

**B.Tech. – VIEP – COMPUTER SCIENCE AND
ENGINEERING (BTCSVI)**

Term-End Examination

00054 December, 2017

**BICS-016 : SYSTEM PROGRAMMING AND
COMPILER DESIGN**

Time : 3 hours

Maximum Marks : 70

Note : Attempt any **seven** questions. All questions carry equal marks.

1. (a) What are the various tables in a compiler ?
Explain with an example. 5
- (b) Explain in detail about the design of a
macro preprocessor. 5
2. Describe various types of software tools. 10
3. (a) Define Nested Macro with an example. 5
- (b) What do you mean by Macro Facilities ?
Explain with the help of an example. 5
4. Explain Relocation Factor with the help of a
suitable example. 10

5. (a) Differentiate between Boot strapping and Book keeping. 5
- (b) Discuss the various phases of a compiler. 5
6. Write short notes on the following : 4+3+3
- (a) LR Parser
- (b) SLR Parser
- (c) LALR Parser
7. Describe translation of various types of statements. 10
8. (a) Discuss error detection and recovery in a compiler. 5
- (b) Differentiate between Loader and Linker. 5
9. Describe Code optimization and Loop optimization techniques using DAG. 10
10. Explain in detail about Register Allocation and Assignment in code generation. 10
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