Module-1 Overview of IT Industry(Theory)

3. What are the main differences between high-level and low-level programming languages?

| Feature | High-Level Language | Low-Level Language |
|-----------------------|--|--|
| Definition | Easy-to-understand language, close to English | Hard-to-understand, close to machine language |
| Readability | Easy to read and write | Difficult to read and write |
| Examples | Python, Java, C++, JavaScript | Machine Language (0s and 1s), Assembly Language |
| Translator Used | Needs compiler or interpreter | Machine language doesn't need any translator |
| Speed of Execution | Slower compared to low-level | Very fast because it directly runs on hardware |
| Portability | Can run on many computers (platform-independent) | Usually machine-specific (not portable) |
| Memory Access | Limited control over memory | Full control over hardware and memory |
| Use Case | Used to make apps, websites, software | Used for hardware-level programming, OS, drivers |