

**B.TECH SEM – V (2007 COURSE) (COMPUTER ENGG.) : WINTER  
- 2017**

**SUBJECT: SYSTEM PROGRAMMING**

Day: *Thursday*  
Date: *11.01-2018*

Time: **02.30 PM TO 05.30 PM**  
Max Marks. 80

**W-2017-2454**

**N.B.**

- 1) Q. No. 1 and Q. No. 5 are **COMPULSORY**. Out of remaining attempt any **TWO** questions from each section.
- 2) Figures to the **RIGHT** indicate full marks.
- 3) Answer to both the sections should be written in **SEPARATE** answer book.

**SECTION - I**

- Q.1**
- a) Describe the concept of cross assembler. **(05)**
  - b) Explain use of location counter in assembler design. **(05)**
  - c) Write a note on Overlay structure. **(04)**
- Q.2**
- a) Describe in detail various language processing activities. **(07)**
  - b) Define system software. Explain it's components. **(06)**
- Q.3**
- a) List & explain various databases used in design of a single pass assembler. **(07)**
  - b) Define Macroprocessor and illustrate the process of Macro expansion. **(06)**
- Q.4**
- a) Describe the term 'Program relocation' and explain how it is performed. **(07)**
  - b) Name various types of loaders and enlist how the functions allocation, relocation , linking and loading are handled in each of these types. **(06)**

**SECTION - II**

- Q.5**
- a) Explain the concept of complier – complier. **(05)**
  - b) Explain in brief line editor. **(05)**
  - c) Define Operating System . List various services provided by operating system. **(04)**
- Q.6**
- a) Draw a neat diagram and explain phase structure of complier. **(07)**
  - b) Discuss in detail significance of intermediate code . **(06)**
- Q.7**
- a) Explain in detail line editors. **(07)**
  - b) List & discuss features of text editors. **(06)**
- Q.8**
- a) Explain in detail structure of Operating System. **(07)**
  - b) Compare long – term, short – term, middle – term scheduler. **(06)**