

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-III • EXAMINATION – SUMMER • 2015

Subject Code: 2630005

Date: 19-05-2015

Subject Name: System Software

Time: 02:30 pm to 05:00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Explain the following terms in brief: **07**
1. Language Processor.
 2. Binding.
 3. AST.
 4. Derivation.
 5. IR.
 6. Structure Editor.
 7. LEX.
- (b)** Explain the Fundamental of Language Process Activity. **07**
- Q.2 (a)** Explain Classification of Grammars and Discuss Ambiguity of Grammar. **07**
- (b)** What is parsing? What are the basic problems faced by the Top-down parser? Explain in brief. **07**
- OR**
- (b)** Write a short note on: **07**
1. Debug Monitor.
 2. YACC.
- Q.3 (a)** Discuss the pass structure of assembly. **07**
- (b)** What is hash table organization? Discuss different hashing method. **07**
- OR**
- Q.3 (a)** Discuss different allocation data structure. **07**
- (b)** Explain different assembly language statement. **07**
- Q.4 (a)** List and explain Pass – I algorithm of Macro pre-processor. **07**
- (b)** Write a short note on code optimization. **07**
- OR**
- Q.4 (a)** Explain design of two pass assembler. **07**
- (b)** Discuss finite state automata in detail. **07**
- Q.5 (a)** Explain Memory Allocation Techniques. **07**
- (b)** What are overlays? Explain Variant – I and Variant – II for IC generation. **07**
- OR**
- Q.5 (a)** Explain data structure of macro pre-processor. **07**
- (b)** What is linking. Explain different types of loader. **07**
