

**T.Y. B. SC. (Computer Science) SEM –VI (CBCS - 2016 COURSE) :**  
**SUMMER - 2019**

**SUBJECT : COMPILER CONSTRUCTION**

Day : Friday  
Date : 12/04/2019

**S-2019-1115**

Time : 03.00 PM TO 06.00 PM  
Max. Marks : 60

**N.B.**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.

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- Q.1** Answer any **TWO** of the following: **(12)**
- a) Describe various types of Software Processor.
  - b) Differentiate between DFA and NFA.
  - c) What is Bottom-up parsing? Explain with example.
- Q.2** Answer any **TWO** of the following: **(12)**
- a) What is Scanner? Describe the role of a scanner.
  - b) Differentiate between static and dynamic memory allocation.
  - c) What is LEX? Give LEX program specification.
- Q.3** Answer any **TWO** of the following: **(12)**
- a) What is relocatable and non-relocatable loader? Explain with example.
  - b) Write a brief note on Macro preprocessor.
  - c) Describe different types of assembly language statement.
- Q.4** Answer any **THREE** of the following: **(12)**
- a) Differentiate between one-pass and two-pass assembler.
  - b) What is derivation? Explain with example.
  - c) Explain all data structures generated in two- pass assembler.
  - d) What is meant by semantic analysis?
- Q.5** Answer any **FOUR** of the following: **(12)**
- a) Describe the concept of left recursion using example.
  - b) What is ambiguous grammar? Explain with the help of parse tree.
  - c) What is SMAC0? State its features.
  - d) Define overlays.
  - e) Construct Finite Automata for an identifier.
  - f) Define – System Software and Application Software.

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