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| Course Code: **CCCN 221**  Course Name: Computer Architecture  **Quiz # 1**  Due date: **2022/12/22** |

**Question 1**: Alternative compiled code sequences using instructions in classes A, B and C as listed in the below table.

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| Class | A | B | C |
| Cycles Per Instruction (CPI) for class | 3 | 2 | 1 |
| Instruction Count in sequence 1 | 2 | 1 | 2 |
| Instruction Count in sequence 2 | 4 | 1 | 1 |



1. What is the number of instructions in **sequence 1**?
   1. 3 b) 5 c) 6 d) 10 e) 15



1. What is the number of instructions in **sequence 2**?
   1. 3 b) 5 c) 6 d) 10 e) 15



1. What is the number of clock cycles required to complete all instructions in **sequence 1**?
   1. 3 b) 5 c) 6 d) 10 e) 15



1. What is the number of clock cycles required to complete all instructions in **sequence 2**?
   1. 3 b) 5 c) 6 d) 10 e) 15



1. What is the Weighted average CPI (Average CPI) in **sequence 1**?
   1. 1.0 b) 1.5 c) 2.0 d) 2.5 e) 3.0



1. What is the Weighted average CPI (Average CPI) in **sequence 2**?
   1. 1.0 b) 1.5 c) 2.0 d) 2.5 e) 3.0

