

**Iqra University**

**Islamabad Campus**

**Computer Organization and Assembly Language**

**Assignment # 3 - Spring 2024 Semester**

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| **Question.1** | | **Compare and contrast the performance of floating-point calculations performed by an FPU versus software emulation on a CPU without a dedicated FPU.** | **CLO 2** |
| **Question.2** | | **How do different data formats used by FPUs (e.g., single-precision vs. double-precision) affect the accuracy and performance of calculations?** | **CLO 2** |
| **Question.3** | | **Explain the concept of floating-point normalization and its role in FPU operations.** | **CLO 2** |

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| **Question.4** | | Describe pipelining techniques used in FPUs to improve performance. | **CLO 2** |

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| **Question.5** | | How can assembly language programmers interact with the FPU to perform specific floating-point operations? (This could involve specific instructions or function calls) | **CLO 2** |