MID-TERM

Q1. What is software program?

Ans. A computer program is a collection of instructions that can be executed by a computer to perform a specific task. A computer program is usually written by a computer programmer in a programming language.

Q2.Differntiate between complied and interpreted language?

Ans. A compiled language is a programming language whose implementations are typically compilers and not interpreters. An interpreted language is a programming language whose implementations execute instructions directly and freely, without previously compiling a program into machine-language instructions.

Q3.differntiate between psudocode and algorithm?

Ans. Algorithm vs Pseudocode vs Program:

An algorithm is defined as a well-defined sequence of steps that provides a solution for a given problem, whereas a pseudocode is one of the methods that can be used to **represent an** algorithm. ... Program on the other hand allows us to write a code in a particular programming language.

Q4.What are mathematical operator used in programming language?

Ans. Plus (+), Minus(-), Multiplication (*), and Division (/) are defined in all programming languages. They do what you would expect.

Q5.Mention any 5 relational operators?

Ans. **Relational Operators**

- < : less than.
- <= : less than or equal to.
- > : greater than.
- >= : greater than or equal to.
- == : equal to.
- /= : not equal to.

Q6.What are the loops ?

Ans . Definition: Loops are **a programming element that repeat a portion of code a set number of times until the desired process is complete**. Repetitive tasks are common in programming, and loops are essential to save time and minimize errors.

Q7.Write the syntax of while loop in javascript?

Ans. **JavaScript while Loop**

- while (expression) { // statement } ...
- let count = 1; while (count < 10) { console.log(count); count +=2; }

Q8.Write the syntax of for loop in javascript?

Ans. Statement 1 sets a variable before the loop starts (let i = 0). **Statement 2** defines the condition for the loop to run (i must be less than 5). Statement 3 increases a value (i++) each time the code block in the loop has been executed.

Q9.what is the software development life cycle?

Ans. SDLC or the Software Development Life Cycle is a process that produces software with the highest quality and lowest cost in the shortest time possible. SDLC provides a well-structured flow of phases that help an organization to quickly produce high-quality software which is well-tested and ready for production use.

The SDLC involves six phases as explained in the introduction. Popular SDLC models include the waterfall model, spiral model, and Agile model.

Q10.Explain the waterfall development life cycle model?

Ans. Definition: The waterfall model is a classical model used in system development life cycle **to create a system with a linear and sequential approach**. ... This model is divided into different phases and the output of one phase is used as the input of the next phase.

Q11.Explain the v shaped software development life cycle model?

Ans. The V-model is an **SDLC model where execution of processes happens in a sequential manner in a V-shape**. ... This means that for every single phase in the development cycle, there is a directly associated testing phase. This is a highly-disciplined model and the next phase starts only after completion of the previous phase.

Q12.Explain the agile software development life cycle model?

Ans. In software development, **agile** (sometimes written **Agile**)[1] is a set of practices intended to improve the effectiveness of software development professionals, teams, and organizations. It involves discovering requirements and developing solutions through the collaborative effort of self-organizing and cross-functional teams and their customer(s)/end user(s).[2] It advocates adaptive planning, evolutionary development, early delivery, and continual improvement, and it encourages flexible responses to changes in

requirements, resource availability, and understanding of the problems to be solved