

CS 101 notes by Aneela FOR mid term

1. Computer hardware is the collection of **physical parts of a computer system**.
2. Computer software, also called software, is a **set of instructions** and its **documentations**.
3. Computer programming is the **process of designing** and building an **executable** computer program for accomplishing a **specific computing task**.
4. **A computer network is a set of computers connected for the purpose of sharing resources**
5. **A robot is a machine—especially one programmable by a computer.**
6. an algorithm **A set of instructions designed to perform a specific task**
7. **Which of the following is NOT an application of Computer Science mentioned in the text?**
Agriculture
8. According to the job market in Pakistan, which field has the most job opportunities?
Computer science
9. Which job was ranked as the Number 1 job in the US according to Forbes magazine?
Software developer
10. What concept helps hide complexities in system design, according to the topic of 'Data Abstraction'?
data structure
11. Which of the following is NOT a topic covered under content filtering and international laws in Computer Science? **Word processing**

Which software will be covered for presentations development in this course?

12. **Microsoft power point**
13. Which software is specialized for performing calculations and will be covered under spreadsheets? **Microsoft excel**
14. **Which search engine has the largest market share according to the text?** **Google**
15. What feature allows users to search on Google by speaking instead of typing? **Microphone**
16. What should you type in Google if you want to flip a coin virtually? **"Flip a Coin"**
17. What is the primary purpose of a Database Management System (DBMS)?
To store and organize data
18. Which of the following is an example of word processing software? **Microsoft word**
19. What is the primary function of a spreadsheet application?
To perform calculations and data analysis
20. Which search engine holds the largest market share? **Google**
21. Which operator is used to search for items based on price in Google? **Pkr**
22. Which symbol is used in a Google query to represent any word in a wildcard search? *****
23. What does the "OR" Boolean operator do in a search query?
Returns results with either one of the words
24. Which symbol is used to search specifically within a social media platform using Google **@**
" "
25. How can you exclude a word from your Google search results? **-**

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

26. Which of the following searches should be avoided to minimize unnecessary ads? **Your email**
27. The abacus, one of the earliest computing devices, had its roots in which ancient civilization?
Greece and Rome
28. Who was the inventor of the first gear-driven mechanical computer that could print results to avoid transcription errors? **Charles Babbage**
29. Herman Hollerith developed the concept of using punch cards to speed up the tabulation of data for which major event? **The 1890 U.S. Census**
30. Which of the following is NOT true about ENIAC? **It was completed in 1944**
31. How much electricity did ENIAC consume during its operation? **200 KW**
32. Which machine, completed in 1944, made heavy use of electronically controlled mechanical relays? **Mark I**
33. The advancement from vacuum tubes to which technology marked a significant step in the miniaturization and speed of computers? **Transistors**
34. In which year did IBM launch the personal computer (PC)? **1981**
35. What does one bit represent in a computer? **0 or 1 value**
36. The term "bit" is short for: **Binary Digit**
37. Which of the following can be represented using bits? **Numbers, text, Audio and Video**
38. How many bits are there in 1 byte? **8**
39. How many bytes are there in 1 kilobyte (KB)? **1024**
40. How many megabytes (MB) are equivalent to 1 gigabyte (GB)? **1024**
41. How many different patterns can be represented with 3 bits? **8**
42. How many different patterns can 8 bits represent? **256**
43. What is the binary representation of the decimal number 2? **00000010**
44. In the ASCII code, the character "A" is represented by which decimal value? **65**
45. Boolean operations are named after which mathematician? **George Boole**
46. The AND operation produces a 1 when: **Both inputs are 1**
47. The OR operation produces a 1 when: **Either or both inputs are 1**
48. The XOR (Exclusive OR) operation produces a 1 when: **Both inputs are different**
49. The NOT operation produces 1 when: **The input is 0**
50. In Boolean logic, what does the bit 0 typically represent? **False**
51. In Boolean logic, what does the bit 1 represent? **True**
52. What is the result of the AND operation when the inputs are 1 and 0? **0**
53. What is the result of the OR operation when the inputs are 0 and 0? **0**
54. In Boolean operations, what is the result of the AND operation when A = 1100 and B = 1010?
1000
55. In Boolean operations, what is the result of the OR operation when A = 1100 and B = 1010?
1110
56. In Boolean operations, what is the result of the XOR operation when A = 1100 and B = 1010?
0110
57. What is the hexadecimal representation of the binary string 111010000101? **E85**
58. What is the purpose of main memory in a computer? **To store data**
59. In main memory, bits are typically organized into units of: **8 bits**
60. Each cell in a computer's main memory is identified by a unique: **Address**

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

61. DRAM stores bits as: **Electric charge**
62. Which of the following applies additional techniques to DRAM? **SDRAM**
63. Which of the following is considered a mass storage (or secondary storage) system?
Magnetic disks
64. Which of the following is NOT an advantage of mass storage systems over main memory?
Higher speed
65. Which of the following devices are considered forms of mass storage? **CDs and DVDs**
66. **Transfer rate** The rate at which data can be transferred to or from the disk.
67. What is the capacity of each sector on a Compact Disk (CD)? **2KB**
68. Data on a CD is stored in which of the following ways? **In a single-track spiral**
69. How many bits are used by Unicode to represent a wide variety of characters from different languages? **21bits**
70. How many values can be represented with 4 bits in binary? **16bits**
71. How many values can be represented with 4 bits in binary? **Two's complement**
72. How is each pixel represented in black-and-white images? **As one bit**
73. How many bits are typically used to store shades of gray in an image? **8 bits**
74. In RGB encoding, how many bytes are used to represent one pixel?
3 bytes (1 byte for each Red, Green, and Blue)
75. What happens when an image is scaled to a larger size? **It requires more pixels**
76. Which scalable font system is popular in Computer-Aided Design (CAD)? **postscripts**
77. What is sound amplitude experienced as? **Loudnes**
78. How many samples per second are typically recorded for high fidelity music on CDs?
44100 samplee
79. How much data can MIDI encode for 2 seconds of sound compared to traditional encoding methods? **3 bytes**

Binary addition

$$\begin{array}{r}
 1111 \qquad 1 \\
 + 1111 \qquad +1 \\
 \hline
 11110 \qquad 10
 \end{array}$$

PART 2

Human are better than computers at:

Join VU Group for More Files
<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

Efficiency

Accuracy

Pattern recognition

None of the given choices

Cray-1 was first commercial _____ computer

Super

Mini

Micro

Personal

URL is a/an _____

Device

Component

Address

Tool

Mainframe Computers are also called _____

Enterprise Servers

Personal Servers

Enterprise Managers

Window Servers

Which of the following is NOT a category of Mobile Computers?

laptop

Palmtop

desktop

Wearable

Preliminary exploration of possible solutions, technologies, suppliers is called

Viability

feasibility

Specification

Integration

_____ give us the ability to manipulate data through reference instead of actual value.

► Constants

► **Variables**

► Data Types

► Operator

Consider the following statement written in JavaScript:

str = "Hello" + " World"

What will be the value of str ?

► **HelloWorld**

► Hello World

► Hello + World

► It will result in error

A tool that helps you to find the synonyms is called _____.

► Language

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

- ▶ Paragraph
- ▶ **Thesaurus**
- ▶ Symbol

Communication protocol is a _____ that governs the flow of information over a network

- ▶ Set of protocols
- ▶ **Set of rules**
- ▶ Device
- ▶ Set of methods

If a computer could pass the Turing test then it would be able to:

- ▶ **think like human beings**
- ▶ do the things faster
- ▶ win a million dollar prize
- ▶ store more information

The first Web browser with a GUI was generally available in:

- ▶ 1992
- ▶ **1993**
- ▶ 1994
- ▶ 1995

Web is a unique invention by humans in terms that it is:

- ▶ accessible to only the owners who control it
- ▶ accessible from particular locations only
- ▶ **accessible to all humans**
- ▶ accessible to only the educational institutes

In this URL <http://www.msn.com> , _____ identifies the domain name

- ▶ http
- ▶ www
- ▶ **msn**
- ▶ com

_____ is simply a fast port that lets you connect computer peripherals and consumer electronics to your computer without restart.

- ▶ Freeware
- ▶ Shareware
- ▶ **Firewire**
- ▶ Firmware

Which of the following is NOT supported by PC's power supply.

- ▶ -12 and +12 V DC
- ▶ **-10 and +10 V DC**
- ▶ -5 and + 5 V DC
- ▶ All are supported

In which case Cache Memory is used

- ▶ To increase RAM speed
- ▶ To overcome BUS speed
- ▶ **To overcome Speed rate between RAM and CPU**

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

► To overcome CPU speed

To display a single line text area on the web page, we use ____ tag

► TEXT

► TEXTBOX

► **INPUT**

► INPUTBOX

If an algorithm is syntactically correct, but semantically incorrect then this situation is

► Very good situation

► **Very dangerous situation**

► Not very bad

► Neutral situation

Users communicate with the computer using a consistent user interface provided by the OS.

► **True**

► False

Application developers do not need to know much about the HW, especially the microProcessor, while they are developing their application.

► **True**

► False

The first spread sheet program was invented by

► Charles Babbage

► **Dan Bricklin**

► Paul Graham

► John von Neumann

Which representation technique of algorithm is more suitable for developer to make actual code_____.

► **pseudo code**

► flow chart

► both pseudo code and flow chart

► Heurist

_____ is used to terminate all JavaScript statements.

► Colon

► **Semicolon**

► Underscore

► Apostrophe

In java script cookies can be created for future use_____.

► Easily

► No facility at all

► This is not possible without Java language.

► **Cookies are files so java script can not handle it.**

When the microprocessor desires to look at a piece of data, it checks in the _____ first.

► RAM

► ROM

► hard disk

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

► **cache**

It represents the _____ flow chart element.

- Flow Line
- Connector
- Off-page connector

► **Start or Stop**

What is NOT a key factor while designing a website?

- Usability
- User-friendly
- Consistency
- **Complexity**

_____ % of the users have left websites in frustration due to poor navigation.

- 40
- 62
- **83**
- 91

In JavaScript, a variable declaration is

- **Optional**
- Mandatory
- Not allowed
- None of the given

A protocol used for receiving email messages is called _____.

- URL
- Telnet
- **POP3**
- SMTP

Which is correct?

- OnUnload
- onUnLoad
- onUNLOAD
- **All of the above**

Serial arrangement in which things follow logical order or a recurrent pattern, such as statements executing one by one, is called _____.

- **Loop**
- Sequence
- Condition
- Array

Variables allow us to manipulate data through the _____.

- Actual Value
- **Reference**
- Length
- Name

Fuzzy logic is based on _____.

- Ground facts

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

- ▶ Experience
- ▶ Practice
- ▶ **Approximation**

Word Processor is a _____

- ▶ System Software
- ▶ **Application Software**
- ▶ Device
- ▶ Utility

In the old days, databases did NOT support _____.

- ▶ Number
- ▶ Boolean
- ▶ **Video**
- ▶ Text

In tabular storage, fields placed in a particular row are strongly _____.

- ▶ Independent
- ▶ Dependent
- ▶ **Interrelated**
- ▶ Inconsistent

Due to working at home, lack of interaction may result in _____ professional growth.

- ▶ **Slower**
- ▶ Faster
- ▶ Higher
- ▶ Improved

Distance learning has got a boost due to the _____.

- ▶ Easy communication
- ▶ Online interactive contents
- ▶ Flexibility
- ▶ **All of the given options**

_____ technique can be used to create smooth animations or to display one of several images based on the requirement.

- ▶ Image downloading
- ▶ **Image preloading**
- ▶ Image uploading
- ▶ Image postloading

The _____ is becoming the preferred organizational structure for more and more organizations with the passage of time.

- ▶ Tree structured organizational model
- ▶ **Network paradigm**
- ▶ Hierarchical structure
- ▶ None of the given options

The group of technologies concerned with the capturing, processing and transmission of information in the digital electronic form is called _____.

- ▶ Telecom Engineering
- ▶ Computer Engineering

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

► Computer Science

► **Information Technology**

A large number of networks interconnected physically are called _____

► **LAN**

► MAN

► Internet

► Network collection

TCP stands for _____.

► Transfer Center protocol

► **Transmission Control Protocol**

► Transmission Center Protocol

► Telephone Center Protocol

A collection of data organized in such a way that the computer can quickly search for a desired data item is known as:

► Retrieving

► **Database**

► Information

► DBMS

_____ is simply a fast port that lets you connect computer peripherals and consumer electronics to your computer without restart.

► Freeware

► Shareware

► **Firewire**

► Firmware

Structures, in which another list starts before the first list is finished, are called:

► Multiple Lists

► **Nested Lists**

► Ordered Lists

► Un-ordered Lists

The key property of the 'Array' object in JavaScript is

► Value

► **Length**

► Name

► All of the given choices

Which one is the example of spreadsheet software?

► MS Word

► MS PowerPoint

► **MS Excel**

► MS Access

The Encryption of data is related to

► Data updates

► **Data security**

► Data integrity

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

- ▶ Data accessibility

_____ is the process of analyzing large databases to identify patterns.

- ▶ Data normalization
- ▶ Data management
- ▶ **Data Mining**
- ▶ None of the given option

Which is the user-friendly way of presenting data?

- ▶ Query
- ▶ Form
- ▶ **Report**
- ▶ All of the given options

JavaScript function fixed () has equivalent HTML tag-set _____

- ▶ <.FIX>.....</FIX>
- ▶ <F>.....</F>
- ▶ **<PRE>..... </PRE>**
- ▶ <H>.....</H>

<Form> Tags always placed between the <BODY> and </BODY> tags of a Web page

- ▶ **True**
- ▶ False

Java script has ———— ability to create and draw graphics.

- ▶ Limited
- ▶ Versatile
- ▶ Medium
- ▶ **Not at all**

Cray-1 was first commercial _____ computer

- ▶ **Super**
- ▶ Mini
- ▶ Micro
- ▶ Personal

Browser is a _____ used for browsing.

- ▶ **Tool**
- ▶ Component
- ▶ Device
- ▶ None of the given choices

It represents the _____ flow chart element.

- ▶ **Flow Line**
- ▶ Connector
- ▶ Off-page connector
- ▶ Start or Stop

JavaScript is an example of _____ language.

- ▶ **Object-based**
- ▶ Object-oriented

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

- ▶ Machine
- ▶ Assembly

The set of rules and guidelines a team of developers follow to construct reasonably complex SW systems is called

- ▶ Object Oriented Design
- ▶ **Object Oriented Software**
- ▶ Design Methodology
- ▶ Programming language

Waterfall is a _____ life-cycle model.

- ▶ Spiral
- ▶ **Sequential**
- ▶ Circular
- ▶ Spherical

What happens if I start a new list without closing the original one?

- ▶ An error will be generated
- ▶ **A nested list will be created**
- ▶ Previous list will end and a new will start.
- ▶ Nothing will happen

In Spreadsheets, you can create a relationship between two cells by using _____.

- ▶ Numbers
- ▶ Text
- ▶ **Formulas**
- ▶ None of the given choices

VisiCalc was the first popular _____ application on PC's.

- ▶ **Spreadsheet**
- ▶ Word processor
- ▶ Presentation
- ▶ Database

Fins are used to ————

- ▶ Communicate with microprocessor
- ▶ **Increase surface area of Fan**
- ▶ Decrease surface area of Fan
- ▶ Speed up the Fan.

Using only HTML we can create

- ▶ Dynamic web pages
- ▶ **Static web pages**
- ▶ Both Static and Dynamic pages
- ▶ None of these

Everything that JavaScript manipulates is treated as:

- ▶ **Object**
- ▶ Window
- ▶ Text
- ▶ Script

The _____ is connected to all other modules of the microprocessor.

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

► **Control unit**

- Memory unit
- Floating Point unit
- Arithmetic and Logic unit

Communication protocol is a _____ that governs the flow of information over a network

- Set of protocols
- **Set of rules**
- Device
- Set of methods

_____ is the interface in computer that supports transmission of multiple bits at the same time.

- Serial Port

► **Parallel Port**

- Universal Serial Bus
- None of the given choices

_____ was designed as a replacement for typewriter

- Spreadsheet Software
- **Word Processor Software**
- Presentation Software
- Database Software

Which one of these translates the program once at a time ?

- Interpreter
- **Compiler**
- Operating system
- Translator

Randomized algorithms are often _____ than deterministic algorithms for the same problem.

- Simpler and more slow

Simpler and more efficient

-
- Complex and more efficient
- Complex and more slow

Ada written a computer programme for ?

- **Analytical Engine**
- Difference Engine
- Harvard Mark 1
- Mechanical engine

A test proposed to determine if a computer has the ability to think. It is called?

- **Turing test**
- Turning test
- Intelligence test
- None

The most used form tag is the <input> tag.

- True
- **False**

When the user clicks on the "Submit" button, the content of the form is sent to the server.

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

► **True**

► False

Extension for saving web page is / are;

► *.html

► *.htm

► ***.html and *.htm both are in use**

► None of These

Question No: 81 (Marks: 1) – Please choose one

In spread sheet a cell may contain

► Numbers

► Text

► Formulas

► **All of the given**

Programs where no user interaction found during program execution are called _____.

► **Batch programs**

► Event-driven programs

► Graphics based programs

► None of the give

OO software is all about _____.

► Behaviors

► Methods

► Properties

► **Objects**

A procedure that usually, but not always, works or that gives nearly the right answer is called

► Algorithm

► Logarithm

► **Heuristic**

► Methodology

Which of the following is NOT an Application Software.

► Word Processor

► Web Browser

► **Windows XP**

► MS Excel

Operating System talks to and manages devices through

► Loader

► File Manager

► Memory Manager

► **Device Driver**

You can _____ from/to a website containing interactive forms.

► **Only read**

► Only write

► Read and write

► Not read and written

When the user needs something to be done by the computer, he/she gives instructions in the form of

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

_____ to computer _____

- ▶ **Software, Hardware**
- ▶ Hardware, Software
- ▶ System Software, Application Software
- ▶ Graph, Monitor

There is a battery on the motherboard to

- ▶ Give power to the processor
- ▶ **Save information when computer is off**
- ▶ Save information when computer is on
- ▶ Give power to the motherboard

_____ is simply a fast port that lets you connect computer peripherals and consumer electronics to your computer without restart.

- ▶ Freeware
- ▶ Shareware
- ▶ **Firewire**
- ▶ Firmware

Which one is correct?

- ▶ `<BODY></BODY>`
- ▶ `<body></body>`
- ▶ **Both `<BODY></BODY>` and `<body></body>`**
- ▶ `<BODY/>`

The weaknesses of the computer are:

- ▶ Pattern recognition & Storage
- ▶ Speed & Innovative ideas
- ▶ **Pattern recognition & Innovative ideas**
- ▶ Speed & Storage

The key strengths of computers are

- ▶ Speed
- ▶ Storage
- ▶ Do not get bored
- ▶ **All of the given choice**

Which one is correct?

- ▶ **`<HEAD> </HEAD>`**
- ▶ `<HEAD> <END>`
- ▶ `<HEAD> </END>`
- ▶ `<HEAD> <\HEAD>`

Everything that JavaScript manipulates is treated as:

- ▶ **Object**
- ▶ Window
- ▶ Text
- ▶ Script

A process in which user's browser check the form's data is called

- ▶ **Server-Side Scripting**

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

- ▶ Client-Side Scripting
 - ▶ Browser Scripting
 - ▶ Form Scripting
- is volatile memory

- ▶ **RAM**
- ▶ ROM
- ▶ Hard Disk
- ▶ CD ROM

What is/are the use/uses of Word processor?

- ▶ To write a letter
- ▶ To write Research paper or report
- ▶ To create address labels
- ▶ **All of the given**

_____ is the example of Shrink-wrapped software

- ▶ PIA information system
- ▶ WinZip trial pack
- ▶ Linux
- ▶ **MS Word**

_____ interacts directly with the computer Hardware

- ▶ Compiler
- ▶ **Operating system**
- ▶ Application software
- ▶ Assembler

LMS Handling service available

Contact no 03454919604

Join VU Group for More Files

<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>

Join VU Group for More Files
<https://chat.whatsapp.com/BL4ok4jnM9iJiglhAA1SG3>