

$$④ A_v = \frac{V_{out}}{V_{in}} = \beta \times \frac{R_{AC}}{R_{in}}$$

computer systems and architecture

$$A_v = \frac{100 \times 3.3 \times 10^3}{2 \times 10^3}$$

5. Establish the relationship between high level languages and computer architecture

$$A_v = 50 \times 3.3$$

$$A_v = 33 \times 5$$

$$A_v = 165_v$$

6. Examine basic machine architecture.

$$⑤ A_p = \beta \times A_v$$

$$= 16,500_w$$

7. Learn about the specifications and translations of Programme language (PL) blocks

COS 265 - Mr. Jonathan

~~Understand~~ on sequential programming

8. Discuss structure languages and parameter passing mechanisms.

### COURSE CONTENT

1. Understand the concept of high level language computers.

### Introduction

High level language computers, also known as high

2. Explore the justification for using high level languages.

level programming language have played a pivotal role in the evolution of modern computing. These

3. Evaluate argument for and against high level language computers.

languages are a bridge b/w the complex hardware of a computer and the human readable code that programmers use to instruct the

4. Gain insight into high level language

machine. A high level language computer is a

TYPE of computer system that allows programmers to write programmes in high level programming languages.

High level programming languages are designed to be more human readable and abstract making it easier for programmers to express their ideas in a way that is closer to natural language. These computers use compilers or interpreters to translate high level code into machine code that the computer can execute.

### History

The development of high level languages can be traced back to the mid 20th century, ~~1940s~~ ~~1950s~~ **FORTRAN** was one of the first high level languages created in the 1950s.

For scientific and engineering applications.

**FORTRAN**! - means **f**ormular **t**ranslation. It allowed programmers to write math-

~~ematical~~ <sup>ematical</sup> equations more naturally without worrying about the ~~mathematical~~ intricacies of the computer hardware.

Over the years many other high level languages emerged with it's own strength and purposes.

**COBOL**! - Common business oriented language, was designed for business application.

While languages like **C**, **C++** and **Java** became versatile choices for various domains including system programming, web development and game design.

KEY CHARACTERISTICS AND JUSTIFICATION FOR HIGH LEVEL LANGUAGE COMPUTER.

Justification = Characteristics

High level languages possess several key characteristics.



① Abstraction; they abstract away low level hardware details such as memory management and CPU instructions simplifying the programming process

② Portability:- code written in high level language is generally more portable because it can be compiled or interpreted on different platform without significant modification.

③ Readability:- High level code is more human readable and easier to understand ~~for~~ <sup>promoting</sup> collaboration among programmers

④ Productivity:- Programmers can develop softwares more quickly and efficiently in high level languages, as they can focus on solving problems rather than dealing with low level technicalities.