AN INTRODUCTION TO COMPUTER SCIENCE

Computer Science is the study of computers:
their design or architecture
and their use in computations, data processing and systems control.

Computer Science involves engineering activities such as the design of computers.

The hardware and software make up computer systems.

This field encompasses theoretical and mathematical activities,
such as the design and analysis of algorithms.

It also includes the reliability of systems via the use of probabilistic techniques.

Computer systems are complicated,
they are tested to predict the failure or success of a design,
that is why experimentation is incorporated into their development cycle.

Computer Science is generally considered a separate discipline from other computer fields.

The major sub-disciplines of computer science are architecture, software and theory.

Architecture covers all levels of hardware design,
it integrates hardware and software components to form computer systems.

Software is subdivided into software engineering, programming languages, operating systems, information systems and databases, artificial intelligence and computer graphics.

The programs, or set of instructions <mark>tell</mark> a computer how to carry out tasks.

Theory <mark>is composed</mark> of computational methods and numerical analysis on the one hand, and data structures and algorithms on the other.

ANSWER THE FOLLOWING QUESTIONS

1. What is computer science?

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2. What does it involve?

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3. What activities does it encompass?

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4. How is it generally considered?

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5. What are the major sub-disciplines of computer science?

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6. What does computer architecture integrate?

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7. How is software subdivided?

   _____

8. What is theory composed of?

   _____

VOCABULARY

Repeat the following words

Algorithms	Failure
Analysis	Include
Architecture	Incorporate
Artificial intelligence	Information systems
Carry out	Instructions
Computational methods	Integrate
Computations	Major
Computer fields	Mathematical
Computer graphics	Numerical analysis
Computer Science	Operating systems
Computer systems	Predict
Data processing	Probabilistic techniques
Data structures	Programming languages
Databases	Reliability
Design	Sub-disciplines
Development cycle	Subdivide
Discipline	Success
Encompass	Systems control
Engineering	Theoretical
Experimentation	Theory