                      d. intuition
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 b. Knowledge                                  d. intuition
6. Which of the following is NOT one of the functions of a computer-based information system?
- a. apply data                                  c. collect data  
b. store data                                  d. process data
7. Quality information that can be used for a variety of purposes is said to be \_\_\_\_\_.
- a. flexible                                  c. economical  
b. Relevant                                  d. verifiable
8. \_\_\_\_\_ is the use of a collection of computers, often owned by many people or different organizations, to work in a coordinated manner to solve a common problem.
- a. Cloud computing                      c. Grid computing  
b. Parallel computing                      d. Utility computing
9. With \_\_\_\_\_, the database is stored on a service provider's server and accessed by the client over a network, typically the Internet.
- a. Internet access                      c. Database as a Service  
b. Software as a Service                      d. Oracle

10. The senior IS managers are responsible for the day to day running of IS hardware to process an organization's information systems workload.
- a. True       b. False
11. Using a computer to forecast future sales and order more inventory before a shortage can occur is an example of information system feedback.
- a. True       b. False
12. \_\_\_\_\_ is an approach to data management whereby each distinct operational system uses data files dedicated to that system.
- a. Company approach to data management      c. Database approach to data management
- b. Enterprise approach to data management       d. Traditional approach to data management
13. \_\_\_\_\_ is an approach that starts by investigating the general data and information needs of the organization at the strategic level and then examines more specific data and information needs for the functional areas and departments within the organization.
- a. Enterprise data modeling      c. Social graph analysis
- b. Data selecting      d. Data cleansing
14. Data warehouses allow managers to \_\_\_\_\_ get increasing levels of detail about business conditions.
- a. roll up       c. drill down
- b. slice and dice      d. extract data
15. A type of memory that loses its contents if the power is turned off is said to be \_\_\_\_\_.
- a. multicore      c. readable/writable
- b. assessable       d. volatile
16. The \_\_\_\_\_ is the part of the central processing unit (CPU) that sequentially accesses program instructions, decodes them, and coordinates the flow of data in and out of the arithmetic/logic unit (ALU).
- a. register unit      c. primary unit
- b. control unit      d. main memory unit
17. Which of the following is a primary element of the central processing unit (CPU)?
- a. Blade servers      c. Motherboards
- b. Storage registers      d. Data centers
18. A \_\_\_\_\_ is a single user, nonportable computer designed to perform engineering, computer-assisted design (CAD), and heavy mathematical computing.
- a. workstation      c. netbook
- b. register      d. mainframe
19. Application software, such as Microsoft Windows, manages basic computer operations such as start-up.
- a. True       b. False

20. A \_\_\_\_\_ displays icons and menus that people use to send commands to a computer system.
- a. command-based user interface
  - b. natural user interface
  - c. graphical user interface
  - d. multitouch interface
21. Programmers use \_\_\_\_\_ to create application software without understanding the inner workings of an operating system as it provides a software-to-software interface, not an end user interface.
- a. graphical user interface
  - b. command-based user interface
  - c. natural user interface
  - d. application program interface
22. The goal of the \_\_\_\_\_ step of systems development is to gain a clear understanding of the problem to be solved or opportunity to be addressed.
- a. systems analysis
  - b. systems design
  - c. systems investigation
  - d. systems implementation
23. A(n) \_\_\_\_\_ can replace many applications with one unified set of programs, making the system easier to use and more effective.
- a. transaction processing system
  - b. e-commerce system
  - c. enterprise resource planning system
  - d. decision support system
24. A(n) \_\_\_\_\_ is typically a name, number, or combination of characters that describes an aspect of a business object or activity.
- a. field
  - b. record
  - c. entity
  - d. file
25. A(n) \_\_\_\_\_ is a person, place, or thing (object) for which data is collected, stored, and maintained.
- a. field
  - b. record
  - c. entity
  - d. file
26. A(n) \_\_\_\_\_ is a field or set of fields in a record that uniquely defines the record.
- a. attribute
  - b. primary key
  - c. entity
  - d. data item
27. Basic data manipulations include \_\_\_\_\_ that involves eliminating rows in a relational database according to certain criteria.
- a. selecting
  - b. projecting
  - c. joining
  - d. linking
28. A \_\_\_\_\_ is a description that involves "telling" the database management system (DBMS) the logical and physical structure of the data and the relationships among the data for each user.
- a. diagram
  - b. schema
  - c. model
  - d. register

29. A decision support system (DSS) is an organized collection of people, procedures, software, databases, and devices that provides routine information to managers and decision makers.
- a. True  b. False
30. \_\_\_\_\_ deals with how firms successfully plan for and implement reforms.
- a. Forecasting c. Transaction processing  
 b. Systems development  d. Organizational change
31. Information is simply a collection of raw facts such as an employee number or the total hours worked in a week.
- a. True  b. False
32. \_\_\_\_\_ is responsible for implementing a new information system required to support an organization's existing and future business needs.
- a. A development group c. An operations group  
b. A support group d. The chief technology officer
33. a.
34. The technology infrastructure is a set of shared IS resources that form the foundation of each computer-based information system.
- a. True b. False
35. Information about the documents on the Web and access to these documents are controlled and provided by tens of thousands of special computers called Web servers.
- a. True b. False
36. \_\_\_\_\_ is a powerful operating system originally developed by AT&T for use on minicomputers but now runs on workstations, servers, and mainframe computers.
- a. z/OS  c. Unix  
b. AIX d. Linux
37. Which of the following statements is true of embedded operating systems?
- a. They represent a small, niche market.  
 b. They are dedicated to the control of another device.  
c. They are used in a narrow range of applications.  
d. They mainly determine the functionality of smartphones solely.
38. One of the disadvantages of proprietary software is that:
- a. it is hard to control results even if one is involved in the development of software.  
b. it does not allow modification of features that one might need to counteract an initiative by competitors.  
c. it is difficult to achieve what is required in terms of features and reports  
 d. it can take a long time and significant resources to develop the required software features.

39. The \_\_\_\_\_ unit of the central processing unit (CPU) performs mathematical calculations and makes logical comparisons.
- a. register unit
  - b. Arithmetic/logic
  - c. primary unit
  - d. control unit
40. Which of the anchor codes below would not be appropriate to publish on the WWW?
- a. `<a href = "file://c:/myfiles/bongos.htm">Bongos Galore</a>`
  - b. `<a href = "http://www.bongos.org/">Bongos Galore</a>`
  - c. `<a href = "../bongos.htm"> Bongos Galore</a>`
  - d. `<a href = "../../bongos.htm"> Bongos Galore</a>`
41. In HTML, the img tag specifies a(n) image.
- a. inline specification
  - b. block level specification
  - c. external link
  - d. internal link
42. Logically related tasks performed to achieve an organization's defined outcome is known as a(n) \_\_\_\_\_.
- a. computer algorithm
  - b. process
  - c. database management
  - d. Automation
43. In HTML to add rows to defined tables use \_\_\_\_\_.
- a. `<tr>` and `</tr>`
  - b. `<br>` and `</br>`
  - c. `<td>` and `</td>`
  - d. `<th>` and `</th>`
44. This LAN configuration involves a central communication controller.
- a. Ring topology
  - b. Mesh topology
  - c. Star topology
  - d. Bus topology
45. \_\_\_\_\_ is an information-analysis tool that involves the automated discovery of patterns and relationships in a data warehouse.
- a. Data mining
  - b. Competitive intelligence
  - c. Counterintelligence
  - d. Enterprise data modeling
46. \_\_\_\_\_ is a form of database processing that supports top-down, query-driven data analysis.
- a. Social graph analysis
  - b. Data warehousing
  - c. Online analytical processing
  - d. Data mining
47. Which of the following statements is true of a database?
- a. It is accessed primarily for use by an organization's database administrator and data administrator.
  - b. It is a collection of unstructured data.
  - c. It provides an essential foundation for an organization's knowledge management and artificial intelligence systems.
  - d. It helps companies analyze information to open new market opportunities.

48. `<img href="baloons.gif">` is a valid html tag to display an image on a web page.
- a. True
  - b. False
49. This symbol in HTML is used in an anchor when identifying a named target location of an internal link.
- a. #
  - b. &
  - c. ~
  - d. @
50. This protocol is used for transferring files over the internet.
- a. Filezilla
  - b. WCP
  - c. http
  - d. FTP
51. Which of the HTML codes below would generate validation errors?
- a. `<p><b><i>HTML</b></i> coding is fun!</p>`
  - b. `<h1><b>HTML<b>coding is fun!</h1>`
  - c. `<p>HTML coding is fun!<p/>`
  - d. All of the above.
52. This is the ability of the computer to handle an increasing number of concurrent users smoothly.
- a. optimization
  - b. scalability
  - c. pipelining
  - d. multiprocessing
53. A \_\_\_\_\_ is any material substance that carries an electronic signal to support communications between a sending and receiving device.
- a. bandwidth
  - b. telecommunications medium
  - c. broadband
  - d. narrowband
54. A \_\_\_\_\_ connects one LAN to another LAN that uses the same telecommunications protocol.
- a. switch
  - b. bridge
  - c. router
  - d. gateway
55. A computer that allows many users to perform specific tasks, such as running network or Internet applications is referred to as a \_\_\_\_\_.
- a. mainframe
  - b. server
  - c. thin client
  - d. Workstation

**Part B Short Answer – Write clearly, concisely and coherently in the space provided. [20 marks]**

56. What is concurrency control? Why is it important? [4 marks]

Concurrency control is ensuring that information is accurate, up-to-date, and in-sync between multiple different <sup>information systems</sup> ~~networks~~. It is important because without it, information could be misrepresented in some places, which could lead to all sorts of issues in an organization.



Two or more things/people accessing something at the same time!

56. What is the sphere of influence? Identify three spheres of influence for most companies. [4 marks]

A sphere of influence defines what or who is affected by a specific piece of technology.

Three examples are:

- Personal sphere of influence.
- ~~Departmental sphere of influence~~ ~~group sphere of influence~~
- <sup>Enterprise</sup> Organizational sphere of influence.
- Group sphere of influence.



54. Briefly distinguish among data, information, and knowledge. [6 marks]

Data is raw facts. (e.g. names, ages, ID numbers, etc.)

Information is an organized collection of data. (e.g. An employee's record.)

Knowledge is applying information effectively. (e.g. Creating a workgroup based on employees' prior experience)



53. List 6 advantages of the database approach to data management. [6 marks]

1. Information is organized in a coherent, human-readable manner.

2. Information is <sup>easily</sup> searchable.

3. Database entries can be easily linked <sup>to each other</sup> based on attributes.

4. Data bases are scalable.

5. Paul is the best professor

6. ITEC 1010 is the best course

