**Class:** Final Year (Computer Science and Engineering)

**Year:** 2021-22 **Semester:** 1

**Course: High Performance Computing lab**

**ESE Exam**

**22/11/2021 01.00 PM – 04.00 PM**

**Exam Seat No:**

Name: Manmath Bhale

Exam Seat Number: 2018BTECS00049

**Problem Statement 1:** Implement following OpenMP clauses.

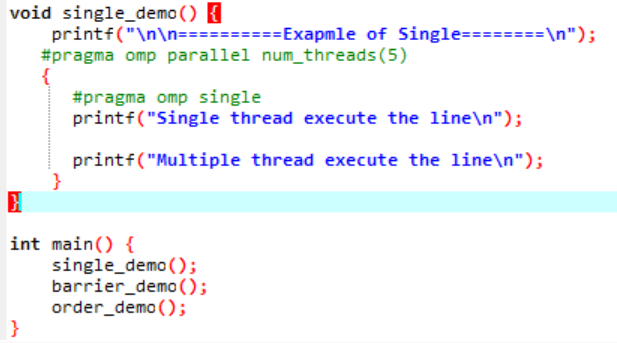
Single() Ordered() Barrier()

**Screenshot 1:**



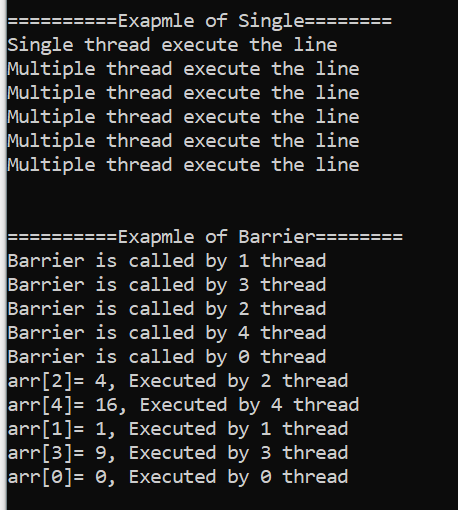
**Information 1:** Code for order and Barrier clause

**Screenshot 2:**

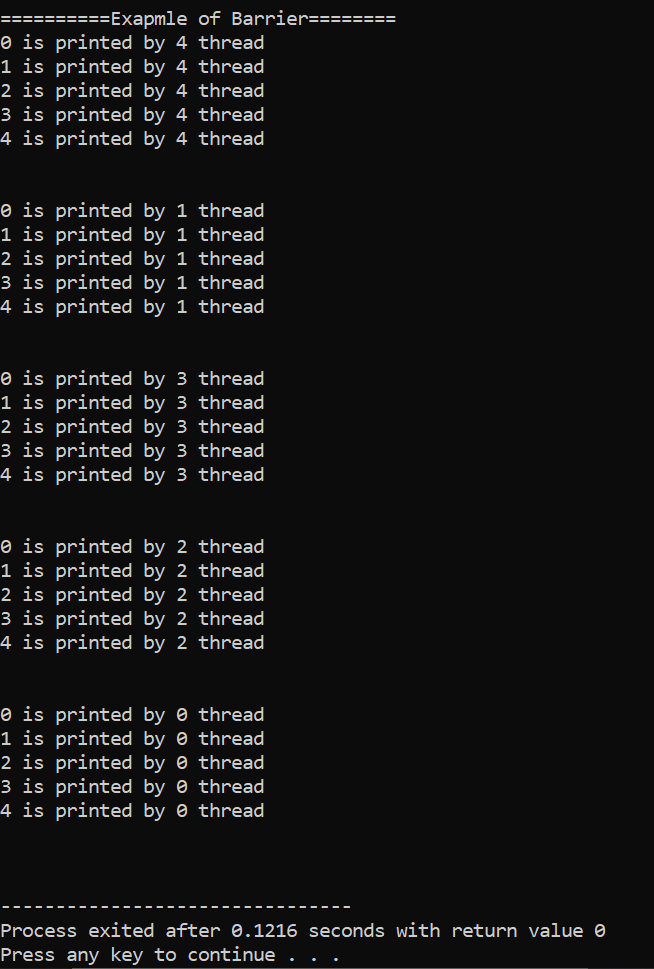


**Information 2:** Code for Single clause and main function.

**Output:**

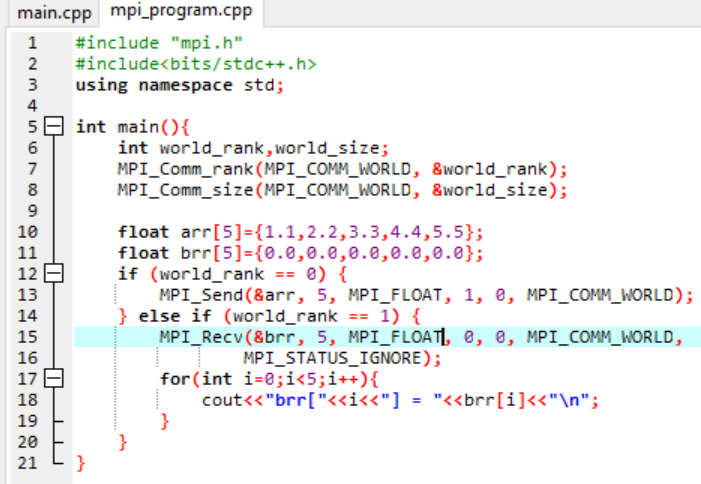


**Output :**



**Problem Statement 2:** Implement MPI program to send float array from one process to other.

**Screenshot 1:**

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**Information 1:** Cpp code for sending float array from one process to other process.

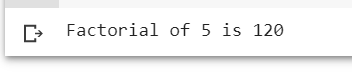
**Problem Statement 3:** Find Factorial of a number using CUDA.

**Screenshot 1:**

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**Information 1:** CUDA code for finding factorial of a number

**Screenchot 2:** Output for n=5



**Google Colab Link :** <https://colab.research.google.com/drive/1mQrJ_8je1pShWUxWk6W5QYbMImkg7-cS?usp=sharing>

**Technologies Used: Openmp , MPI , CUDA on google colab.**

**GitHub Link:**

**Note: (Remove this part)**

1. Upload only .pdf file on WCE Moodle.
2. Rename .pdf file with “HPCESE\_ExamSeatNumber”
3. Upload the code on GitHub (public repository).