

BACHELOR OF SCIENCE (COMPUTER SCIENCE) (CBCS - 2016 COURSE)
T.Y.B.Sc.(Computer Science) Sem-VI :SUMMER- 2022
SUBJECT : COMPILER CONSTRUCTION

Day : Thursday
Date : 7/7/2022

S-14918-2022

Time : 11:00 AM-02:00 PM
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw diagrams **WHEREVER** necessary.

Q.1 Answer **ANY TWO** of the following: **(12)**

- a) What is meant by Predictive parser? Explain with example.
- b) Elaborate the role of Macro Pre-processor.
- c) Differentiate between Compiler and Assembler.

Q.2 Answer **ANY TWO** of the following: **(12)**

- a) Describe various assembly language statements in brief.
- b) Write a note on LEX. Explain yylex() , yywrap() functions .
- c) Compare and contrast - Static and Dynamic memory allocation methods.

Q.3 Answer **ANY TWO** of the following: **(12)**

- a) Show that the following grammar is LL (1):-
 $S \rightarrow AaBb \mid BbAa$
 $A \rightarrow \epsilon, B \rightarrow \epsilon$
- b) What is activation record? Also state its contents.
- c) Differentiate between Application program and System program.

Q.4 Answer **ANY THREE** of the following: **(12)**

- a) What is code optimization? Explain.
- b) Differentiate between tokens, Patterns and Lexeme.
- c) Discuss various operations performed on languages.
- d) Elaborate the concept of backtracking with example.

Q.5 Answer **ANY FOUR** of the following: **(12)**

- a) Differentiate between LL and LR.
- b) Write a short note on finite automata construction with example.
- c) Write in brief about CFG.
- d) Explain the role of syntax analyzer with the help of diagram.
- e) What is Overlay? Explain.
- f) What is meant by Absolute loader?

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