

**M. SC. (Computer Science) SEM – I (Choice Based Credit & Grade
System) : WINTER - 2018
SUBJECT: ELECTIVE-I: a) PARALLEL PROCESSING**

Day: Tuesday
Date: 16/10/2018

W-2018-1043

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

N.B:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
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Q.1 What is Parallel System? Explain motivation of Parallelism. **(15)**

OR

Explain parallel programming model. Explain any two parallel algorithm examples.

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

- a) Explain vector reduction method.
- b) Explain distributed computing.

B) Answer **ANY ONE** of the following: **(07)**

- a) Discuss current trends in parallel processing.
- b) Explain merge sort algorithm .

Q.3 Answer **ANY THREE** of the following: **(15)**

- a) What do you mean by high performance Fortran?
- b) What is data distribution? Explain need of data distribution.
- c) Explain the term modular design.
- d) Explain features of message passing interface.
- e) Discuss matrix transposition algorithm.

Q.4 Write short notes on **ANY THREE** of the following: **(15)**

- a) Compositional C++
- b) Agglomeration
- c) Performance issues of HPF
- d) Communication cost model
- e) Programming and analytical tools

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