PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Summer 2018 - 19 Examination

Semester: 2   Date: 13/05/2019
Subject Code: 203202184   Time: 10:30am to 1:00pm
Subject Name: GPU Computing   Total Marks: 60

Instructions:
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1	A) Explain GPU architecture with diagram	**(05)**
	B) What does 2GB and 4GB graphic card mean? What's the role of memory on graphic cards?	**(05)**
	C) What is the PRAM model? Which PRAM model can be used to execute any other PRAM algorithm and how?	**(05)**
Q.2	**Answer the following questions**. (Attempt any three)	**(15)**
	A) Explain Linked-lists with example.	
	B) Explain Dynamic parallelism	
	C) Explain in brief the various topologies of a multiprocessor system.	
	D) Explain Features of GPU.	
Q.3	A) Explain Parameter passing techniques.	**(07)**
	B) Explain kernel function in GPU.	**(08)**

OR

	B) Explain MultiGPU processing	**(08)**
Q.4	A) Discuss the various techniques used for optimizing the cache performance.	**(07)**

OR

	A) Explain Synchronization across CPU and GPU	**(07)**
	B) Parallelism versus Pipelining.	**(08)**