

**M. SC. (COMPUTER SCIENCE) SEM – I (CHOICE BASED
CREDIT & GRADE SYSTEM) : SUMMER - 2018
SUBJECT : ELECTIVE – I : a) PARALLEL PROCESSING**

Day : **Wednesday**
Date : **18/04/2018**

Time : **03.00 PM TO 06.00 PM**
Max. Marks : 60

S-2018-0919

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.

Q.1 What is parallel processing? Explain current trends in parallel processing. [15]
Also explain applications of parallel processing.

OR

What is distributed computing? Explain the architectures of distributed computing. Also explain applications of distributed computing.

Q.2 A) Answer **ANY ONE** of the following: [08]

- i) Discuss the performance analysis tools of parallel programs.
- ii) Explain modularity in parallel programming.

B) Answer **ANY ONE** of the following: [07]

- i) Explain Matrix transposition algorithm.
- ii) Explain history of Fortran.

Q.3 Answer **ANY THREE** of the following: [15]

- a) What are the features of HPF?
- b) Explain advantages of Parallel Algorithms.
- c) Explain compositional C++.
- d) Describe Agglomeration.
- e) What is parallelism? What are levels of parallelism?

Q.4 Write short notes on **ANY THREE** of the following: [15]

- a) Scalability analysis
- b) Data distribution and concurrency
- c) Random numbers
- d) Vector reduction
- e) Features of parallel processing

* * * *