

**B.Tech. SEM -V Info. Tech. 2014 Course (CBCS) : SUMMER - 2019**  
**SUBJECT: SYSTEM PROGRAMMING**

Day: Monday  
Date: 13/05/2019

Time: 10.00 AM TO 01.00 PM  
Max. Marks: 60

S-2019-2679

**N.B:**

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

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- Q.1** What are language processors? Explain the phases of language processors. (10)
- OR**
- Q.1** List and explain the components of programming system. (10)
- Q.2** What are index registers? Explain address modification using index registers with an example. (10)
- OR**
- Q.2** Explain the functions and purpose of registers used in IBM 360. (10)
- Q.3** Explain the following data structures with their format and use in assembler design. (10)
- i) Machine Operation Table
  - ii) Pseudo Operation Table
  - iii) Location Counter
- OR**
- Q.3** What is table ordering? Why is it needed in assembler design? Explain any one technique used for table ordering in assembler. (10)
- Q.4** With the help of neat diagram, state and explain the steps employed by macro processor for processing macro calls and their expansion. (10)
- OR**
- Q.4** What is a macro? State the advantages of using macro facility. State the features of macro and explain any one in detail. (10)
- Q.5** List and explain the design steps followed by an absolute loader. (10)
- OR**
- Q.5** What is program relocation? Explain the self relocating programs. (10)
- Q.6** Briefly explain the problem of recognizing syntactic units and interpreting their meaning during the compiling process. (10)
- OR**
- Q.6** What is the task of storage allocation phase of compiler? Enlist the steps in the implementation of this phase. (10)