RAWALPORA SRINAGAR KASHMIR Contact No.: 0194-3565276 Winter Assignment

(Class – 6th)

FA-1

Chapter No. 1

Computer Languages......2

- First, second, third ,fourth, fifth generation languages
- Translators

Let's BROWSE-3 (Write on notebook) Page No. 5

A. Open Google translator and convert the following words from English to Japanese and French. Write the translation in your notebook.

Honesty: Japanese-誠実 (Seijitsu), French- Honnêteté Gratitude: Japanese-感謝 (Kansha), French-Gratitude Friendship: Japanese-友情 (Yuujou), French- Amitié Loyalty: Japanese-忠誠 (Chuusei), French- Loyauté

INPUT/OUTPUT (Book work) Page No. 6-7

A. Take the correct option. (Book work)

1. Which of the following is a fifth generation language?

C. Prolog

- Language is understood by a computer without a translator program.
 B. Machine
- 3. Which translator does not convert a program into machine code at once?
 - B. Interpreter
- 4. _____ Language is used to give instructions to a computer.

C. Programming

Which generation uses abbreviation in the form of mnemonic codes?
 B. Second

B. Fill in the blanks. (Book work)

- 1. Binary is a language of 0s and 1s.
- 2. Assembly language mnemonics to give instructions.
- 3. C++ is a Third generation language.
- 4. Compiler converter hll into machine code in one go.
- 5. Programmer is a person who writes programs.





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C. State true or false. (Book Work)

1. There are three types of language translators.	(True)
2. For generation language is also called symbolic language.	(False)
3. Machine language is easy to learn compared to other languages.	(False)
4. Hll is more user friendly than other languages.	(True)
5. Mercury is an example of a high level language.	(True)

E. Answer the following questions. Page No. 8 (Write these questions on your notebook)

1. Define programmer.

Ans: A programmer is an individual who writes, tests, and maintains the code that computers use to execute tasks. Programmers use various programming languages to communicate instructions to computers and develop software applications.

2. What does a language processor do?

Ans: A language processor is a software tool that processes and translates high-level programming code into machine code or an intermediate code. It includes compilers and interpreters, facilitating the execution of programs on a computer.

3. Which translator is required for symbolic languages?

Ans: Assembler is the translator required for symbolic languages. It converts assembly language code, which uses symbolic names and mnemonics, into machine code.

4. Write any two drawbacks of machine language.

Ans: a. Complexity: Writing programs in machine language is complex and tedious, as it involves using binary instructions that directly correspond to the computer's architecture. b. Error-Prone: Due to the intricate nature of machine language, it is prone to human errors, making debugging and program maintenance challenging.

5. What is the difference between a compiler and an interpreter?

Ans: Compiler: Translates the entire program at once, generating an executable file. Errors are detected after the entire code is compiled.

Interpreter: Translates and executes the program line by line. Errors are detected as each line is interpreted.

6. What are mnemonics? Explain with an example?

Ans: Mnemonics are symbolic codes or abbreviations that represent machine instructions in assembly language programming. For example, in x86 assembly language, "MOV" is a mnemonic for the instruction that moves data from one location to another.

7. Differentiate between third and fourth generation languages. state their advantages and disadvantages.

Ans: Third Generation Languages (3GL):

Advantages: More abstraction, easier to learn, and code is more portable.



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Disadvantages: Still closer to machine code, can be complex, and might require more lines of code.

Fourth Generation Languages (4GL):

Advantages: Higher level of abstraction, more focus on problem-solving. and shorter development time.

Disadvantages: May sacrifice some control, might be less efficient for certain tasks, and platform-dependent.

8. Write two advantages of high level languages.

Ans: a. Abstraction: High-level languages provide a level of abstraction, allowing programmers to focus on problem-solving rather than low-level details of the computer architecture.

b. Portability: Code written in high-level languages is more portable, as it can be easily adapted to different computer systems with minimal modifications.

FA-2

Chapter No. 2

Algorithm and Flowcharts......10

- Problem solving algorithm flowchart and pseudocode
- Difference between flowchart and pseudocode
- Components of flowchart different types of constructs used in programming
- Mind maps

ANSWER KEY

Launchpad (book work) Pno.10

A. Solve the puzzle take the correct answer A. 15

Let's BROWSE-1 (Book work) Page No. 11

1. d 2. C

INPUT / OUTPUT (Book Work) Page No. 20-21

B. Tick the correct option. (Book work)

1. ______ is used to give data and instructions in a program.

α. Input /output box

2. A/An ______ is used to solve a specific problem.

a. Algorithm

3. _____ may have value changed during the execution of the program.

c. Counter



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- 4. Decision symbol has ______ entry points and ______ exit points
 - b.1, 2
- 5. While using a loop you need a ______.
 - c. Counter

C. Fill in the blanks.(Book work)

1. Connector is used to connect to flowcharts.

- 2. Loop repeats the statement for a specified number of times.
- 3. Decision box is in diamond shape.
- 4. The While loop executive and operation against a particular statement until that statement remains true.

5. Algorithm divides a problem into sequence of steps.

D. State true or false. (Book work)

1. The input output boxes are similar in a flowchart.	(True)	
2. Mind map is not a problem solving technique.	(True)	
3. You cannot solve real life problems with an algorithm.	(False)	
4. The While loop repeats an operation until the last item in the range has been		
obtained.	(False)	
5 for a pseudocode, no standard writing is required.	(True)	

E. Write the correct terms for the following statements. Page No. 22 (Book work)

- 1. Flowchart
- 2. Flowchart Arrows or Flow Lines
- 3. Connector Lines,
- 4. Terminal Symbol or Start/End Symbol

F. Answer the following questions. Page No. 22 (Write these questions on notebook)

1. What is problem solving?

Ans: Problem solving is the process of finding solutions to difficult or complex issues. It involves analyzing a situation, identifying the problem, and devising a strategy or plan to reach a resolution.

2. Define an algorithm?

Ans: An algorithm is a step-by-step procedure or set of rules designed to perform a specific task or solve a particular problem. It is a finite sequence of well- defined instructions that, when followed, leads to the solution of a problem.



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3. Name the different symbols of a flowchart?

Ans: Oval: Start/End, Rectangle: Process, Diamond: Decision, Parallelogram: Input/Output, Arrows: Flow lines/Connectors.

4. Explain any two symbols used in a flowchart?

Ans: Rectangle (Process): Represents a process or an operation to be performed. Diamond (Decision): Represents a decision point where a question is asked, and the answer determines the next steps.

5. Differentiate between connectors and flow lines?

Ans: Connectors: Connectors link two flowcharts spread over two pages, facilitating the continuation of the flowchart on the next page.

Flow Lines: Flow lines are straight lines with arrows indicating the direction of the flow of the process in the flowchart.

6. State the advantages of writing algorithms?

Ans: Clarity: Algorithms provide a clear and unambiguous description of the steps to solve a problem.

Reusability: Well-designed algorithms can be reused in different programs or contexts.

Efficiency: Algorithms help in creating efficient solutions to problems by breaking them down into manageable steps.

7. What is the first step of creating a mind map?

Ans: The first step of creating a mind map is to define the central theme or topic that the mind map will revolve around. This central idea is usually placed in the center of the page.