

21 Lecture - CS302

Important Subjective

1. **What is a GAL16V8, and what are its components?** Answer: GAL16V8 is a type of programmable logic device (PLD) that contains a programmable AND array, programmable OR array, and a programmable output function.
2. **What are the advantages of using GAL16V8 in digital circuit design?** Answer: The GAL16V8 is capable of implementing both combinatorial and sequential logic circuits, it is highly customizable, and it is cost-effective.
3. **What is the process of programming GAL16V8?** Answer: GAL16V8 can be programmed using a hardware programmer or software tool.
4. **What are the different types of logic circuits that GAL16V8 can implement?** Answer: GAL16V8 can implement both combinatorial and sequential logic circuits.
5. **How does GAL16V8 differ from other PLDs?** Answer: GAL16V8 can be reprogrammed multiple times, making it more versatile than other PLDs.
6. **What is the maximum number of inputs and outputs in GAL16V8?** Answer: The maximum number of inputs and outputs in GAL16V8 is 16.
7. **What are the different applications in which GAL16V8 can be used?** Answer: GAL16V8 has been widely used in various applications such as control systems, communication systems, and embedded systems.
8. **What is the function of the programmable AND array in GAL16V8?** Answer: The programmable AND array in GAL16V8 performs the Boolean product of the input signals.
9. **What is the function of the programmable OR array in GAL16V8?** Answer: The programmable OR array in GAL16V8 performs the Boolean sum of the product terms.
10. **Can GAL16V8 be used in high-speed applications?** Answer: GAL16V8 is suitable for a wide range of applications, including those requiring high-speed performance.