

**B.TECH SEM – V (2007 COURSE) (INF. TECH.) : SUMMER -  
2018**

**SUBJECT: SYSTEM SOFTWARE AND OPERATING SYSTEMS**

Day : **Tuesday**  
Date : **22/05/2018**

**S-2018-2675**

Time : **10.00 AM TO 01.00 PM**  
Max. Marks: 80

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**N. B. :**

- 1) **Q. No.1 and Q. No.5 are COMPULSORY.** Out of the remaining attempt **ANY TWO** questions from Sections.
  - 2) Figures the right indicates **FULL** marks.
  - 3) Answer to both the sections should be written in the **SEPARATE** answer books.
  - 4) Assume suitable data if necessary.
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**SECTION-I**

- Q.1** a) Enlist and describe the components of system software. (05)
- b) Enlist and describe features of machine dependent and independent compliers. (05)
- c) Enlist and describe the tools for program testing. (04)
- Q.2** a) Describe with suitable example the concept of back patching and cross assembler. (07)
- b) Describe the fundamentals of language processing and language specification. (06)
- Q.3** a) Enlist and describe with suitable example the compiler phases. (07)
- b) Describe features of machine dependent and independent compliers. (06)
- Q.4** a) Describe subroutine linkages with an example. (07)
- b) Describe debug monitors. (06)

**SECTION-II**

- Q.5** a) Describe simple batch systems. (05)
- b) Describe process definition control along with suitable example. (05)
- c) Describe swapping with an example. (04)
- Q.6** a) Describe multi-programmed batched system with suitable example. (07)
- b) Describe virtual machines with an example. (06)
- Q.7** a) Explain with suitable example deadlock detection and resolution. (07)
- b) Describe inter process communication with an example. (06)
- Q.8** a) Describe free space management with suitable example. (07)
- b) Describe segmented paging with the help of suitable example. (06)

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