

Xlth Std. Question Bank Paper-1 -2022-23

Theory :

- Q1. What is an algorithm and Flowchart?
- Q2. Mention all symbols used in flowchart and write the purpose to use
- Q3. Write the characteristics of Algorithm and Flowchart.
- Q4. What is input statement in an algorithm?
- Q5. What is output statement in an algorithm?
- Q6. What SYMBOL we use for the input, in flowchart?
- Q7. What SYMBOL we use for the output, in flowchart?

Problems based on:

1. Sequence statement:

- a. Write an Algorithm and draw a flowchart to swap two values
- b. Write an algorithm and draw a flowchart to swap two values without using third
- c. Write an algorithm and draw a flowchart to **convert** temperature in Fahrenheit to Celsius
- d. Write an algorithm and draw a flowchart to Enter three digit-based number and print sum of all digits present in that number.
- e. Write an algorithm and draw a flowchart to add two numbers
- f. **Write an algorithm** and draw a flowchart to **find** the average of three integers.
- g. Write **an** and draw a flowchart to Find the simple interest $si=prn/100$
- h. write an algorithm to read radius of a circle from the user. Calculate and print area and circumference of the circle.
- i. write an algorithm to read length and breadth of rectangle from the user. Calculate and print area and perimeter of the circle.
- j. write an algorithm to read an integer from the user. Calculate and print sum of square and cube of the given integer.

k. write an algorithm to read marks obtained by a student in three different subjects. Calculate and print total marks and percentage scored by the student. [Consider each subject is of 100 marks]

Practice Questions:

Write an algorithm to find the d where $d = \sqrt{b^2 - 4ac}$.

[Hint : for $\sqrt{\quad}$ there is function we are using called $\text{SQRT}(b*b-4*a*c)$]

MCQ:

1. Method which uses a list of well-defined instructions to solve a particular problem is known as

- A) Flowchart
- B) Program
- C) Algorithm
- D) None of these

2. To Read a value in an algorithm statement used?

- a) Input
- b) Output
- c) Print
- d) None of these

3. _____ is a valid statement in Algorithm.

- a) $v = u + a*t$
- b) $v = u + at$
- c) Both a and b
- d) None of these

4. Algorithm and Flowchart used for _____.

- a) Better Programming
- b) Easy testing and debugging
- c) Efficient coding
- d) All of the above

5. In an algorithm or flowchart which statement is valid to store value of A in B, If $A=5$.

- A) $B = A$
- B) $B := A$
- C) $B \leftarrow A$
- D) ALL of these

6. Which of the following steps for the Programming _____.

- a) Understand the problem
- b) Create the logical statement based layout
- c) Write program then debug and run
- d) All of these

7. Which symbol is used for input and output operation in flowchart?

- A) Rhombus
- B) Parallelogram
- C) Square
- D) Rectangle

8. Is it compulsory to end the algorithm?

- a) Yes
- b) No
- c) depends on programmer
- d) None of these

9. Which of the following is a valid statement to store the value of $a+b$ in c , in algorithm?

- a) $a+b = c$
- b) $c = a + b$
- c) Both a) and b)
- d) None of these

10. Which of the following is a valid statement to multiply values of variables c and d , in algorithm?

- a) $c * d$
- b) $c \times d$
- c) cd
- d) All of these

11. Which of the following is an arithmetic operator in algorithm?

- a) $+$
- b) $-$
- c) $=$
- d) Both a) and b)