

## Question 1: Differentiate between Manual and Computer based Information system

Answer:

In manual environment, the concept of transformation was difficult to apply, since input of data into records was by itself the output which also included simple computations. Concept of control mechanism grew stronger as computerized information systems emerged.

CBIS is an Information System that uses computer & telecommunications technology to perform its intended tasks. In CBIS, Information technology (IT) becomes a subset of the Information system.

## Question 2: Differentiate between the following Computer Aided Design and Computer Aided Manufacturing

Answer:

### **Computer Aided Design (CAD)**

"It is a system that enables drawings to be constructed on a computer screen and subsequently stored, manipulated and updated electronically."

The ability to rotate or create movement in the design allows testing for clearances and frequently reduces the cost of prototyping the products. The technology is used for a wide variety of products in such fields as architecture, electronics, and aerospace, naval, and automotive engineering. Although CAD systems originally merely automated drafting, they now usually include three-dimensional modeling and computer-simulated operation of the model. Rather than having to build prototypes and change components to determine the effects of tolerance ranges, engineers can use computers to simulate operation to determine loads and stresses. For example, an automobile manufacturer might use CAD to calculate the wind drag on several new carbody designs without having to build physical models of each one. In microelectronics, as devices have become smaller and more complex, CAD has become an especially important technology.

Among the benefits of such systems are lower product development costs and a greatly shortened design cycle. While less expensive CAD systems running on personal computers have become available for do-it-yourself home remodeling and simple drafting, state-of-the-art CAD systems running on workstations and mainframe computers are increasingly integrated with computer-aided manufacturing systems.

### **Computer Aided Manufacturing (CAM)**

Computer-aided manufacturing (CAM) is a form of automation where computers communicate work instructions directly to the manufacturing machinery.

## Question 3: Differentiate CBIS from manual information systems.

Answer:

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## Question 4: Differentiate MIS from DSS .