DECEMBER 2014 **P/ID 17534/PCE16**

Time : Three hours Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1. Explain Minsky's conjecture.
2. Explain the linear array network.
3. Explain EREW.
4. Explain parallel prefix on a list.
5. How to find the maximum of an array?
6. Explain the theory of odd-even merging.
7. Explain the time and comparator requirements of biotonic sorting.
8. Explain not-smaller-than search.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Explain folded and incomplete hypercubes.
10. Explain any two dynamic networks.
11. Explain any two computational models.

12. Discuss about NC problems.

13. Explain finding roots of trees in a forest.

14. Explain relating sequential time with parallel space.

15. Explain the concept of merge splitting sorting in detail.

16. Write a detailed note on Fourier transform on butterfly and cube.

17. Discuss about pattern matching.

18. Explain summation of vector components in detail.
