Muhammad Sikandar Dar, Assistant Professor, IMCB, G-11/1, Islamabad. 0333-5813882

SLO Based MCQs of Chapter No. 02 Computational Thinking

Sr.	Questions	A	B	C	D	Correct
1	The primary purpose of computer is to	Play games	Solve problems	Browse the internet	Watch movies	Solve problems
2	Which of the following represent the problems	Situation	Challenges	Obstacle	All	All
3	The process of analyzing a situation and handling it to find a problem is called	Decision making	Problem solving	Strategic planning	Critical thinking	Problem solving
4	Which thought process help us understand and solve problems in way that computers	Algorithmic thinking	Critical thinking	Logical reasoning	Computational thinking	Computational thinking
5	What model do computers follow to process information	Data process analyzing	input-process output	Data analyzing output	Input output feedback	input-process output
6	In computational thinking which of the following is NOT typically involved	Decomposition	Pattern recognition	Abstraction	Emotional intelligence	Emotional intelligence
7	Which of the following best describe abstraction in context of website creation	Writing detailed code	Configuring server setting	Main design and functionality	Debugging all errors	Main design and functionality
8	The process of breaking down a complex problem into smaller more manage able sub problems or task is called	Abstraction	Pattern recognition	Decomposition	Algorithm design	Decomposition
9	is the process of identifying patterns or within data problems or solutions	Abstraction	Pattern recognition	Decomposition	Algorithm design	Pattern recognition
10	Developing a step by step solution to solve a problem is called	Abstraction	Pattern recognition	Decomposition	Algorithm design	Algorithm design
11	Which of the following is NOT considered a computational artifact	Mobile application	Simulation	Handwritten letter	Website	Handwritten letter
12	Which of the following is NOT an artifact in software development life cycle	Software documentation	Source code	Prototype	Marketing Brochure	Marketing Brochure

13	Which artifact help developers to virtualize the software features through graphical representation	Meeting notes	Diagrams	Software Documentations	source code	Diagrams
14	Which artifact contain the detail of discussions for software design and features	Diagrams	Images	software documentations	Meeting notes	Meeting notes
15	An algorithm is typically written in	Specific programming languages	Binary code	Natural languages	Machine languages	Natural languages
16	____provide a visual representations of flow and logic of the algorithm	Pseudocode	Software documentations	Flowchart	User interface	Flowchart
17	The primary goal of pseudocode is to	Execute code	Debug errors	Compile code	convey algorithmic logic	convey algorithmic logic
18	What is the first step of planning and developing an artifact?	Define the problem	Plan the logic	list the input	Test the algorithm	Define the problem
19	Which of the following is not the type of data structure	Loop	Stack	Array	Queue	Loop
20	_____Within a program determine the order in which order in which instructions are executed.	Control structure	Queue	Array	Stack	Control structure
21	Which control structure executes the program statement on the basis of the conditions	Sequential	Loop	Conditional	Relation	Conditional
22	Which control structure repeat one or more program statements	Sequential	Loop	Conditionals	Relation	Loop
23	is used to manually simulating the execution of an algorithm	Trace method	Algorithm validation	Algorithm execution	Algorithm debugging	Trace method
24	Another term of tracing algorithm is to	Code complications	Desk check or dry run	Data visualization	Data validation	Desk check or dry run
25	The primary goal of tracking algorithm is	Skip the implementation phase	Verify its correctness	Compile the Program	Simulate execution on computer	Verify its correctness
26	Tracing an algorithm is done	After the code is written	After code is compiled	Before writing any code	After code is executed	Before writing any code
27	The dry run of an algorithm can be done with a technique know as	Trace table	Instruction table	Output table	Arithmetic table	Trace table

28	Trace table help to find errors	Logical	Operator	Syntax	Runtime	Logical
29	Which of the following table is used to track the technique know as	Trace table	Instruction table	Output table	Arithmetic table	Trace table
30	Which of the following is NOT a common way to evaluate algorithms	Correctness	Efficiency	Clarity	Usability	Usability
31	Which aspect of an algorithm is addressed by efficiency	Maintainability and reusability	time and space complexity	Clarity and usability	Correctness	time and space complexity
32	Time taken for an algorithm to run	Time complexibility	Space complexibility	Execution speed	Input size	Time complexibility
33	What is meant by reliability of an algorithm	it execute quickly	It handles of possible input	It always produce correct result	It use minimal memory	It always produce correct result
34	The main purpose of sorting algorithm is to	Encrypt sensitive data	Display data visually	Delete unwanted data	arrange data in specific order	arrange data in specific order
35	Which are the example of sorting algorithm	Insertion sort	Bubble sorting	both	none	both
37	Which searching algorithm search each element of a list until it find the target value or reach end of the list	binary	quick	linear	merge	linear
38	Linear search is also know as	Binary search	Quick search	Sequential search	Merge search	Sequential search
39	Which searching algorithm work on sorted list	linear	Binary	selection	insertion	Binary
40	Linear search is best for	Very large dataset or sorted data	searching for a specific color in image	small dataset or unsorted data	searching for a pattern within the data	small dataset or unsorted data
41	Binary search is best for	Very large dataset or sorted data	searching for a specific color in image	small dataset or unsorted data	searching for a pattern within	Very large dataset or sorted data
42	focusing on the most relevant aspect while ignoring unnecessary details	Decomposition	pattern recognition	algorithm design	abstraction	abstraction

43	Which control structure skip some program statement on the basis of a condition	Sequential	loop	conditional	relation	conditional
44	Time taken for an algorithm to run	Time complexity	space complexity	time allocation	execution time	Time complexity
45	Which sorting algorithm repeatedly step through the list compare adjacent element and swap them if they are in wrong order	Quick sort	bubble sort	merge sort	insertion sort	insertion sort
46	Which of the following is an intermediate step between the algorithm and actual programming	pseudocode	software documentation	text plan and cases	user interface	pseudocode
47	What is the role of control structures in an algorithm?	Store data	Flow of execution	Visual representation	Test the algorithm	Flow of execution
48	What is the significance of using comments in pseudocode?	Complicate code	Test code	Explain logic	Visual representation	Explain logic
49	Which of the following is an example of a computational artifact?	Tree	Program	Mountain	River	Program
50	To create a successful computer program, how many computational thinking technologies are usually required?	Two	Three	Four	Five	Four
51	Why do we need to think computationally?	Help us to program	Help us to solve complex more easily	Think like a computer	Coding	Help us to solve complex more easily
52	Which of the following contains a pattern?	All cars have wheels	My car is blue	My friends car has an MP3 player	None	All cars have wheels
53	What might happen if we do not look for patterns?	Inefficient solution	Might not correctly solve problem	Incorrect or inefficient solution	None	Incorrect or inefficient solution
54	How can an algorithm be represented?	Flowchart	Pseudocode	Both	None	Both
55	Which of the following is NOT a computational thinking technique?	Abstraction	Decomposition	Pattern recognition	Coding	Coding