1. The Computer System

WORKSHEET 1

Name: _____   Date: _____

A. Multiple choice questions

1. Which of the following is largest in size?

   (a) Supercomputer   (b) Mainframe Computer

   (c) Minicomputer   (d) Microcomputer

2. What is the name of India's first supercomputer?

   (a) Parakram   (b) Param

   (c) Pramaan   (d) Vikram

3. A Desktop Computer is an example of which of the following?

   (a) Supercomputer   (b) Mainframe computer

   (c) Minicomputer   (d) Microcomputer

4. Which of the following is also known as personal computer?

   (a) Desktop computer   (b) Laptop

   (c) Tablet   (d) Handheld computer

5. A washing machine uses which type of computer?

   (a) PDA   (b) Handheld computer

   (c) Embedded computer   (d) Analog computer

B. Fill in the blanks

Hybrid	Data	High	Analog	Third

1. Ultrasound machines use ………………computer.
2. Voltmeter is an example of ……………..computer.
3. A computer can carry instructions at …………..speed.
4. A computer can store huge amount of …………………
5. Python is an example of ……………..generation language.

C. Write T for True and F for False

1. High level language can only be understood by machines.
2. High level language is very close to English.
3. A mnemonic code can have maximum 7 characters.
4. Machine level language contains alphanumeric codes.
5. Assembly language contains alphanumeric codes.

D. Match Columns

Column A	Column B
1. Binary digits only	(a) Fourth generation language
2. Alphanumeric code	(b) Third generation language
3. COBOL	(c) Second generation language
4. SQL	(d) First generation language

E. Answer these questions

1. What do you understand by programming language?
2. What is machine level language?
3. What do you understand by assembler?
4. What do you understand by compiler?
5. What do you understand by interpreter?

1. The Computer System

Answer Keys

A. 1. (a) Supercomputer   2. (b) Param

     3. (d) Microcomputer   4. (a) Desktop computer

     5. (c) Embedded computer

B. 1. hybrid   2. analog

     3. high   4. data

     5. third

C. 1. False   2. True

     3. False   4. False

     5. True

D. (1)-d, (2)-c, (3)-b, (4)-a

E. 1. Computer language used by programmers to develop applications and other set of instructions for a computer is called programming language.

2. The only language understood by computers is called machine level language. It is the most elementary level programming language.

3. A computer programme that translates assembly language into machine level language is called assembler.

4. A computer program which transforms source code (in high level language) into machine language before execution is called compiler.

5. A computer program which directly executes instructions in high level language without compiling them into machine level language is called interpreter.

2. MS Word: Mail Merge

WORKSHEET 1

Name: _____   Date: _____

A. Multiple choice questions

1. Mail merge contains how many types of documents.

    (a) Two   (b) Three

    (c) Four   (d) Five

2. Common data which is sent to multiple recipients lies in which file?

    (a) Main document   (b) Data source

    (c) Merged document   (d) Merge field

3. Final output of mail merge is known as which of the following?

    (a) Main document   (b) Data source

    (c) Merged document   (d) Merge field

4. Mail Merge feature is available in which of the following?

    (a) MS Word   (b) Photo Paint

    (c) Photoshop   (d) MS Access

5. Which of the following is most likely to use mail merge feature?

    (a) Bureaucrat   (b) Pilot

    (c) Doctor   (d) Clerk

B. Fill in the blanks

Time	Word	Address	Data source

1. MS Excel can be used as ……………in mail merge.
2. The main document is always created in MS …………………
3. Mail merge helps in saving ………………and money.
4. You can print name and ……………….on envelopes by using Mail merge.

C. Write T for True and F for False

1. Mail merge is useless for most of the people.
2. MS Access can be used as data source in mail merge.
3. Final document created in mail merge is called merged document.
4. Main document is used as data source in mail merge.
5. Content in the main document is used as template.

D. Answer these questions

1. Write the steps for inserting names and addresses in merged document.
2. What is the main document in mail merge?
3. What is data source in mail merge?
4. What is merge field in mail marge?
5. What is merged document in mail merge?

2. MS Word: Mail Merge
Answer Keys

A. 1. (b) three   2. (a) Main document

    3. (c) Merged document   4. (a) MS Word

    5. (d) Clerk

B. 1. data source   2. Word

    3. time   4. address

C. 1. False   2. True

    3. True   4. False

    5. True

D. 1. Follow these steps to insert names and addresses in merged document:
- Click on Browser to import recipient list.
- Select Data Source from dialogue box and click Open.
- Mail Merge dialogue box opens. Click OK on this.

   2. The main document contains reusable template. It contains message or content which would be common for all the recipients.

   3. Data source contains data which change with change of recipient. For example; name, address, mail ID, etc. are stored in data source.

   4. Merge field is the portion in main document where variable data is inserted from data source. Name and address is inserted in merge field.

   5. Merged document is the final output of mail merge. It contains template from main document and data from data source.

3. MS Excel: Functions and Formulas

WORKSHEET 1

Name: _____   Date: _____

A. Multiple choice questions

1. What does 'wrap text' function do?
    (a) Wraps long text into multiple lines
    (b) Wraps long text into single line
    (c) Combines text from two cells into a single cell
    (d) Combines text from more than two cells into a single cell

2. What is the meaning of vertical alignment of text?
    (a) Text's position in a column
    (b) Text's position in a row
    (c) Gap all around the text
    (d) Position of text relative to upper and lower margins of a cell

3. What is the meaning of horizontal alignment of text?
    (a) Text's position in a column
    (b) Text's position in a row
    (c) Gap all around the text
    (d) Position of text relative to left and right margins of a cell

4. Setting the decimal value involves formatting which of the following?
    (a) Text
    (b) Number
    (c) Cell
    (d) Column

5. Text orientation in a cell can be turned to how much degree?
    (a) 30°
    (b) 45°
    (c) 90°
    (d) Any of the above

B. Fill in the blanks

Text	Fill	Style
Strikethrough	Merge	

1. ……………cell feature combines two or more cells into one cell.
2. Wrap ……………..changes a text in a long line into multiple lines.
3. Regular, bold and italic are examples of font ………………………
4. ……………means drawing a line through content in a cell.
5. ……………tab gives options for filling a colour in a cell.

C. Write T for True and F for False

1. Shrink to fit reduces font size to fit inside a cell.
2. Strikethrough removes text from a cell.
3. Formula always beings with symbol '=' (equal to).
4. Formula always ends with '*' (star)) symbol.
5. Once entered, you cannot edit a formula in excel.

D. Match Columns

Column A		Column B	
(1)	=A1*B2	(a)	Division
(2)	=A1 + B2	(b)	Subtraction
(3)	=A1/B2	(c)	Addition
(4)	=A1 B2	(d)	Sum of selected cells
(5)	Σ	(e)	Multiplication

E. Answer these questions

1. A cell contains address written in single line. How will you change it to multiple lines in the same cell?
2. How will you change font size and font color of text in a cell?
3. How will you change orientation of a text in a cell from horizontal to vertical?
4. Write the formula for finding the sum of numbers in any 4 cells.
5. Write the formula for finding total price of 5 items in 5 different cells if price for each item is same.

3. MS Excel: Functions and Formulas
Answer Keys

A. 1. (a) Wraps long text into multiple lines

2. (d) Position of text relative to upper and lower margins of a cell

3. (d) Position of text relative to left and right margins of a cell

4. (b) Number

5. (d) Any of the above

B. 1. merge   2. text

3. style   4. strikethrough

5. fill

C. 1. True   2. False

3. True   4. False

5. False

D. (1)-e,   (2)-c,   (3)-a,   (4)-b,   (5)-d

E. 1. Select the cell → Select Alignment group from Home Tab → Select Wrap Tex

2. Select the cell → Select font size and font color from Home tab and change You can also right click to get formatting options.

3. Select a cell → Right click and select Alignment from dialogue box → Orientation tool is on RHS of this box → Select 90º angle and click OK

4. A1 + B2 + C3 + D 4

5. (A1 + A2 + A3 + A4 + A5)*Rs. 225

4. MS Excel: Using Charts to Present Data
WORKSHEET 1

Name: _____   Date: _____

A. Multiple choice questions

1. Which of the following is the most suitable chart for showing growth in population over five years?

    (a) Bar chart   (b) Line chart

    (c) Pie chart   (d) Scatter graph

2. Which of the following the most suitable chart for showing number of boys and girls in different sections of a class?

    (a) Bar chart   (b) Line chart

    (c) Pie chart   (d) Scatter graph

3. Which of the following is the most suitable chart for showing percentage of different gases in atmosphere?

    (a) Bar chart   (b) Line chart

    (c) Pie chart   (d) Scatter graph

4. Which of the following is the most suitable to show progress at various stages?

    (a) Area chart   (b) Bar chart

    (c) Scatter graph   (d) Funnel chart

5. Chart title is generally shown in which part of a chart?

    (a) Top   (b) Right

    (c) Bottom   (d) Left

B. Fill in the blanks

Horizontal	X-axis	Vertical
	Y-axis	Circle
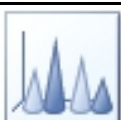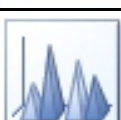
1. Y-axis is ………………..axis of chart.
2. X-axis is ………………..axis of chart.
3. Names are generally shown along …………..axis.
4. Values are generally shown along ………………axis.
5. Pie chart is in the shape of ……………….

C. Write T for True and F for False

1. You can easily enlarge a chart in excel.
2. Color of a sector in pie chart cannot be edited.
3. Color of two bars in a bar chart cannot be same.
4. Pressing F11 key instantly creates chart of selected cells in a separate sheet.
5. You can easily change one chart type into another chart type.

D. Match Columns

Bar Chart	Type
	(a) Cylinder
	(b) Pyramid
	(c) Cone
	(d) 2D column
	(e) 3D column

E. Answer these questions

1. You are given a set of data. How will you create a pie chart for this data?
2. How will you enlarge a chart in excel?
3. How will you change a bar chart into a line chart?
4. How will increase font size in a chart?

4. MS Excel: Using Charts to Present Data
Answer Keys

A. 1. (a) Bar chart   2. (b) Line chart
    3. (c) Pie chart   4. (d) Funnel chart
    5. (a) Top

B. 1. horizontal   2. vertical
    3. y-axis   4. x-axis
    5. circle

C   1. True   2. False
    3. False   4. True
    5. True

D.   (1)-d,   (2)-e,   (3)-a,   (4)-c,   (5) b

E. 1. Follow these steps to create a pie chart:
      • Click on Pie icon on Insert Tab.
      • A gray rectangle appears on worksheet. Right click → Select Data
      • Select cells which contain data
      • Click OK on dialogue box to create pie chart.
    2. Click on the chart → Select a drag handle at any of the corner and drag out to enlarge the chart.
    3. Select chart → Select design tool from chart ribbon → Select pie chart from the tab → Click OK
    4. Click on chart → Right click → Select font size from dialogue box

5. Image Processing Basics with GIMP

WORKSHEET 1

Name: _____   Date: _____

A. Multiple choice questions

1. Which of the following is not a graphic editing tool?

   (a) GIMP   (b) Photoshop

   (c) Corel Draw   (d) GUI

2. Menu bar is in which part of GIMP window?

   (a) Top   (b) Bottom

   (c) Left   (d) Right

3. Which tool will help you to apply watercolor effect on a photo?

   (a) Filter   (b) Blur

   (c) Shear   (d) Distort

4. How many types of drawing tool are available in GIMP?

   (a) Two   (b) Three

   (c) Five   (d) Seven

5. Which tool looks like a dropper in GIMP?

   (a) Fill   (b) Color picker

   (c) Eraser   (d) Airbrush

B. Fill in the blanks

GNU	Bucket	Black
White	Eraser	

1. Letter 'G' in GIMP stands for ……………………

2. Default foreground color is ……………………

3. Default background color is ……………………

4. ………..tool is used for filling color in a selected area.

5. ………………tool is used for removing portions from an image and is a freehand tool.

C. Write T for True and F for False

1. You don't need to pay anything for using GIMP.
2. GIMP was developed by Adobe.
3. You can change the appearance of an image by using GIMP.
4. You cannot make freehand drawing in GIMP.
5. F11 is keyboard short cut for full screen view.

D. Answer these questions

Column A	Column B
	(a) Free hand select
	(b) Fuzzy select
	(c) Crop
	(d) Move
	(e) Rectangular select

E. Answer these questions

1. What is the use of fuzzy select tool?
2. What is the use of ellipse selection tool?
3. What is rectangular selection tool?
4. What is the purpose of various selection tools in GIMP?
5. What is the purpose of feather edges?

5. Image Processing Basics with GIMP

Answer Keys

A. 1. (d) GUI   2. (a) Top
    3. (a) Filter   4. (b) Three
    5. (b) Color picker

B. 1. GNU   2. Black
    3. White   4. Bucket
    5. Eraser

C. 1. True   2. False
    3. True   4. False
    5. True

D. (1)-d,   (2)-e,   (3)-a,   (4)-b,   (5)-c

E. 1. Fuzzy select tool selects area with similar color. This helps in manipulating or editing an area with same color in a picture.
    2. Ellipse selection tool is used for selecting oval or elliptical area in an image.
    3. Rectangular selection tool is the most basic selection tool. It is used for selecting rectangular area in an image.
    4. A selection tool is used for selecting a particular area in an image. Once you select an area, you can edit it without affecting other parts of the image.
    5. Using feather edges while using a selection tool helps in blurring the boundary of selected area.

6. Internet: Communication and Social Platforms
WORKSHEET 1

Name: _____   Date: _____

A. Multiple choice questions

1. Google provides which of the following services?

   (a) Search engine   (b) E-commerce

   (c) E-learning   (d) Ticket booking

2. An e-mail ID consists of which of the following?

   (a) User name   (b) Domain name

   (c) Both 'a' and 'b'   (d) Either a or b

3. Many of you may have used video conferencing primarily for which purpose?

   (a) Talking to relatives   (b) Online classes

   (c) Meetings   (d) Chatting

4. Facebook and Linkedin are which type of apps?

   (a) E-commerce   (b) Online chat

   (c) Video conferencing   (d) Social networking

5. Which of the following is the name of website for railway ticket booking?

   (a) ITDC   (b) IRCTC

   (c) IDBI   (d) ICICI

B. Fill in the blanks

| E-banking	Less	Pace
Weblog	Risk	

1. Sending E-mail takes ……………..time than sending mails through post.
2. Security of credit card is at ……………during online shopping.
3. Online banking is also known as internet banking or …………………..
4. E-learning encourages learning at own ……………….
5. Blog is a short form of ……………………….

C. Write T for True and F for False

1. Bing is a social networking site.
2. You can search for any information on search engine.
3. Flipkart is an example of search engine.
4. You can also book air tickets online.
5. E-commerce websites offer discounts on many products.

D. Match Columns

Logo	Name of App
	(a) LinkedIn
	(b) YouTube
	(c) Snapchat
	(d) Facebook
	(e) Instagram
	(f) Pinterest

E. Answer these questions

1. What are the advantages of e-mail?
2. What are the advantages of video conferencing?
3. How has video conferencing made life easier for patients?
4. What are advantages of e-learning?
5. What are the drawbacks of e-learning?

6. Internet: Communication and Social Platforms
Answer Keys

A. 1. (a) Search engine
    2. (c) Both 'a' and 'b'
    3. (b) Online classes
    4. (d) Social networking
    5. (b) IRCTC

B. 1. Less
    2. Risk
    3. E-banking,
    4. Pace
    5. Weblog

C. 1. False
    2. True
    3. False
    4. True
    5. True

D. (1)-d, (2)-f, (3)-b, (4)-e, (5)-c, (6) a

E. 1. Advantages of e-mail are as follows:
    • It is fast
    • You can send an e-mail to multiple recipients at one go.
    • You can send text files, images and videos along with e-mail.
    • You can keep a record of all the sent and received e-mails.

    2. Advantages of video conferencing are as follows:
    • It reduces travel expenses.
    • Saves time and money.
    • Improves communication and team spirit
    • People at different location can participate

3. Video conferencing has made life easier for patients in numerous ways. Patients can consult with doctors through video conferencing and they don't need to go to a clinic. It saves time and hassle especially for elderly and weak patients.

4. Following are some advantages of e-learning:
   • It provides flexibility of time schedule.
   • It can be tailor made to suit a student's learning style.
   • It helps in reducing cost.

5. Following are some drawbacks of e-learning:
   • It is costly and many students may not afford gadgets required for this.
   • It is not good for students with poor attention span.
   • Students with physical handicaps may not utilize its potential.
   • It cannot replace the personal touch provided by a real teacher in real classroom.

7. Programming with Scratch
WORKSHEET 1

Name: _____   Date: _____

A. Multiple choice questions

1. What is the color of motion block?
   - (a) Blue   (b) Red
   - (c) Orange   (d) Yellow

2. What is the color of control block?
   - (a) Blue   (b) Red
   - (c) Orange   (d) Yellow

3. What is the color of looks block?
   - (a) Green   (b) Purple
   - (c) Magenta   (d) Orange

4. Which block is used for drawing lines during execution of Scratch?
   - (a) Pen block   (b) Pencil block
   - (c) Brush block   (d) Line block

5. What is the color of sensing block?
   - (a) Blue   (b) Red
   - (c) Yellow   (d) Magenta

B. Fill in the blanks

Variable	Control	Sensing
Looks	Script	

1. ……………..block is used for getting and storing user input.
2. …………block can sense location of other blocks.
3. Set of instructions in Scratch is called ………………….
4. ………….block controls the execution of a script.
5. ……………..block is used for changing the appearance of a sticker.

C. Write T for True and F for False

1. Looks block is of blue color.
2. Sensing block is of red color.
3. Red flag is clicked for running a program in scratch.
4. Sprite is a collection of scripts.
5. Scratch is available for free.

D. Answer these questions

1. Following is a set of motion blocks. Write each step of motion created by this script.
2. Write each step of motion created by following script.
3. Write each step of execution of this script.
4. Write each step of execution of this script.

7. Programming with Scratch

Answer Keys

A. 1. (a) Blue   2. (c) Orange
    3. (b) Purple   4. (a) Pen block
    5. (b) Red

B. 1. variable   2. sensing
    3. script   4. control
    5. Looks

C. 1. False   2. True
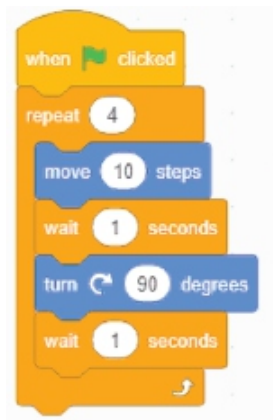   3. False   4. False
    5. True

D. 1.
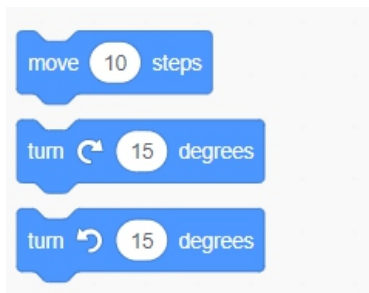
Move 10 steps → Turn right by 15 degrees → Turn left by 15 degrees

2.

Move 250 steps → Turn right by 90 degree → Move 250 steps → Turn right by 90 degrees → Move 250 steps → Turn right by 90 degrees → Move 250 steps → Turn right by 90 degrees

3.

Move 10 steps → Wait for 1 second → Turn right by 90 degree → Wait for 1 second → Repeat each step for 4 times

4.

Move 10 steps → Change color to a particular color → Point towards mouse pointer → Repeat forever

8. Artificial Intelligence: Introduction
WORKSHEET 1

Name: _____   Date: _____

A. Multiple choice questions

1. AI simulates intelligence of which of the following?

   (a) Humans   (b) Dogs

   (c) Monkeys   (d) All of the above

2. AI technology has been around since which decade?

   (a) 1930s   (b) 1950s

   (c) 1970s   (d) 1990s

3. AI is supposed to propel which industrial revolution?

   (a) Second   (b) Third

   (c) Fourth   (d) Fifth

4. What is ELSA?

   (a) An AI program   (b) Association of organisations working on AI

   (c) A machine learning program   (d) A cartel of software developers

5. According to this chapter, what percentage of total humans in this world use internet?

   (a) 10%   (b) 20%

   (c) 30%   (d) 40%

B. Fill in the blanks

Cannot	Alan Turing	Can
Intelligence	Humans	

1. ………………defined intelligent behaviour of computers.
2. ……………..are the dominant species on earth.
3. Computers ………………handle contradictory data.
4. Humans ………………handle contradictory data.
5. …………….allows us to be innovative.

.

C. Write T for True and F for False

1. The ability to connect with others and understand their emotion is called intelligence.
2. The ability to figure out how solve homework is called intelligence.
3. According to there are 10120 possible movements in chess.
4. According to AI would propel the fourth Industrial Revolution.
5. According to AI is about machine's ability to do cognitive functions.

D. Answer these questions

1. What is Encyclopedia Britannica's definition of AI?
2. Make a list of features of intelligence.
3. How will you define AI?
4. What is the goal of AI?

8. Artificial Intelligence: Introduction
Answer Keys

A. 1. (a) Humans
   2. (b) 1950s
   3. (c) Fourth
   4. (c) A machine learning program
   5. (b) 20%

B. 1. Alan Turing
   2. Humans
   3. Cannot
   4. Can
   5. Intelligence

C. 1. True
   2. True
   3. True
   4. True
   5. True

D. 1. The ability of a computer or computer-controlled robot to perform tasks generally associated with intelligent beings is called AI.
   2. Following are the features of intelligence:
- Handling incomplete data
- Handling contradictor data
- Handling fuzzy data
- Handling heuristics
- Ability to learn

   3. AI refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions.
   4. The goal of AI is to make machines do things which would require intelligence if done by humans.

9. Animation with TupiTube

WORKSHEET 1

Name: _____   Date: _____

A. Multiple choice questions

1. What is TupiTube?

   (a) Graphic software   (b) Animation making software

   (c) GUI   (d) An app for making cartoons

2. Animation videos are generally saved in which format?

   (a) MP4   (b) AVG

   (c) SFA   (d) JPEG

3. A scene may contain how many frames?

   (a) One   (b) About 10

   (c) About 100   (d) Multiple

4. A drawing in animation is known as which of the following?

   (a) Drawing   (b) Frame

   (c) Character   (d) Scene

5. Drawings are created in which part of TupiTube window?

   (a) Stage   (b) Panel

   (c) Exposure sheet   (d) Side panel

B. Fill in the blanks

> Exposure sheet   Side   Stage toolbar,
> Toolbox   Three

1. Image library is present on …………….panel.
2. Drawing and animation tools are present in ………………..
3. Frames and layers are shown on …………………….
4. Button for full screen is present on ……………………
5. There are ………….tabs in TupiTube window.

C. Write T for True and F for False

1. More frames means smooth animation.
2. Frame by frame drawing is the short cut method to create animation.
3. Motion tween is used to create a scene.
4. Tween generates many frames for animation automatically.
5. FPS stands for frames per square inch.

D. Answer these questions

1. What is animation?
2. What is a scene in animation?
3. What is the difference between frame by frame animation and tween?
4. How will you save an animation?

9. Animation with TupiTube

Answer Keys

A. 1. (b) Animation making software
    2. (a) Mp4
    3. (d) Multiple
    4. (b) Frame
    5. (a) Stage

B. 1. side
    2. Toolbox
    3. exposure sheet
    4. stage toolbar
    5. three

C. 1. True
    2. False
    3. False
    4. True
    5. False

D. 1. The illusion of motion created by motion of a sequence of drawings is called animation.
    2. A scene in animation is similar to a scene in movies. A scene is like a chapter or part of a chapter.
    3. You need to make drawings for every frame while using frame by frame animation.
       In case of tween, a couple drawings is enough and remaining sequence is automatically created by software.
    4. Click Export → Select Video formats → MP4 → Click Next