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

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

**Part A: Lec1&2 Product Quality & Measuring system complexity:**

1. The characteristics of a software that make it ﬁt for its purpose :

|  |  |
| --- | --- |
| 1. software elements | 1. software testing |
| 1. software quality | 1. security requirements |

1. Determines how easily bugs can be found and ﬁxed

|  |  |
| --- | --- |
| 1. Maintainability | 1. Testability |
| 1. Flexibilty | 1. Reusability |

1. Determines how easy it is to interface the system with another system.

|  |  |
| --- | --- |
| 1. Maintainability | 1. Portability |
| 1. Interoperability | 1. Reusability |

1. ISQFs are affected by

|  |  |
| --- | --- |
| 1. Product operation requirements | 1. Product revision requirements |
| 1. Product transition requirements | 1. all of the above |

1. Which of these pairs of SQFs are not independent

|  |  |
| --- | --- |
| 1. Usability and flexibility | 1. Testability and reusability |
| 1. Usability and portability | 1. Maintainability and portability |

1. process of checking that the developer is building the ‘right’ product.

|  |  |
| --- | --- |
| 1. testing | 1. validation |
| 1. verification | 1. none of the above |

1. this type of testing is performed on classes. :

|  |  |
| --- | --- |
| 1. Usability testing | 1. Regression testing |
| 1. Unit testing | 1. Integration testing |

1. is the number of relationships the class has with other classes.

|  |  |
| --- | --- |
| 1. Number-of-children (NOC) metric | 1. Coupling-between-objects (CBO) metric |
| 1. Depth-of-inheritance-tree (DIT) metric | 1. none of the above |

1. Is used to check that the details of an implementation are correct.

|  |  |
| --- | --- |
| 1. Black box testing | 1. Gray box testing |
| 1. system testing | 1. White box testing |

1. What is Cyclomatic complexity?

|  |  |
| --- | --- |
| 1. Black box testing | 1. White-box testing |
| 1. Yellow box testing | 1. Green box testing |

1. What is the White box technique?

|  |  |
| --- | --- |
| 1. Statement Testing | 1. Decision Testing |
| 1. Condition Coverage | 1. All of the mentioned |

1. Identify the incorrect testing technique.

| 1. Integration testing | 1. System testing |
| --- | --- |
| 1. Collaboration testing | 1. Unit testing |

**Part B: Lec3&4 Securing architecture:**

1. Singletons Creational pattern is a

|  |  |
| --- | --- |
| 1. Design pattern | 1. Architectural pattern |
| 1. Testing pattern | 1. Prototype |

1. Which of the following is incorrect?

|  |  |
| --- | --- |
| 1. A Layered-style program is divided into an array of modules or layers | 1. Each layer provides services to the layer “below” and makes use of services provided by the layer “above” |
| 1. ) All of the mentioned | 1. None of the mentioned |

1. What are the main issues addressed by the Layers pattern?

|  |  |
| --- | --- |
| 1. Achieving low coupling between   functionalities | 1. Separating concerns |
| 1. Achieving high coupling between functionalities | 1. Both A & B |

1. Which of the following is one of the two styles/flavors of Layers pattern

|  |  |
| --- | --- |
| 1. One-layer pattern | 1. Two-layer pattern |
| 1. Three-layer pattern | 1. Four-layer pattern |

1. Which of the following is correct about MVC

|  |  |
| --- | --- |
| 1. The view and controller are both dependent on the model | 1. The view and controller are both independent on the model |
| 1. Only the view is dependent on the model | 1. Only the controller is dependent on the model |

1. Service Oriented Architecture (SOA) is

|  |  |
| --- | --- |
| 1. Strongly coupled | 1. Loosely coupled |
| 1. Strongly Cohesive | 1. Loosely Cohesive |

1. Is a lightweight web application framework

|  |  |
| --- | --- |
| 1. Selenium | 1. JavaScript |
| 1. XML | 1. Flask |

1. Flask is a web development framework created in\_\_\_\_\_\_\_\_\_\_\_ language.

|  |  |
| --- | --- |
| 1. C | 1. Python |
| 1. Java | 1. JavaScript |

1. Which of the following lines connect to Database

|  |  |
| --- | --- |
| 1. db\_connect = create\_engine('sqlite:///chinook.db') | 1. query = conn.execute() |
| 1. conn=db\_connect.connect() | 1. db = SessionLocal() |

1. JSON stands for

|  |  |
| --- | --- |
| 1. JavaScript Object Notation | 1. Java Object Notation |
| 1. JavaScript Object Normalization | 1. JavaScript Object-Oriented Notation |

**Part C : Lec3 Secure coding session vulnerabilities :**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_ attack is the exploitation of the web-session & its mechanism that is usually managed with a session token.

|  |  |
| --- | --- |
| 1. Session Hacking | 1. Session Cracking |
| 1. Session Hijacking | 1. Session Compromising |

1. XSS is :

|  |  |
| --- | --- |
| 1. Injection of commands | 1. Injection of Scripts |
| 1. Injection Prameters | 1. All of the above |

1. In which side does validation occur :

|  |  |
| --- | --- |
| 1. Server side | 1. Client side |
| 1. Both client and server side | 1. User side |

1. Attack which forces a user(end user)to execute unwanted actions on a web application in which he/she is currently authenticated…

|  |  |
| --- | --- |
| 1. Cross-site scoring scripting | 1. Cross-site request forgery |
| 1. Cross-site scripting | 1. None of these |

1. The most common protection mechanism against CSRF exploit

|  |  |
| --- | --- |
| 1. Authentication exchange | 1. Digital Signature |
| 1. Bit stuffing | 1. Token |