

IT CODETREK

(WINDOWS 7 MS OFFICE 2013/10)

Teachers Reference Manual

Pedagogical Guide for Teachers

TRMs can be accessed from Teachers Corner at www.eduitspl.com

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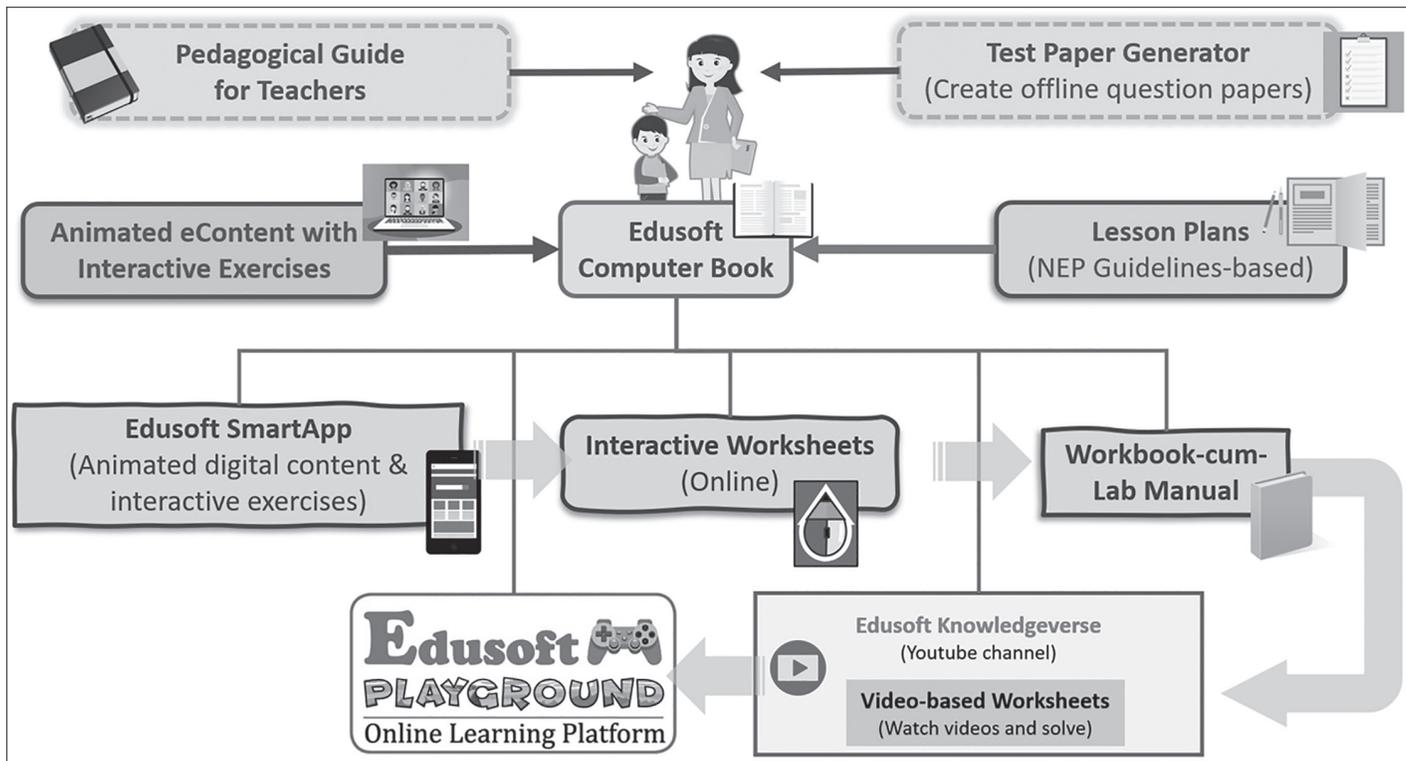
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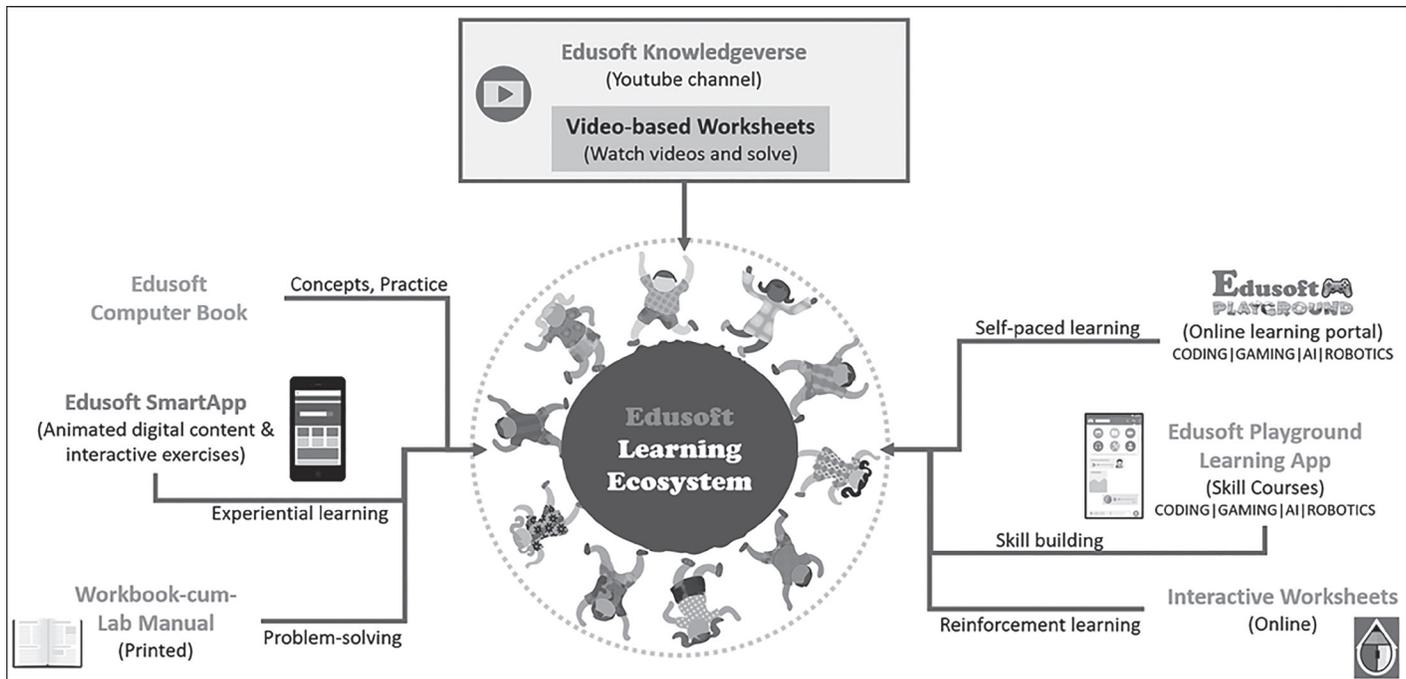
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Class 1

Chapter 1 – Computer: A Digital Machine

Exercises

A. Choose the correct answer.

1. B 2. B 3. A 4. D 5. A

B. Tick (✓) the correct statement and cross (x) out the wrong one.

1. False (x) 2. True (✓) 3. False (x) 4. True (✓) 5. True (✓)

C. Fill in the blanks.

1. Natural things 2. Nail cutter 3. Blows 4. Counting 5. Batteries

D. Match the following:

1. B 2. D 3. C 4. A

E. Complete the places where we see computers:

1. HOME 2. SUPERMARKET 3. SCHOOL 4. AIRPORT

Chapter 2 – Parts of a Computer

Exercises

A. Choose the correct answer.

1. B 2. C 3. A 4. D

B. Fill in the blanks.

1. Clicking 2. Speakers 3. Joystick 4. Headphone 5. Monitor

C. Complete the following words with correct letters.

1. MOUSE 2. PRINTER 3. KEYBOARD 4. JOYSTICK

D. Match the following.

1. B 2. A 3. E 4. F 5. D 6. C

Chapter 3 – Computer Etiquette

Exercises

A. Choose the correct answer.

1. C 2. B 3. B 4. A 5. D

B. Tick (✓) the correct statement and cross (x) out the wrong one.

1. True (✓) 2. False (x) 3. True (✓) 4. True (✓) 5. False (x) 6. True (✓)

Chapter 4 – Taming the Mouse

Exercises

A. Choose the correct answer.

1. C 2. B 3. B 4. A 5. A

B. Fill in the blanks.

1. Mouse pad 2. Pointer Tail 3. Scroll wheel 4. Single 5. Clicking

C. Write the missing letters to complete the words:

1. CABLE 2. SCROLL WHEEL 3. RIGHT CLICK 4. DRAGGING 5. DOUBLE CLICK

D. Tick (✓) the correct statement and cross (x) out the wrong one.

1. True (✓) 2. True (✓) 3. False (x) 4. False (x) 5. True (✓)

E. Match the following columns

- 1 C 2 D 3 B 4 A

Chapter 5 – The Keyboard

Exercises

A. Choose the correct answer.

1. B 2. A 3. A 4. A 5. D 6. D

B. Fill in the missing letters to make the name of various keys on the keyboard:

1. BACKSPACE KEY
2. ARROW KEYS
3. ENTER KEY
4. SPACEBAR
5. ALPHABETIC KEYS

C. Fill in the blanks.

1. Alphabet 2. Number 3. Up Arrow
4. Spacebar 5. Enter 6. Delete

D. Match the following.

1. B 2. A 3. D 4. E 5. C

Chapter 6 – Drawing with Computers

Exercises

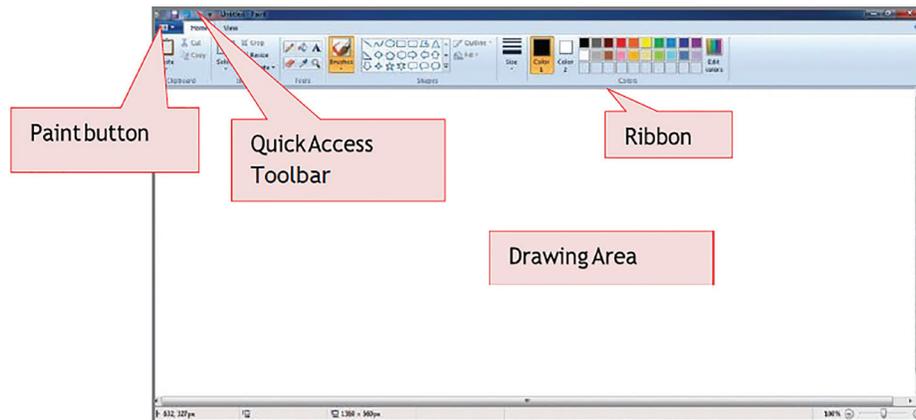
A. Choose the correct answer.

1. B 2. D 3. A 4. B 5. D

B. Fill in the missing letters to make the name of various keys on the keyboard:

1. Shift 2. Pencil 3. Shapes 4. Drawing area 5. Color 6. Size

C. Name the different parts of a paint window.



D. Rearrange the steps for opening paint in correct order.

1. Click on the Start menu.
2. Click on All Programs.
3. Click on Accessories.
4. Click on Paint.

Class 2

Chapter 1 – Parts of a computer

Exercises

A. Choose the correct answer.

1. A 2. C 3. D 4. A

B. Fill in the blanks.

1. Monitor 2. Keyboard 3. Mouse 4. Web camera 5. Headphone

C. Complete the names of the following parts of a computer.

1. MONITOR 2. JOYSTICK 3. SPEAKER 4. KEYBOARD 5. WEB CAMERA

D. Help your friends by writing the correct part of the computer.

1. Printer
2. Headphone
3. Monitor/Joystick
4. Web camera
5. Mouse
6. Keyboard
7. Monitor (and/or speakers or headphones, if student writes only Monitor, give full marks)

Chapter 2 – Computers are Everywhere

Exercises

A. Choose the correct answer.

1. A
2. B
3. C
4. C
5. D

B. Fill in the blanks.

1. Calls
2. Police station
3. Up Arrow
4. Hospitals
5. Teaching
6. Laptop

C. Rewrite jumble words.

1. AIRPORT
2. HOSPITAL
3. OFFICE
4. LAPTOP
5. SMARTPHONE

D. Write any two uses of a computer at the following places.

1. School: i. For teaching the students (using smart boards).
ii. Keeping the books' record in a library.
2. Hospital: i. For keeping the record of the patients.
ii. To diagnose the diseases and check patient's records.
3. Bank: i. For maintaining the accounts of the customers.
ii. To manage the transactions done by the customers.
4. Airport: i. For booking and cancellation of the tickets.
ii. For tracking the arrival and departure of the tickets.
5. * **change school to Hotel**
Hotel: i. To record the guest details.
ii. To book the rooms and to make the bills.

Chapter 3 – Working with Computer

Exercises

A. Choose the correct answer.

1. C
2. D
3. B
4. D
5. D

B. Fill in the blanks.

1. Booting
2. System tray
3. Icons
4. Wallpaper
5. Taskbar

C. Match the following.

1. B 2. D 3. C 4. A 5. E

D. Answer the following questions.

1. The process to start a computer is called booting.
2. Operating system is a software that helps us to operate the computer.
3. The components of Taskbar are Start button, Quick Launch toolbar, Middle section and System tray.
4. UPS (Uninterruptible Power Supply) is connected between the main power switch and the computer. It prevents computer from sudden shutdown and keeps the computer safe.

Chapter 4 – Introduction to WordPad

Exercises

A. Choose the correct answer.

1. A 2. D 3. B 4. D 5. D

B. Fill in the blanks.

1. Ruler 2. Save 3. Cursor 4. WordPad 5. Enter

C. Match the following.

1. D 2. C 3. E 4. A 5. B

D. Answer the following questions.

1. WordPad is a program for typing letters, stories, etc.
2. WordPad button, Ribbon, Work Area, Ruler, Zoom in and out.
3. Zoom In is used to enlarge the document view while, Zoom Out is used to reduce the document view.
4. **Cursor:** It is the small vertical blinking line in the work area.

Control buttons: They are used to minimize, maximize/restore and close the WordPad window.

Ribbon: It contains the tabs and their associated commands arranged in different groups/sections.

Chapter 5 – WordPad: Formatting

Exercises

A. Choose the correct answer.

1. A 2. A 3. D 4. C 5. D

B. Tick (✓) the correct statement and cross (x) out the wrong one.

1. True (✓) 2. False (×) 3. True (✓) 4. False (×) 5. False (×)

C. Answer the following questions.

1. Font face is applied to type text in the selected font, e.g. Times New Roman, Arial, etc.
2. Changing the font, face, colour, size of text is called formatting.

D. Match the following.

1. B 2. C 3. D 4. A

Chapter 6 – Painting with Tux Paint

Exercises

A. Choose the correct answer.

1. D 2. A 3. D 4. C 5. B

B. Fill in the blanks.

1. Colors Box 2. Quit 3. Lines 4. Paint 5. Eraser

C. Match the following.

1. B 2. A 3. E 4. F 5. C 6. D

D. Answer the following questions.

1. Different parts of Tux Paint window are Toolbar, Selector, Drawing canvas, Colors Box and Help Area.
2. Square, Rectangle, Circle and Ellipse.
3. i. Click on the Start button.
ii. Select the All Programs.
iii. Click on the Tux Paint option.
iv. Choose Tux Paint (full/window screen) option.

Chapter 7 – MS Paint: Drawing with Shapes

Exercises

A. Choose the correct answer.

1. A 2. B 3. C 4. A 5. B

B. Write the correct name of the tool or option given here.

1. Size 2. Outline or Fill 3. Shapes 4. Color

C. Fill in the blanks.

1. Ctrl++ 2. Erase 3. Brush 4. No fill 5. Size

D. Tick (✓) the correct statement and cross (x) out the wrong one.

1. True (✓) 2. True (✓) 3. True (✓) 4. True (✓) 5. True (✓)

E. Match the following tools with their functions.

1. C 2. D 3. B 4. E 5. A

Class 3

Chapter 1 – Introduction to Windows GUI

Exercises

A. Choose the correct answer.

1. C 2. B 3. C 4. A 5. D

B. Fill in the blanks.

1. Taskbar
2. Title Bar
3. Accessories
4. Workspace
5. Recycle Bin

C. Match the following.

1. E 2. C 3. A 4. B 5. D

D. Answer the following questions.

1. An operating system is a software that manages and controls different parts of a computer.
2. Wallpaper is the background picture of a desktop.
3. The small pictures on the screen are called the icons.
4. Parts of program window are Title Bar, Menu Bar, Workspace, Vertical scroll, Control Buttons

Chapter 2 – Advancing with Tux Paint

Exercises

A. Choose the correct answer.

1. A 2. D 3. D 4. B 5. A 6. C

B. Fill in the blanks.

1. Print button 2. Slide 3. Undo tool 4. Magic 5. Erase button

C. Tick (✓) the correct statement and cross (x) out the wrong one.

1. True (✓) 2. True (✓) 3. True (✓) 4. False (x) 5. False (x)

Chapter 3 – Advanced MS Paint

Exercises

A. Choose the correct answer.

1. A 2. D 3. C 4. B 5. C

B. Fill in the blanks.

1. Magnifier 2. Select all 3. Rectangular Selection 4. Selection

C. Answer of the following questions.

1. Selection tool is used to select the drawing or part of drawing and perform various operations on the selected parts.

Color Picker tool helps us to pick a colour from the drawing.

2. Rotate tool is used to rotate the drawing.
3. The Magnifier tool is used to zoom in and out on a part of the drawing.

D. Distinguish between the following.

1. File > New opens new file which is blank and new drawing is to be done while File > Open opens an existing file which may contain some drawing.
2. Cut Paste moves the selection to a new location while Copy & Paste makes a copy of the selection.
3. Rectangular Selection tool selects a rectangular shaped area of an image while Free-form selection tool selects an irregular area.

Chapter 4 – Know Your Computer

Exercises

A. Choose the correct answer.

1. B 2. A 3. C 4. B 5. D

B. Fill in the blanks.

1. USB 2. Hardware 3. CPU 4. Pen Drive 5. Hard Disk

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. True (✓) 4. False (×) 5. False (×)

D. Answer the following questions.

1. Limitation of computer are:
i. Computer can not do anything on its own.
ii. Computers works when electricity is available.
2. Hardware and Software.
3. Monitor and Speaker.
4. Hard Disk and DVD.

5. A system software controls the overall functionality of a computer. Application software perform specific task or run applications on the computer.

E. Write down the steps for the following.

1.
 - i. Press the DVD drive button.
 - ii. Put the disk in the tray.
 - iii. Again, press the drive button.
 - iv. Open the This PC or Computer Window, select DVD drive.
 - v. Work with files/folders.
2.
 - i. Insert the Pen drive in any of the USB ports on the system unit.
 - ii. Open the This PC or Computer Window and click on the newly created drive. The contents of the drive will be displayed.

Chapter 5 – MSW LOGO

Exercises

A. Choose the correct answer.

1. A 2. C 3. D 4. A 5. C

B. Fill in the blanks.

1. Reset 2. Two 3. LT 60 4. Edall 5. Halt

C. Write the commands for the following functions.

1. RT 45 2. CS 3. CT 4. FD 50 5. HOME

D. Define the following commands.

1. Home command is used to move the turtle back to the starting position.
2. Back command is used to move the turtle in the direction opposite to which it is pointing.
3. CS command is used to clear the drawing on the screen.
4. 'Bye' command is used to close LOGO window.

Chapter 6 – More on MSW LOGO

Exercises

A. Choose the correct answer.

1. C 2. C 3. D 4. A

B. Fill in the blanks.

1. Pentagon 2. Hexagon 3. Repeat 4. Full circle

C. Give one-line answer for the following questions.

1. The SHOWTURTLE command is used to bring back the turtle on the screen.

2. Type Repeat 6[FD 100 RT 60] and press Enter key.
3. The PD command puts the turtle down and allows the turtle to draw the lines.

D. Write the commands to draw the following.

1. Repeat 360 [FD 1 RT 1].
2. Repeat 4 [FD 100 LT 90].
3. Repeat 6 [FD 100 RT 60].

Chapter 7 – Introduction to MS Word 2013

Exercises

A. Choose the correct answer.

1. A
2. A
3. A
4. C
5. A

B. Fill in the blanks.

1. View
2. Editing
3. Status Bar
4. Document

C. Answer the following questions.

1. Three uses of MS Word:
 - i. Type, edit and format a text.
 - ii. Check spelling and grammar of a text.
 - iii. Preview the document and also print the document.
2. File tab, Ribbon, Title bar, Ruler, Document Area, Status Bar, View Buttons and Zoom Control.
3. Text editing refers to the process of correcting, deleting or modifying the text.
4. Click on File tab → click on the close option.

D. Write the steps for the following.

1.
 - i. Place the cursor at the required location.
 - ii. Start typing the text.
2. Place the cursor at the beginning of the text and press Delete button.

E. Write the shortcut keys for the following.

1. Shift + →
2. Shift + ←
3. Ctrl + N

Chapter 8 – Stepwise Thinking with Scratch

Exercises

B. Choose the correct answer.

1. A
2. B
3. B
4. B
5. D

C. Fill in the blanks.

1. Costume 2. Step 3. Motion 4. Stage 5. Direction

D. Match the following values of point in direction block with their correct direction given against them:

1. Down 2. Up 3. Left 4. Right

Class 4

Chapter 1 – Computer Files and Folders

Exercises

A. Choose the correct answer.

1. B 2. A 3. C 4. C

B. Fill in the blanks.

1. File, Folder 2. Sub-Folder 3. Ctrl 4. Recycle Bin 5. Computer window

C. Answer the following questions.

1. A file is a collection of related information. A folder is a place where a collection of files is stored.
2. Open the computer window and select the file/folder to be moved → Click Organise list box and select move option → Select the destination → Click on organise list box and select paste option.
3. Open the Recycle Bin window → Select the file that has to be restored → Click on the Restore this item button on the toolbar.
4. F2 is used to rename a file/folder.

D. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. False (×) 3. True (✓) 4. False (×) 5. True (✓)

E. Match the following.

1. B 2. E 3. D 4. C 5. A

Chapter 2 – Windows Personalization

Exercises

A. Choose the correct answer.

1. D 2. B 3. B 4. D

B. Fill in the blanks.

1. Transparency
2. Color intensity slider
3. Personalization
4. 16
5. Display Theme

C. Answer the following questions.

1. Screen saver is an animated image appears on the monitor when computer is not in use for some time.
2. Display theme refers to the visuals & sound i.e. the desktop background window colour & screen saver and sound schemes on our computer.

D. Tick (✓) the correct statement and cross (x) out the wrong one.

1. True (✓)
2. False (x)
3. False (x)
4. False (x)
5. True (✓)

Chapter 3 – Introduction to MS PowerPoint

Exercises

A. Choose the correct answer.

1. B
2. B
3. D
4. C

B. Fill in the blanks.

1. Multimedia
2. Theme
3. Shift+F5
4. Hide background graphics
5. Numbering

C. Answer the following questions.

1. When an idea or topic is presented with multimedia effects then it is called a presentation or digital presentation. Examples of presentation applications are MS PowerPoint, Google Slides and SlideShare.
2. Preloaded designs like slide backgrounds and styles are called design themes.
3. Got the desired slide > Insert tab > Text group > Text Box button > Drag on slide with mouse to draw the text box.

D. Tick (✓) the correct statement and cross (x) out the wrong one.

1. True (✓)
2. True (✓)
3. False (x)
4. False (x)

Chapter 4 – MS Word- Text Editing and Formatting

Exercises

A. Choose the correct answer.

1. B
2. D
3. C
4. A
5. D

B. Fill in the blanks.

1. Find
2. Undo
3. Characters
4. F7
5. Bold

C. Answer the following questions.

1. Formatting refers to changing the text appearance; to make it attractive by changing its style, font, size and color.
2. The undo command is used to reverse the last action. The redo command is used to reverse the undo action.
3. Thesaurus shows synonyms and antonyms of selected words.
4. UP arrow, DOWN arrow, LEFT arrow and RIGHT arrow.
5. Spelling & Grammar checking tool is used to check all the spellings and grammatical mistakes and rectify them.

D. Tick (✓) the correct statement and cross (×) out the wrong one.

1. False (×) 2. True (✓) 3. True (✓) 4. False (×) 5. True (✓)

E. Match the following.

1. D 2. E 3. A 4. B 5. C

Chapter 5 – MS Word: Text Enhancement

Exercises

A. Choose the correct answer.

1. B 2. C 3. D 4. C

B. Fill in the blanks.

1. Line spacing
2. Left
3. Justified
4. Bullets & Numbering
5. Borders

C. Answer the following questions.

1. Bullets & Numbering tool is used to represent the text in a listed or points form.
2. Text alignment refers to setting the direction of the text in a document. Types of text alignment – Align left, Center, Align Right, and Justify.
3. A watermark is a faint imprint of text or images that appear behind the text.
4. Line spacing refers to the vertical space between the lines of text in a paragraph. Paragraph spacing is the space above or below a paragraph.

D. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. False (×) 3. True (✓) 4. True (✓) 5. False (×)

E. Match the following.

1. C 2. D 3. A 4. E 5. B

Chapter 6 – MS Word: Working with Graphics

Exercises

A. Choose the correct answer.

1. C 2. B 3. C 4. D 5. D

B. Fill in the blanks.

1. Shape Style 2. Shape Outline 3. WordArt 4. Shapes 5. In Front of Text

C. Answer the following questions.

1. Lines, Rectangles, Block Arrows and Flowchart.
2. The steps to add a style to the picture are:
 - i. Select the picture.
 - ii. On the Format tab, in the Picture Style group, click on the drop-down button to open the picture style grid.
 - iii. Click on any one Style to apply on the picture.
3. WordArt is an artistic and decorative text in the document.
4.
 - i. Select the picture and place mouse cursor over rotating icon.
 - ii. Click and drag the rotation button in the required direction and release the mouse.
5. In Resizing, we change the size (to make it large or shrink) an image while in cropping, we remove an unwanted part of an image.

D. Tick (✓) the correct statement and cross (×) out wrong one.

1. True (✓) 2. True (✓) 3. True (✓) 4. False (×)

Chapter 7 – Introduction to Internet

Exercises

A. Choose the correct answer.

1. B 2. B 3. C 4. D 5. B

B. Fill in the blanks.

1. Website 2. Home Page 3. Web page 4. Search Engine 5. Hyperlink

C. Answer the following questions.

1. The 'Internet' is a network of networks.
2. A web browser is used to access the information on the web.
3. A search engine is a website which is used to search information on the World Wide Web.
Example: Google, Bing.
4. Kiddle is a child safe search engine made by Google specially for children.

D. Define the following terms.

1. A URL is the unique address of a website that is accessible on the Internet.
2. It is a link that takes the user quickly to other parts of the webpage or to another webpage.

E. Tick (✓) the correct statement and cross (×) out the wrong one.

1. False (×)
2. True (✓)
3. False (×)
4. False (×)
5. True (✓)

Chapter 8 – Programming Concepts with Scratch

Exercises

A. Choose the correct answer.

1. B
2. D
3. D
4. C
5. C

B. Match the blocks with their correct category:

1. D
2. B
3. C
4. a* Event – When space key is pressed block

C. Fill in the blanks with the words given below.

1. Control block
2. Event
3. Sensing
4. Downward
5. Say

D. Answer the following questions.

1. A set of instructions given to the computer is called program. The process of creating a set of instructions that tell a computer what to do is called programming.
2. Parts of Scratch window are: Tabs, Blocks, Script Pane, Stage and Stage Settings.
Motion Category blocks: Move block moves the sprite by given number of steps. Glide-to block glides the sprite for given number of seconds to the given position of x and y coordinates.
3. An event is any action occurring at any point of time before, after or during an animation for example, user clicks on a sprite or a key is pressed on the keyboard.
4. Checking certain condition and deciding the course of the script is called decision making like checking if the sprite is not moving in desired direction then changing its direction.
5. Point Towards () block can point sprites at other sprites or the mouse pointer while point in direction block turns the sprite to point in the directions: up (0), down (180), right (90) or left (-90).

Chapter 8 – Programming Concepts with Scratch

Exercises

A. Choose the correct answer.

1. C
2. A
3. D
4. A

B. Fill in the blanks.

1. Right
2. Escape
3. New World
4. Change settings
5. Load World

C. Identify the parts of following Kodu Game Screen.

1. Terrain
2. Character (or Object)
3. Play Game button
4. Camera tool
5. Object tool

D. Answer the following questions.

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3. An event is any action occurring at any point of time before, after or during an animation for example, user clicks on a sprite or a key is pressed on the keyboard.
4. Checking certain condition and deciding the course of the script is called decision making like checking if the sprite is not moving in desired direction then changing its direction.
5. Point Towards () block can point sprites at other sprites or the mouse pointer while point in direction block turns the sprite to point in the directions: up (0), down (180), right (90) or left (-90).

Chapter 9 – Logical Thinking with Kodu

Exercises

A. Choose the correct answer.

1. C 2. A 3. D 4. A

B. Fill in the blanks.

1. Right
2. Escape
3. New World
4. Change settings
5. Load World

C. Identify the parts of following Kodu Game Screen.

1. Terrain
2. Character (or Object)
3. Play Game button
4. Camera tool
5. Object tool

Chapter 1 – Computer: Past, Present and Future

Exercises

A. Choose the correct answer.

1. B 2. D 3. C 4. A 5. C

B. Fill in the blanks.

1. Logarithms, Decimal point
2. Analytical engine
3. First, Second
4. Integrated circuit
5. VLSIC.

C. Answer the following questions.

1. Early computing devices include Pascaline and Analytical Engine. Pascaline was a device invented by Blaise Pascal in 1642 that had turn-able discs. These discs were used for setting numbers after turning the handle for calculating addition and subtraction. Analytical Engine was invented by Charles Babbage—the father of modern computing in 1833. It was first fully automatic machine capable of doing complex calculations.
2. The first, second and third generations of computers include middle age computing.
 - i. a. First Generation of Computers like UNIVAC and ENIAC were used between the years 1946 and 1959.
 - b. These computers used vacuum tubes and were expensive, consumed too much electricity and generated huge amount of heat.
 - ii. a. Second Generation of Computers like IBM 1401, Honeywell 400, etc. were used between the years 1959 and 1965.
 - b. These computers used transistors and were smaller, faster, cheaper, more energy-efficient and reliable than the previous generation computers.
 - iii. a. Third Generation of Computers like PDP-8, IBM 360, etc. were used between the years 1965 and 1971.
 - b. These computers used Integrated Circuits and were smaller, faster, and cheaper than its predecessors.
3. The term VLSI is an acronym for Very Large-Scale Integration, which was used in 1970 for modern age computers, where thousands of transistors were integrated into a single small chip. As a result, semiconductor and telecommunication technologies developed. The Fourth Generation of Computers like IBM-PC, Apple Macintosh, etc. were used between 1971 and 1980. It had single VLSI microprocessor that had huge data storage were faster, smaller and cheaper.
4. Artificial Intelligence is used in smart devices for facial recognition, object identification, to interact in natural human language, perform useful prediction, detect frauds, analyse sentiments of people about products and public figures, autonomous vehicles, drones, robots, etc.
5. First Generation of Computers were as big as a room and had no keyboard. Second Generation of Computers used Assembly language for processing. Third Generation of Computers were single user, single tasking operating system such as DOS.

D. Tick (✓) the correct statement and cross (×) out the wrong one.

1. False (×) 2. True (✓) 3. False (×) 4. False (×) 5. False (×)

E. Briefly list 2 key features of each type of computer classified on the basis of size.

- i. Super computer: 1. Very high storage capacity. 2. Data processing is ultra-fast.
- ii. Mainframe: 1. Smaller than super computers. 2. Large memory capacity.
- iii. Mini: 1. Expensive and larger than micros. 2. Mostly used as network servers
- iv. Micro: 1. Portable and high speed. 2. Support different types of secondary memories.

F. Match the following.

1. C 2. D 3. A 4. B

Chapter 2 – MS PowerPoint: Views

Exercises

A. Choose the correct answer.

1. D 2. C 3. A 4. B 5. A

B. Fill in the blanks.

- 1. Normal view
- 2. Notes Page view
- 3. Background Styles – do not solve. Not discussed.
- 4. Slide Master view
- 5. Outline view

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. False (×) 4. True (✓) 5. True (✓)

D. Answer the following questions.

- 1. Outline view displays the outline of the slides, in the slide pane, instead of the thumbnails and displays only the text on the slide. Reading view allows to view the presentation in full screen like Slide Show view.
- 2. Slide Master view enables us to modify slides layouts & appearance of the slide in the presentation.
- 3. Normal view, Slide Sorter view, Notes Page view, Outline view and Reading view.
- 4. Note page view allows to type notes for the current slide. Notes area is located below the current slide. Notes can be printed or included in the presentation.

Chapter 3 – MS PowerPoint: Graphics & Multimedia

Exercises

A. Choose the correct answer.

1. C 2. B 3. B 4. D 5. A

B. Fill in the blanks.

1. Format 2. Insert Table 3. Chart 4. Design 5. Playback

C. Answer the following questions.

1. A slide layout is the arrangement of all the objects on a slide. We have different layouts to make our slides look neat, organized, and easy to understand.
2. A PowerPoint photo album is a presentation that we can create to display the photographs.
3. SmartArt graphic is a virtual representation of information to effectively communicate our messages or ideas. SmartArt graphic allows us to communicate through graphics instead of just text.

Chapter 4 – MS Word: Layout and Views

Exercises

A. Choose the correct answer.

1. A 2. C 3. B 4. D 5. C

B. Fill in the blanks.

1. Hyperlinks 2. Portrait 3. Letter 4. Read Mode 5. Print Layout

C. Answer the following questions.

1. A page margin is a blank with space between the text and edge of the page on all the sides.
2. It is a text written in more than one column on the same page. For example, Two columns and Three columns with line.
3. These are links to text or picture that can provide access to a file, document or website directly from a page/document.
4. Page orientation is the direction in which a document is displayed or printed. Portrait is the default page orientation of MS Word.
5. A document can be viewed in Read Mode, Print Layout View, Web Layout View, Outline View and Draft View.

D. Tick (✓) the correct statement and cross (×) out the wrong one.

1. False (×) 2. True (✓) 3. True (✓) 4. False (×)

E. Write the steps of the following.

1. i) Select the text and click on drop-down arrow of Columns button in Page Setup group on Page Layout tab.
ii) Select the Two option in the list.
2. i) Select the text that you want to put as a hyperlink.
ii) Click on Hyperlink button in Links group on Insert tab and select the required options in the Insert Hyperlink dialog box.

Chapter 5 – MS Word: Working with Tables

Exercises

A. Choose the correct answer.

1. C 2. D 3. B 4. A 5. D

B. Tick (✓) the correct statement and cross (×) out the wrong one.

1. False (×) 2. True (✓) 3. False (×) 4. True (✓) 5. True (✓) 6. True (✓)

C. Answer the following questions.

1. Tables are used to present the data arranged in rows and columns. Tables are a common and effective way to display the data neatly.
2. The intersection of a row and column in a table makes a rectangular box called a cell.
3. To merge three cells in a Word table:
 1. Click and drag to select the three cells > Right-click on the selection > Choose “Merge Cells” from the menu that appears.
4. i) Select the required cell and click on Split Cells button in Merge group on Layout tab.
ii) Enter the number of columns and rows (into which you want to split the selected cell) and click on OK button.
5. The Table Design feature in MS Word helps you make your tables look better by letting you change their style, colors, borders, cell alignments, etc.

D. Match the following.

1. E 2. C 3. D 4. A 5. F 6. B

Chapter 6 – Introduction to MS Excel

Exercises

A. Choose the correct answer.

1. D 2. C 3. D 4. B 5. D

B. Fill in the blanks.

1. Cell
2. Ctrl + Spacebar
3. Shift + Spacebar
4. Formula Bar
5. Active Cell

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. True (✓) 4. True (✓) 5. True (✓)

D. Answer the following questions.

1. Workbook is an Excel file is known as a workbook. It can hold many worksheets.
2. Quick Access toolbar, Ribbon, Cell Name box, Active Cell, Formula bar, Rows, Columns, Sheet tab and Status bar.
3. i) Press Windows + R key and type 'excel' in the dialog box.
ii) Click on OK button.
4. a) Cell address: It consists of a combination of the column letter and the row number that intersect at the cell's location. E.g. "A1" or "B3"
b) Cell reference: Cell reference is the column letter and the row number that identifies a single cell.
** Cell range: Cell range is a group of cells adjacent to each other.

E. Match the following.

1. D 2. A (change option to 16384) 3. E 4. B 5. C

Chapter 7 – Working with Worksheet

Exercises

A. Choose the correct answer.

1. A 2. B 3. A 4. D 5. A

B. Fill in the blanks.

1. Moving
2. 255
3. Entire Row
4. 15
5. Row, column

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. True (✓) 4. False (×) 5. True (✓) 6. False (×)

D. Answer the following questions.

1. Copying refers to duplicating the data (text, numbers and formulae in the context of MS Excel), while moving refers to move the data from its current location to another location.
2. Undo command reverses the last action while Redo command reverses the Undo command.
3. As the name suggests, it is a tool that is used to fill a predefined series of data in adjacent cells quickly.
4. i) Shift cells right: It shifts existing cells to the right to make a room for the blank cells.
ii) Shift cells down: It instructs Excel to shift existing cells down.
iii) Entire row: It inserts complete row in the cell range above the selected cells (row).
iv) Entire column: It inserts complete column in the cell range to the left of the selected cells (column).
5. To insert a cell/row/column,
i) Select the row/column header and press Ctrl + plus (+) to insert a row/column.

- ii) Select the cell, above/left to which you want to add a cell, and press Ctrl + plus (+). The Insert dialog box appears. Select the required option.

E. Match the following.

1. D 2. A 3. E 4. B 5. C

Chapter 8 – Internet Searching and Surfing

Exercises

A. Choose the correct answer.

1. A 2. B 3. A 4. B 5. C

B. Fill in the blanks.

1. Refresh 2. Enter 3. Web browser 4. WWW 5. Internet

C. Answer the following questions.

1. A browser is an application software which is used to open websites.
2. Surfing the internet is undirected type of exploration of the World Wide Web.
3. Online Education is a cheap and easy way to get education. It is also known as distance learning and consists of taking classes through the Internet.

D. Write few words about the following.

1. Web Search Engine is a search tool used to search for information through the Internet.
2. Online Education is a cheap and easy way to get education. It is also known as distance learning and consists of taking classes through the Internet.
3. Surfing the internet is undirected type of exploration of the World Wide Web.

E. Write few words about the following.

1. Online Shopping: Using online shopping various products can be purchased.
2. Video Conferencing: This is the way to communicate with others on internet using web camera, microphone, speakers, etc.
3. News and Information: These are the facilities to get information about online news and other various topics such as science, technology, sports and education, etc.

Chapter 9 – Interactive Programming with Scratch

Exercises

A. Choose the correct answer.

1. B 2. C 3. A 4. D

B. Fill in the blanks.

1. Music, sound 2. Event 3. Instruction 4. Control

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. False (×) 4. False (×) 5. True (✓)

D. Answer the following questions briefly.

1. Sprites are the building blocks of animation. These are images that are put together and animated.

Blocks are used to create the script for a sprite. Each block represents an instruction. Blocks are placed under various categories depending on their working.

2. A script is a set of Scratch blocks arranged to define how an animation shall work. Scripts are created by drag-dropping various blocks in the script editor. Scripts are executed by clicking Execute script green flag button or through some event. For example, following script will play drum 4 ten times when the sprite is clicked by the user.



3. Costume editor in Scratch is used to make changes in the appearance (editing) of a sprite. (This has not been discussed in Class 5 that Costume Editor can also be used to create new sprites since it is out of the scope of class 5)

Class 6

Chapter 1 – Algorithm and Flowchart

Exercises

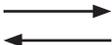
A. Choose the correct answer.

1. B 2. D 3. B 4. A

B. Answer the following questions.

1. A flowchart is graphical representation of steps of an algorithm whereas algorithm is sequence of steps to solve a problem.
2. Process box is used to show the calculations and processing instructions while Decision box is used to keep the conditional statements.
3. i. A flowchart is easy to analyse the problem using a flowchart.
ii. Using flowcharts, errors can be identified and removed easily.
4. A loop is used to execute instructions repeatedly as long as we need. We need to type instructions only once and loop takes care of their repeated execution.

C. Match the following.

1.  2.  3.  4.  5. 

Chapter 2 – Computer Languages and Programming Techniques

Exercises

A. Choose the correct answer.

1. B 2. B 3. B 4. D 5. A

B. Fill in the blanks.

1. Constants 2. Begin 3. Operands 4. Compiler 5. Variable

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. False (×) 4. False (×) 5. False (×)

D. Answer the following questions.

1. Computer language is a means to transmit instructions and data to the computer. Different computer languages are: High Level Languages (HLL). Basic, C, C++, Java, etc.
2. Steps in planning of a program:
 - i. Define and analyze the problem
 - ii. Develop the solution
3. NOT operator checks for the reverse of any condition. E.g. NOT (a > b) means value of variable a is less than or equal to the value of variable b.
4. A program is executable on computer while pseudocode is the logical representation of a program.
5. Data is a raw, individual piece which alone does not make any sense. Data type defines what type of data it is like date, number or text. A variable is a named identifier that stores the value of a particular data type.

E. Write Pseudocodes to do the following.

1. Begin

 Accept a, b
 Result = (a * b) / (a + b)
 Display Result

End

2. Begin

 Accept Radius
 Area = (22/7)*(Radius*Radius)
 Display Area

End

Chapter 3 – Advanced PowerPoint: Slide Transitions, Animations, Action Buttons

Exercises

A. Choose the correct answer.

1. C 2. C 3. D 4. C 5. A

B. Answer the following questions.

1. A simulation of movement, created by displaying a series of pictures, or frames is called animation. Various types of animation effects are:- Emphasis animation effect, Exit animation effect, Motion paths animation and Entrance animation effect.
2. Slide Transition is an animation-like effects that occur in Slide Show view, when we move from one slide to the next during an on-screen presentation.

The steps to apply transition to a slide are:

- i. Select the slide in the Slide Navigation pane.
 - ii. On Transitions tab, in Transition to This Slide group, click on More drop- down arrow. A drop-down menu appears.
 - iii. Select the desired transition to apply it to the selected slide.
3. The steps to apply animation to an object are:
 - i. Select the object which is to be animated.
 - ii. On Animations tab, click on More drop-down arrow in the Animation group. Or, click on Add Animation button in Advanced Animation group.
 - iii. Select the desired effect from drop-down menu.
 - iv. The effect is applied to the object.
 4. Motion Path' is used to move the object in a specified pattern.
 5. The steps to add a sound to a slide transition are:
 - i. Select the desired slide on which you want to add sound.
 - ii. On Transitions tab, in Timing group, click on Sound drop-down list box and choose a sound to apply it to the selected slide.

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. False (×) 4. True (✓) 5. True (✓)

Chapter 4 – Game Creation in Scratch

Exercises

A. Choose the correct answer.

1. A 2. B 3. B 4. B 5. A 6. A

B. Fill in the blank.

1. Backdrop 2. Variable 3. Library 4. Answer 5. Control

C. Answer the following questions.

1. An event is any action performed by user or program. Two events are: i. When green flag is clicked. ii. When a key is pressed on the keyboard.
2. Re-iteration means executing statements (blocks) repeatedly until some condition remains true. When that condition is not true then the re-iteration stops. Scratch provides loops such as forever and repeat.
3. A variable is the storehouse of value in Scratch. To create a variable: In Scripts tab > Variables Category > click Make a Variable. In the dialog box, give variable name and click OK.
4. if-then block executes when the given condition is true otherwise it is skipped (statements enclosed in it do not execute) while in if-then-else block, if part executes when the given condition is true otherwise the else part is executed.
5. To make a sprite move 100 steps, first drag-drop when this sprite is clicked event block then add to it the motion block move ___ steps. Set the steps' value to 100.

Chapter 5 – MS Word: Mail Merge

Exercises

A. Choose the correct answer.

1. B 2. A 3. D 4. C

B. Fill in the blanks.

1. Feed
2. Letters
3. Next Record, Previous Record
4. Merge Field
5. Multiple

C. Answer the following questions.

1. Mail merge tool is used to create various documents like letters with different addresses, labels, email message, etc for multiple recipients.
2. Steps to view merged data are:
 - i. Click on Preview Result button in Preview Results section on Mailings tab.
 - ii. To view next or previous data click on Next Record or Previous Record buttons.
3. Steps to insert merge fields in the document are:
 - i. Put cursor on the main document where you want to merge a field. On Mailings tab, in Write and Insert Fields section, click on Insert Merge Field button, a list of fields from selected data source appears.
 - ii. Click on a field to merge. Repeat this process till you merge all the fields.
4. Steps to merge all the data in a single document are:
 - i. On the Mailings tab, in Finish section, click on Finish & Merge button and select Edit Individual Documents option.

- ii. The Merge to Printer dialog box appears. Click on OK button. This action will merge all the data (on the separate pages) in a single document.
- 5. i. Main Document: - It is a document which has the common data that needs to be sent to multiple recipients.
- ii. Data Source: - It contains recipients' details that is to be merged with the main document.
- iii. Merge Field: - It is the data item which is to be merged with the document from a data source.
- iv. Merge Document: - This is the final document, which is obtained after merging of fields from data source.

Chapter 6 – MS Excel: Formatting, Formulas and Functions

Exercises

A. Choose the correct answer.

1. B 2. D 3. B 4. A 5. B

B. Fill in the blanks.

1. orientation 2. = 3. #N/A 4. Relational 5. Average()

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. True (✓) 4. False (×) 5. True (✓)

D. Answer the following questions.

1. A formula is an equation that performs a calculation. Like a calculator, Excel can execute formulas for addition, subtraction, multiplication and division.
2. Alignment tab is used to position text and numbers in the cells, change the orientation and specify text control in cells.
Font tab is used to set the font face, font size, font style, font color and other effects.
3. Font face, Alignment, Indent, Cell Border and Font size.
4. Steps to format the numbers are:
 - i. On the Format Cells dialog box, click on Number tab.
 - ii. Select Number in the Category section. On the right side, several options are given to apply on numeric data.
 - iii. Select the required options and click on OK button.
5. Steps to apply a colorful border to a cell are:
 - i. On the Format Cells dialog box, click on Border tab.
 - ii. Now, click on Color drop-down list box and select the desired colour.
6. Operators for basic mathematical operations are, (a) '+' is used for addition (b) '-' is used for subtraction (c) '*' is used for multiplication (d) '/' is used for division (e) '%' is used for percentage (f) '^' carat for exponents.
7. A Function in Excel is a predefined formula that perform calculations by using specified values called arguments in a particular order or structure.

Chapter 7 – MS Excel: Working with Data

Exercises

A. Choose the correct answer.

1. B 2. B 3. C 4. A 5. C

B. Fill in the blanks.

1. \$ 2. Sub-Total 3. Sorting 4. Pivot Table 5. Filter

C. Answer the following questions.

1. Cell referencing is the way to identify the location of a cell in a group of cells in the worksheet. These cell addresses are used in formulas and functions.
2. Mixed cell reference consists of both relative and absolute cell reference and only the row or only the column remains fixed in a formula whereas in absolute cell reference, if you move or copy the formula to another cell, the cells referred to in the formula will not change.
3. 'IF' is a logical function and it can be used for decision making in the worksheet.
4. Sorting data is rearranging the data. It can be done for alphabets, numbers, date and time, cell color, font color or icon set.
5. Filter tool is used for filtering data based on text, numbers, date and time, cell colour, font colour, etc.

D. Tick (✓) the correct statement and cross (×) out the wrong one.

1. False (×) 2. True (✓) 3. False (×) 4. True (✓) 5. False (×)

Chapter 8 – MS Excel: Presenting Data in Charts

Exercises

A. Choose the correct answer.

1. C 2. C 3. B 4. D

B. Fill in the blanks.

1. Area chart 2. Goal Seek 3. F11 4. Chart 5. File

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. False (×) 2. True (✓) 3. True (✓) 4. False (×)

D. Answer the following questions.

1. A chart is a pictorial representation of the data i.e. it allows us to illustrate the data graphically. Types of charts:- Line chart, Pie chart, Bar chart, etc.
2. The steps to create a chart are:
 - i. Select the cell range on which you want to create the chart (including column titles).
 - ii. On Insert tab, in Charts group, click on desired chart type.
 - iii. Select the chart sub-type from the drop-down list.

3. To move a chart on the worksheet,
 - i. Point mouse cursor anywhere on the chart area, it converts into moving handle.
 - ii. Click and drag the chart to new location.
4. The steps to change the chart style are:
 - i. Select the chart on the worksheet. The Design and Format tabs appear on Ribbon.
 - ii. Click on Design tab.
 - iii. Click on the drop-down button of Chart Styles and select the required style from the menu.

Chapter 9 – Communication Using Internet

Exercises

A. Choose the correct answer.

1. B 2. B 3. D 4. A 5. A

B. Fill in the blanks.

1. Sign out
2. Yahoo mail/Gmail
3. Forward mail
4. Compose
5. E-mail A/c

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. False (×) 4. True (✓) 5. True (✓) 6. True (✓)

D. Answer the following questions.

1. Inbox consists of all received e-mails. Compose mail option enables us to create a new mail. Reply mail is used to reply to the mail at the time when you receive and read it.
2. Some of Internet-based communication tools are:
 - i. E-mail
 - ii. E-greetings
 - iii. Blogs
 - iv. E-community
 - v. Chatting/Instant messaging
 - vi. Groups
3. 'Chatting' on internet is an online communication tool which allows two or more people to send and receive messages at the same time.
4. E-mail is the most widely used Internet-based communication tool. It is used to send & receive messages through internet.

Chapter 10 – Introduction to Artificial Intelligence

Exercises

A. Choose the correct answer.

1. C 2. D 3. D 4. D 5. C

B. Match the following intelligence types with their traits.

1. D 2. E 3. B 4. A 5. C

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. False (×) 4. True (✓) 5. True (✓)

D. Answer the following questions.

- Intelligence refers to the ability to learn, understand, and apply knowledge effectively in various situations. Types of intelligence are:- Verbal, logical, spatial, etc.
- Artificial Intelligence (AI) means teaching computers to think and learn like humans do. It is about making machines smart enough to solve problems and make decisions on their own.
- Three application of AI are:
 - Object detection: AI algorithms detects face to unblock devices and match fingerprints to access applications.
 - Language processing: AI algorithms can identify keywords in the text and execute tasks accordingly.
 - Location and direction: AI enabled system calculates commute time, displays traffic conditions, finds the best possible route.
- Machine learning involves computers to learn from data and improve their performance over time without being explicitly programmed for every task. Types of machine learning are: Unsupervised learning, Reinforced learning.
- In Supervised learning, the machine is aware of expected output and how data values are described. In Reinforced learning makes a machine learn from a reward/punishment approach.

Class 7

Chapter 1 – Introduction to GIMP

Exercises

A. Choose the correct answer.

1. D 2. B 3. C 4. D 5. C

B. Fill in the blanks.

1. Text 2. Color picker 3. Threshold 4. Flattened 5. Locked

C. Answer the following questions.

1. While working with images, we need to make selections in different ways such as on the basis of

colours or shape. Hence, to suit various ways of selections, we have multiple selection tools in GIMP.

2. The 3 transform tools in GIMP are:

Flip: Flip selection vertically or horizontally. Specify Direction of flip in the Tool Options.

Handle Transform: Transform image or selection by dragging 4 handles around it.

Cage Transform: Transform selection by multiple handles around it.

3. Layers help in managing various parts of an artwork separately. This way it is easier to work with one part of art work without affecting other parts. For example, if you create a scene of a bird flying then the sky could be in the bottom most layer and the bird can be in the layer above it.

4. Various operations on layers are:

i. Flatten Image: GIMP layers can be merged together to create the final single image. This process is called flattening. Flattened image, once saved, cannot be broken back into layers.

ii. Merge Down: This merges the current layer to the layer right below it.

iii. Duplicate Layer: Makes a copy of the layer.

iv. Delete Layer: Deletes a layer.

v. Hiding/Unhiding and Locking/Unlocking Layer: To work with a particular layer, you can hide other layers. To hide/unhide a layer, click on the Eye icon beside its name in the Layers panel. If you lock a layer, it cannot be modified until unlocked.

5. Filters apply special effects on the art work. Filters are arranged in various categories under Filters menu. You can apply the filters on a section or the whole layer. Filters are useful in enhancing the look of the images significantly.

D. Match the following.

1. D

2. F

3. B

4. E

5. A

6. C

Chapter 2 – Introduction to Photoshop CS6

Exercises

A. Choose the correct answer.

1. B

2. A

3. B

4. B

B. Fill in the blanks.

1. Eyedropper

2. Tolerance

3. Rectangular marquee

4. Text

C. Name the tools for the following:

1. Magic Wand

2. Text tool

3. Selection box in toolbox.

4. Pencil

D. Answer the following questions.

1. The Options bar shows additional Tool Options.

2. The span of colour selected is determined by a property called Tolerance. Higher the tolerance, more will be the span of the selection. Opacity determines transparency (0 means maximum transparent, 100 means opaque).

3. Various shapes can be added to the image by clicking on Shape tool.

- i. In the toolbox, select Custom Shape Tool.
 - ii. Select Fill colour, Stroke colour, Stroke width and desired shape from the options bar then draw the image.
4. Magic Wand selects a region of the image by sensing similar colours depending on the Tolerance set for them. Magnetic Lasso senses the colour and sticks the selection outline to it as we click around the selection.

Chapter 3 – Photoshop CS6: Advanced

Exercises

A. Choose the correct answer.

1. C 2. B 3. C 4. D 5. A

B. Fill in the blanks.

1. Sponge
2. Filters
3. Patch
4. Clone Stamp
5. Dodge

C. Answer the following questions.

1. Retouching tools repair damaged images, apply repeated patterns, or replace colours in an image.
2. The Blur tool is used to selectively blur areas of an image. The steps to use Blur tool are:
 - i. In the toolbox, select the Blur tool.
 - ii. Select required options in the Options bar.
 - iii. Click and drag the mouse on the image.
3. The steps to use Healing Brush tool are:
 - i. Select the Healing Brush tool from the toolbox.
 - ii. Select required options in the Options bar.
 - iii. Press Alt key and click on the image to define a sampling point.
4. The steps to apply a filter are:
 - i. Select the area and complete layer to be filtered.
 - ii. Click on the Filters menu and select any option.
 - iii. If a dialog box opens, enter values or select options and then click on OK button.
5. The steps to create a new layer are:
 - i. From the Layer menu, select New → Layer. The New Layer dialog box appears.
 - ii. In the Name text box, type the desired name.
 - iii. Click on OK button.

Chapter 4 – Data Representation in Computer

Exercises

A. Choose the correct answer.

1. A 2. C 3. C 4. A

B. Fill in the blanks.

1. Bit 2. 0 with carry1 3. Decimal 4. 15 5. 2

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. False (×) 2. False (×) 3. False (×) 4. True (✓) 5. False (×)

D. Write few words about the following:

1. Earlier computer coding system was not standardized in the industry that is why various coding systems have evolved. ASCII is the most widely accepted coding system today.
2. UNICODE is an industry standard code that represents all the characters covered by ASCII as well as a wide range of characters in different languages, different symbols, mathematical symbols, emojis and historical scripts.

3.

Binary Number System	Hexadecimal number System
1. It uses digits 0 to 1.	1. It uses digits from 0 to 15.
2. It has a base of 2.	2. It has a base of 16.

4. The following four major and basic operations can be performed on binary numbers: Addition, Multiplication, Subtraction and Division.

(a) Binary Addition: Two binary numbers can be added using following rules: $0 + 0 = 0$

$$1 + 0 = 1$$

$$0 + 1 = 1$$

$1 + 1 = 0$ with a carry of 1 to next higher number.

Example, $(100101)_2 + (10110)_2 = (111011)_2$

(b) Binary Multiplication: Binary multiplication is done by following multiplication rules:

$$0 * 0 = 0$$

$$1 * 0 = 0$$

$$0 * 1 = 0$$

$$1 * 1 = 1$$

Example, $(1001)_2 * (10)_2 = (10010)_2$

(c) Binary Subtraction: Binary subtraction is done using following rules: $0 - 0 = 0$

$$1 - 0 = 1 \quad (\text{with a borrow of one from next higher number}) \quad 0 - 1 = 1$$

$$1 - 1 = 0$$

Note that the number from which 'one' is borrowed gets converted into 'zero' after lending a number.

Example, $(10110)_2 - (101)_2 = (10001)_2$

(d) Binary Division: Binary division is performed just like decimal division using following rules: $0 \div 0 = 0$

$$1 \div 0 = 0$$

$$0 \div 1 = 0$$

$$1 \div 1 = 1$$

Example, $10 \div 1011 = (101)_2$ Quotient and $(01)_2$ remainder

5. a. 01001 b. 011011 c. 10000000 d. 0110101000110

6. a. 5 b. 27 c. 3 d. 21

7. Data is represented in computers as the presence (1) or absence (0) of electrical pulse and base of binary number system is 2 i.e. 1 and 0.

8. a. 010001111 b. 1011101 c. 10101010 d. 1001000

e. 110000100011 f. 10000001 g. 1101

Chapter 5 – Introduction to HTML

Exercises

A. Choose the correct answer.

1. B 2. D 3. A 4. A 5. C

B. Fill in the blanks.

1. Comments 2. <center> 3. Title 4. No Shade

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. False (×) 2. True (✓) 3. True (✓) 4. False (×) 5. False (×)

D. Answer the following questions.

1. An element is building block that defines different parts of a web page like paragraph, heading, links and images. Container elements include both the start tag and end tag whereas Empty elements have only opening tag and no closing tag.

2. Heading elements describe the topics of the section it introduces that implement six levels of document headings, from <h1> for the largest and most important heading, down to <h6> for the smallest heading.

3. A tag in HTML is a special keyword enclosed with angular brackets (<' and '>'). For example, <html> Empty Tag: In HTML, tags that have only opening tag are called empty tags. There is no closing tag. These tags do not act on blocks of text.

3. Attributes are extra bit of information and appear inside the opening tag and their values sit inside quotation marks.

For example: <body background="edusoft.jpg">Margarine</body>.

a) Background, Bgcolor, Text, Left margin and Top margin.

b) Align

c) Size, Width, Align, Noshade, Color

4. HTML elements are special keywords enclosed with angular brackets '<' and '>'. Each tag has

its own functionality. Container tag holds or contains the text between the two tags (opening and closing).

For example, `<body>` text being formatted or defined`</body>`

Empty tag have only opening tag and these tags do not act on block of texts. For example: `<hr>`, `
`

Chapter 6 – Formatting in HTML

Exercises

A. Choose the correct answer.

1. A 2. D 3. A 4. A 5. D

B. Fill in the blanks.

1. `<strike>` 2. Teletype text 3. Bold 4. `<big>` 5. `<sup>`

C. Write the use of the following tags.

1. Text in a `<pre>` tag is displayed in a fixed-width font (usually Courier), and it preserves both spaces and line breaks.
2. The `<p>` tag is used to define a block of text as a paragraph. The browser automatically adds white space before and after the paragraph.
3. The `<small>` tag makes the text smaller. It makes text one size smaller than the default size.
4. The `` tag is used for modifying the font type, size and colour.
5. The `<strike>` tag specifies that the enclosed text should be rendered in a strike through appearance i.e. the text will be displayed with strikethrough.

D. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. False (×) 4. True (✓) 5. False (×)

E. Match the following.

1. F 2. A 3. C 4. G 5. B 6. E 7. D

Chapter 7 – Lists and Images in HTML

Exercises

A. Choose the correct answer.

1. D 2. D 3. A 4. D 5. D

B. Fill in the blanks.

1. Nested 2. `` 3. Src 4. Left,Right 5. Height, Width

C. Answer the following questions.

1. Ordered list is also known as numbered list (which uses an ordering system e.g., numbers, letters, etc.). By default it starts with 1.

E.g. `` `Item 1` `Item 1` `` will display:

1. Item 1
2. Item 2

While, an unordered list is a bulleted list. Unordered lists simply have a plain bullet point for each item in the list.

E.g. `` `Item 1` `Item 1` `` will display:

- Item 1
 - Item 2
2. 'Alt' attribute of `` tag specifies the alternate text, which will be displayed, if the specified image is unavailable due to some reasons OR until the image is uploaded on the web page. Example, ``

3. Definition list displays a definition term and its definition description. Definition term is displayed using `<dt>` tag and description using `<dd>` tag. Definition list is displayed using `<dl>` tag. For example,

```
<dl>      <dt>Noun</dt>      <dd>Everything is noun</dd></dl>
```

4. `<marquee>` tag is used to set a scrolling text or image. 'Behavior' attribute is used to set the value which shows how the content should scroll. Example, `<marquee behavior="scroll"> ... </marquee>`

Chapter 8 – Introduction to Cascading Style Sheets

Exercises

A. Choose the correct answer.

1. C 2. A 3. D 4. D

B. Fill in the blanks.

1. Link 2. Border 3. Font face 4. Text-decoration

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. True (✓) 4. True (✓)

D. Answer the following questions.

1. CSS is a powerful and flexible tool for formatting we page content. It works with HTML to identifies each HTML tag by its name, ID or class. CSS can be applied to HTML in the following ways: Inline CSS, Internal CSS and External CSS.

2. When instead of entire web page styling we need to style a few tags in a web page then inline CSS is most suitable since it needs lesser effort and time than applying external style or internal style.

3.

```
<style> #id1{
color:#00ff00; font-family:arial;
}
</style>
<style> #para1{
color:green;
font-family: impact;
```

}
</style>

Chapter 9 – Network Concepts

Exercises

A. Choose the correct answer.

1. C 2. A 3. D 4. C 5. C

B. Fill in the blanks.

1. Bus, Star
2. MAN
3. Computer Network
4. Data
5. NIC card, Modem, Ethernet cable font-family: impact;

C. Write few words about the following:

1. A router is used to connect different networks and route the data packets across the networks. A switch in a computer network connects together other devices. It manages the flow of data across a network by transmitting a received message to one or more devices.
2. In Client-Server network architecture there is a main computer, known as server, and other computers are called clients or workstations.
3. Wi-Fi is a short range but high-speed data transfer wireless technology. It also provides wireless broadband Internet access to Wi-Fi enabled devices.
4. The network topology refers to the configuration of cables, computers, and other peripherals in a network.
5. A Metropolitan Area Network is a large network that usually spans a city, but does not extend the boundaries of the immediate metropolitan area.

Chapter 10 – Internet: E-Commerce and More

Exercises

A. Choose the correct answer.

1. A 2. B 3. C 4. D 5. C

B. Fill in the blanks.

1. Blog
2. E-Governance
3. * Change B2C to C2C
4. www.facebook.com
5. Social network

C. Answer the following questions.

1. E-commerce refers to the purchase and sale of goods and/or services by business firms and

consumers via electronic channels such as the Internet, without using any paper documents. E-learning is online education of any kind, using a computer via the internet or intranet.

2.

Traditional banking	E-Banking
1. Funds are transferred through exchange of cash, cheques.	1. Funds are transferred through an exchange of electronic signals (via Internet) between financial institutions.
2. Signature on a cheque is the only to withdraw cash from account.	2. Customer/Personal Identification Number is the only way to access bank account.

3. A blog is a frequently updated online personal journal or diary. Individuals can create blogs to share their expertise on specific topics with the world.
4. Two disadvantages of E-commerce to consumer are
 - i. There are chances that our product may get delayed or lost or delivered to the wrong address.
 - ii. With large or important orders, there is no one you can talk to face to face when we have questions and concerns.
5. Social networking service on internet is used to build social networks among people who share similar interests, ideas, activities, etc.
6. A videoconferencing is a live connection between people in separate locations for the purpose of two-way communication by using computer networks.

D. Match the following.

1. G 2. F 3. E 4. A 5. B 6. D 7. C

Chapter 11 – Mobile App Development

Exercises

A. Choose the correct answer.

1. A 2. C 3. C 4. D 5. D

B. Fill in the blanks.

1. Event, Button 2. Canvas.TouchDown 3. aia
 4. Properties 5. Components

C. Answer the following questions.

1. A mobile app is the software that runs on the handheld devices such as smartphones and tablets to provide desired services.
 3 main features of mobile apps are:
 1. Apps are easy to download and install on the device.
 2. Apps are mostly free and very lightweight (on memory and processor).
 3. Apps generally do not have licence restrictions as software have.
2. A web app is the responsive version of the website. The in-built micro browser of the device

displays the website interface on the small screen of mobile device. Web apps do not install on the user's device. On the other hand, a hybrid app has the features of both native and web apps. It combines the elements of native as well as web apps. It provides certain important features even if device is not connected with the Internet.

3. The Designer part of App Inventor allows the user to use the graphical elements to create the user interface of the app. Blocks part allows the user to use various programming blocks to add the functioning of the app.
4. Properties panel display the properties of the selected user interface component in the Designer part. User can change the properties according to the requirement. For example, the background color property of a textbox can be set to any desired colour.
5. Control blocks: when _____.click, when _____.TouchDown

Math blocks: +, -, empty number

Text blocks: join, empty text, length

Variable blocks: initialize global, get, set ___ to

Chapter 12 – Artificial Intelligence and Data Science

Exercises

A. Choose the correct answer.

1. C 2. C 3. B 4. C 5. C

B. Fill in the blanks.

1. Pixels 2. Unsupervised 3. Analytics
4. Supervised 5. Human brain

C. Categorise into structured, semi-structured and unstructured data.

Structured: 2 Semi-structured: 3, 5 Unstructured: 1, 4

D. Answer the following questions.

1. Deriving useful conclusions from data is called data science. It helps to observe and make some sense out of the data and explain in the form of useful pattern, trend or prediction.
2. Techniques of data science help in preparing the training and testing data suitable for the desired AI algorithm. Acquiring the data, cleaning it, exploring it and preparing it for AI algorithm is done using data science. Then, the process of training the AI algorithm with training data and testing its performance using testing data is done.
3. Tables and data collected from forms is structured data, CSV files, XML files, QR codes are semi-structured data and search results, chat data and online posts are unstructured data.
4. Data science helps in deriving useful conclusions from vast amount of data. Data science helps in revealing unseen problems by analysing data. With the help of data science, we can deal with social and economic problems more effectively.
5. The volume of data available online from numerous sources is very huge in size. It is being created constantly, adding to the size every passing moment. Most of the data is not in structured format. This data exists in various of data types such as images, video, audio, text etc. So, huge volume, unstructured format and variety of data types makes it difficult to be processed by traditional computers. It needs advanced, fast computers.

Chapter 2 – Database Management System

Exercises

A. Choose the correct answer.

1. C 2. B 3. C 4. C 5. C

B. Fill in the blanks.

1. Information 2. Files 3. .accdb, .mdb
4. Fields 5. Oracle

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. False (×) 2. True (✓) 3. False (×) 4. True (✓) 5. True (✓) 6. False (×)

D. Answer the following questions.

- Data is raw facts and figures that have no meaning on their own. For example, numbers, words, or symbols are all data. Information is the data that has been processed, organized, or interpreted in a meaningful way, providing context, understanding, or usefulness.
- DBMS is an application software that enables users to create, maintain database and control all the access to the data. DBMS is efficient from file systems in managing the information and to integrate them with other programs and applications. Data can be kept secured in a DBMS.
- Primary key uniquely identifies each record in the table. A foreign key is a referential constraint between two tables.
- Data type describes the type of value that can be stored in a column. Five types of data type are:-
 - Short/Long text: It stores the text which might be an alphabet, number or both.
 - Number: It stores the numbers that can be used for calculations.
 - Auto Number: It stores auto-generated numbers and automatically increases the value.
 - Date/Time
 - Currency
-

Table: STUDENT	
ADMISSION_NUMBER	STUDENT NAME
ADM000000001	Ravi Kumar
ADM000000002	Anu Sharma

Table: PERFORMANCE		
ADMISSION_NUMBER	EXAM	MARKS
ADM000000003	Term 1	76
ADM000000001	Term 2	84

ADM000000003	Rehman Siddiqui
--------------	-----------------

ADM000000002	Term 1	83
ADM000000002	Term 2	89
ADM000000003	Term 2	78
ADM000000001	Term 1	93

6. A query is used for extracting desired information from one or more tables in a database.

Chapter 3 – Working with MS Access

Exercises

A. Choose the correct answer.

1. D 2. B 3. D 4. D 5. D

B. Fill in the blanks.

1. Infinity 2. Relationship 3. Filter by form
4. criteria 5. * (asterisk)

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. False (×) 3. True (✓) 4. True (✓) 5. True (✓)

D. Answer the following questions.

1. Sorting means displaying or arranging the data in a sequential order (ascending or descending) while filtering means displaying data on the basis of some filter criteria.
2. Referential integrity means to ensure that correct data is stored in the tables. This is done by applying referential integrity rules to check if matching values are present or not.
3. The 3 types of relationship in a database are one-to-one, many-to-many and one-to-many.
4. Steps to create a query using Query Wizard are:
 - i. On Create tab, in Queries group, click on the Query Wizard.
 - ii. The New Query dialog box appears. The Simple Query Wizard option is selected, click on OK button.
 - iii. Select the table/query, from Table/query
 - iv. Choose the field in Available field box and move to Selected field box. Click on Next button.

Chapter 4 – Tables, Hyperlinks and Forms in HTML

Exercises

A. Choose the correct answer.

1. C 2. A 3. A 4. A

B. Fill in the blanks.

1. Radio 2. Forms 3. Cellspacing 4. Colspan 5. Internal

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. False (×) 3. False (×) 4. True (✓) 5. False (×)

D. Answer the following questions.

1. TH is used to put top row as a table heading. TD is used to specify the table data in a HTML table. TR signifies a row and with each TR tags inside a table.
2. Rowspan attribute is used to merge two or more rows. Colspan is used to merge adjacent columns into a single column.

3. Radio Buttons are used when only one option is required to be selected. They are created using `<input>` tag. Radio button is a selection control that lets the users to select any one button among the same group.
4. Input element is the most important element of `<form>` element. Key attributes of `<INPUT>` element are:
 - type: It indicates the type of input control that you want to create. It is also used to create other form controls such radio buttons and checkboxes.
 - name: It gives the name of the part of the name/value pair that is sent to the server.
 - value: It provides an initial value for the text input control that the user will see when the form loads.

Chapter 5 – Creating Interactive Web Pages

Exercises

A. Choose the correct answer.

1. C 2. A 3. B 4. D 5. C

B. Fill in the blanks.

1. `parseInt`, `toString` 2. Concatenation 3. Function
4. JavaScript, HTML 5. Property

D. Answer the following questions.

1. HTML provides the basic structure and content of a web page, like text, images, and links. JavaScript adds interactivity and makes the web page dynamic. Together, they create more engaging and responsive websites, allowing for things like animations, form validation, and real-time updates without needing to reload the page.
2. Event handling refers to the process of responding to user interactions, such as clicks, mouse movements, or keyboard inputs, on a web page. For example, when you click a button on a webpage and something happens, like a pop-up appearing or a color changing.
3. The `<input>` element in HTML allows users to input data. When the user changes the input value, the `onchange` event is triggered. It's useful for reacting to user input changes, like when they type something in a text field or select an option from a dropdown.
4. The `+` operator has a dual role:
 - i. Arithmetic Operator: When used with numbers, the `+` operator performs addition. For example, `6 + 3` evaluates to `9`.
 - ii. Concatenation Operator: When used with strings, the `+` operator concatenates (joins together) two strings. For example, `"my" + "name"` evaluates to `"myname"`.
5. `parseInt()` converts string to numeric value. E.g. `var x = parseInt("45")`
`toString()` converts numeric value to string.
E.g. `var x = 1000`
`var b = x.toString()`

3. Sound makes the animation lively. It is the soul of animation. The steps to add sound are:
File menu > Import submenu > Import to Library option. In the dialog box, locate your sound file, select it and click Open button. Sound will be added to Windows menu > Library option.
4. Click on the required layer and drag with mouse until you bring it to the desired sequence number and then release the mouse button.

Chapter 8 – Introduction to Data Science

Exercises

A. Choose the correct answer.

1. A 2. D 3. C 4. B 5. A

B. Fill in the blanks.

1. Anomaly
2. Historical
3. Classification
4. Clustering
5. Relevant

C. Match the following applications with their correct field/area.

1. B 2. E 3. C 4. A 5. D

D. Answer the following questions.

1. Data is an individual piece of value which alone does not make any sense. Science of discovering useful knowledge by analysing the data is called data science.
2. Data science tries to unlock hidden intelligence, precise predictions and answering the unanswered questions.
Unlocking hidden intelligence: Data science helps in discovering trends and patterns in the complex data which are not easy for human mind to find.
Precision and speed: Real life businesses need answer to their question correctly and in time to make important decisions. Data science techniques make it possible by analysing immense data.
3. Clustering is the grouping done on the basis of similar properties whereas classification is grouping done on the basis of some criteria.
4. Five applications of data science are:
 - i. Predicting customer behaviour.
 - ii. Analysing people's preferences and sentiments on social media.
 - iii. Disease prediction and diagnosis.
 - iv. Predicting possible threats and challenges in various industries.
 - v. Fraud detection and risk analysis in finance.

Chapter 9 – Artificial Intelligence

Exercises

A. Choose the correct answer.

1. C 2. C 3. B 4. B

B. Fill in the blanks.

1. Deductive
2. Deep Learning
3. Machine
4. Machine learning
5. Reason

C. Tick (✓) the correct statement and cross (×) out the wrong one.

1. True (✓) 2. True (✓) 3. False (×) 4. True (✓)

D. Answer the following questions.

1. Human perceive their surroundings with their sensory organs depending on the retained knowledge about the surroundings. Human learn in many ways- guidance and training by others or self-paced. They retain the learning by practice, remembering and applying it in various situation.
2. Human brain first senses the incoming stimulus. For example, feeling hot. Reasoning means analysis the stimulus and reach a suitable conclusion. For example, feeling hot is sensing and deciding not to go closer to the fire is reasoning.
3. The 5 traits of human intelligence are perception, learning, problem solving, reasoning and language.
4. Python is very popular programming language which provides procedure-oriented approach for those who do not wish to use object orientation. It has a variety of data types and data structures for complex data analysis and developing ML algorithm.
5. ML enables computer system to learn from experience without programming it further. It is used for accurate prediction after analysing the inputs. In Supervised ML , computer system is fed with the inputs and trained with the details about the predictions it is supposed to do.

Chapter 10 – A Tryst with Python

Exercises

A. Choose the correct answer.

1. B 2. C 3. D 4. D 5. B

B. Fill in the blanks.

1. .py 2. Artificial Intelligence 3. Use, Distribute 4. Python Shell

5. Change this question to: The Interpreter executes code line-by-line and halts the program if any error is encountered.

C. Answer the following questions.

1. Python command mode is interactive while script mode provides script editor.

Python command mode does not save the while Python script mode allows saving the script as .py file.

2. The 5 application areas of Python are:

- i. Developing machine learning algorithms.

- ii. Developing web services.

- iii. Developing data science analytics and statistics applications.

- iv. Creating computer vision and natural language processing applications such as chatbots, face detection, etc.

- v. Collecting and cleaning data from various sources.

3. Library is the collection of pre-designed programs and functions which can be picked and used in our programs.

A portable application can run on different hardware, devices and operating systems with least or no modifications.

An open-source application is free to use, modify and distribute to others.

4. 1. Easy to Read, Learn and Write – simple English-like syntax makes it easier to read and understand Python.
2. Interpreted Language - Python directly executes the code line by line. In case of any error, it stops further execution and reports back the error which has occurred.
3. Dynamically Typed - Python automatically assigns the data type to variables while program runs.
4. Free and Open-Source - Python is free to use, modify and distribute.
5. Vast Libraries Support - The pre-designed utilities and programs are there in Python called Python libraries.
6. Python has English-like syntax which makes the programs easier to read and understand. Due to this reason students can learn Python easily. In other programming languages, the syntax is too difficult to follow and needs a lot of practice. Python can be learnt in lesser time.

D. Match the terms with their correct explanation.

1. D
2. C
3. E
4. B
5. A
6. F

