

**B.TECH SEM - IV (2007 COURSE) (E & TC ENGG.) :**  
**SUMMER - 2018**

**SUBJECT: COMPUTER ORGANIZATION & OPERATING SYSTEM**

Day: **Saturday**  
Date: **09/06/2018**

**S-2018-2647**

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

**N.B. :**

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

**SECTION – I**

- Q.1** a) Discuss loosely coupled and closely coupled configuration [07]  
b) Enlist applications of microprogramming in detail. [07]
- Q.2** a) What are the advantages of Micro-programmed control over hardwired control? [07]  
b) Compare vertical and horizontal organization of a microinstruction. [06]
- Q.3** a) Write short note on RAID. [07]  
b) What are the different controls registers. Explain them with an example of each. [06]
- Q.4** a) What are various problems of bus contention? How to resolve them. [07]  
b) Differentiate between programmed I/O and interrupt I/O. [06]

**SECTION – II**

- Q.5** a) Discuss various types of scheduling in detail. [07]  
b) Define Memory segmentation? Explain with example. [07]
- Q.6** a) Describe in detail the functions of an OS as resource manager. [07]  
b) Describe various CPU scheduling algorithms. [06]
- Q.7** a) What are the two models of inter-process communication? Explain their strength and weakness. [07]  
b) How to recover from deadlock? Explain. [06]
- Q.8** a) Discuss paging mechanism with example. [07]  
b) Explain security issues in secondary storage management.. [06]

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