

Topic 2: Introduction to Hexadecimal (Basic)

Chapter 1: Number Systems (Detailed) · Topic 2

Key Concept

Hexadecimal uses sixteen symbols: 0-9 for values zero to nine, and A-F for values ten to fifteen.

Each hexadecimal digit represents 4 binary digits (bits), making hexadecimal a convenient shorthand for binary numbers.

Hexadecimal is commonly used to represent colours in web design, like #FF0000 for red, and computer memory addresses.

Understanding hexadecimal helps us see how computers represent complex information in a more compact, readable format.

Quick Revision Notes

- Hexadecimal is base-16.
- It uses 0-9 and A-F.
- A-F represent values ten to fifteen.
- Each hex digit represents 4 binary bits.
- Hexadecimal is a shorthand for binary.
- It's used for web colours, like #FF0000.
- It's also used for memory addresses.
- Hexadecimal makes binary more compact and readable.

Practice Questions

- 1 Write the hex values for numbers 10-15.
- 2 Research a hex colour code and what it represents.
- 3 Discuss why hexadecimal is used for colours.
- 4 Explain the relationship between hex and binary.
- 5 Find a hex code used in a website's design.
- 6 Discuss why hexadecimal is more compact than binary.