M.Tech. (CSE)   (Sem. – 2)
GPU COMPUTING
Subject Code: MTCS210-18
M Code: 76061
Date of Examination : 19-12-2022

Time: 3 Hrs.   **Max. Marks: 60**

INSTRUCTIONS TO CANDIDATES:
1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWELVE marks.

1. Compare:

   a) The CPU and GPU performance in context of Clock Speed with Example.

   b) The openCL, CUDA, and openACC.

2. Explain the thread block assignment to streaming multiprocessors with suitable example and diagram.

3. Discuss the Memory hierarchy in detail for GPU acceleration.

4. Explain different functions used for Device, Host and Kernel in CUDA.

5. Explain:

   a) Synchronization across CPU and GPU.

   b) Synchronization with streams.

6. Discuss:

   a) Debugging GPU Stream Programs.

   b) Event Based Synchronization.

7. Discuss different techniques of Image processing for image reconstruction.

8. Discuss the Concept of:

   a) Dynamic Parallelism.

   b) Mutli-GPU Processing.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.