UNIVERSITY
OF
JOHANNESBURG

FACULTY OF MANAGEMENT

DEPARTMENT OF APPLIED INFORMATION SYSTEMS

MODULE	:	`	**FINANCIAL INFORMATION SYSTEMS**
CODE	:		**ISF2-1/FIS22B2**
DATE	:		**OCTOBER 2014**
DURATION	:		**2 HOURS**
TOTAL MARKS	:		**80**

EXAMINER	:	**SM BVUMA**
EXTERNAL MODERATOR	:	**MANDLAKAYISE SJ THABETHE**
NUMBER OF PAGES	:	**6**

INSTRUCTIONS TO CANDIDATES:

- Read the questions carefully
- Answer all questions
- Number your answers clearly
- Write neatly and legibly
- Structure your answers by using appropriate headings and sub-headings
- The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this exam.

1. In data and process modeling, a (n) _____ model shows what the system must do, regardless of how it will be implemented physically.
    a. Operational
    b. Physical
    c. Logical
    d. Relational

2. DFD symbols are referenced by using all _____ letters for the symbol name.
    a. Capital
    b. lowercase
    c. Italicized
    d. Boldfaced

3. A DFD shows _____.
    a. how data are related
    b. what key fields are stored in the system
    c. how a system transforms input data into useful information
    d. what data is stored in the system

4. In a DFD, the Gane and Sarson symbol for a process is a _____.
    a. rectangle with rounded corners
    b. line with a single or double arrowhead
    c. flat rectangle that is open on the right side and closed on the left side
    d. rectangle, which may be shaded to make it look three-dimensional

5. In a DFD, the Gane and Sarson symbol for a data flow is a _____.
    a. rectangle with rounded corners
    b. line with a single or double arrowhead
    c. flat rectangle that is open on the right side and closed on the left side
    d. rectangle, which may be shaded to make it look three-dimensional

Read the case study and answer below: [2 Marks Each]

Roark has just joined the company and in his role as lead analyst, he will be responsible for determining which systems development method the team uses to create the new application for a major medical supplier.

6. After Roark has spent a week getting to know the members of the team, including their strengths and weaknesses, and what has worked well (and not so well) for this particular team in the past, one theme keeps recurring: the team has particularly weak communications skills. Which of the following methods, then, is he *least* likely to use, given what he knows about the disadvantages of each method?

a. structured analysis

b. agile/adaptive methods

c. object-oriented analysis

d. rapid application development

7. It is a new day at the firm. Roark has been in place for a few weeks, strengthening the communications skills of his employees, getting them to work much better together. Now, the challenge that he faces is not an internal one; it lies with the client, which is increasingly incapable of sticking with decisions. Roark, based on his past experience with other clients like this, is afraid that the client will throw them a curveball and want to make changes late in the game — but that they also will be unwilling to absorb the costs of those changes. For this reason, Roark eliminates which of the following methods of development?

a. structured analysis

b. agile/adaptive methods

c. object-oriented analysis

d. rapid application development

Maddy has been performing at a very high level at the firm, and so when two colleagues of hers who are currently leading other development efforts get sick or leave the company, she is asked to step in and help manage these two other efforts.

8. When Maddy sits down at the first meeting at which the first group is gathering, she hears them discussing the feasibility study in which they are currently engaged. She knows, then, in which phase of the SDLC this team currently is. Which phase is it?

a. systems analysis

b. systems design

c. systems planning

d. systems implementation

9. After leaving the first meeting, Maddy goes down the hall to meet with the outgoing manager of the second team. In that meeting, he shares with her the latest draft of the systems requirement document, which is nearly complete. In which phase is the second team currently?

a. systems analysis

b. systems design

c. systems planning

d. systems implementation

10. Many hardware and software companies offer _____ for IT professionals, which verifies that an individual demonstrated a certain level of knowledge and skill on a standardized test.

11. Eamon is trying to choose an approach to storing and managing the data for his company: a file processing system or a database management system. He asks Perry to discuss the pros and cons of the two approaches.

    Perry mentions that some data in a file processing system may be repeated in several different files. What is the name of this type of problem?
    a. a data redundancy problem
    b. a data relation problem
    c. a data modeling problem
    d. a data rigidity problem

12. Perry tells Eamon that systems that interact with a database management system do not need to know about the underlying data structures used to store the physical data. As a result, a database administrator has the flexibility to change these underlying data structures without modifying the systems that use the data. What is the name of this feature of database management systems?
    a. data scalability
    b. data authorization
    c. data flexibility
    d. data independence

13. Michelle is working with her client Malia on the design of a database. She explains to Malia that key fields are used to organize, access, and maintain the data records.

    Michelle tells Malia that a primary key is a field or combination of fields that uniquely and minimally identifies a particular entity. She explains that there may be a choice of fields or field combinations to use as the primary key. What is the term used for a possible primary key?
    a. candidate key
    b. concatenated key
    c. foreign key
    d. secondary key

14. Malia asks if it is possible to retrieve records using a field or combination of fields that is not unique. Michelle informs her that it is. What is the name for this type of key?

a. candidate key

b. concatenated key

c. foreign key

d. secondary key

15. _____ log files, which record details of all accesses and changes to a file or database, can be used to recover changes made since the last backup.

SECTION TWO

2.1 Systems planning is the first of five phases in the system development life cycle. Explain what is involved during the system planning phase. **[6]**

2.2 Discuss in detail at least four of the main reasons for systems requests, including examples where appropriate. **[8]**

2.3 You have learned that a systems request must pass several tests which are called Feasibility study to see wherther it is worthwhile to proceed further. The feasibility study uses four main yardsticks to measure a proposal. List and explain them. **[8]**

SECTION THREE

3.1 You have recently been appinted at company XYZ as a Project Manager, Project managers typically perform four main tasks, Identify them and explain what they are. **[8]**

3.2 During the final design stage, you make decisions that will have a major impact on the initial costs and TCO for the new system. At this point, you should review all previous cost estimates and ask a series of questions. List at least five of the questions you should ask at this point. **[5]**

SECTION FOUR

4.1 What do you understand by the term Outsourcing? Discuss at length the concerns and issues related to outsourcing. **[10]**

4.2 During the system design phase, user interface is crucial as it describes how users interact with a computer system. What guidelines will you consider for creating an interface that is easy to learn and use. **[10]**

TOTAL 80