

ANSWER KEY

Touchpad iPRIME Ver 2.1

Class-8

1. Operating System

One

Touch

Learn



- A.** 1. b. 2. a. 3. a. 4. a. 5. b. 6. d.
- B.** 1. CUI 2. Operating System 3. Characters
4. GUI 5. Application Software
- C.** 1. T 2. F 3. T 4. T 5. T
- D.** 1. c. 2. d. 3. e. 4. a. 5. b.

Let's

Do

It



- A.** 1. An operating system is a system software that works as a mediator between user and computer hardware.
2. Two categories of software are: System software and application software.
3. Examples of character user interface are: DOS and windows command prompt.
4. Names of two GUI operating system are: Windows and Mac.
- B.** 1. The differences between CUI and GUI are:

CUI	GUI
It provides lots of commands to perform different types of operations.	It provides icons, buttons, windows and menus to give commands.
A user needs to remember lots of commands.	A user need not to remember commands. He can just click on the icons, menus etc.
It uses keyboard to give commands.	It uses mouse, stylus, fingers to give commands.
Examples are DOS, Windows Command Prompt, etc.	Examples are Windows, Mac, etc.

2. An operating system perform various functions:

Managing Memory: An operating system manages the memory space for multiple processes. It keeps track of every memory location, regardless of whether it is allocated to some process or it is free. It also allocates memory to the files and folders. When we delete a file or folder, the operating system de-allocates the memory space allocated for it.



Managing Resources: An operating system keeps a track of the hardware and software requirements of the processes. It works as a manager of the resources and allocates them to different programs.

3. We prefer to use GUI as in this interface, a user need not to remember all the commands. GUI allows us to give commands to the computer simply by clicking with the mouse.
4. (i) **Single-user Operating System:** This type of operating system allows only one user to access the computer system at a time. The most commonly used single-user operating systems is DOS.
- (ii) **Multi-user Operating System:** In this type of operating system, multiple users can use the computer at the same time. Examples of multi-user operating systems are Linux, Windows, etc.

Crack The Code

- A.
1. Tally is an application software.
 2. As a beginner, he should take the computer with GUI.

B.



FUN in LAB

Do yourself.

2. Spreadsheet—Functions and Charts

One Touch Learn

- A.** 1. a. 2. a. 3. c. 4. b. 5. b.
6. a. 7. c. 8. c. 9. c. 10. d.
- B.** 1. F 2. F 3. F 4. F 5. F 6. F
- C.** 1. Functions 2. Equal 3. Square root
4. Column 5. Dollar 6. Custom Sort
- D.** 1. b. 2. c. 3. d. 4. a.

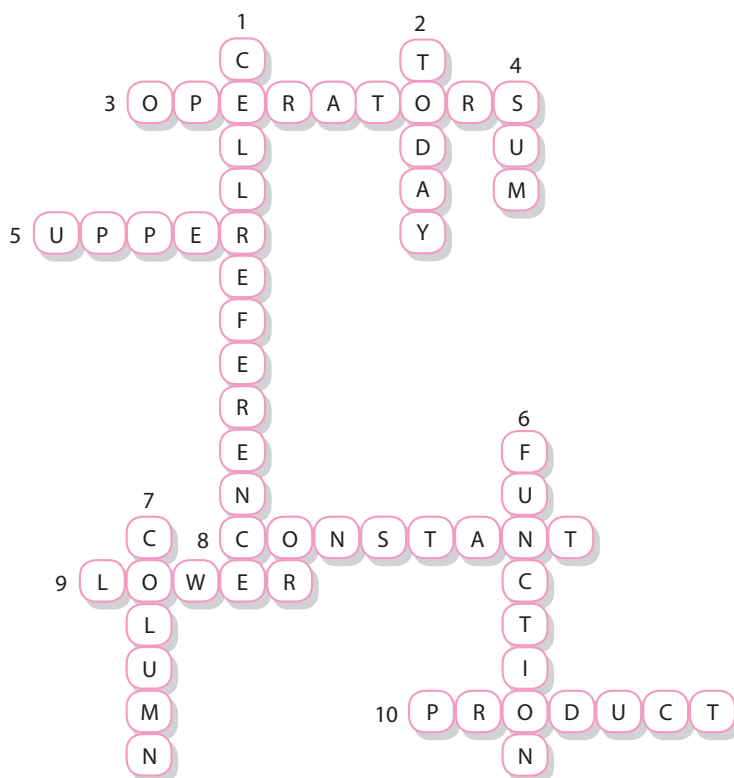
Let's Do It

- A.** 1. A cell reference is a cell address that can be used in a formula to denote a specific cell.
2. (i) Data series is related to the set of values. It is represented by the bars or slices that represent the data values.
(ii) Legend is a key which shows the meanings of symbols and colours used in the chart.
3. Arranging the selected data in ascending or descending order is called sorting.
4. Area Chart are the chart which emphasise the area between the line and the axis with the help of the colours, textures, pictures, etc.
- B.** 1. LEN function returns the length of the text string. Example:
Input: =LEN("Touch")
Output: 5
2. Rules to enter Functions are:
(i) All Excel functions must begin with = sign
(ii) Function name must be a valid Excel name.
(iii) Function must be followed by opening and closing parenthesis.
(iv) Most of the functions must contain an argument within it.
3. Column Chart is usually used to display the data in the form of vertical bars. It is used to show the changes in data over a period of time or comparison among the different data items.
- Whereas, Scatter charts show the correlations between the two sets of values. The x and y axis is used to represent the data plots on the chart.

Crack The Code

- A.** 1. Pie Chart
2. Cell Referencing

B.



Do yourself.

3. Algorithms and Flowcharts



- | | | | |
|----|--------------|-----------------------|---------------|
| A. | 1. b. | 2. c. | 3. c. |
| B. | 1. F | 2. T | 3. F |
| C. | 1. Algorithm | 2. Flow lines, arrows | 3. Consistent |



- A.
- Algorithm is a set of steps in a sequential manner to solve a problem or to complete a task.
 - Flowchart is a graphical representation of the sequence of operations in an information system or program.



- B.** 1. Process symbol shows a process or action step whereas input/output box represents material or information entering or leaving the system.
2. Two characteristic of a good algorithm are:
- (i) Precision: Each step is precisely defined.
 - (ii) Effective: It is measured in terms of time and space.
- C.** 1. Start/Stop 2. Decision 3. Process 4. Input/Output

Crack The Code

- A.** 1. a. Input/Output
b. Processing
c. Input/Output
2. She should make an algorithm before drawing the flowchart.

B.

W	T	A	U	F	O	F	I	L	C	O	F	I	L
R	V	D	E	L	R	E	T	I	U	R	E	T	I
B	A	L	G	O	R	I	T	H	M	N	D	R	M
W	I	N	D	W	W	S	O	R	O	W	S	O	R
T	N	O	R	C	W	S	W	J	D	W	S	W	J
E	T	L	L	H	D	I	H	B	E	O	I	H	B
X	E	U	I	A	E	H	E	K	P	L	H	E	K
T	R	M	N	R	C	O	N	N	E	C	T	O	R
Y	F	N	U	T	I	X	G	I	N	I	X	G	I
P	R	O	C	E	S	S	G	I	R	E	S	G	I
Y	C	N	P	R	I	S	G	I	R	E	S	G	I
Y	E	N	F	L	O	W	L	I	N	E	S	G	I
Y	E	N	P	R	N	S	G	I	R	E	S	G	I

FUN in LAB

Do yourself.

4. Program Coding

One Touch Learn

- A.** 1. b. 2. d. 3. a. 4. b. 5. c.

- B.** 1. T 2. T 3. T 4. T 5. F 6. F
- C.** 1. c. 2. a. 3. d. 4. b.
- D.** 1. High-level 2. Output 3. Operators 4. Identifier 5. Primitive



- A.** 1. Java is an object-oriented high level programming language.
2. Assignment operator is used to assign values to operands.
3. Arithmetic operators are used to do basic mathematical calculations.
4. Data Abstraction is the property by which the essential features of a class are represented without informing about the background details.
- B.** 1. Four Features of Java are as follows:
(i) **Simple:** Java has relatively simple structure and clearly defined syntax.
(ii) **Case sensitive:** Java is a case sensitive language.
(iii) **Object-Oriented:** Java supports object-oriented programming concepts of classes and objects.
(iv) **Platform Independent:** A Java can run on any platform without making changes to it, which means that the same program will run on windows, Linux, Macintosh, etc.
2. Logical operators are used to combine multiple conditions and evaluate them. They return a Boolean value 'true' or 'false' as a result.
&&(AND) and ||(OR) are 2 types of logical operators.
3. Unary operators are special operators which require only one operand or value to perform operations. Increment and decrement are the examples of unary operators.
- C.** 1. 14.44
2. GST to be paid 0.1
total invoice value 2.1
3. Value of a is 20
Value of b is 10
4. Kittu Sharma
5. 20
6. False
True
7. 12
14
- D.** 1.

```
public class program{
    public static void main(String[] args){
        int a = 10;
        int b = 20;
        int c = a + b;
        System.out.println("The value of c is: "+c);
    }
}
```


2.

```
public class assignment{
```



```
public static void main(String[] args){
    int a =10;
    System.out.println(a);
}
}
```

3. No Error
4. public static void main(String[] args){
System.out.println("Welcome");
}



- A.**
 1. Increment operator
 2. String
- B.**
 1. Java
 2. Equality operator
 3. Variable
 4. Keyword
 5. Integers
 6. Comments
 7. System.out.println



Do yourself.

Worksheet-1

(Based on chapters 1 to 4)

- A.**

1. Linux	Windows
2. Max	Min
3. Line chart	Column Chart
4. int	while
- B.**
 1. Character User Interface
 2. Graphical User Interface
 3. Write Once Run Anywhere
 4. Integrated Development Environment
- C.**
 1. An object can be defined as a real-world entity such as telephone, mouse , or bag.
 2. A class can be defined as a user defined blueprint or prototype that is used to create objects.
 3. Java is an object-oriented and high-level programming language.
 4. Algorithm is the sequence of steps or computer operations which collectively solve a given problem.
 5. A cell reference is a cell address that can be used in a formula to denote a specific cell.



6. A Graphical User Interface is a type of interface that provides icons, buttons, pull down menus and windows to interact with the computer.

- D.**
1. User Interface
 2. Single-user Operating System
 3. Cell range
 4. SQRT(number)
 5. LEFT(text, num_chars)
 6. Identifier
 7. Keyword
- E.**
1. (Start/Stop)
 2. Decision
 3. Process

Test Sheet–1

(Based on chapters 1 to 4)

Section A

- A.**
- | | | | |
|-------|-------|-------|-------|
| 1. d. | 2. b. | 3. c. | 4. b. |
| 5. c. | 6. c. | 7. b. | |
- B.**
- | | | |
|----------------|--------------------------|-----------------|
| 1. GUI | 2. Application software. | 3. Square root. |
| 4. Consistent. | 5. Output. | |
- C.**
- | | | | |
|------|------|------|------|
| 1. F | 2. F | 3. F | 4. T |
|------|------|------|------|

Section B

- A.**
1. An operating system is a system software that works as a mediator between user and computer hardware.
 2. a. Data series is related to the set of values. It is represented by the bars or slices that represent the data values.
b. Legend is a key which shows the meanings of symbols and colours used in the chart.
 3. A flowchart is a type of graphical diagram that represents an algorithm.
 4. Assignment operators are used to assign values to operands.
- B.**
1. We prefer to use GUI as in this interface, a user need not to remember all the commands. GUI allows us to give commands to the computer simply by clicking with the mouse.
 2. It returns the length of the text string. Example:
Input: =LEN("Touch")
Output: 5
 3. Two characteristic of a good algorithm are:



- (i) Precision: Each step is precisely defined.
- (ii) Effective: It is measured in terms of time and space.
- 4. (i) Start.
- (ii) Read F.
- (iii) $C = (5(F - 32)) / 9$.
- (iv) Print C.
- (v) Stop.
- 5. Logical operators are used to combine multiple conditions and evaluate them. They return a Boolean value 'true' or 'false' as a result.
&&(AND) and ||(OR) are 2 types of logical operators.
- 6.

```
public class A{
    public static void main(float P,float r,float t)
    {
        double SI=0;
        SI=(P*r*t)/100;
        System.out.println(SI);
    }
}
```
- 7. 14.44

5. Conditional Looping and Jumping Statements in Java

One Touch Learn



- | | | | | | | |
|-----------|-------------|----------|---------|----------|----------------|-------|
| A. | 1. d. | 2. a. | 3. a. | 4. c. | 5. b. | 6. c. |
| B. | 1. F | 2. F | 3. T | 4. T | 5. F | |
| C. | 1. Do-while | 2. While | 3. Case | 4. Break | 5. Conditional | |

Let's Do It



- A.**
1. Looping statements are the control flow statements allow us to repeatedly execute a set of statements for a given number of times.
 2. The if statement is the most basic conditional statement in Java that allows us to test a condition before executing a block of statements.
 3. The default keyword is used to specify some code to be executed if there is no matched case found.

4. The errors that occurred due to violating the rules of Java programming language are called syntax errors.

- B.** 1. The for loop in Java helps to repeat a set of statements a definite number of times.

The syntax of the for loop is:

```
for (initialisation; conditional expression; increment/decrement)
{
    [statements]
}
```

2. The break statement forcefully terminates the loop or switch execution within which it lies. It skips rest of the statements next to the break keyword in the loop and jumps over to the statement following the loop.

Whereas, the continue statement forces the next iteration of the loop to take place and skips the current iteration.

3. Jumping statements are those statement in which the control of the program is transferred out of the loop body, even if all the values of the iterations of the loop have not been completed. The two jumping statements are: Break and Continue.

4. The errors that occurred due to violating the rules of Java programming language are called syntax errors. These are the most commonly occurring errors while developing programs in Java. Syntax errors are also known as compile time errors. Programs containing syntax errors does not compile.

On other hand, a logical error is a type of error due to which a program compiles and executes successfully, but gives an unexpected or incorrect result. It is very difficult to find this type of errors in the program. Compiler does not able to find logical errors. We need to read our programs deeply to find logical errors. Logical errors are also called Semantic Errors.

- C.** 1. Square of 1 is: 1

Square of 2 is: 4

Square of 3 is: 9

Square of 4 is: 16

Square of 5 is: 25

Square of 6 is: 36

Square of 7 is: 49

Square of 8 is: 64

Square of 9 is: 81

Square of 10 is: 100

2. Hello World

Hello World

Hello World

Hello World

Hello World

3. 5



4
3
2
1

4. number is even

5. 4321

- D.**
1.

```
public static void main(String args[])
{
    System.out.println("Table of 8");
    int a = 8, res;
    int i;
    for (i = 1; i <= 10; i++) {
        res = a * i;
        System.out.println(res);
    }
}
```
 2.

```
public static void main(String args[])
{
    int i;
    for (i = 1; i <= 5; i++) {
        System.out.println("The value of i is: " + i);
    }
}
```
 3.

```
public class modulus {
    public static void main(String args[])
    {
        int x = 20, y = 45;
        int mod = y % x;
        System.out.println("Modulus is " + mod);
    }
}
```
 4.

```
public static void main(String args[])
{
    String s = "Touchpad";
    String s1 = "Orange";
    System.out.println(s + s1);
}
```

Crack The Code

- A. 1. If...else statement
2. For loop

B.

C	O	N	T	I	N	U	E	L	L
O	V	D	E	F	A	U	L	T	T
N	H	L	U	I	F	D	R	M	I
D	I	O	E	R	R	O	R	G	T
I	N	O	R	B	R	E	A	K	E
T	T	P	L	E	O	I	H	R	R
I	E	I	I	P	L	H	E	A	A
O	R	N	S	W	I	T	C	H	T
N	F	G	U	N	I	X	G	I	I
A	A	N	X	R	E	S	G	O	O
L	J	U	M	P	I	N	G	N	N

FUN in LAB

Do yourself.

6. App Development

One Touch Learn

- | | | | | | |
|--------------|-----------|------------|-----------|------------|-------|
| A. 1. a. | 2. a. | 3. a. | 4. a. | 5. b. | 6. a. |
| B. 1. F | 2. T | 3. F | 4. T | 5. F | 6. F |
| C. 1. Hybrid | 2. Mobile | 3. Android | 4. Gaming | 5. Install | |

Let's Do It

- A. 1. An app is a software program primarily developed for hand-held smart devices such as mobile and tablet.
2. A Web app is an application program that is stored on a remote server and accessed over the Internet through a Web browser interface.
3. Native apps are platform dependent which means that these apps are primarily developed for a specific platform.

4. E-commerce apps allow us to buy or sell products online while sitting at home or any other place.
5. Communication apps allow us to communicate with each other by sending and receiving messages, information, and opinion in the form of texts, videos, and audios.

B. 1. The types of apps are given the following:

- (i) **Entertainment Apps:** Entertainment apps are developed to entertain people. These apps allow users to watch videos, post photos, search upcoming events, etc.
The most commonly used entertainment apps are Netflix, Talking Tom and YouTube.
- (ii) **Utility Apps:** Utility apps allow us to do our daily tasks such as booking a cab, booking a railway ticket, booking an appointment with a doctor, sharing files, and performing calculations. These apps make our work easy.
The most commonly used utility apps are ShareMe, Calculator and Flashlight.
- (iii) **Educational Apps:** Educational apps provide a platform for children to learn from anywhere and anytime. The most commonly used educational apps are Khan Academy, Vedantu and Grammar EN.

2. Two categories of mobile apps are:

- (i) **Native Apps:** Native apps are platform-dependent which means that these apps are primarily developed for a specific platform. For example, any app which is developed for iOS will not run on any other platform such as Android, Windows, and BlackBerry.
 - (ii) **Web Apps:** Web apps are actually web applications which give a user with experience similar to native apps. These apps are not available on the app store. Hence, you need an extra app called browser to access these apps on your mobile device.
3. Web apps are different from websites. The major difference is that a web app can be a small part of a website which provides a particular functionality. On the other hand, a website can contain many web apps.
 4. Educational apps provide a platform for children to learn from anywhere and anytime.
The most commonly used educational apps are Khan Academy, Vedantu and Grammar EN.



A. 1. Gaming App

2. Utility App

B. 1. Mobile Apps

2. Google Play Store

3. iOS

4. Web Apps

5. Apple's App store

6. Hybrid Apps

7. Gaming Apps

8. Educational Apps

9. Communication Apps

10. Web Apps



Do yourself.

7. Computer Networking

One

Touch

Learn



- A.** 1. a. 2. c. 3. b. 4. b. 5. a. 6. a.
7. d. 8. d. 9. a.
- B.** 1. T 2. T 3. T 4. T 5. T
- C.** 1. Protocol 2. SMTP 3. Router 4. Mesh 5. NIC
- D.** Ring Topology Tree Topology Bus Topology Star Topology

Let's

Do

It



- A.** 1. Protocol is a set of rules that governs the communication between the computers on a network.
2. The components needed for a network are Network Interface Card, networking cable, hub or a switch and router.
3. A server is also called host computer. It controls the access to the hardware and software on the network.
A client is a computer which depends on the server for all the resources. Every client on the network can access the Excel program from the server.
4. Topology refers to the geometric arrangement of computers or nodes in a network.
5. A gateway is a network device that allows to data to flow between two different networks which may use different protocols.
- B.** 1. A computer network is a group of interconnected computer systems and other computing devices.
The advantages of computer network are:
(i) The information can be easily shared by people.
(ii) It reduces the cost of hardware.
(iii) Store information in one centralised location.
(iv) Reduction in installation cost.
(v) User authentication process to secure the data.
2. LAN is a digital communication system that interconnects a large number of computers and other peripheral devices within a radius of less than 1 km. This type of network is usually preferred for a smaller area such as a residence, school, laboratory, university campus or office building.

Whereas, MAN (Metropolitan Area Network) network consists of two or more local area networks or campus area networks together that usually spans several buildings in the same city or town.

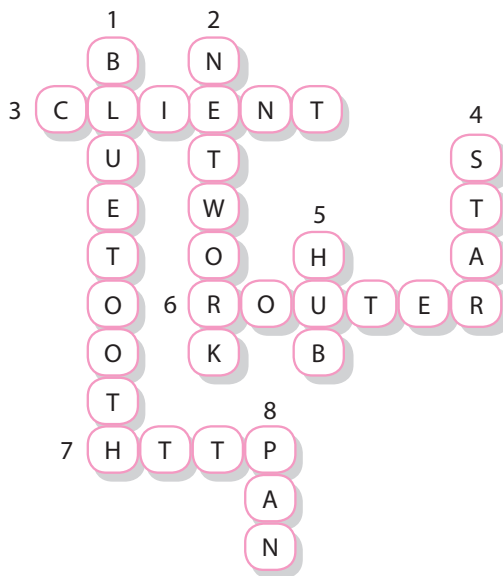


3. A single digital page on the World Wide Web (WWW) that contains information and links of other pages is called a web page. Web pages are created by using the Hyper Text Markup Language (HTML). A website is a collection of web pages which are interlinked to each other. A website may contains thousands of web pages.
4. A sender is a computer that wants to send information to another computer connected to the network. On the other hand, A receiver is a computer which is expecting the data from another computer on the network.
5. An Internet Protocol (IP) address is an unique identification number assigned to a computer connected to a network. It has two main functions: host or network interface identification and location addressing. IP addresses are written and displayed in human-readable notations, such as 172.16.254.1.

Crack The Code

- A.**
1. Ring Topology
 2. Network Server

B.



FUN in LAB

Do yourself.

8. Cloud Computing



- A.** 1. a. 2. c. 3. d. 4. a. 5. a. 6. a.
- B.** 1. Cloud computing 2. OneDrive 3. Cloud
4. Shared with me 5. Two
- C.** 1. F 2. F 3. F 4. F 5. F
- D.** 1. c. 2. e. 3. d. 4. b. 5. a.



- A.** 1. Cloud computing is an Internet-based service that helps users to get shared resources, software, and information over a network on demand.
2. DropBox is a cloud storage service. The basic users of Dropbox are given 2 gigabytes of storage space. Whereas, if somebody has premium subscription then they are given 1 TB of storage space.
3. The name of cloud storage service that is provided by Apple is iCloud.
4. (i) **Speed:** The cloud computing provides data services on demand and the resources can be accessed within few seconds through internet.
(ii) **Cost:** The cloud computing is cost effective as the user is not required to spend money on buying hardware, software and resources.
5. The drawback of cloud computing is, it needs an internet connection always. Without internet connection or network failure, we cannot reap the benefits of cloud computing.
- B.** 1. Advantages of Cloud Computing are:
(i) **Sharing of information globally:** The cloud computing enables users to access information from anywhere at anytime whenever they need it.
(ii) **Productivity:** The cloud computing helps to increase the productivity as there is no need to set up any hardware, software in this. So, the work is reduced and productivity is increased.
- Disadvantages of Cloud Computing are:
(i) Cloud computing needs an internet connection always. Without internet connection or network failure, we cannot reap the benefits of cloud computing.
(ii) We cannot solve technical faults at our end as we have to depend upon the third party for technical solutions.
2. To upload files on the OneDrive, follow the given steps:

Step 1 Go to Home page of your OneDrive and click on the Upload button.



Step 2 Select the Files option.

Step 3 Select the file which user want to upload.

Step 4 Click on the Open button.

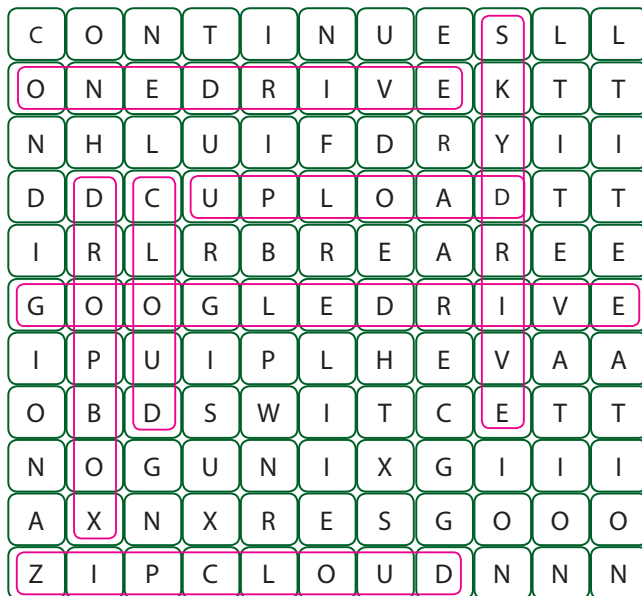
3. Cloud Storage is the online storage space where users can save their documents and can access it through multiple devices.

Two service provider of cloud storage are DropBox and ZipCloud.

- (i) **DropBox:** The basic users of Dropbox are given 2 gigabytes of storage space. Whereas, if somebody has premium subscription then they are given 1 TB of storage space.
- (ii) **ZipCloud:** It is a cloud storage for documents, music, photos and videos. It offers 1 GB of free storage to users. But users can take 75GB, 250 GB, 1TB storage through paid plans.



A.



- B.
- 1. She can upload her data on OneDrive.
 - 2. Sumit needs a Microsoft Account to access OneDrive..



Do yourself.

Worksheet-2

(Based on chapters 5 to 8)

- A.** 1. The if statement is the most basic conditional statement in Java that allows us to test a condition before executing a block of statements.
2. The for loop in Java helps to repeat a set of statements a definite number of times.
3. The break statement forcefully terminates the loop or switch execution within which it lies.
4. Android is an operating system for mobile devices developed by Google.
5. A computer network is a group of interconnected computer systems and other computing devices.
6. Cloud computing is an Internet-based service that helps users to get shared resources, software, and information over a network on demand.
- B.** 1. Continue Statement 2. Error
3. App 4. iOS
5. Bandwidth 6. Website
7. Modem 8. OneDrive
- C.** 1. Syntax errors Runtime errors
2. Khan Academy Vedantu
3. LAN WAN
4. POP3 HTTP
- D.** 1. File Transfer Protocol
2. Hyper Text Transfer Protocol
3. Network Interface Card
4. iPhone Operating System
- E.**

```
public static void main(String args[])
{
    int i;
    for (i = 1; i <= 5; i++) {
        System.out.println("The value of i is: " + i);
    }
}
```

Test Sheet-2

(Based on chapters 5 to 8)

Section A

- A.** 1. c. 2. d. 3. a. 4. a. 5. c. 6. a.
B. 1. do-while 2. gaming 3. mesh 4. OneDrive
C. 1. T 2. T 3. T 4. T 5. F



Section B

- A.**
1. The if statement is the most basic conditional statement in Java that allows us to test a condition before executing a block of statements.
 2. Native apps are platform dependent which means that these apps are primarily developed for a specific platform.
 3. Protocol is a set of rules that governs the communication between the computers on a network.
 4. ISP stands for Internet Service Provider.
 5. Cloud computing is an internet-based service that helps users to get shared resources, software, and information over a network on demand.

- B.**
1. The break statement forcefully terminates the loop or switch execution within which it lies. It skips rest of the statements next to the break keyword in the loop and jumps over to the statement following the loop.

Whereas, the continue statement forces the next iteration of the loop to take place and skips the current iteration.

2. Web apps are different from websites. The major difference is that a web app can be a small part of a website which provides a particular functionality. On the other hand, a website can contain many web apps.
3. An Internet Protocol (IP) address is a unique identification number assigned to a computer connected to a network. It has two main functions: host or network interface identification and location addressing. IP addresses are written and displayed in human-readable notations, such as 172.16.254.1.
4. Advantages of Cloud Computing are:
 - (i) **Speed:** The cloud computing provides data services on demand and the resources can be accessed within few seconds through internet.
 - (ii) **Cost:** The cloud computing is cost effective.

Disadvantages of Cloud Computing are:

- (i) Cloud computing needs an internet connection always. Without Internet connection or network failure we cannot reap the benefits of cloud computing.
 - (ii) We cannot solve technical faults at our end as we have to depend upon the third party for technical solutions.
5. Square of 1 is: 1
Square of 2 is: 4
Square of 3 is: 9
Square of 4 is: 16
Square of 5 is: 25
Square of 6 is: 36
Square of 7 is: 49
Square of 8 is: 64
Square of 9 is: 81
Square of 10 is: 100

```
6. public static void main(String []args)
    {
        int reverse=0;
        int num=1234;
        while (num!=0)
        {
            reverse=reverse*10;
            reverse=reverse+num%10;
            num=num/10;
        }
        System.out.println(reverse);
    }
```

