



The University of Fiji

School of Science and Technology
Department of Information Technology and Computer Science

ITC103

Information Systems in Organisations

Semester I, 2013

FINAL EXAMINATION PAPER

Time allowed: 3 hours [10 Minutes Extra Allowed for reading the Paper]

Weighting: 50%

Total Marks: 100

Instructions

- ✦ There are 3 main sections in this examination

Section	Marks
A (Multiple Choice Questions)	20
B (True/False)	20
C (Short/Long Answer Questions)	60

- ✦ All sections are compulsory
- ✦ Start each question on a new page
- ✦ Write your Student ID number in all the pages of your answer sheet
- ✦ Do not write with pencil or highlighted pen
- ✦ Hand in the answer Booklet to the supervisor before you leave the examination hall

Good Luck!!

Section A. Multiple Choice Questions

[20 marks]

1. What is the function that plans for, develops, implements, and maintains IT hardware, software, and applications that people use to support the goals of an organization?
 - A. Information technology
 - B. Management information systems
 - C. Technology's role in business
 - D. Technology's impact on business
2. What can IT enable an organization to accomplish?
 - A. Reduce costs
 - B. Improve productivity
 - C. Generate growth
 - D. All of the above
3. Which of the following represents the relationship between functional areas in a business?
 - A. Independent
 - B. Autonomous
 - C. Interdependent
 - D. Self-sufficient
4. What are raw facts that describe the characteristics of an event?
 - A. Information
 - B. Information technology
 - C. Data
 - D. All of the above
5. Which information culture allows employees across departments to use information (especially about problems and failures) to improve performance?
 - A. Information-functional culture
 - B. Information-sharing culture
 - C. Information-inquiring culture
 - D. Information-discovery culture

6. What is a competitive advantage?

- A. A product that an organization's customers place a lesser value on than similar offerings from a competitor
- B. A product or service that an organization's customers value more highly than similar offerings from a supplier
- C. A service that an organization's customers place a lesser value on than similar offerings from a supplier
- D. A product or service that an organization's customers place a greater value on than similar offerings from a competitor

7. Which of the following represents supplier power in Porter's Five Forces Model?

- A. High when buyers have few choices of whom to buy from and low when their choices are many
- B. Low when buyers have few choices of whom to buy from and high when their choices are many
- C. High when buyers have many choices of whom to buy from and low when their choices are few
- D. None of the above

8. Which of the following is an example of a loyalty program?

- A. Frequent-flier programs for airlines
- B. Frequent-stayer programs for hotels
- C. Frequent-dining programs for restaurants
- D. All of the above

9. What type of metrics measure throughput, transaction speed, and system availability?

- A. Efficiency IT metrics
- B. Effectiveness IT metrics
- C. All of the above
- D. None of the above

10. Which of the following defines supply chain strategy?

- A. The schedule for production activities including testing, packaging, and preparation for delivery
- B. The product delivery processes and elements including orders, warehouses, carriers, defective product returns, and invoicing
- C. The strategy for managing all the resources required to meet customer demand for all products and services
- D. the partners chosen to deliver finished products, raw materials, and services including pricing, delivery, and payment processes along with partner relationship monitoring metrics

11. What is CRM?

- A. A strategy
- B. A technology
- C. Both a technology and a strategy
- D. Neither a technology nor a strategy

12. What is business process reengineering?

- A. The analysis and redesign of workflow within and between enterprises
- B. A standardized set of activities that accomplish a specific task, such as processing a customer's order
- C. Integrates all departments and functions throughout an organization into a single TI system so that employees can make decisions by viewing enterprisewide information on all business operations
- D. None of the above

13. What is enterprise resource planning?

- A. The analysis and redesign of workflow within and between enterprises
- B. A standardized set of activities that accomplish a specific task, such as processing a customer's order
- C. Integrates all departments and functions throughout an organization into a single IT system so that employees can make decisions by viewing enterprise wide information on all business operations
- D. Involves managing all aspects of a customer's relationship with an organization to increase customer loyalty and retention and an organization's profitability

14. What does Digital Darwinism imply?

- A. Organizations which can adapt to the new demands placed on them for surviving in the information age are doomed to extinction
- B. Organizations which cannot adapt to the new demands placed on them for surviving in the information age are doomed to extinction
- C. Organizations which can adapt to new information systems are doomed to extinction
- D. Organizations which cannot adapt to new information systems are doomed to exile

15. What is a global public network of computer networks that pass information from one to another using common computer protocols?

- A. Protocol
- B. Internet
- C. World Wide Web
- D. Hypertext transport protocol

16. What is the digital divide?

- A. A global public network of computer networks that pass information from one to another using common computer protocols
- B. Refers to the depth and breadth of information transferred between customers and businesses
- C. Refers to the number of people a business can communicate with, on a global basis
- D. Occurs when those with access to technology have great advantages over those without access to technology

17. Why do relational databases use primary keys and foreign keys?

- A. To create a database
- B. To create physical relationships
- C. To create logical relationships
- D. All of the above

18. What is a forward integration?

- A. Takes information entered into a given system and sends it to the application generation component
- B. Takes information entered into a given system and sends it automatically to all downstream systems and processes

- C. Takes information entered into a given system and sends it automatically to all upstream systems and processes
- D. Takes information entered into a given system and sends it to the DBMS.

19. What is data mining?

- A. The common term for the representation of multidimensional information
- B. A particular attribute of information
- C. Uses a variety of techniques to find patterns and relationships in large volumes of information and infer rules from them that predict future behaviour and guide decision making
- D. Process of analysing data to extract information not offered by the raw data alone

20. What is system software?

- A. Controls how the various technology tools work together along with the application software
- B. Controls the application software and manages how the hardware devices work together
- C. Provides additional functionality to the operating system
- D. Used for specific information processing needs, including payroll, customer relationship management, project management, training, and many others

Section B. True/False Questions

[20 marks]

1. A web service contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services.
2. Chief privacy officer is responsible for ensuring the security of IT systems and developing strategies and IT safeguards against attacks from hackers and viruses.
3. The WWW remained primarily text based until 1991.
4. An online service provider offers an extensive array of unique services such as its own version of a web browser.
5. Onshore outsourcing is contracting an outsourcing arrangement with a company in a nearby country.
6. Mcommerce is the ability to purchase goods and services through a wireless internet-enabled device.
7. Video conference blends audio, video, and document-sharing technologies to create virtual meeting rooms where people gather at a password protected website.
8. Software built correctly can support nimble organizations and can transform as the organization and its business transforms.

9. Wireless fidelity is a means of linking computers using infrared or radio signals.
10. Software that meets employee needs may have a damaging effect on productivity and can even cause a business to fail.
11. An agile project sets a minimum number of requirements and turns them into a deliverable product.
12. RAD is a smaller-scale representation or working model of the users' requirements or a proposed design for an information system.
13. Wireless gives users a live connection via satellite or radio transmitters.
14. Organizations create teams, partnerships, and alliances with employees from other organizations only.
15. Unstructured collaboration involves shared participation in business processes such as workflow in which knowledge is hardcoded as rules.
16. Business wikis are collaborative web pages that allow users to edit documents, share ideas, or monitor the status of a project.
17. Outsourcing is a common approach using the professional expertise within an organization to develop and maintain the organization's information technology systems.
18. Messaging-based workflow system sends work assignments through an email system.
19. Web 3.0 is a set of economic, social, and technology trends that collectively form the basis for the next generation of the Internet.
20. Database-based workflow system stores documents in a central location and automatically asks the team members to access the document when it is their turn to edit the document.

Section C. Short/ Long Answer Questions

[60 marks]

Question 1

[10 marks]

1. Differentiate between primary key and secondary key. **[1 mark]**
2. What is an entity? **[0.5 mark]**
3. Write at least two advantages and two disadvantages of relational databases? **[2 marks]**
4. State at least three benefits of data dictionaries? **[1.5 marks]**
5. What is knowledge management? **[1 mark]**
6. Compare and contrast tacit knowledge and explicit knowledge, and provide examples of each type. **[2 marks]**
7. What is Management information system? **[1 mark]**

8. What is value chain? [0.5 mark]

9. What is a business process? [0.5 mark]

Question 2 [10 marks]

1. When beginning to learn about information technology it is important to understand about Data, information, and business intelligence. Discuss the relationship between Data, information and business intelligence in any organization. [2 marks]

2. Explain three key resources used in any organization which are so important that if one of them fails then chances are the business will fail. [1.5 marks]

3. Differentiate between efficiency IT metrics and effective IT metrics. [2 marks]

4. Chief information officer plays a major role in large organizations. Explain the roles and responsibilities of a CIO. [2 marks]

5. To survive and thrive, an organization must create a competitive advantage. Write a paragraph explaining the relationship between competitive advantage, first mover advantage and environmental scanning. [2.5 marks]

Question 3 [10 marks]

1. Porter's Five Forces Model helps determine the relative attractiveness of an industry. Discuss the five forces which help organizations evaluate business segments. [5 marks]

2. Differentiate between business process improvement and business process reengineering. [2 marks]

3. Differentiate between disruptive and sustaining technology. [1 mark]

4. Differentiate between internet and the World Wide Web. [1 mark]

5. Differentiate between a browser and a protocol. [1 mark]

Question 4 [10 marks]

1. Discuss at least 5 reasons for the growth of the World Wide Web. [2.5 marks]

2. Explain the impact of internet on the amount and quality of information. [2 marks]
3. Differentiate between Eshop and Email. [1 mark]
4. An ebusiness model is an approach to conducting electronic business on the internet. Explain the four ebusiness models in detail. [4 marks]
5. Explain what do understand by information ethics. [0.5 mark]

Question 5

[20 marks]

1. Explain five common characteristics of high quality information. [5 marks]
2. There are many different models for organizing information in a database. Explain three different models which are used to organize information. [3 marks]
3. From a business perspective, database information offers many advantages. Discuss at least 5 advantages of relational database. [5 marks]
4. There are a number of different software development methodologies. Explain the scrum software development methodology. [2 marks]
5. Explain 5 reasons why projects fail. [2.5 marks]
6. Explain the difference between core competency and core competency strategy. [1 mark]
7. Explain two practices for transferring tacit knowledge. [1.5 marks]

The End

