



# SRI RAMAJAYAM GLOBAL SENIOR SECONDARY CBSE SCHOOL

## Chapter-5

### COMPUTATIONAL THINKING AND GETTING STARTED WITH PYTHON (06.09.2020)

STD: XI

TIME: 1.30 Hour

SUBJECT: COMPUTER SCIENCE

TOTAL MARKS: 50

#### Section – A (One Marks)

#### I. MCQ (Multiple Choice Questions)

15X1=15

#### 1. What is the correct definition of an algorithm?

- a) An algorithm is a step by step instructions to solve a problem.
- b) An algorithm is a process of baking bread.
- c) An algorithm is a software used to compute numbers.
- d) An algorithm is the process of breaking problems.

#### 2. What is computational thinking?

- (a) Giving instructions to a computer
- (b) Thinking like a computer - in binary
- (c) Using a set of techniques and approaches to help to solve problems

#### 3. Breaking down problems or processes into smaller pieces is a component of computational thinking called \_\_\_\_\_.

- a) Abstraction
- b) Algorithmic thinking
- c) Pattern recognition
- d) Decomposition

#### 4. Why do we need to think computationally?

- (a) To help us to program
- (b) To help us solve complex problems more easily
- (c) To help us to think like a computer

#### 5. Being able to discern similarities and differences within a pattern is a component of computational thinking that is called \_\_\_\_\_.

- a) Abstraction
- b) Algorithmic thinking
- c) Pattern recognition
- d) Decomposition

#### 6. Which of the following is NOT a computational thinking technique?

- (a) Decomposition
- (b) Pattern recognition
- (c) Coding

**7. The four main components of computational thinking are:**

- a) Decomposition, computation, algorithm, method
- b) Pattern recognition, decomposition, procedure, agility
- c) Abstraction, pattern recognition, decomposition, algorithmic thinking

**8. Which of the following is an example of thinking computationally?**

- (a) Planning out your route when going to meet a friend
- (b) When going to meet a friend, wandering around until you find them
- (c) When going to meet a friend, asking a parent to plan your route for you

**9. Which of these is NOT a computational thinking technique?**

- a) Coding
- b) Algorithm Design
- c) Decomposition
- d) Pattern Recognition

**10. Which of the following is NOT an example of computational thinking?**

- (a) Letting the bossiest friend decide where you should all go
- (b) Considering the different options carefully before deciding upon the best one
- (c) Discussing with your friends how much time and money you have before choosing from a shortlist of Places

**11. When was Python released?**

- a) 1989
- b) 1990
- c) 1991
- d) 1992

**12. What is a complex problem?**

- (a) A problem that, at first, is not easy to solve
- (b) A problem that, at first, is not easy
- (c) A problem that, at first, is not easy to solve or to understand

**13. Which of the following are valid strings in Python?**

- (a) "Hello"
- (b) 'Hello'
- (c) "Hello"
- (d) Hello"

**14. Who developed python programming language?**

- (a) Guido Wan Rossum
- (b) Guido Van Rosum
- (c) Guido Van Rossum
- (d) Guido Wan Rosum

**15. Python programming language got its name from which show.**

- (a) Monty Flying Circus
- (b) Python's Flying Circus
- (c) Monty Python's Flying Circus
- (d) Monty Flying Circus

**Section – B (Two Marks)**

**II. Answer the following questions**

**6x2=12**

16. In how many different ways, can you work in Python?
17. What is Algorithm design? Give some examples.
18. Name the principles/characteristics of Computational Thinking.
19. Python is a free and open source language. What do you understand by this feature?
20. What is decomposition? Give some examples.
21. What are some limitations of Python programming language?

**Section – C (Three Marks)**

**III. Answer the following questions**

**5x3=15**

22. Who was Python's developer and which two languages contributed to Python as a programming language?
23. What is computational thinking?
24. What is abstraction/generalisation? Give some examples.
25. What is cross-platform software?
26. What are the advantages of Python programming language?

**Section – D (Four Marks)**

**IV. Answer the following questions**

**2x4=8**

**27. Write a correct output of following Python Programming code?**

**(a)**

```
print ("Such as")
#print("Take every chance.")
print("Drop every fear. ")
```

**(b)**

```
A=20
B=5
C=A*B
D=A/B
E=A%B
print(C)
print(D)
print(E)
```

**28 Write the Advantages and Disadvantages:**

- (a) Interactive mode
- (b) Script mode

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**\*\*\*All the Best\*\*\***