

RAMAKRISHNA MISSION VIDYAMANDIRA

(A Residential Autonomous College under University of Calcutta)

First Year, Second Semester (January – June), 2011

Mid-Semester Examination, March, 2011

COMPUTER SCIENCE (General)

Date : 10 March 2011

Full Marks : 25

Time : 11am – 12noon

Attempt any five questions :

[5×5 = 25]

1. What do you mean by Algorithm? Illustrate its characteristics with respect to a suitable example.
2. What do you mean by Process? Explain its different states.
3. Describe the role of different kinds of Scheduler? What do you mean by ready queue?
4. Explain Big-O , Big theta and Big Omega Notations with suitable examples and geometrical significance.
5. Compare and contrast between Multi programming and Multi Tasking. What do you mean by Degree of Multiprogramming?
6. What is the basic difference between Preemptive and Non-Preemptive Scheduling. Using Preemptive SJF scheduling algorithm compute the average waiting time for 3 processes from the given data:

Process	Arrival time	Burst Time
p1	0	8
p2	2	4
p3	4	7

7. Show that the time complexity to reverse a number is $O(n)$.

