

**300855(22)**

**B. E. (Eighth Semester) Examination, Nov.-Dec. 2021**

**(New Scheme)**

**(AEI, Bio Tech., Chem., Civil, CSE, Elect., EEE, EI,  
ET&T, IT, Mech., Mining, Metallurgy, Mechatronics,  
Prod., Automobile Branch)**

**SOFTWARE TECHNOLOGY**

*Time Allowed : Three hours*

*Maximum Marks : 80*

*Minimum Pass Marks : 28*

*Note : In all unit part (a) is compulsory and attempt  
any two parts from (b), (c) and (d).*

**Unit-I**

1. (a) What is Assembly Language Programming? 2
- (b) What is Assembler Design? Explain Assembler Design  
process in detail. 7

- (c) What are the addressing modes available in assembly language. 7
- (d) What is Assembler Directives? Explain any five assembler directives with example. 7

### Unit-II

2. (a) What is Shared Library Linking? 2
- (b) What is Linker in the terms of software technology? Explain the combining object modules. 7
- (c) What is Library Linking? Explain Position Independent Code (PIC) in detail. 7
- (d) What is Loader? Explain the types of Loader in detail. 7

### Unit-III

3. (a) What is major code fragment as a subprogram in the terms of macroprocessor? 2
- (b) What is Macroprocessor? Explain the macro-processing technique in detail with example. 7
- (c) Difference between Nested macros and Nested calls. 7
- (d) Explain the design of macroprocessor in detail. 7

**Unit-IV**

4. (a) Write all the step of complier. 2
- (b) What is Lexical Analysis? Explain the role of Lexical Analyzer in detail, with proper example. 7
- (c) Explain the intermediate code generation with proper example. 7
- (d) What is optimizing transformation? Explain the major task to perform optimizing transformation with example. 7

**Unit-V**

5. (a) What is a basic categories of Text Editor? 2
- (b) What is debugger? Explain the feature of debugger in detail. 7
- (c) Write a short notes on : 7
- (i) Text document design
- (ii) Text view design
- (d) Explain data structure for text sequence in detail. 7