



INDIAN SCHOOL AL WADI AL KABIR

Class: IX	DEPARTMENT OF COMPUTER SCIENCE	Date of submission:
Topic: Getting started with scratch programming and components of scratch window.		Worksheet2

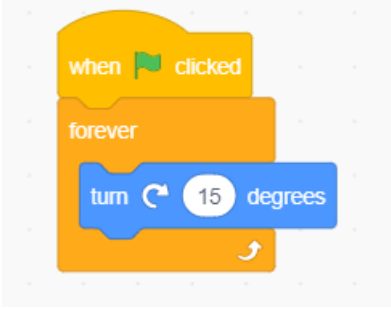
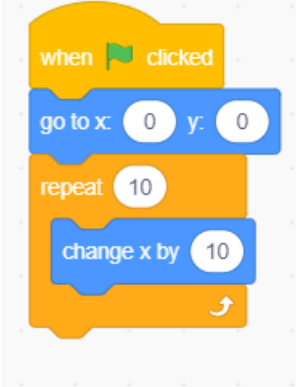
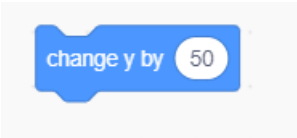
SECTION- A

Fill in the blanks :

1. The **Sprite List** displays names and thumbnails for all the sprites in your project
2. A code block that has either rounded or angled sides and is specifically designed as a mechanism for providing input for other code blocks to process is known as.....**Function block or reporter block**.....
3. The wait block is present in the**control**..... Palette.
4.' **Move ___steps' block**.....is an example of Command Block.
5. A code block that controls sprite placement, direction, rotation, and movement is known as a _____**Motion**_____ block
6.' **when space key pressed' block**.....is an example of trigger block
7. Function blocks are also called...**reporters**.....
8. _____**operators block**_____ blocks perform arithmetic operations, generate random numbers, and compare numeric values to determine their relationship to one another
9.**Command**.....and.....**control**.....blocks are also called stack block.

10. An Event-driven script is one that automatically executes when a specified event occurs.

Predict the output of the following code blocks:

<p>a)</p> 	<p>b)</p> 
<p>c) What would this block do to the sprite?</p> 	

Answers

- a) Rotate the sprite repeatedly
- b) Moves the sprite forward
- c) Moves the sprite in upward direction

State whether True or False

1. When you drag a block around the Scripts Area, a white highlight indicates where you can drop that block to form a valid connection with another block. **True**
2. Clicking anywhere on a script, complete or partial, runs the entire script, from top to bottom in scratch. **True**
3. The outputs of pick random 0 to 1 and pick random 0 to 1.0 are same **False**
4. Function blocks (also called reporters) don't have notches or bumps. **True**
5. Trigger blocks do not connect events to scripts **False**

Answer the following Questions

1) Define the following

a) Stack block

These are blocks which have bumps on the bottom and/or notches on the top. You can snap these blocks together into stacks. Command blocks and control blocks (also called stack blocks)

b) Hat block

Trigger blocks are also called hats block. They have rounded tops because they are placed at the top of a stack. Trigger blocks connect events to scripts. They wait for an event—such as a key press or mouse click—and run the blocks underneath them when that event happens. For example, all scripts that start with the when green flag clicked block will run when the user clicks the green flag icon.

c) Reporters

Function blocks (also called reporters) don't have notches or bumps. They can't form a layer of a script alone; instead, they're used as inputs to other blocks. The shapes of these blocks indicate the type of data they return. For example, blocks with rounded ends report numbers or strings, whereas blocks with pointed ends report whether something is true or false

2) How to generate random numbers in scratch.

Scratch provides the “pick random block “ is used for generating random numbers. This block outputs a random number each time you use it. Its two editable white boxes allow you to enter a range for that number, and Scratch will only choose values between the two limits (inclusive).

3) Use the say command and the appropriate blocks from the Operators palette to calculate the following:

a. The square root of 32



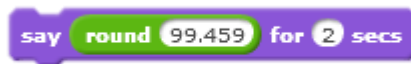
b. The sine of 30°



c. The cosine of 60°



d. The result of rounding 99.459



4) Name the different types of blocks in scratch based on their shape.

The different types of blocks in scratch based on shape are command blocks, function blocks, trigger blocks, and control blocks.

5) What is the use of function block

Function blocks (also called reporters) used as inputs to other blocks. The shapes of these blocks indicate the type of data they return

6) Name the different types of operators in scratch.

The different types of operators in scratch are Arithmetic operators, Relational operators, and Logical operators