The estimated time for each part is indicated by E.T.

# MCQ Write the letter of the most correct answer [E.T. =30][40 marks]

Part A: Lec1 Product Quality :

1. Make sure that all system descriptions are consistent with the customer’s?

|  |  |
| --- | --- |
| 1. verification | 1. authorization |
| 1. authentication | 1. validation |

1. What is usability testing in system testing?

|  |  |
| --- | --- |
| 1. Testing the system's performance under normal and abnormal conditions | 1. Testing the system's functionality and behavior in a real-world environment |
| 1. Testing the system's compatibility with different platforms and environments | 1. Testing the system's ease of use and user-friendliness |

1. ----- is considering the probability of ‘attacks’?

|  |  |
| --- | --- |
| 1. Measure for correctness | 1. Measure for maintainability |
| 1. Measure for Integrity | 1. Measure for Quality |

1. what is not considered a primary SQF?

|  |  |
| --- | --- |
| 1. correctness | 1. integrity |
| 1. maintainability | 1. Scalability |

1. What development process usually happened at late stages?

|  |  |
| --- | --- |
| A)Implementation | B)Requirement Gathering |
| C)Design | D)Testing |

Part B: Lec2 Product Quality :

1. Consider the following pseudo-code

I=0;J=0;K=8;counter=0;end=false;

while (I < K-1) / / while-1

{

J=J+1;

while (J<K) / /while-2

{

counter++;

If (x[I] < x[u] && counter!=10)

{

if(k<10 && !x[I]<0 || end=false)

{

temp = x[I];

x[l] = x[u];

x[J] = temp;

}

}

} // end of while-2

I=I+1

} /end of while-1

The cyclomatic complexity of the above is

|  |  |
| --- | --- |
| 1. 4 | 1. 6 |
| 1. 8 | 1. 9 |

1. What isn't considered from object oriented complexity metrics?

|  |  |
| --- | --- |
| 1. Depth-of-inheritance-tree | 1. Coupling-between-objects |
| 1. Number-of-classes | 1. Number-of-children |

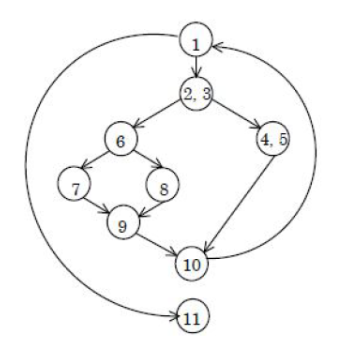
1. Which of the following is a step of black box testing techniques?

|  |  |
| --- | --- |
| 1. Identify all possible paths from the flowgraph | 1. Partitioning the input data space into subdomains |
| 1. A & B | 1. None of the above |

1. Complexity could be measured by which approach:

|  |  |
| --- | --- |
| 1. Lines-of-code metric | 1. McCabe’s cyclomatic-complexity |
| 1. Big-O complexity | 1. A & B |

1. A flow graph F with entry node (1) and exit node (11) is shown below:



What is the cyclomatic complexity

|  |  |
| --- | --- |
| 1. 2 | 1. 3 |
| 1. 4 | 1. 5 |

Part C: Lec3 Securing architecture :

1. what isn't an architectural view in software ?

|  |  |
| --- | --- |
| 1. non-functional view | 1. process view |
| 1. deployment view | 1. logical view |

1. what isn't a type of Architecture patterns?

|  |  |
| --- | --- |
| 1. Factory Creational pattern | 1. components |
| 1. Service Oriented | 1. Layers |

1. which of the following isn't type of design patterns?

|  |  |
| --- | --- |
| 1. Creational | 1. Structural |
| 1. Behavorial | 1. none of the above |

1. In large complex what is the suitable pattern to use?

|  |  |
| --- | --- |
| 1. Layers pattern | 1. mvc |
| 1. service-oriented | 1. Components |

1. what is not an advantage of Layers pattern ?

|  |  |
| --- | --- |
| 1. reusability | 1. integrity |
| 1. maintainability | 1. replication |

Part D: Lec4 SOA architecture :

1. What is the purpose of the registry (or locator) in the SOA infrastructure?

|  |  |
| --- | --- |
| 1. To define all interfaces and pre- and postconditions of the service | 1. To implement the service and execute requests from consumers |
| 1. To call the service provider to request a service | 1. To allow the lookup of services, service providers, and their location |

1. What is Flask used for in web development?

|  |  |
| --- | --- |
| 1. To design and manage databases | 1. To provide a lightweight web application framework |
| 1. To create web pages and layouts | 1. To provide a search engine for websites |

1. What is the purpose of the route() decorator in Flask?

|  |  |
| --- | --- |
| 1. To create an instance of the Flask application | 1. To import the Flask class |
| 1. To trigger a specific URL for a function | 1. To generate URLs for a particular function |

1. Which of the following statements best describes the meaning of Service Oriented Architecture (SOA)?

|  |  |
| --- | --- |
| 1. SOA is a software design pattern that emphasizes the use of interfaces to communicate between software components. | 1. SOA is a software development methodology that emphasizes the use of object-oriented programming. |
| 1. SOA is a software development process that focuses on the use of functional programming languages. | 1. SOA is a software architecture that emphasizes the use of services as the primary means of communication between software components. |

1. Which layer in the software architecture is responsible for gathering all the operations of a business entity into a single dynamic stored procedure?

|  |  |
| --- | --- |
| 1. Presentation layer | 1. Data access layer |
| 1. Logic/Domain layer | 1. Infrastructure laye |

Part E: Lecture 3 - Secure Coding session vulnerabilities :

1. Restrict only certain properties and reject the rest?

|  |  |
| --- | --- |
| 1. white list | 1. black list |
| 1. grey list | 1. A & C |

1. Which of the following is NOT a characteristic of a web session?

|  |  |
| --- | --- |
| 1. Created when a user logs in to a web application | 1. Stored on the client-side |
| 1. Can store user-specific data | 1. Created when a user visits a website for the first time |

1. What is the primary purpose of a session ID?

|  |  |
| --- | --- |
| 1. To identify the user who is logged in to a web applications | 1. To store user-specific data on the client-side |
| 1. To establish a secure connection between the client and server | 1. To prevent unauthorized access to a web application |

1. query=”SELECT first\_name, last\_name FROM WHERE id=’$id’ which of the values is a sql injection?

|  |  |
| --- | --- |
| A)id=20196000 | B)id=NULL |
| C)id=1=1 | D)id=20196000 ‘ or 1=1 |

1. what type vulnerability is clicking on a link not from a legit source where imitate the original website?

|  |  |
| --- | --- |
| A)sql inject | B)phishing |
| C)cross site scripting | D)monitoring |