KANGAROO

SUPER
COMPUTER

NOTES

For Class Five

KANGAROO SUPER COMPUTER

This book belongs to:

_____

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Published by
M. Arslan Farooq

KANGAROO PUBLICATIONS

Karachi | Lahore | Rawalpindi | Multan

More About Internet

Worksheet

🔵 **Select the correct answer for each question.**

1. Which of these is the primary connecting device to the internet?
   (a) Scanner   (b) Printer   (c) Modem ✓

2. Which device is used to send and receive data on computer networks?
   (a) Router ✓   (b) Vacuum tube   (c) Scanner

3. What are the other names of Network Card?
   (a) Network Adapter   (b) Network Interface Card (NIC)
   (c) Both ✓

4. Which is the world's largest professional network on internet?
   (a) Facebook   (b) LinkedIn ✓   (c) Twitter

5. In which year Facebook was created?
   (a) 2004 ✓   (b) 2002   (c) 2008

6. Which network is the worldwide network that connects computers all over the world?
   (a) Router   (b) Internet ✓   (c) Modem

7. What is the thing that many restaurants, shopping malls and coffee shops usually offer for free?
   (a) Modem   (b) Network Card   (c) Wi-Fi ✓

Fill in the blanks.

1) Modern life has become easier due to the great contribution of the ___internet___ technology.

2) You can connect your computer to a modem directly by using _Ethernet cable___ .

3) The purpose of the _network__ card is to prepare, send, and control data on the network.

4) Usually network cards support wired Ethernet or _Wi-Fi__ Wireless standards.

5) __Social___ Media platforms allow users to have conversations, share information and create web content.

6) Facebook is the world's largest social network with more than __1 billion___ active users worldwide.

7) Twitter was launched in __2006___ and is most popular with adults and young professionals.

8) Social media and _technology__ offer us greater convenience and connectivity.

Teacher Guide:
Help the students to solve this worksheet.

Give short answers to these questions.

i. Mention three things which are necessary to connect online to the world.

Ans. For connecting online to the world, you need three things: an Internet connection, a modem, and a web browser.

ii. What is a Modem?

Ans. Modem is the primary piece of hardware for connecting to the internet.

iii. What is a Router?

Ans. A router receives and sends data on computer networks.

iv. What is the purpose of a Network Card?

Ans. The purpose of the network card is to prepare, send, and control data on the network.

v. When and who created the Facebook?

Ans. Facebook was created in 2004 by Mark Zuckerberg while he was enrolled at Harvard University.

Answer these questions in a brief manner.

i.   Write a short note on Network card?

Ans. A network card is a computer hardware component that connects a computer to a network. It is also known as Network Adapter and Network Interface Card (NIC). The purpose of the network card is to prepare, send, and control data on the network. Due to the popularity and low cost of the Ethernet standard, nearly all new computers have a built-in network card on the motherboard. The network card may have an Ethernet port, a wireless connection or both. Usually network cards support wired Ethernet or Wi-Fi Wireless standards.
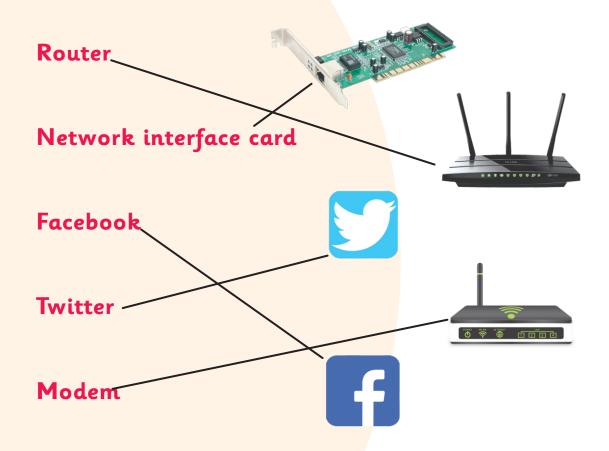
ii. What do you know about LinkedIn?

Ans. LinkedIn is the world's largest professional network on the internet. You can use LinkedIn to find the right job or internship, connect and strengthen professional relationships, and learn the skills you need to succeed in your career. You can access LinkedIn from a desktop, LinkedIn mobile app and mobile web experience.

iii. Write down any four disadvantages of using Social Media.

Ans. Disadvantages of social networking are mentioned below:
- Online chatting weakens people's communication skills due to less use of formal language.
- Parents and children spend less time together.
- People with bad intentions can access profiles and have direct access to contact information and photographs.
- Decreases Face-to-Face Communication Skills.
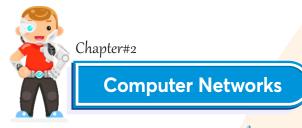
Match the name with the picture.

Router

Network interface card

Facebook

Twitter

Modem

Computer Networks

Worksheet

● Fill in the blanks.

1. A computer ___network___ is a group of computers connected to each other.

2. A network may also connect other devices such as ____printer____, scanners and digital cameras etc.

3. LAN stands for ____local____ Area Network.

4. A LAN may consist of minimum ____two____ computers to thousand computers connected together.

5. WAN covers a ____larger____ geographical area.

6. A WAN could be formed by connecting a LAN to other ____LAN's____.

7. MAN is an extended form of ____LAN____.

● Circle the correct answer from multiple choices.

1. You can share data and other resources with anyone in the world by _____.
   a) MS Point   b) Computer Networking
   c) Hardware repairing.

2. A computer network is a group of_____ connected together for communicating electronically.
   a) printers   b) scanners
   c) computers

3. MAN stands for _____.

   a) Merge Area Network   b) Missed Area Network

   c) Metropolitan Area Network

4. The World's largest computer network, Internet is also a type of _____.

   a) LAN   b) MAN   c) WAN

5. Sometimes LANs are also connected to _____.

   a) MAN   b) LAN   c) WAN

6. Networking has centerlized administration which means one administrator can control the _____, devices and permission of users on a network.

   a) pointer   b) data   c) monitor

🔵 **Answer these questions in a short form.**

1. How many types of computer networks are there according to geographical area?

Ans. According to the geographical area, computer networks can be divided into following types.

1. Local Area Networks (LAN)
2. Wide Area Network (WAN)
3. Metropolitan Area Network (MAN)

2. What is a LAN?

A **L**ocal **A**rea **N**etwork or (LAN) is a computer network which covers a small geographical area. The area covered by LAN can range from a single room, a floor, an office having one or more buildings in the same premises, laboratory, a school, college or university campus.

3. How do you connect computers in LAN?

Ans. The connectivity is done by means of wires, Ethernet cables, fiber optics or Wi-Fi.

4. Write the full form of MAN.

Ans. The Full Form Of MAN is a Metropolitan Area Network. It is a computer network that connects multiple local area networks within a metropolitan area.

5. Write the name of world's largest computer network and also mention. what type of network it is.

Ans. The world's largest computer network, **Internet** is also a type of WAN. Usually WAN is a combination of many individual computers, LANs and MANs.

🔵 **Answer these questions briefly.**

A. Write a note on WAN.

Ans. A **W**ide **A**rea **N**etwork or (WAN) is a computer network wh
covers a larger geographical area. It can cover different geographical locations of a country or different countries or continents.
A WAN could be formed by connecting a LAN to other LANs via wired/wireless media. The world's largest computer network, **Internet** is also a type of WAN. Usually WAN is a combination of many individual computers, LANs and MANs.

B. What do you know about local Area Network (LAN)?

Ans. A **L**ocal **A**rea **N**etwork or (LAN) is a computer network which covers a small geographical area. The area covered by LAN can range from a single room, a floor, an office having one or more buildings in the same premises, laboratory, a school, college or university campus.

A LAN may consist of minimum two computers to thousand computers connected together.

C. Write down any three advantages of computer networking.
    Ans.

- **Files** and other data can be easily shared between users.
- **Sharing devices** such as printers and other peripherals can save money.
- Network users can **communicate** by email and instant messenger.

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Computer Languages

Worksheet

Fill in the blanks.

1. A __language__ is a structured system of communication used by humans.

2. A __program__ is a set of instructions that a computer follows to perform a task.

3. A person who writes programs for computer is called a __programmer__.

4. Low level language is also called __Machine Oriented__ languages.

5. High level languages are more __powerful__.

6. __FORTRAN__ language was designed to solve scientific problems and complex mathematical calculations.

7. COBOL language is specifically designed for __business__ applications.

8. C and C++ are powerful __general__ purpose languages.

Indicate the true and false statements.

1. You can communicate with computers in computer's language. ✓

2. A person who writes novels and stories, is called a programmer. ✗

3. Machine language is usually written in Binary Codes (0,1). ✓

4. PASCAL language was named after a French musician. ✗

5. JAVA language is used for web applications. ✓

6. VISUAL BASIC language is also called VB. ✓

7. Pasculine is the second calculating device. ✗

8. FORTRAN was developed by IBM corporation. ✓

🔵 **Answer these questions in short form.**

1. What are high level languages?

Ans. High level languages are more powerful and easy to understand than low level languages. Usually high level languages are written in English language words.

2. List five names of high level languages.

Ans. Some of the common high level Languages are mentions below:
1) BASIC
2) FORTRAN
3) COBOL
4) PASCAL
5) C and C++

Teacher Guide:
Teacher should help the students to solve this worksheet.

3. Define a program.

Ans. A **program** is a set of instructions that a computer follows to perform a task.

4. Who is a programmer?

Ans. A person who writes programs for computer is called a **programmer.**

5. How assembly language replace the binary codes?

Ans. Assembly language replaced the binary codes (0,1) with **Mnemonic codes** (abbreviations) such as A for Add, MP for Multiplication etc.

🔵 Answer these questions briefly.

A What is machine language? Explain.

Ans. It is the language that a computer can directly understand. This programming language is written in **binary codes** such as **0** and **1**.
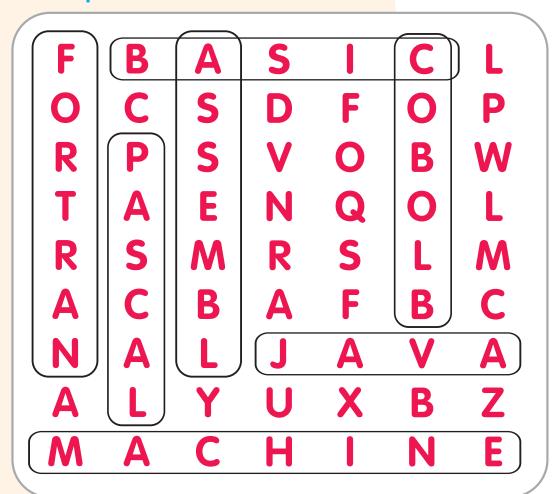It is a little bit difficult to learn, understand and write a program in machine language.

B. Write a short note on FORTRAN and COBOL languages.

Ans. **FORTRAN** (**FOR**mula **TRAN**slation) was developed by IBM corporation for its 704 computer. This language was designed to solve scientific problems and complex mathematical calculations.

C. Describe PASCAL language briefly.

Ans. **COBOL** (**CO**mmon **B**usiness **O**riented **L**anguage) was specifically designed for business applications. The programs written in COBOL are much lengthy than written in other languages.

🔵 **Find the computer programing languages in the word puzzle.**

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

Word Bank:

1. MACHINE
2. BASIC
3. COBOL
4. JAVA
5. ASSEMBLY
6. FORTRAN
7. PASCAL

Worksheet

🔵 **Select the correct answer for each question.**

1. What kind of software is PowerPoint?

   (a) Video editing software
   (b) Presentation software ✔
   (c) Programming software

2. Due to which effect transitions add movement to your Slides as you move from one slide to another?

   (a) Motion effect ✔   (b) Static effect
   (c) Color effect

3. How many types of animations do PowerPoint provides?

   (a) 5   (b) 3   (c) 4 ✔

4. By applying what you can animate an object in the slide show?

   (a) Animations ✔   (b) Transitions   (c) Review

5. Which colors should be used for text and background in slides?

   (a) Same   (b) Contrasting ✔   (c) Light

6. How much information should a slide contain?

   (a) Excessive   (b) Too much   (c) Short and Precise ✔

7. What may be reduced by using patterned backgrounds in slides?

   (a) Accessibility   (b) Readability ✔   (c) Stability

Fill in the blanks.

1) __Power point__ is the integral part of Microsoft Office suite along with Word and Excel.

2) PowerPoint is mainly used for business presentations and for __educational__ purposes.

3) Presentations can be __printed__, displayed, notated, and navigated by the presenter.

4) Some of PowerPoint's transitions can look particularly __advanced__ so it's easy to make your presentation looks like a video.

5) PowerPoint animation adds movement and sound to the objects __within__ the slides.

6) You can add __audio__ such as music, narration, or sound bites, to your PowerPoint presentation.

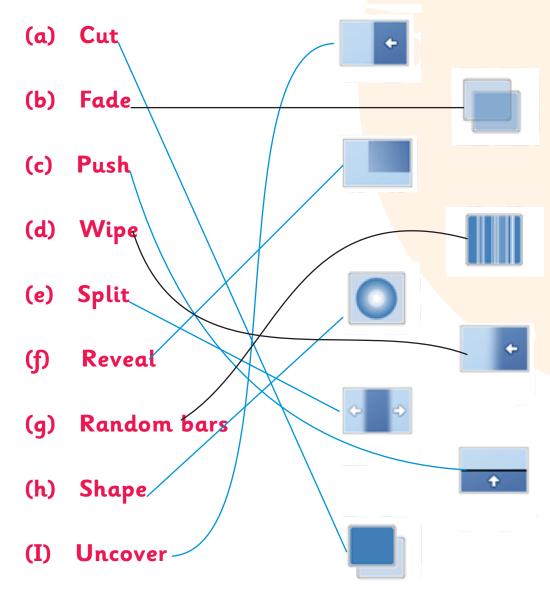7) Always use __authorized__ content in your presentations.

Match the names with Transition Icons.

(a)   Cut

(b)   Fade

(c)   Push

(d)   Wipe

(e)   Split

(f)   Reveal

(g)   Random bars

(h)   Shape

(I)   Uncover

Answer these questions in a brief manner.

1)   Write a short note on MS PowerPoint.

Ans. PowerPoint is Microsoft's presentation software that enables users to create engaging presentations. It is the integral part of Microsoft Office suite along with Word and Excel. You can create simple SlideShow to complex presentations from PowerPoint. It is mainly used for business presentations and for educational purposes.

2)   What are Animations?

Ans. PowerPoint animation adds movement and sounds to the objects within the slide. You can animate the objects on your PowerPoint slides.

3)   What is Slide Transition?

Ans. Transitions are **motion effects** that adds movement to your slides as you move from one slide to another. There are many transitions to choose from, each transition allows you to control the speed and even add sound in it.

4)   What are the sources for adding a video in slides? Name them.

Ans. Videos can be added from **File** (Computer), **Website** (Online) or you can use **Clip Art** videos in Slideshow.

5)   How would you add Audio to your slide? Write all steps.

Ans.

● Go to the **Insert** tab, in the **Media** group and click **Audio**. Select **Audio on My PC**.
● In the Insert Audio **dialog box**, select the audio file you want to add.
● Select **Insert** and your audio will be inserted then.

6) Mention any three smart tips for making an attractive presentation.

● YouTube videos can be taken down at any time, so there is no guarantee it will always be available in your presentation. Therefore, try to avoid adding video online.

● Be aware of potential copyright restrictions on the videos you choose. Always use authorized content in your presentations.

● Adding a long video from your computer increases your presentation's file size. Be aware that this can make it difficult to send through email.

Introduction to Robots

Worksheet

🔵 **Indicate the true and false statements.**

	True	False
1. Robot is a programmable machine.	✓	☐
2. Robot cannot follow the instructions.	☐	✓
3. Robots have human-like tendencies and capabilities.	✓	☐
4. Robots decreased the workload of humans, especially in industry sector.	✓	☐
5. Robots can perform tasks according to the instructions stored in them.	✓	☐

🔵 **Fill in the blanks.**

1. The person who instructs or programs a robot is called a ___**programmer**___.

2. A robot can carry out a series of ___**complex**___ actions automatically.

3. A typical robot has a ___**movable**___ physical structure.

4. A robot is provided with some ___**artificial**___ intelligence.

5. Space robots are called ___**Rovers**___.

6. Robotic vacuum cleaners use ___**sensors**___ to avoid bumping into furniture or people.

7. Industrial robots are mainly used for ___**manufacturing.**___.

Super Computer Class Five

Answer these short questions.

1. What is a Robot?

Ans. A Robot is a programmable machine which is capable of carrying out a series of complex actions automatically.

A robot is provided with some Artificial Intelligence so that it can react to different situations it may face.

2. Who is a programmer?

Ans. The person who instructs or programs a robot, is called a **Programmer**.

3. What is Artificial Intelligence (AI)?

Ans. Artificial intelligence (AI) is the computer's ability to imitate the intelligent human behavior in different situations.

Answer these questions briefly.

A. Write down the structure of a robot.

Ans. A typical robot has a movable physical structure, a motor, a sensor system, a power supply and a "computer brain" that controls all of these elements.

B. Write any two categories of robots with their usage.

Household Robots:

These robots are usually used at home for doing tedious and repetitive tasks such as cleaning and sweeping. Robotic Vacuum Cleaners use sensors to avoid bumping into furniture or people while cleaning the carpet.
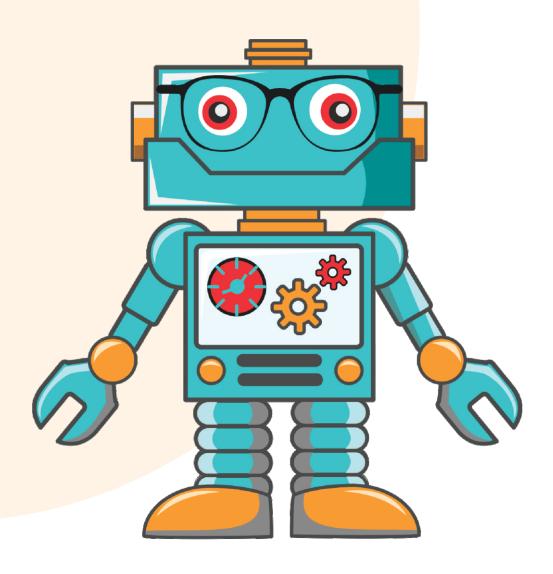
Medical Robots:

Medical Robots are mainly used by surgeons for medical purposes. These are used for minimally invasive procedures with complete precision.

My robot's name is _____Robby_____.

Write three things that your robot can do.

1. __My Robot can clean the house.__

2. __My Robot can help me.__

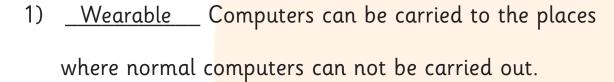3. __My Robot can assist me solving complex mathematical questions.__

Teacher Guide:
Teacher should help the students to draw the robot according to the above picture.

Future of Computers

Worksheet

Fill in the blanks.

1) __Wearable__ Computers can be carried to the places where normal computers can not be carried out.

2) Wearable computers are the latest development in ___computing___ technology.

3) The ring ___scanner___ is integrated with a light weight wrist mounted wearable computer.

4) Wearable devices are mostly ___hands-free___.

5) ___Cloud___ computing is a technology that uses the internet for storing and managing data on remote servers.

6) Dropbox is a ___cloud___ storage service that lets you save files online to your devices.

7) ___Drones___ are formally known as unmanned aerial vehicles (UAVs).

8) Drones were initially used for ___miltary___ purposes.

Indicate the true and false statements.

1. Computers have revolutionized the world. ✔

2. Wearable computers are one of the prime focuses of current technological research. ✔

3. The Ring scanner does not save our time. ✘

4. Smart Eye Glasses consists of a touch pad, a camera and a communication device. ✔

5. Wearable devices are always in active mode. ✔

6. The Ring scanner does not save our time. ✘

Select the correct answer for each question.

1. Which technology has been used in iGlove.
   (a) microprocessor ✔   (b) RFID   (c) non of these

2. What is the top most characteristic of wearable computers?
   (a) Heavy   (b) Fixed   (c) Portabale ✔

3. Which is characteristic of wearable computers that makes the user multitasking?
   (a) user controllable ✔   (b) portable   (c) both

4. Why does it is called cloud computing?
   (a) For physical space
   (b) For virtual space ✔
   (c) None of above

5. What is the name of the suite of public cloud services offered by Google?
   (a) Dropbox   (b) Google Cloud ✔   (c) both

● **Answer these questions in short form.**

1. Define wearable computing.

Ans. Wearable computing is a kind of computing in which the user wears the computing device on his/her body in the form of clothing or any other wearable aids.

2. What is cloud computing?

Ans. Cloud computing is a technology that uses the internet for storing and managing data on remote servers and then access data via the internet.

3. Write down the examples of cloud computing.

Ans.   a) Dropbox   2) Google Cloud

4. What is a Drone?

A drone is an aircraft without any human pilot, crew or passengers on board. It is a flying robot that can be remotely controlledor fly autonomously using software-controlled flight plans in its embedded systems.

5. Write any three uses of drones.

Ans. Drones are now also used in a range of civilian roles, including the following:

- Search and rescue
- Surveillance and Security
- Traffic monitoring

Answer Briefly.

A. **What are the characteristics of wearable computers? Describe any two in detail.**

Characteristics of Wearable Computers

Portable:

The main advantage of the wearable devices is that they are portable and easy to carry out. They can be carried anywhere with the users even at situations like war, while playing, while running etc, where normal computer cannot be carried.

Hands free:

Wearable devices are mostly hands-free. User can give the input with his speech, with his motion, with his gesture to the computer he is wearing. Even the heat from body and various kinds of motion of user can act as input to these devices. And they are programmed to give the desired output to the user according to these inputs.

B. **Write a note on Drones.**

Ans. Drones are formally known as **U**nmanned **A**erial **V**ehicles (UAVs). A drone is an aircraft without any human pilot, crew or passengers on board. It is a flying robot that can be remotely controlled or fly autonomously using software-controlled flight plans in its embedded systems.

Drones have grown in popularity and their use is expected to continue to increase. Nowadays, these flying robots are widely used in various applications and have been a topic of focus for many researchers. An emerging trend is the use of drones in the education realm to teach STEM for young students.
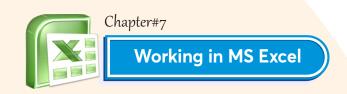
C. What is Ring scanner? Describe briefly.

Ans. The ring scanner is mostly used at warehouses, billing counters of mega stores, packaging stores and courier companies. The main advantage of ring scanner is that it saves the time of the workers because it makes both the hands of workers free and the user does not have to pick and drop the bar code scanner again and again. This ring scanner is integrated with a lightweight wrist mounted wearable computer.

Working in MS Excel

Worksheet

🔵 Select the correct answer for each question.

1. Microsoft Excel is a speadsheet software created by
   _____.
   ✓ (a) Microsoft   (b) Linux   (c) Google

2. A _____ is a file that consists of cells in
   rows and columns and can help arrange, calcualte and
   sort data.
   (a) Paper sheet   (b) Spreadsheet   (c) New Sheet

3. Quick _____Toolbar is a place where all the
   important tools can be placed.
   ✓ (a) Access   (b) Active   (c) Accent

4. The rectangular box at the intersection point between
   rows and column forms a _____.
   (a) Ribbon   (b) Formula line   ✓ (c) Cell

🔵 **Indicate the true and false statements.**

1. MS Excel is the core part of MS office Suite. ✓

2. Data in a spread sheets can only be in numeric
   values. ✗

3. Ribbon is like an expanded menu. ✓

4. Status bar shows only the past status of excel
   sheet. ✗

5. We can identify columns by letter (alphabets). ✓

6. Each Excel file may contains several sheets. ✓

7. To use your Excel file in future, you must not save it. ✗

8. Spreadsheet organized numbers and data with formulas and functions. ✓

9. MS Excel is mostly used for writing a letter and application. ✗

10. In MS Excel, all formulas and calculation will appear in Formula Bar. ✓

🔵 Answer these questions.

1. What is a spreadsheet? Define it.

Ans. A spreadsheet is a file that consists of cells in rows and columns and can help arrange, calculate and sort data.

2. What is a cell address?

Ans. The rectangular box at the intersection point between rows and columns forms a cell.

3. Write any four uses of MS Excel

Ans. The main uses of Excel includes the following:

- Data entry
- Data management
- Accounting
- Financial analysis

4. What are the main areas in Excel Screen? Describe them all.

Ans. 1. Quick Access Toolbar: This is a place where all the important tools can be placed.

2. Ribbon: Ribbon is like an expanded menu. It depicts all the features of Excel in easy to understand form.

3. Formula Bar: This is where any calculations or formulas you write will appear.

4. Spreadsheet Grid: This is where all your numbers, data, charts & drawings will go. Each Excel file can contain several sheets. But the spreadsheet grid shows few rows & columns of active spreadsheet.

5. Status bar: This tells us what is going on with Excel at any time. It shows if Excel is busy calculating a formula, creating a report or preparing a budget

Lable the Excel Screen.

File

Title Bar

Cell

Columns

Rows

Status bar

Worksheet Area

200m Control