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Course Code: MEE 586

① What is integrated CAD/CAM

Integrated CAD/CAM are systems employed to achieve computer-aided integration in all production functions; from design and planning up to manufacturing and the assurance of quality standards. So far, however, full integration of the kind has hardly been put into practice.

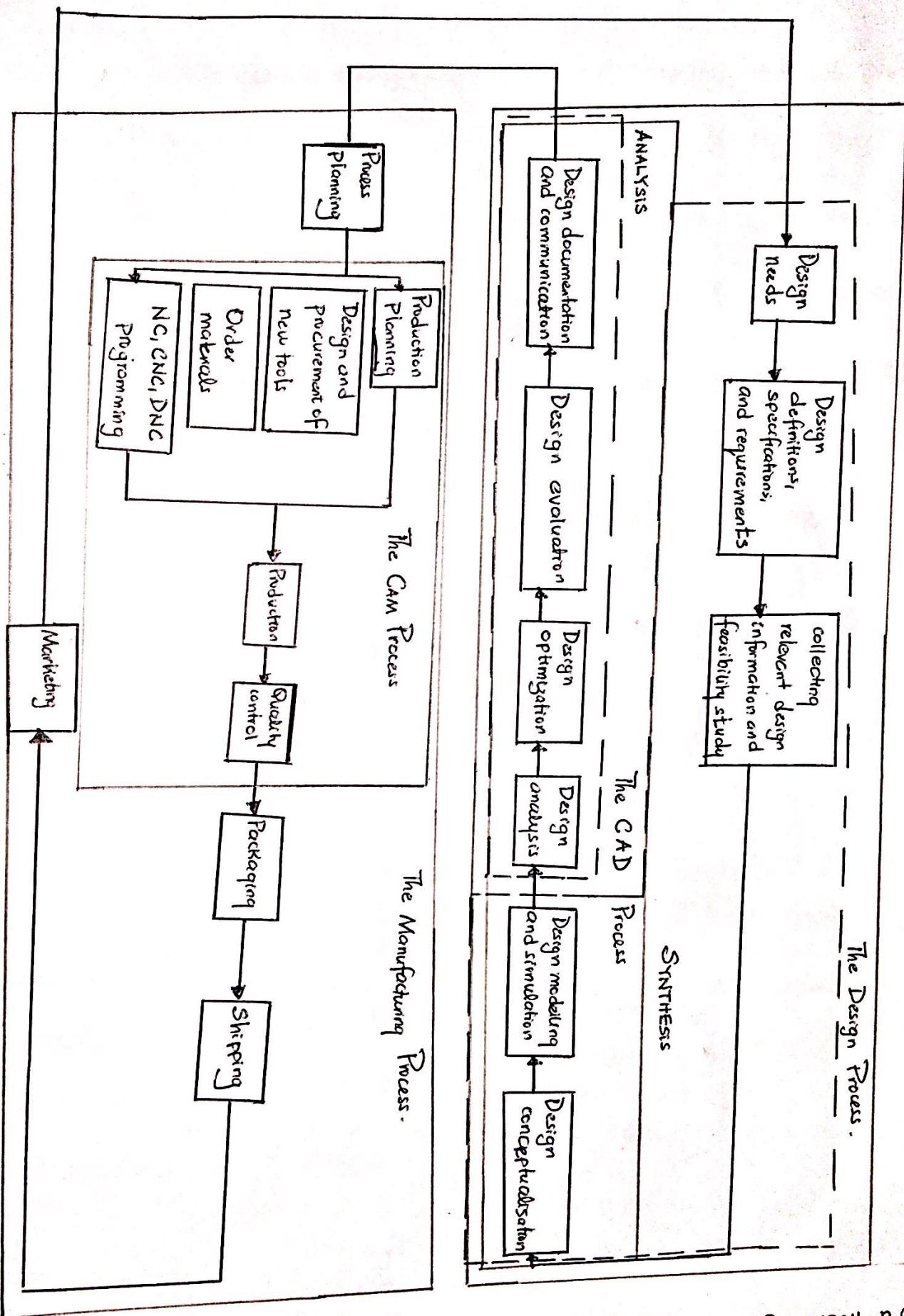
② Characteristics of Good CAD Software.

- Efficiency: An efficient software is that which can use less resources such as CPU in terms of time and usage to give a better output.
- Simplicity: A software must be simple to use and easy to understand and must be user friendly.
- Flexibility: The software must be able to incorporate the design modification without much difficulty.
- Readability: To avoid casuality the software must be able to avoid unwanted operation.
- Recovery ability: A good software must be able to give warnings before getting crashed and must be able to recover.

③ Explain Three divisions of Software components.

Software component is a software element that conforms to component model and can be independently deployed and composed without modification according to a composition standard

- a. **Interface Description Language** : An interface description language or interface definition language (IDL), is a specification language used to describe a software component's application programming interface (API). IDLs describe an interface in a language-independent way enabling communication between software components that do not share one language. For example between those written C++ and those written in Java.
- Interaction
- b. **Interaction** : An action between ~~between~~ two or more software elements.
- c. Composition of two or more software components yielding a new component behaviour at a different level of abstraction. The characteristics of the new component behaviour are determined by the components being combined and by the way they are combined.



a. Draw a product cycle to describe the scope of CAD/CAM in the operation manufacturing firm.