

**300855(22)**

**B. E. (Eighth Semester) Examination, April-May 2021**

**(New Scheme),**

**(CSE Engg. Branch)**

**SOFTWARE TECHNOLOGY**

***Time Allowed : Three hours***

***Maximum Marks : 80***

***Minimum Pass Marks : 28***

***Note : Attempt all questions. All questions have four parts. Part (a) is compulsory of 2 marks. Attempt any two parts from part (b), (c) and (d) of 7 marks each.***

**Unit-I**

1. (a) What is object file format? 2
  
- (b) Define Addressing mode? Explain the classification of addressing modes in detail? 7

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- (c) Explain the different types of register used in assembly language programming. 7
- (d) Describe the process of designing of Assembler in detail. 7

### Unit-II

2. (a) Differentiate between linker and loader. 2
- (b) Explain the different types of loader in detail. 7
- (c) Describe the Position Independent Code. 7
- (d) What are different loader design option explain in brief? 7

### Unit-III

3. (a) What is macro? How does it different from its subprogram? 2
- (b) What are the major data structures used in macro-processor? Explain in detail. 7
- (c) What are different macro processing techniques? 7

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- (d) Describe the different macro processor design options. 7

### Unit-IV

4. (a) Why we need a compiler in any operating system? 2
- (b) What is optimizing transformation? Explain in detail. 7
- (c) Generate the three address code for following code 7
- $$-(a \times b) + (c + d) - (a + b + c + d)$$
- (d) Describe the role of lexical analysis in detail. 7

### Unit-V

5. (a) Define Text editor. 2
- (b) What do you mean by check points and reverse execution? Give the context of debugger. 7
- (c) Explain I detail data structure for text sequences. 7
- (d) Write short notes on the following : 7
- (i) Gap method
- (ii) Array method