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**M.C.A. DEGREE II SEMESTER EXAMINATION MAY 2015**

**CAS 2203 SYSTEM SOFTWARE**  
(Supplementary)

Time: 3 Hours

Maximum Marks: 50

**PART A**  
(Answer *ALL* questions)

(15 × 2 = 30)

- I. (a) Write notes on data structures associated with Assembler.  
(b) Explain the concept of programme relocation.  
(c) List out the features MASM assembler.
- II. (a) Write notes on simple boot strap loader.  
(b) Explain the concept of automatic library search.  
(c) List out the features of SUN OS Linkers.
- III. (a) Write notes on macro definition and expansion.  
(b) Explain the concept of conditional macro expansion.  
(c) List out the features of general purpose macro processors.
- IV. (a) Differentiate P code compilers and compiler-compilers.  
(b) Write notes on interpreters.  
(c) List out features of Java compilers.
- V. (a) List out basic functions of operating systems.  
(b) Explain how multiple I/O requests are handled by OS.  
(c) Write short note on virtual memory.

**PART B**

(5 × 4 = 20)

- VI. Explain the machine independent assembler features.  
**OR**
- VII. Explain algorithm of 1-Pass assembler.
- VIII. Explain machine dependent features of loader.  
**OR**
- IX. Explain various loader design options.
- X. Explain any three implementation examples for actual macro processors.  
**OR**
- XI. Explain the basic task performed by macro processors.
- XII. Explain briefly about different phases of compilers.  
**OR**
- XIII. Explain the machine dependent compiler features.
- XIV. Explain various design options of operating system.  
**OR**
- XV. Explain machine dependent operating system features.