ANSWER KEY

Touchpad MODULAR Ver 1.0

Class-5

1. Evolution of Computers

EXERCISE

A. 1. (a) 2. (c) 3. (c) 4. (a)

B. 1. Charles Babbage 2. Lady Ada Lovelace 3. John Mauchly 4. IBM

C. 1. 1672 2. 1946 3. 1833 4. 1985

D. 1. The people used to calculate or count with the help of fingers, toes, pebbles, stones, sticks and bones.

2. Microprocessors were used in the fourth generation of computers.

3. ENIAC was the first general purpose electronic computer built by John Mauchly and Presper Eckert in 1946.

E. 1. The first-generation computers were made up of vacuum tubes whereas second generation computers were made up of transistors.
Second generation computers were less expensive than the first generation.

2. Features of third-generation computers are:

(i) Third generation computers used IC's (Integrated Circuits).

(ii) More affordable and dependable.

IN THE LAB SUBJECT ENRICHMENT

Do yourself.

2. Working with Windows 7

EXERCISE

A. 1. (a) 2. (a) 3. (c) 4. (c)

B. 1. Video file 2. Music file 3. Image file 4. Spreadsheet file

C. 1. (T) 2. (T) 3. (T) 4. (T)

IMPRINT 1

D. 1. Name of the common folders provided by Windows 7 are Documents, Videos, Pictures, Music and Downloads.

2. Organised files and folders help us to find the right files to use when we run a program.

E. 1. A folder is collection of various files and sub folders whereas a file is a collection of related information.

2. Steps to delete a file or folder:
   Step 1 Open the folder that contains the file you want to delete.
   Step 2 Click on File or folder.
   Step 3 Click on Organize.
   Step 4 Click on Delete.
   Step 5 Click on Yes.

IN THE LAB SUBJECT ENRICHMENT

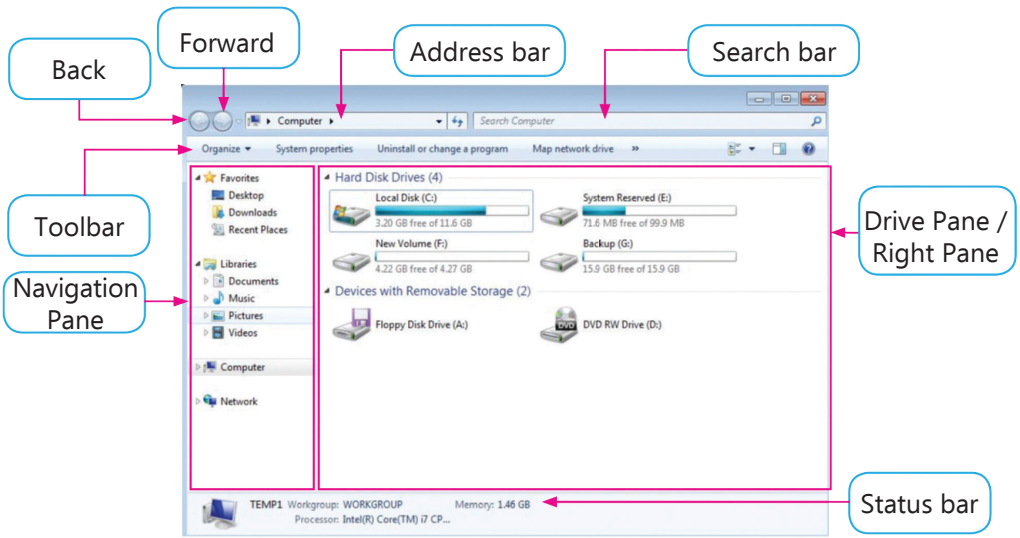
Do yourself.

Periodic Assessment-1

(Based on chapters 1 & 2)

A. 1. Analytical Engine 2. ENIAC 3. Pascaline adding machine
4. Tabulating Machine 5. Step Reckoner

B.



C. 1. Video file 2. Transistor 3. Pascaline 4. Folder

3. Algorithm and Flowcharts

EXERCISE

A. 1. (b) 2. (c) 3. (c) 4. (c)

B. 1. (F) 2. (T) 3. (F) 4. (F) 5. (F)

C. 1. Start/stop 2. Process 3. Decision 4. Input/Output

D. 1. Algorithm is a set of steps in a sequential manner to solve a problem or to complete a task.

2. Flowchart is a graphical representation of the sequence of operations in an information system or program.

E. 1. Process symbol is used to show a process or action step.
Input/ Output symbol is used to represent the material or information entering or leaving the system, i.e., input and output.

2. Algorithm to check number is even or odd.
Step 1 Start.
Step 2 Read number and store them in A.
Step 3 Check if A%2 == 0.If yes, then go to Step 5.
Step 4 Print "N is odd" go to step 7.
Step 5 Print "N is even".
Step 6 Stop.

IN THE LAB Subject Enrichment

Do yourself.

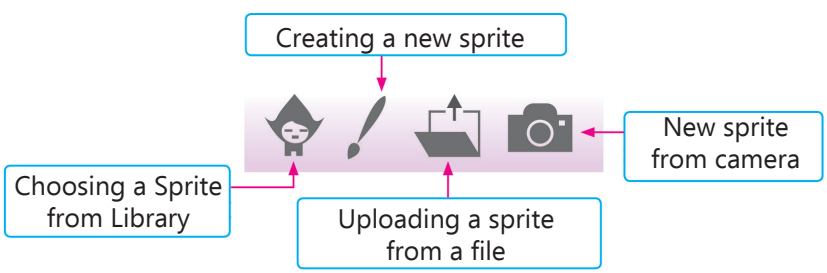
4. Introduction to Scratch

EXERCISE

A. 1. (a) 2. (c) 3. (a) 4. (c)

B. 1. (F) 2. (F) 3. (F) 4. (F)

C.



D. 1. Sprite is an object that we see on the Scratch stage.

2. Events block is used to sense events.
3. Menu bar is used to provide drop-down menus that provide common commands for opening and saving a file etc.

E. 1. Features of Scratch are:
(i) Easy to understand and learn
(ii) Predefined blocks are snapped together to create a project.
2. Motion blocks are used to control the sprite movement. They can be used with your sprite for its placement, direction, rotation and movement.

IN THE LAB Subject Enrichment

Do yourself.

Periodic Assessment-2

(Based on chapters 3 & 4)

A. 1. This symbol is used to show a process or action step.
2. This symbol is used to show the direction in which the process flows.
3. This symbol is used to show a question or branch in the process flow.
4. This symbol is used to show the start and stop points of the flowchart.

B. 1. Stage 2. Shrink 3. Green Flag 4. Grow 5. Scratch

C. 1. (c) 2. (d) 3. (a) 4. (b)

Test Sheet-1

(Based on chapters 1 to 4)

Section A

A. 1. (iii) 2. (ii) 3. (i) 4. (ii) 5. (iii) 6. (iii)
7. (iii) 8. (i)

B. 1. IBM 2. Folder 3. sub folder 4. stage 5. brown 6. backdrop

C. 1. (T) 2. (T) 3. (T) 4. (T) 5. (T) 6. (T)
7. (F) 8. (F)

Section B

A. 1. Fourth generation computers
2. Algorithm is a set of steps in a sequential manner to solve a problem or to complete a task.
3. Organised files and folders help us to find the right files to use when we run a program.
4. Events block is used to sense events.

B. 1. Steps to delete a file or folder:
Step 1 Open the folder that contains the file you want to delete.
Step 2 Click on File or folder.
Step 3 Click on Organize.
Step 4 Click on Delete.
Step 5 Click on Yes.

2. Algorithm to check number is even or odd.
Step 1 Start.
Step 2 Read number and store them in A.
Step 3 Check if A%2 == 0.If yes, then go to Step 5.
Step 4 Print "N is odd" go to step 7.
Step 5 Print "N is even".
Step 6 Stop.

3. Motion blocks are used to control the sprite movement. They can be used with your sprite for its placement, direction, rotation and movement.

5. Programming in Scratch

EXERCISE

A. 1. (c) 2. (a) 3. (c)

B. 1. (F) 2. (F) 3. (F) 4. (T)

C. 1. Control 2. Looks 3. Motion 4. Events

D. 1. Sprite, Stage, Scripts area and Menu bar

2. Pen blocks are used to draw shapes and patterns on the stage, change the pen color and size.

E. 1. Steps to paint a new Sprite:
Step 1: Click on Paint New Sprite button to open the Drawing area.
Step 2: Use the tools to draw your own Sprite. As you draw, the Sprite appears on the stage.

2. Blocks are puzzle piece shapes that are used to give instructions to the computer.
(1) Looks blocks: These blocks control what your sprites and backdrop look like.
(2) Data blocks: These blocks create and manipulate data in your animations and games.

IN THE LAB
SUBJECT ENRICHMENT

Do yourself.

6. Drawing Shapes in Scratch

Exercise

A. 1. (b) 2. (a) 3. (b) 4. (b)

B. 1. Pen 2. 360° 3. regular 4. stamp

C. Do yourself.

D. 1. A regular polygon is a closed figure with all sides of equal length and all angles of equal size.

2. Turn block is used to change the direction of the Sprite.

3. Stamp block is used to draw patterns.

E. 1. Turn block is used to change the direction of the Sprite. The 

block will turn the Sprite in clockwise direction by the specified number of degrees. The 

block will turn the Sprite in anticlockwise direction by the specified number of degrees.

2. Steps to draw polygons:
   Step 1 Drag the Repeat block from Control blocks menu.
   Step 2 Drag the motion block: move 52 steps and turn 32.7 degrees.
   Step 3 Drag wait block set value 1 secs.
   Step 4 Change the Repeat value and Turn value accordingly.
   Step 5 Set Pen size to value 1 and add blocks: pen down & clear.
   Step 6 Run the Sprite.

In the Lab
Subject Enrichment

Do yourself.

Periodic Assessment-3

(Based on chapters 5 & 6)

A. 1. These blocks control what your sprites and backdrop look like.

2. These blocks create and manipulate data in your animations and games.

3. These blocks let you make comparisons between or perform arithmetic functions on different values.

B. 1. To start the script.

2. To put the pen down too draw.

3. To pause the script for the specified time.

4. To repeat a block of code for specified number of times.

C. 1. (d) 2. (c) 3. (a) 4. (b)

7. Advanced Blocks in Scratch

Exercise

A. 1. (c) 2. (b) 3. (a) 4. (c)

B. 1. data 2. sensing 3. input 4. forever 5. string

C. 1. Data blocks 2. Data blocks 3. Sensing blocks
4. Sensing blocks

D. 1. In Scratch, variable is used to hold value.
2. Answer and timer

E. 1. (i) Arithmetic operators: addition, subtraction, multiplication and division.
(ii) Relational operators: greater than, less than, and equal to.
(iii) Logical operators: AND, OR and NOT.
2. 'If...then' block checks only one condition whereas, 'If...then...else' block checks multiple conditions.

In the Lab
Subject Enrichment

Do yourself.

8. More on Internet

Exercise

A. 1. (a) 2. (c) 3. (b) 4. (a)

B. 1. information 2. search engines 3. downloading 4. uploading

C. 1. GOOGLE CHROME 2. TWITTER 3. INSTAGRAM 4. MODEM

D. 1. Internet is a global network of millions of computers and computer networks all over the world.
2. Instagram, Facebook and Twitter
3. Getting the data from the host computer (server) to the client computer (user's computer) is known as Downloading.

E. 1. Uses of Internet are:
(i) Internet is used to search for information on any topic.
(ii) Internet is used to buy and sell products all over the world.
2. The things required for having an Internet connection are computer system, telephone and cable lines, modem, web browser and ISP.

In the Lab
Subject Enrichment

Do yourself.

Periodic Assessment-4

(Based on chapters 7 & 8)

A. 1. URL 2. Surfing 3. Telephone and cable lines 4. web browser

B. 1. Stores the answer or input given by the user

2. This block is used to run a set of instructions till a condition is satisfied.

3. This block is used to run a set of instructions continuously in a loop until the Stop button is clicked by the user.

4. This block declares the value for the variable created.

C. 1. (T) 2. (F) 3. (T) 4. (T) 5. (T) 6. (T) 7. (F)

Test Sheet-2

(Based on chapters 5 to 8)

Section A

A. 1. (iii) 2. (iii) 3. (ii) 4. (ii) 5. (ii) 6. (iii)
7. (i) 8. (i)

B. 1. 360 2. regular 3. input 4. Forever 5. downloading

C. 1. (F) 2. (T) 3. (T) 4. (T) 5. (T) 6. (T)
7. (T) 8. (T)

Section B

A. 1. Sprite, Stage, Scripts area and Menu bar

2. Instagram, Facebook and Twitter

3. Stamp block is used to draw patterns.

4. Answer and timer

B. 1. Blocks are puzzle piece shapes that are used to give instructions to the computer.
(1) Looks blocks: These blocks control what your sprites and backdrop look like.
(2) Data blocks: These blocks create and manipulate data in your animations and games.

2. |The things required for having an Internet connection are computer system, telephone and cable lines, modem, web browser and ISP.

3. Turn block is used to change the direction of the Sprite. The 

block will turn the Sprite in clockwise direction by the specified number of degrees. The 

block will turn the Sprite in anticlockwise direction by the specified number of degrees.

4. 'If...then' block checks only one condition whereas, 'If...then...else' block checks multiple conditions.