



El Salheya El Gedida University
Faculty of Computers and Information
Academic Year: 2025– 2026, Fall



**Course: IS201: Course system analysis
& design**

Instructor: Dr. Walaa

Exam: Mid Term

Exam Marks: 20 Marks

Exam Time: One Hour

Model (A)

ID:

Name:

Question 1: Answer All Questions (10 Marks)

1.is a structured, multi-phase approach that necessitates active collaboration between end users and system analysts to effectively identify and resolve business problem

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|---------------------|----------------------|----------|----------|
| (a) Database system | (b) Operating system | (c) SDLC | (d) DBMS |
|---------------------|----------------------|----------|----------|

2. Which of the following activities are NOT part of the maintenance phase?

- | | | | |
|----------------------------|-------------------------|----------------|------------------------------|
| (a) Requirement collection | (b) Adding new features | (c) Bug fixing | (d) Performance optimization |
|----------------------------|-------------------------|----------------|------------------------------|

3. Which one of the following is not a task of business analyst?

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|--|--|--|---|
| (a) Determine how the system will add value to the business. | (b) Develop the new business processes and policies. | (c) Determine how technology can enhance business process. | (d) Examine the critical business elements related to the system. |
|--|--|--|---|

4. In which phase of the Systems Development Life Cycle (SDLC), the project's scope and estimating resources are established.

- | | | | |
|--------------|------------|--------------|--------------------|
| (a) Analysis | (b) Design | (c) Planning | (d) Implementation |
|--------------|------------|--------------|--------------------|

5. In which phase of SDLC, the analyst draw data flow diagram DFD.

- | | | | |
|--------------|------------|--------------|-----------------|
| (a) Analysis | (b) Design | (c) Planning | (d) Maintenance |
|--------------|------------|--------------|-----------------|

6. Which methodology is suitable where reuse of previous software is available?

- | | | | |
|-------------|---------------|-----------|---------------------|
| (a) program | (b) waterfall | (c) agile | (d) object oriented |
|-------------|---------------|-----------|---------------------|

7. What is a key benefit of Agile development?

- | | | | |
|--|---------------------------------------|----------------------------------|--|
| (a) continuous delivery of valuable software | (b) Late delivery of working software | (c) Reduced customer involvement | (d) Strict adherence to initial requirements |
|--|---------------------------------------|----------------------------------|--|

8. In extreme programming, developers work together in pairs. Each developer checks the work and provides the supporting to other one.

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|----------------------------|----------------------|-----------------|----------------------|
| (a) Continuous integration | (b) Pair programming | (c) Refactoring | (d) on site customer |
|----------------------------|----------------------|-----------------|----------------------|

9. In Rational Unified Process (RUP- object oriented methodology), which phase the software is actually coded, tested, and documented.

- | | | | |
|-----------------|------------------|---------------|----------------|
| (a) Elaboration | (b) Construction | (c) Inception | (d) Transition |
|-----------------|------------------|---------------|----------------|

10.is a broad agile framework that emphasizes managing iterative development cycles rather than extreme delivery.

(a) Extreme programming

(b) Scrum

(c) Rational Unified Process

(d) Waterfall

Write your choices in the following table:

1	2	3	4	5	6	7	8	9	10

Question 2(A): Answer the following question

(4 Marks)

1. What is return on investment (ROI) given the net profits = \$636,000 and cost = \$535,000?

2. Write the mathematical equation for estimating the expected time ET for complete each task in the project using PERT and then fill the following table

Task	Precedence Activity	Optimistic time (O)	Real time (r)	Pessimistic time (P)	Expected time
A	-----	1	5	9	
B	A	5	7	9	
C	A	3	6	9	
D	B,C	6	8	10	

Draw network diagram and estimate earliest time and latest time

Question 2(B): Answer the following question

(6 Marks)

Consider Burger restaurant, owned by Bob. The restaurant uses an information system that takes customer orders, sends the orders to the kitchen, monitors goods sold and inventory, and generates reports for management. Draw context and level 0 diagrams of data flow diagram (DFD) for an above problem

Instructor Signature: Dr Walaa

Good luck