Information systems Development

(Sheet 1)

Q1: Give brief notes about the Strengths point of the following:

|  |  |
| --- | --- |
| (A) RAD model | (B) Waterfall model |
| (C) Spiral model | (D) Incremental model |

Q2: Compare between Waterfall model and RAD model

Q3: Choose the correct answer

1- ……………………… aims at defining the requirements of the system through arranging workshop utilizing structured discussion of business problems

|  |  |
| --- | --- |
|  (A) RAD | (B) class design  |
| (C) waterfall model | (D) Object design |

2-The use of a ……………………… improves the practice of information systems development.

|  |  |
| --- | --- |
|  (A) object model | (B) component diagram  |
| (C) deployment diagram | (D) methodology |

3-……………………… must answer the research question

|  |  |
| --- | --- |
|  (A) methods | (B) methodology  |
| (C) Implementation  | (D) Testing |

4-……………………… is be considered tool of information system development.

|  |  |
| --- | --- |
|  (A) flowcharts  | (B) organization chart |
| (C) power designer | (D) Class |

5-……………………… describes initial project scope, goals, tasks schedule, and budget

|  |  |
| --- | --- |
|  (A) system initiation | (B) system analysis  |
| (C) system design | (D) system implementation |

6-We use ……………………… when the project can be time boxed

|  |  |  |
| --- | --- | --- |
| (A) RAD | (B) Spiral | (C) Waterfall |

7------------------prioritizes requirements of the system in groups

|  |  |
| --- | --- |
|  (A) incremental model | (B) object design |
| (C) problem domain concepts | (D) RAD |

8-The ……………………… include documentation of business requirements for the proposed system

|  |  |
| --- | --- |
| (A) Joint Application Development Report | (B) DFD |
| (C) DD | (D) relationships report |

9-…………………… is a linear sequential model that tries to define each part of the cycle and a very good method for developing large systems.

|  |  |
| --- | --- |
|  (A) Prototyping  | (B) Waterfall |
| (C) Spiral model | (D) RAD |

10- ------------------------------aims at defining the requirements of the system under construction

* 1. Requirement engineering (B) software engineering

(C ) functional requirements (D ) non functional requirements

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(Sheet 2)

Q1: Choose the correct answer

1- ……………………… include ways to evaluate the costs and benefits of different solutions and methods to formulate the detailed design necessary to develop computer applications.

|  |  |
| --- | --- |
|  (A) Techniques | (B) tools |
| (C) methodology | (D) Object design |

2- ------------------------------------- define initial project scope, goals, tasks schedule, and budget.

|  |  |
| --- | --- |
|  (A) system initiation | (B) system analysis |
| (C) system design | (D) system implementation |

3- ………………………………….the study of a business problem domain to recommend improvements and specify the business requirements and priorities for the solution.

|  |  |
| --- | --- |
|  (A) system initiation | (B) system analysis |
| (C) system design | (D) system implementation |

4- Determine which system is required to support the strategic goals of organization is one of three primary activities of:

|  |  |
| --- | --- |
|  (A) system initiation | (B) system analysis |
| (C) system design | (D) system implementation |

5-Develop the project plan includes the main three questions that are:

|  |  |
| --- | --- |
|  (A) what, when, who | (B) what , who, how |
| (C) what ,when, where | (D) what, where, how |

6- ……………. involves end users and IT specialists working together to gather, understand, and document the business requirements

|  |  |
| --- | --- |
|  (A) system initiation | (B) system analysis |
| (C) system design | (D) system implementation |

7- It is a highly structured workshop that brings together users, managers, and information systems specialists to jointly define and specify user requirements, technical options, and external designs (inputs, outputs, and screen)

|  |  |
| --- | --- |
|  (A) JAD | (B) requirement engineering |
| (C) project scope document | (D) requirement definition |

8- System initiation defines the high level system requirements through writing ………… in one paragraph

|  |  |
| --- | --- |
|  (A) JAD | (B) requirement engineering |
| (C) project scope document | (D) requirement definition |

9- It answers the question “is this project worth looking at?”

|  |  |
| --- | --- |
|  (A) system survey | (B) system study |
| (C) system definition | (D) system design |

10- It answers the question ““is a new system really worth building?”

|  |  |
| --- | --- |
|  (A) system survey | (B) system study |
| (C) system definition | (D) system design |

11- It answers the question ““What does the user need and want from a new system?”

|  |  |
| --- | --- |
|  (A) system survey | (B) system study |
| (C) system definition | (D) system design |

12- It show how the system stores, processes, and transforms data

|  |  |
| --- | --- |
|  (A) DFD | (B) FDD |
| (C) Use case diagram | (D) sequence diagram |

13- It represents the interaction between users as an actor and the information systems

|  |  |
| --- | --- |
|  (A) DFD | (B) FDD |
| (C) Use case diagram | (D) sequence diagram |

14- It shows the timing of interactions between objects as they occur

|  |  |
| --- | --- |
|  (A) DFD | (B) FDD |
| (C) Use case diagram | (D) sequence diagram |

15- It involves answers to five familiar questions: who, what, where, when, and how

|  |  |
| --- | --- |
|  (A) fact finding | (B) observation |
| (C) interview | (D) DFD |

Q2: Give brief notes about the following points:

1. Benefits of JAD
2. The main activities of survey phase of system analysis
3. The main objectives of study phase of system analysis
4. The main objectives of definition phase of system analysis

Q3: Define the following:

1-Requirements engineering

2-Functional Decomposition Diagrams (FDD)

3-JAD

4-Use Case Diagrams

5-Sequence Diagrams

Information systems Development

(Sheet 3)

Q1: Choose the correct answer:

1. System analysts use many graphical models and techniques to describe an information systems one of them is:

|  |  |
| --- | --- |
|  (A) fact finding | (B) observation |
| (C) interview | (D) DFD |

1. ------------is a graphical representation of reality.

|  |  |
| --- | --- |
|  (A) model | (B) observation |
| (C) interview | (D) power designer |

3--------------is a technique for organizing and documenting the structure and flow of data through a system’s processes.

|  |  |
| --- | --- |
|  (A) fact finding techniques | (B) observation |
| (C) process modeling | (D) data modeling |

4-A business user, when questioned will usually focus on the ------ of that operation.

|  |  |
| --- | --- |
|  (A) tools | (B) observation |
| (C) process  | (D) data  |

5--------------- may be defined as an action or series of actions which produce a change or development.

|  |  |
| --- | --- |
|  (A) external entity | (B) process |
| (C) data flow | (D) sink |

6-**-----------** is Graphical descriptions of the sources and destinations of data.

|  |  |
| --- | --- |
|  (A) DFE | (B) DFD |
| (C) UML | (D) Use case diagram |

7- Represent the flow of data between sources and destinations, processes, and data stores

|  |  |
| --- | --- |
|  (A) data flow arrow | (B) data store |
| (C) external entity | (D) Use case diagram |

8- -----------provides a summary-level view of the system.

|  |  |
| --- | --- |
|  (A) data flow arrow | (B) context diagram |
| (C) DFD1 | (D) Use case diagram |

9- --------ensure that the input and output data flows of the parent DFD are maintained on the child DFD.

|  |  |
| --- | --- |
|  (A) context diagram | (B) DFD1 |
| (C) balancing | (D) sequence diagram |

10-----------supplies data to the system while----- receives data from the system.

|  |  |
| --- | --- |
|  (A) source | (B) sink |
| (C) balancing | (D) sequence diagram |

Q2: Give brief notes about the following points:

1. Advantages of data flow diagram
2. Disadvantages of data flow diagram
3. Symbols used in data flow diagram
4. Limitation of drawing data flow diagram

Q3; define the following item:

1. Model
2. Process modeling
3. Data flow diagram
4. Context diagram
5. Balancing

Q4: put (√) or (×) with correct the wrong answer:

1. If two data elements flow together, then the use of one data flow line is not appropriate.
2. If the data elements do not always flow together, then multiple lines will not be needed.
3. External entity represent the transformation of data inside DFD
4. Data flow used to define system boundaries
5. Data store represent a temporary or permanent data repository
6. Data flow diagram level one is a top-level view of an information system that shows the system’s boundaries and scope.
7. Context diagram provides a summary-level view of the system.
8. Source receives data from the system while sink supplies data to the system.
9. Inputs to a process are always different than outputs

10 – One of DFD advantages that it becomes difficult to understand when it has more than 7 to 9 processes.

Information systems Development

(Sheet 4)

1-Draw DFD for the following purchasing system:

* Planning of raw materials department sent its requirements of raw material for purchasing system.
* Purchasing system records these requirements and save it in material file
* After recording process, purchasing systems prepares purchase order and send it to the supplier.
* Supplier sent the requirement and invoice to the system
* The systems record entering of requirement depends on the invoice and then sent with invoice to receiver department
* The receiver department checks the requirements and prepares check report to send it for the system
* The system reviews the report and then save it in report files
* The system after review the report also sends the value to the supplier

2-Draw DFD for the following booking-on system in bank system:

* Customer sends the money value and its personal data for the bookings on employee
* The employee records that data and save it in customer file
* Depending on recording process, the employee updates the customer file and prepares report sending it to the manger

 3-Draw DFD for thecase study in the ending of chapter 5