(1) What is Software ? What is software engineering ?

- The software comprises a set of instructions which on execution deliver the desired outcome.
- some example of software include operating systems like ubuntu or window 7/10 , words processing tool like Libreoffice or Microsoft word, video player like VLC player etc...
    - ❖ Software engineering

- Software engineering is a technique through which we can developer or created software for computer systems and any other electronic device.

- In other words, software engineering is a process in which user needs are analyzed and software is desighed based on there needs.

- in software engineering the development of software using well define scientific principle, method and procedures.

- software engineering build these software and appliction by using designing and programming languages.

(2) Explain types of software.

- The parts of computer that we can't see or touch are called software.
- software is a collection of data or set of instruction.That is used to operate computer hardware and execute specific task.
- software is that part of or computer ,which cannot be software tell a computer what to do and how do it.

    - ❖ There are two types of software
      (1) System software
      (2) Application Software

(1) System Software :- System software is a software designed to provide a platform to other software

- System software cantrol and manage the operation of computer hardware .
  EX.. Operating System Window , Android , Linux etc...

- Application Software :-Application software is any program or interface that helps the end user perform certain functions.Not all software is in form of application ,but all applications are a type of software. Application software differs from system software because it's more focused and specific.
  Ex.. Ms office, Vscode,subline.

(3) What is SDLC ? Explain each phase of SDLC.

- The software development life cycle (SDLC) is the process of planning,writing,modifying,and maintaining software. Developers the methodology as they design and write mordern software for computers,cloud deployment,mobail phones,video games,and more. Adhering to the SDLC methodology helps to optimize the final outcome.
  - Planning
  - Analysing
  - Disigning
  - Coding
  - Teating
  - Maintanence

  1.Planing :- in this phase, developers plan the upcoming project.it helps to define the problem and scope of any existing systems,as well as determine the objectives for their new system.

  2.Analysis :- The Analysis stage includes gathering all the specific details required for a new system as well as determining the first ideas for prototypes.

  3.Design :- This phase is Necessary for the developers.They will first outline the details for the overall Application logingside specific aspects,such as;
  user interface, system interface,network and network requirement and database.

4. Coding:- The development phase is where coding begins to take place. it one of the most time consuming phase in the SDLC. this often required extensive programming skills and knowlege ofdatabases.

5. Testing :- After the code is Genersted,it is tested againts the requirementa to make sure that the products are solving the needs addresses and gathered during the requirements stage.

--> During this stage,unit testing,integration testing,system testing acceptance testing are done.

6.Maintenance :- Once when the client start using the development ststem ,then the real issues come up and requirements to be solved from time to time.

-->This procedure where the care is taken for the development product is known as maintenance.