

B.TECH SEM – VI (2007 COURSE) (COMPUTER ENGG.) :

SUMMER - 2018

SUBJECT: OPERATING SYSTEM

Day : **Wednesday**

Date : **06/06/2018**

S-2018-2711

Time: **02.30 PM TO 05.30 PM**

Max Marks : **80**

N.B. :

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of remaining attempt **ANY TWO** question form Section – I and Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in the **SEPARATE** answer books.
- 4) Draw neat and labeled diagram **WHEREVER** necessary.
- 5) Use of non-programmable calculator is **ALLOWED**.
- 6) Assume suitable data, if necessary.

SECTION – I

- Q.1**
- a) Explain in detail the six major categories of system calls with example. (06)
 - b) Compare preemptive and non- preemptive scheduling. (04)
 - c) Explain Resource Allocation graph with suitable example. (04)
- Q.2**
- a) Explain in detail the evolution of OS. (07)
 - b) Discuss in brief the different services provided by OS. (06)
- Q.3**
- a) Show the different states of process scheduling. Explain the different variations of Round Robin scheduling algorithm. (07)
 - b) State the different characteristics of CPU scheduling algorithm and explain with any one CPU scheduling algorithm. (06)
- Q.4**
- a) Discuss different strategies that can handle deadlock. (07)
 - b) Explain the safe sequence algorithm with suitable example. (06)

SECTION - II

- Q.5**
- a) Compare paging and segmentation. (04)
 - b) Explain multimedia device management with example. (04)
 - c) Describe memory management policies of Unix OS. (06)

P. T. O.

- Q. 6** a) Explain the term demand paging. Discuss and compare different page replacement algorithms. (07)
- b) Illustrate with example the different partitioning algorithm with fragmentation. (06)
- Q. 7** a) Write a short note on : Multimedia OS. (07)
- b) Describe QOS concept in Multimedia Operating System with adaptation. (06)
- Q. 8** a) Explain various disk scheduling algorithms with example. (07)
- b) Explain RAID technology. (06)

* * * * *

060618-e-engineering-pune