# e-CODE

## Windows 10 & MS Office 2016

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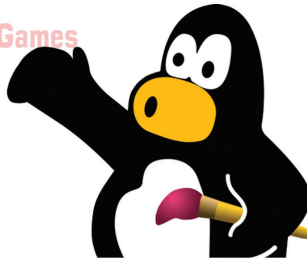*B.Sc. M.Sc*

**6**

Computational Thinking

Cyber Ethics

Artificial Inteligence

Data Science

Coding

Board Games

# Teacher Manual

## ● ● ● Brain Tuner ● ● ●

A.  1. (b)   2. (?)   3. (b)   4. (c)   5. (c)

B.  1. Machine   2. Spacewar, 1962   3. LISP
4. Instructions   5. Primary,Secondary

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

D.  1. Machine languages or Low level languages are machine dependent while High level languages do not depend on machines.

Machine language is a machine friendly language while High level language is a programmer friendly language.

2.

| Volatile | Non-volatile |
|---|---|
| (i) Primary memory is a volatile memory. Ex- RAM | (i) Secondary memory is a non volatile memory. Ex- ROM |
| (ii) In volatile memory, process can read and write. | (ii) In non volatile memory process can only read. |
| (iii) It generally has less storage capacity. | (iii) It generally has more storage capacity than volatile memory. |

3. Cache memory is a chip based computer component that makes retrieving data from the computer's memory more efficient. It acts as a temporary storage area that computer process or can retrieve data easily.

4. There are three main computer components are Input devices, Output devices and Memory (storage) devices, these hardware components make up the computer system.

E.  1. Object oriented language   2. High level language

## Fun Time

A. 1. John Napier   2. Blaise Pascal   3. Howard Aiken   4. John Von Neumann   5. J. Presper Eckert and John Mauchly

## Brain Tuner

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

B. 1. Operating system    2. July 29, 2015    3. Peek

4. disk cleanup    5. managing taskbar

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

D. 1. An operating system is the heart of the computer system. It manages the computer's memory and processes, as well as all of its software and Hardware. It's primary function is to mange files and folders.

2. The features of windows 10 operating systems are:

(1) Live start Menu Microsoft has brought back the start menu

(2) Cortana    (3) Microsoft Edge    (4) Virtual Desktop    (5) Task View (6) Redesigned Core Apps (7) Action Center    (8) Windows Store

3. Shake is a feature in windows 10 that allows you quickly minimize all windows except one.

4. The thee Os prior to windows menu:
Windows 8- August 2012 the start menu was replaced by the tiling interface with applications appearing as tiles on a grid.
Windows 7 July, 2009 this version helped Microsoft beat Apple in consumer satisfaction score.
Windows Vista– January, 2007

5. Cortana is the Siri or Google now from Microsoft. It helps you save time and focus attention on what matters most.

6. Disk Cleanup helps users remove unnecessary files on the computer that may be taking space on the hard drive. While, Disk Defragmenter is  a utility offered in Microsoft windows that rearranges files on a disk to occupy continuous storage space.

## Brain Tuner

A.  1. (b)   2. (d)   3. (d)   4. (b)   5. (c)

B.  1. Mail merge   2. Mass message   3. tick   4. Preview

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

D.  1. Mail merge is a powerful tool for writing a personalized letter or E-mail to many people at the same time.

   2. Step (i) Set up and choose document type.
   Step (ii) Click the mailing tab.
   Step (iii) Click the start mail merge button.
   Step (iv) Select step by step mail merge wizard. The mail merge pane appears on the light.
   Step (v) Select a type of document to create.
   Step (vi) Click Next. Starting document.

   3. (i) Click edit individual letters.
   (ii) In the merge to New Document dialog box, select the record that you want to merge.
   (iii) Click OK.
   (iv) Scroll to the information that you want to edit, then make your changes.
   (v). Print or save the document just as you would any regular document.

   4.

## Brain Tuner

A.  1. (b)   2. (b)   3. (b)   4. (c)   5. (b)

B.  1. Dartmouth BASIC   2. Logical   3. ESC   4. $sign   5. End statement

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

D.  1. A command or set of instructions used in the program is called statement There are several different types of statements in Q-BASIC Programming language. Example:
   1. CLS      2. REM      3. PRINT      4. INPUT      5. END

2. The Precedence level defines the order in which the operators are executed in any Q-BASIC expressions. The order follows BEDMAS rule where

B– Brackets, ( )        E – Exponentiation, (^)
D – Division or Multiplication (Left to right)
A – Addition or Subtraction (Left to right)

3. A constant is data that remains the same as the program runs (executes). There are two types of constants: numeric constants and string constants.

4. Step (i) To save the program or file type Alt + F and you will get the file menu.

Step (ii) Click save
Step (iii) Enter the file name and click ok.

5. Relational Operators: These are used to compare two values. They are: >Greater than   = Equal To   <Lesser than ≥Greater than equal to   ≤ Lesser than equal to   <> Not equal to

6. (i) Numeric Constants Comprise of digits Alphanumeric constant, comprise of a set of characters.

(ii) Numeric constants are not enclosed in double quotes while Alphanumeric Constants are enclosed in double quotes.

E.    1. Relational operator

2. Step (i) Click on start button
Step (ii) Click on the all programs option.
Step (iii) From the list displayed click on the Microsoft QUICKBASIC Program. Q BASIC program will open and its editor window will be displayed with a welcome message on it.

# 5. FORMULAS AND FUNCTIONS

## ••• Brain Tuner •••

A.    1. (b)    2. (c)    3. (c)    4. (c)    5. (d)    6. (a)

B.    1. formula      2. Home    3. Date and time function
4. = LEN (cell)    5. = Now ( )

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

D.    1. What are functions? When would you use a function instead of formula?

A Function is a predefined formula in MS Excel that perform a specific calculations. A simple formula is all you need to get the right answer, but you can do so much more using functions.
A function is a predefined formula already available in Excel. It streamlines the process of creating a calculation.

2. Excel uses standard operators for formulas such as a plus sign for addition (+), a minus sign for subtraction (-), an asterisk for multiplication (*), a forward slash for division (/), and a caret (^) for exponents.

3. The formula bar shows the formula if there is one, and the cell shows, the result
Step (i) Click the formula Tab
Step (ii) Click the show formulas button
Step (iii) Click the show formulas button again to hide the formulas.

4. Click on empty cell and enter the formula as = AVERAGE (OFFSET ($ A $ 2, (ROWC)-Row ($ C $ 2))* 7, 7,)) in the formula box and click ok to get the result for the first fine values.

5. CONCATENATION is the process of joining text values in a series. In case if you want to take values from two or more cells and combine them into one cell, use the (CONCATENATION) operator (L) or the CONCATENATE function.

E.  1. (a) He is not getting his answer because Austin is writing a formula in A4 cell and he is including this cell in his formula which is a wrong method.

(b) Using a formula like = SUM (A1, A2, A3, A4).
you will get the result.

2. (a) MAX (90 : 51) and MIN (90 : 51)
(b) To find the overage marks in the class. = AVG (D2 : D6)

## Fun Time

1. Average Function    2. Product Function    3. MIN Function

4. Now Function        5. LEN Function

# 6. INTRODUCTION TO HTML

## Brain Tuner

A.  1. (d)    2. (c)    3. (c)    4. (b)    5. (a)

B.  1. Web page    2. Ordered    3. type = "A"    4. Src    5. frames

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

D.  1. HTML Frames are used to divide the web browser window into multiple section where each section can be loaded separately. Cols, rows and borders are the attributes of a frameset tag.

2. HTML links are hyperlinks. There are three types of links available:
(a) Internal Link        (b) Global Link of        (c) Local Link

3. An ordered list is a list in which the items are numbered and the order matters. There are various types of attributes for an ordered list. type = "1"   type = "A"   type = "a"   type = "I"   type = "i"

4. We can use an image as a hyperlink in HTML document. We need to use <img> tag within the anchor tag.

5. A Web page is a simple document displayable by a web browser.
Step (i) Open Notepad (PC) window 8 or later.
Step (ii) Open TextEdit (Mal) Open Finder>Applications> Text Edit..
Step (iii) Write some HTML. Write or copy the following HTML code into Notepad
Step (iv) Save the HTML page.
Step (v) View the HTML page in your Browser.

# 7. INTRODUCTION TO ADOBE ANIMATE CC

## Brain Tuner

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

B.   1. Backstage    2. stage    3. selection    4. pixel    5. Edit

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

D.   1. Rulers are present on the top of layout page horizontally and vertically on the left the page while, Grids are not present by itself you have to make on the basis of requirement.

2. The default format is FLA, but the internal format of the file is XFL.

3. The selection tools available in Adobe Animate CC are:
1. Lasso Tool    2. Sub selection Tool

4. Select a stroke color, style and weight using the property inspector. Select an object or objects on the stage (for symbols, first double click to enter symbol editing mode). Select Window > Properties To select a stroke style, Click the style menu and select an option.

5. Creative cloud Libraries let you gather design elements for specific projects, Clients, or teams for use within any of your creative cloud app.

E.   1. (a) Select File > New
(b) Step1 Select file > open
   Step2 Select the drive and folder

Step 3 Select the file

Step 4 Click the open button.

(c) Following steps to use the Lasso Tool:

1. Select the Lasso Tool.
2. Drag the cursor on the stage to specify the boundary of the selection.
3. End the selection approximately near the point where you started.

(d) Step (i) Select file> save as. The save as dialog box appears.

Step (ii) Select the drive and folder where you want to say your file.

Step (iii) Type  the filename 'My Drawing' in file Name box.

Step (iv) Click the save button. The file is saved with a .fla extension.

(2) Components of Animate CC window.

1. Creating and managing point brushes.
2. Using Google fonts in HTMLS Carnvas documents.
3. Using creative cloud Libraries and Adobe Animate.
4. Use the stage and Tool Panel.
5. Animate workflow and workspace.

# 8. PLAYING WITH SCRATCH - II

## ● ● ● Brain Tuner ● ● ●

A.   1. (b)    2. (b)    3. (d)    4. (c)    5. (c)

B.   1. Move ( ) steps    2. control    3. stop    4. scripts, costumes, sounds

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

D.   1. Block Pallette in scratch is the area available on the extreme left side of the scratch user interface that helps in creating Scratch. Script area is where you create and view the scripts pertaining to the current sprite.

2. Click on the green flag to start your main programs Red stop sign to end them.

3. To add a new sprite, click either the button drive New sprite. Choose from the library, paint your new sprite, upload your own image or sprite, or take a picture.

4. Each sprite in a scratch project has an area for scripts, called the scripts area. The are four main elements of scratch are:
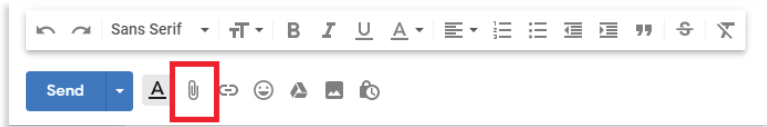The stage, the sprites, the script, and the programming pallette.

## Brain Tuner

**A.**  1. (b)   2. (d)   3. (a)   4. (a)   5. (d)

**B.**  1. Network       2. hyperlink.       3. Chat
4. Virtual conference           5. Cloud computing

**C.**  1. (T)   2. (T)   3. (T)   4. (F)   5. (T)

**D.**  1. There are various Internet services available that offer exchange of information with individuals or groups.
1. Electronic mail       2. Internet Telephony (VOIP)
3. Telnet                4. Instant Messaging

2. Search engines one websites that search the Internet for you and give you a list of search results. Search engines can search for more than just written information. You might also be able to search for other online content like images, video content, books and news as well as products and services.

3. The following are the steps to use an Email and attach an image file to it.

Step (i) Open Gmail. Go to https://www.gmail.com/ in your computer's web browser. This will open your Gmail inbox if you're logged in. If you aren't logged into your Gmail account, enter your email address and password when prompted.

Step (ii) Click Compose. It's in the upper-left side of your Gmail inbox. Doing so opens a "New Message" window in the lower-right corner of the page.

Step (iii) Enter the other person's email address. Click the "To" or "Recipients" text box at the top of the New Message window, then type in the email address of the person to whom you want to send your email.
To add multiple email addresses, type in the first email address, press Tab ⇆ TAB, and repeat with the other email addresses.
If you want to CC or BCC someone on the email, click either the Cc link or the Bcc link in the far-right side of the "To" text field, then type the email address you want to CC or BCC into the "Cc" or "Bcc" text field, respectively.

Step (iv) Add a subject. Click the "Subject" text field, then type in whatever you want the subject of the email to be.
Typically speaking, an email subject describes the gist of the email's message in a few words.

Step (v) Enter your email message. In the large text box below the "Subject" text box, type in whatever you want for your email message.

Step (vi) Attach a file if you like. To add a file from your computer, click the "Attachments" icon at the bottom of the window, then select the file(s) you want to upload and click Open (or Choose on a Mac).



You can add photos in this way, or you can upload photos directly to the email's body by clicking the "Photos" icon at the bottom of the window, clicking Upload, clicking Choose photos to upload, and selecting photos as needed.

Step (vii) Click Send. It's a blue button in the bottom-right corner of the email window. Doing so will send your email to the specified email address (es).

4. Electronic banking, Use of Computers and tale communications to enable banking transactions to be done telephone or computer rather than through human interaction. Its feature include electronic funds transfer for retail purchase, automatic teller machines (ATM'S) and automatic payroll deposits and bill payments.

E.  1. Video conferencing. It is a line, visual connection between two or more people residing in separate locations for the propose of communication.

2. E-Banking: Jesly's husband can transfer funds for his account to other accounts of the same bank/different bank using a website or an online application.

## Fun Time

1.  World wide Web
2.  Uniform Resource Locator
3.  Internet Service Provider
4.  Search Engine Results Pages
5.  Video blog or Video log.

## REVISION SHEET–1

A.  1. vacuum-tube   2. Pentium PCS   3. first   4. Ctrl + 2   5. 0.4 cm

B.  1. (a)   2. (b)   3. (b)   4. (b)   5. (a)

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

D.  1. Bottom Border      2. Erases      3. Fill with colour

    4. Delete      5. Drag      Insert


## REVISION SHEET–2

A.  1. Shift + F3   2. Functions   3. apostrophe   4. expression
    5. Correct a # error value

B.  1. (c, d)   2. (d)   3. (d)   4. (c)   5. (a)

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

D.  1. Excel, statistical function   2. " " () function   3. Statistical function

    4. Excel Date function      5. LEN () function


## Cyber Olympiad

1. (c)   2. (a)   3. (c)   4. (a)   5. (c)   6. (c)   7. (a)   8. (c)   9. (b)   10. (b)

11. (b)   12. (a)   13. (b)   14. (d)   15. (a)