

25094

M.Sc. DEGREE EXAMINATION, APRIL 2018.

Computer Science

SECOND SEMESTER

Paper IV — SYSTEMS SOFTWARE

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Difference between system software and application software.
2. What are the functions of a basic assembler?
3. Give a note on the design options of a loader.
4. What are the functions of loader?
5. Give a note on the design options of a compiler.
6. What are the functions of compiler?
7. Give a note on the design options of an operating system.
8. What are the functions of operating system?

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Illustrate the comparison between SIC and SIC/XE machine architecture.

Or

10. Explain the machine independent features of an assembler.
11. Differentiate and explain the machine dependent and machine independent features of a loader.

Or

12. How can you load and call subroutine using dynamic linking?

13. Differentiate and explain the machine-dependent and machine independent features of a compiler.

Or

14. Illustrate with the implementation example of a compiler.

15. Explain the machine independent features of an operating system in detail.

Or

16. Explain machine dependent features of an operating system in detail.

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