**The Punjab School-DRC**

**Class 9th Computer- Vacation Engaging Task**

**Chapter 1**

1. What is problem solving?
2. What are the steps of problem solving?
3. Define a problem.
4. What are the strategies to define a problem? Give name of them.
5. How we can use background knowledge to define a problem?
6. “Pictures speak louder than words.” Give reason.
7. Why understanding of a problem is important before going to solution?
8. Which 5Ws are used in problem analysis? Give an example.
9. Why planning of a solution is important?
10. Define prototype (Draw).
11. Which strategies are there for planning a solution?
12. Define candid solution.
13. How we can select the best solution? Give an example.
14. What is flow chart? Give an example.
15. Flowcharts are important in problem solving. Why?
16. Design a flow chart to convert Celsius to Fahrenheit temperature.
17. Design a flow chart to find plain interest on an amount.
18. Design a flow chart to determine whether a given number is odd or even.
19. Design a flow chart to display the larger one out of the three given unequal numbers.
20. Define an algorithm with an example.
21. Why an algorithm have important role in problem solving?
22. Name the notations for writing an algorithm.
23. Write an algorithm to display the larger one out of three given unequal numbers.
24. Write an algorithm to assign grade to a subject based on the achieved marks.
25. Write an algorithm to find even and odd integers ranging from n1 to n2.
26. Differentiate between an algorithm and a flowchart.
27. What are the advantages and disadvantages of an algorithm?
28. What is the importance of testing?
29. Explain the types of test data.
30. Differentiate between verification and validation.
31. How we can improve the quality of solution by using invalid data for testing?

**Note:** Complete exercise of chapter 1 is also included.