***The program of the final control on the discipline***

***«Parallel programming»***

***on the 2023/2024 academic year***

*fall semester*

**Faculty** *Information Technologies*

**Department** *Information systems*

**Cipher and the name of the educational program**

**«**6B06102 – Information systems**»**

**Language**: *Russian*

**Educational level** *Master*

**Course***: 4*

**Lecturer**: *Vladislav Karyukin*

**The form and the platform of the final control** –

*Oral*

**Exam format** – *offline*

**Topics of the exam questions (program)**

1. Python in a parallel world
2. Thread-based Parallelism
3. Thread synchronization with Lock and RLock
4. Subclass processes
5. Multiprocessing
6. mpi4py Python module
7. GPU programming with Python
8. Matrix multiplication with PyCUDA
9. NumbaPRO
10. PyOpenCL application