الجامعة السعودية الالكترونية
Saudi Electronic University

Midterm Examination Cover Sheet
Spring- Semester: 1434-35 / 2014-2015

Course Instructor:		**Exam Date:**	**03/2/2014**
Course Title:	**Introduction to IS & IT**	**Course Code:**	**IT 101**
		Number of Pages: (including cover page)	
Exam Duration:	**1 Hour**		**7 pages**

Exam Guidelines

- **Mobile phones are not permitted.**
- **Calculators are permitted.**

Marking Scheme

Questions	Score
Q1	
Q2	
Q3	
Q4	
Q5	
Final Total Score / 25	

Student Name: _____ **Student ID:** _____

Section 1: Multiple Choice Questions

Q1. **For the following MCQs, circle one correct answer**
[20 marks, 2 marks for each question]

1) Fundamental role of Information Systems in business include:

   a. Support of Strategies for Competitive Advantage
   b. Support of Business Decision Making
   c. Support of Business Processes and Operations
   d. All of above
   e. None of above

2) Data Mining is the procedure of

   a. Analyzing a data warehouse
   b. Focusing on a single topic
   c. Extract data from other databases
   d. All of the above

3) Which of the following is responsible for the management and coordination of activities and the sharing of the resources of the computer?

   a. Application Software
   b. Motherboard
   c. Operating System
   d. RAM

4) Expanding a company's product offering into global markets is an example of a (n) _____ strategy.

   a. Cost leadership
   b. Differentiation.
   c. Growth
   d. Alliance

5) The function of an input device is:

   a. To convert data into electronic form for entry into a computer system.
   b. To convert electronic information produced by the computer system into human-intelligible form for presentation to end-users.
   c. To interpret computer program instructions
   d. To transmit directions to other components of the computer system.

6) An _____ is a network inside an organization that uses Internet technologies to provide an Internet-like environment within the enterprise.
   a. Extranet.
   b. Omninet.
   c. Intranet.

d. None of the above.

7) When employees in a project team use email to send and receive messages and use video conferences to hold electronic meetings and coordinate their activities, they are using _____.

   a. Transaction processing systems.
   b. Process control systems.
   c. Enterprise collaboration systems.
   d. Decision support systems.

8) Which of the following are considered general purpose application software packages?

   a. Education and entertainment
   b. Electronic mail
   c. System utilities
   d. Programming languages.

9) The tables in a relational database are flat files which have rows and columns. Each row represents a _____ in the file.

   a. Field
   b. Record
   c. File
   d. Relation

10) Offline devices:
   a. are directly attached to the CPU
   b. are not controlled by the CPU
   c. are controlled by the CPU
   d. can replace the CPU.

11) Which of the following is a competitive strategy?

   a. New entries into the market
   b. Innovation
   c. Bargaining power
   d. Substitutes

12) Investments in information technology that build valuable new relationships allow a firm to:

   a. Lock in the supplier.
   b. Lock in the customer
   c. Lock out competition
   d. All the above

13) The central processing unit (CPU) consists of:

      b. the Control unit and the RAID unit
      c. Arithmetic-logic unit and the RAID unit
      d. the RAID unit and the Fuzzy Logic unit
      e. the Control unit and the Arithmetic-logic unit

14) Success in today's dynamic business environment depends heavily on maximizing the use of Internet-based technologies and Web-enabled information systems to meet the competitive requirements of _____.

      a. Customers
      b. Suppliers
      c. business partners
      d. All of the choices are correct.

15) Which database model allows many-to-many relationships among records so that a data element can be accessed by following one of several paths?

      a. Hierarchical
      b. Network
      c. Object-oriented
      d. Relational

16) A communications medium that consists of one or more central wires surrounded by thick insulation is called _____ cable.

      a. Coaxial
      b. fiber optic
      c. twisted-pair
      d. packet-transmission

17) Explicit knowledge deals with:

      a. Data, documents, and things written down or stored on computers.
      b. "How-to" knowledge, which resides in workers.
      c. Using data mining techniques to capture external information.
      d. All of the choices are correct

18) The _____ operation is used to create a subset of the columns contained in the temporary tables created by the select and join operations.

      a. Link

b. Relate
c. Project
d. Merge

19) A (n) _____ is a standard set of rules and procedures for the control of communication in a network.
   a. Amplification
   b. Algorithm
   c. Protocols
   d. transponders

20) Information systems that focus on operational and managerial applications in support of basic business functions, such as accounting or marketing, are known as _____.
   a. functional business systems
   b. strategic information systems
   c. executive information systems
   d. knowledge management systems

Section 2: True/False Questions

Q2. **Answer the following questions with TRUE or FALSE:**
[10 marks, 1 mark for each question]

1. A company that places a strategic focus on customer value recognizes that quality, rather than price, has become a primary determinant in a customer's perception of value. (**T**)

2. Use of Internet technologies to empower business processes, e-commerce, and enterprise collaboration is called E-Business. (**T**)

3. A compiler is a translation program that converts high-level instructions into a set of binary instructions (machine code) for execution. (**T**)

4. Moore's Law refers to the exponential growth in the number of transistors per integrated circuit, which quadruples computer power every two months. (**F**)

5. Network structure is similar to relational structure. (**F**)

6. Bandwidth is typically measured in characters per second (CPS). (**F**)

7. IS and IT and Internet technologies play vital roles in business and improve the effectiveness and efficiency of business processes. (**T**)

8. Decision support systems (DSS) provide managerial end users with (**T**)

ad hoc and interactive support of their decision-making processes.

9. The computing power of microcomputers currently exceeds that of the mainframe computer of previous generations, at a fraction of the cost.   (**T**   )

10. Computer peripherals typically consist of hardware devices, such as keyboards, and productivity tools, such as word processing software.   (**F**   )

Section 3: Short Essay Questions

For this part of questions elaborate in your own words and give appropriate explanation, model and example if necessary.

Q3. **List three of major types of Information system resources. List them and briefly explain their significance. [6 marks, 1 mark for each type and 1 mark for the explanation of each point]**

Answer:

1. People Resources
   a. IS Specialists
   b. End Users
2. Hardware Resources
   a. Machines – the computing devices themselves
   b. Media – where data is stored
3. Software Resources
   a. Programs – instructions that tell the computer what to do
      i. System Software – runs the computer
      ii. Application Software – a particular use by end users
   b. Procedures – instructions on how to use the system
4. Data Resources
   a. Data – unorganized facts and figures
   b. Information – data organized so that it has value to the organization
5. Network Resources
   a. Communications Media- the physical pathways over which signals travel
   b. Network Infrastructure – hardware, software, and data technologies needed to support communications networks.

Q4. **Differentiate between main structures of database (Hierarchical, Network and Relational database structures).** [6 marks, 2marks for each point]

Answer:

❖ Hierarchical Structure – treelike structure of one-to-many parent-child relationships (each child can have only one parent)

❖ Network Structure – similar to hierarchical but allows many-to-many relationships (a child record can have more than one parent)

❖ Relational Structure – the most widely used database model today; data is represented as a series of two-dimensional tables called Relations; each column is a named attribute of the entity, each row is an unnamed instance of that entity

Q5. Explain these concepts:
[8 marks, 2 marks for each concept]

a. Virtual Company
Answer:

The company that uses Internet, intranets and extranets to create virtual workgroups and support alliances with business partners

b. Mainframe Systems.
Answer:

Large, fast, and powerful computer systems, used for high transaction processing and complex computations; used by corporations and government agencies.

c. Cloud Computing.
Answer:

A recent advance in computing and software delivery; software and virtualized hardware are provided as a service over the Internet; "cloud" is a metaphor for the Internet.
Examples: Microsoft's Skydrive, Oracle Cloud, ZumoDrive, Humyo, etc.

d. Client/server networking.
Answer:

A client/server network is a computing environment where workstations (clients) connect to servers. Powerful, central computer (server) providing information and processing (services) to multiple end-user computers (clients).