**Multiple Choice [5 Marks]**

Circle the best answer from the choices for each question below:

1. SIM Swap Fraud targets this type of method to login to web sites and on-line services:
2. Text based passwords
3. Numeric pin IDs
4. Two-factor Authentication
5. Fingerprint Identification
6. The ELIZA program is an important milestone in the area of Artificial Intelligence because:
7. It implements the Turing Test
8. It helps people understand their feelings
9. It demonstrated that complicated programs could fool humans
10. It was one of the first programs to simulate human behaviour
11. Which of the following best describes the “Turing Test”?
    1. A computer is given test questions to determine if it is as smart as a human.
    2. A human judge sits in front of a computer screen and tries to decide if he is talking to a human or a computer.
    3. A computer judge tries to decide if it is talking to a human or another computer.
    4. A test taken by computer scientists to see how much they know about AI.
12. What is the most difficult task for a computer AI?
13. Make flexible decisions
14. Sort through and organize large volumes of data
15. Match patterns in images or data transactions
16. Complete repetitive tasks
17. Who’s work was most important to the development of modern high-level computer languages?
18. Charles Babbage
19. Ada Lovelace
20. Alan Turing
21. Grace Hopper
22. Tim Berners-Lee

**Day 1 Task – Object Oriented Programming [10 Marks]**

1. Write a Java class that implements a standard mathematical function and that demonstrates some principles of object-oriented programming. Your program should do the following:
   1. Implement a simple mathematical sequence function (e.g. Factorial function).
   2. Provide a constructor that initializes the class.
   3. Define and use one or more private variables.
   4. Provide a method to calculate the sequence function.
   5. Provide “getter” methods to return the values of the private variables.
   6. Bonus: Demonstrate the property of inheritance.
   7. Note: Your code ***does not have to*** implement a main program that reads and writes data to the standard output.
   8. Provide a written version of your code below.

**Day 1 – SDLC Reflection [10 Marks]**

Note: Each question is worth 5 marks. 2x5marks = 10 marks.

1. Reflect on the Planning and Analysis Phase of the Software Development Life Cycle.
   1. List three (3) important activities / objectives of this phase.
   2. Specifically identify how you or your team implemented these activities in one of the software projects we did this semester.
2. Reflect on the Design Phase of the Software Development Life Cycle.
   1. Explain how the Design Phase is different from the Planning & Analysis Phase.
   2. Explain how the Design Phase is different from the Implementation & Coding Phase.
   3. Specifically identify two (2) things you or your team did for the design phase related to one of the software projects we did this semester.

**Day 1 – Short Answer Questions [8 Marks]**

Note: Each question is worth 4 marks. 2x4marks = 8 marks.

1. Provide and explain one (1) example of how computer technology has caused a negative impact on the environment and one (1) example of how computer technology has caused a positive impact on the environment.
2. Provide and explain two (2) examples of how computer technology or artificial intelligence will change traditional careers / jobs in the future.

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