

Reg. No. :

**Question Paper Code : 97732**

M.E. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2010

Second Semester

Computer Science and Engineering

CS 9223 — ADVANCED SYSTEM SOFTWARE

(Regulation 2009)

Time : Three hours

Maximum : 100 Marks

Answer ALL questions

PART A — (10 × 2 = 20 Marks)

1. What is Lex compiler?
2. List the importance of device drivers.
3. Differentiate local symbol table from global symbol table.
4. What is ICAN for intermediate code?
5. Define Alias analysis.
6. What do you mean by local stack frame?
7. What are the two parts of a P-Code virtual machine?
8. State the features of CLI.
9. What do you mean by code-location problem?
10. Name the various classes of Grid users.

PART B — (5 × 16 = 80 Marks)

11. (a) (i) Explain the different phases of a compiler. (8)  
(ii) Discuss the issues in the design of a code generator. (8)
- Or
- (b) (i) Describe the memory management strategies. (8)  
(ii) Explain the dynamic binding of method calls to methods. (8)
12. (a) (i) Explain the structure of symbol table. (8)

- (ii) Discuss the features of high level, medium level and high level languages. (8)

Or

- (b) Explain the Optimization in detail. (16)
13. (a) Explain the leaf routine optimization and shrink wrapping. (16)

Or

- (b) Discuss the following:
    - (i) Code scheduling (8)
    - (ii) Speculative scheduling (8)
14. (a) Explain the Java Virtual Machine architecture in detail. (16)

Or

- (b) Describe the various garbage collectors. (16)
15. (a) (i) Discuss the instruction set issues of IA-32. (8)
- (ii) Explain the migration of Virtual Machines in VMotion. (8)

Or

- (b) (i) What is profiling? Explain the profiling during interpretation. (8)
  - (ii) Discuss the characteristics of an ideal grid. (8)
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