**Computing Science**

*This assignment is a research project which requires you to locate the necessary information using reliable sources. Your responses must be in your own words, with any direct quotations properly attributed. You must reference all sources used even if you did use direct quotations.*

1. Define and explain the difference between computer hardware and software.

Answer with Sources

2. Match each of these occupations with the corresponding area of interest: (a) Computer Engineering, (b) Computing Science, (c) Information Technology, (d) Software Engineering

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| ? | Studies algorithms for solving problems and how computers can be used to implement those algorithms |
| ? | Uses and maintains computers and computer networks for word processing, desktop publishing, video editing, web design, and many other applications. |
| ? | Designs computers and computer components |
| ? | Designs and maintains computer programs |

3. Describe, compare, and contrast the “Waterfall” and the “Incremental” models of the Software Development Life Cycle.

Answer with Sources

4. Describe some of the main areas of current interest in the field of computing, including:

a) theory of computation

Answer with Sources

b) human-machine and machine-machine interfacing

Answer with Sources

c) automata

Answer with Sources

d) artificial intelligence

Answer with Sources

e) visual and auditory rendering

Answer with Sources