Roll No……..….. **Total No. of Printed Pages:1**
Total No. of Questions: [09]

B. Tech CSE (Semester – 6th)
PARALLEL PROCESSING
Subject Code: BCSED1-623
Paper ID: [18111137]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a. Define parallel processing.
b. What are the types of overhead in processing applications parallelly?
c. Define threads.
d. How memory is allocated in parallel processing applications?
e. What is the complexity of bubble sort?
f. What is the importance of dense matrix algorithms in parallel processing?
g. Write applications of minimum spanning tree?
h. How can we scale parallel processing applications?
i. Define load balancing.
j. What is implicit parallelism?

Section – B **(5 marks each)**

Q2. Explain decomposition techniques in parallel processing.
Q3. What is the effect of granularity on performance of parallel processing system?
Q4. Write note on topologies used in parallel processing systems.
Q5. Differentiate between single pair and all pair shortest path algorithms.
Q6. Hoe thread synchronization is done in parallel processing applications

Section – C **(10 marks each)**

Q7. Explain sorting networks in detail.
Q8. How linear equations are solved using concept of parallel processing?
Q9. Explain the routing mechanism for interconnection networks.