

## Grade 6 Computing Worksheet - Answers

**Q1: Identify and explain the following Symbols with respect to flowcharts.**(similar answer can be accepted)

Rectangle → Process: Used to represent a process or instruction.

Diamond → Decision: Used to represent a decision point (Yes/No, True/False).

Oval → Terminator: Used to represent Start or End of a flowchart.

**Q2: Why do we use arrows in a flowchart?**(similar answer can be accepted)

Arrows are used to show the direction of flow of the process from one step to another.

**Q3: When do we use a parallelogram in a flowchart?**(similar answer can be accepted)

A parallelogram is used to represent input or output operations (e.g., reading data or displaying output).

**Q4: Scenario-Based Problem**

a) Age = 20 → Ticket price = 500

b) Age = 10 → Ticket price = 300

Explanation: The algorithm checks the age entered. If it is 18 or more, the ticket price is set to 500. Otherwise, the ticket price is set to 300.

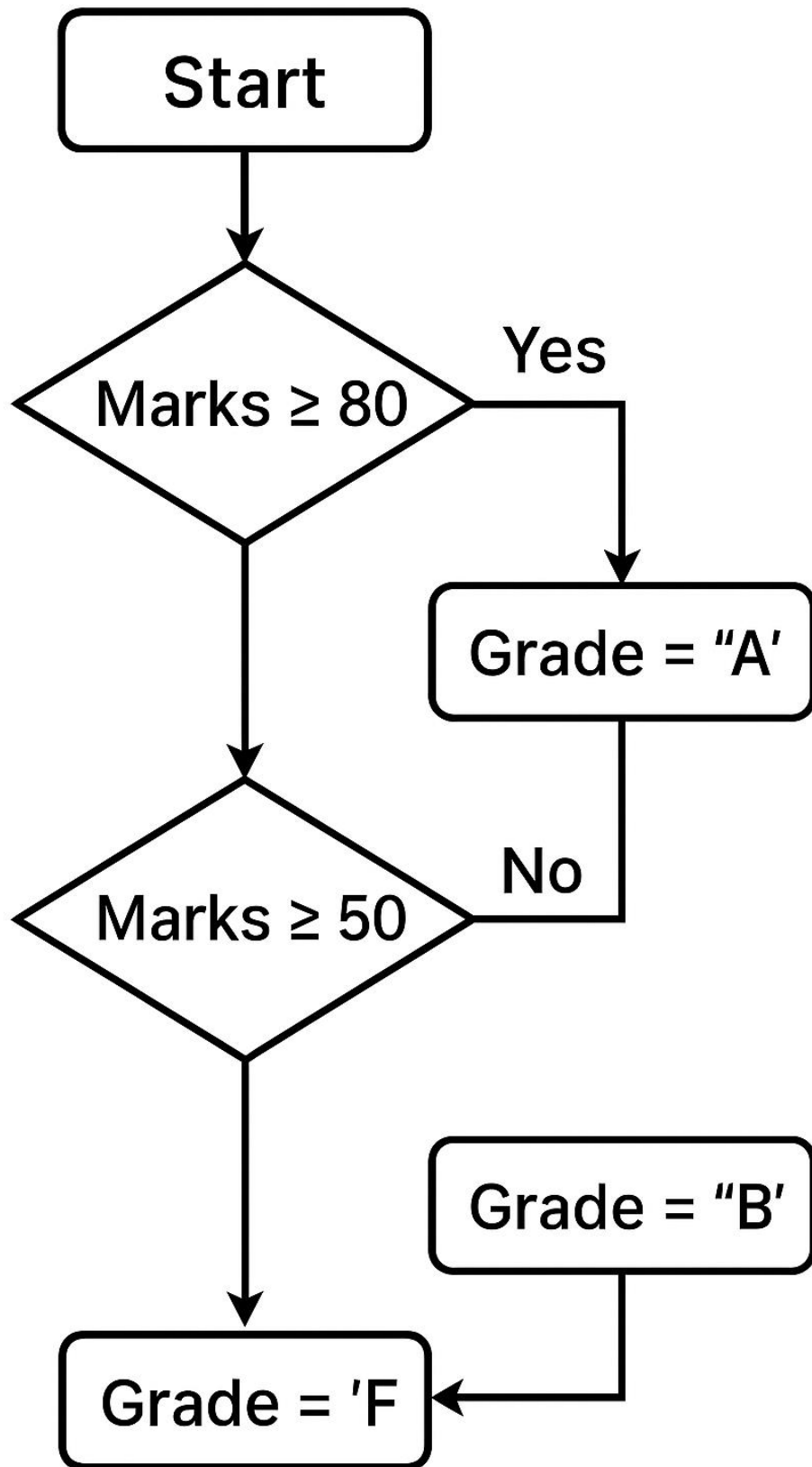
**Q5: Scenario-Based Flowchart**

a) Marks = 85 → Grade = A

b) Marks = 65 → Grade = B

c) Marks = 20 → Grade = F

Flowchart:



**Q6: State one benefit of iterators in programming?**(similar answer can be accepted)

Iterators allow looping through data structures like lists or arrays easily without needing to manage the loop counter manually.

**Q7: Identify which programming construct(s) should be used.**

Scenario 1 (Traffic Light Simulation): Selection (If-Else statements).

Scenario 2 (Printing Even Numbers): Iteration (Loop).

**Q8: Why do we use variables in programming?**(similar answer can be accepted)

Variables are used to store data values that can be used and changed during program execution.

**Q9: Write a statement to check if marks  $\geq 80$ .**

if marks  $\geq 80$ :

**Q10: If  $x = 5$ ,  $y = 3$ , what will be the value of:**

$z = x + y \rightarrow 8$

$z = x * y \rightarrow 15$

**Q11: Which block is used to give a starting value in Scratch?**

Answer: c) Set [variable] to ()

**Q12: Operator Challenge**

A) Sort the Expressions:

1.  $9 - 3 \rightarrow$  Arithmetic

2.  $< 2 \rightarrow$  Relational

3.  $6 / 2 \rightarrow$  Arithmetic

4.  $7 \geq 7 \rightarrow$  Relational

5.  $10 \% 3 \rightarrow$  Arithmetic

6.  $5 == 4 \rightarrow$  Relational

7.  $8 + 1 \rightarrow$  Arithmetic

8.  $15 != 15 \rightarrow$  Relational

B) Fill in the Operator:

1.  $4 + 6 = 10$

2.  $3 == 3 = \text{True}$

3.  $15 / 3 = 5$

4.  $12 * 5 = 60$

5.  $9 > 7 = \text{True}$

**Q13: Ali's Scratch Game**

Answer: A) The 'Jump' block is a procedure, and the score sprite and coin sprite are interacting with each other.