

15093

M.Sc. DEGREE EXAMINATION, NOVEMBER 2016

FIRST SEMESTER

Paper III — DATA STRUCTURES

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each questions carries 3 marks.

Each answer should not exceed 1 page.

1. What is a Data Structure?
2. What are the applications of stack?
3. What is an array?
4. What is a queue?
5. What are the types of Binary tree?
6. What are the applications of queue?
7. What is BDD?
8. What are the operations of Graph?

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Discuss types of arrays with example programs.  
Or
10. Distinguish between stack and queue applications with examples.
11. Explain briefly about stack representation with example.  
Or
12. Explain briefly about Queue representation with example.

13. Explain briefly about Tree indexing.

Or

14. Distinguish between B-tree and B+ trees with an illustration.

15. Explain briefly about applications of graph structures.

Or

16. Discuss briefly about Operations of Sets with applications.

