

Total No. of Questions : 12]

NOV-15

SEAT No. :

P1903

[4861]-31

[Total No. of Pages : 2

S.Y.M.C.A. (Engineering)
OPERATING SYSTEMS
(Semester-III) (2008 Pattern) (610901)

Time : 3 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Answer any three questions from each section.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figures to the right side indicate full marks.*
- 5) *Use of calculator is allowed.*
- 6) *Assume suitable data if necessary.*

SECTION-I

- Q1)** a) Discuss briefly about language processor development tools? [6]
b) Explain Analysis phase and Synthesis phase of language processing. [6]

OR

- Q2)** a) What is assembler? Explain working of two pass assembler with the help of diagram. [6]
b) What is a Macro? Explain Macro processor with the help of suitable diagram. [6]

- Q3)** a) Explain the absolute and relocating loader schemes. [6]
b) Define terms. [6]
i) Bootstrap compiler
ii) Cross compiler

OR

- Q4)** a) Discuss the different phases of compiler. [6]
b) Explain the following term. [6]
i) "Compile-and-Go" loader
ii) General loader scheme

P.T.O.

- Q5) a) Explain process life cycle with the help of diagram. [5]
b) Explain preemptive priority process scheduling algorithm with the help of example. [6]

OR

- Q6) a) What are different scheduling criteria's? [5]
b) What is a scheduler? Explain various types schedulers. [6]

SECTION-II

- Q7) a) What is noncontiguous memory allocation? Explain the concept of paging in detail. [6]
b) Explain the steps for handling page fault with the help of diagram. [6]

OR

- Q8) a) What is segmentation? Explain with suitable example. [6]
b) Explain the LRU page replacement algorithm with the help of example. [6]

- Q9) a) Discuss the file system implementation in detail. [6]
b) Explain C-LOOK disk scheduling algorithm with the help of example. [6]

OR

- Q10) a) What are the different disk space allocation methods? Explain. [6]
b) Explain SSTF disk scheduling algorithm with the help of example. [6]

- Q11) a) Explain components of Linux system with the help of suitable diagram. [5]
b) Explain any three process management system calls used in Linux. [6]

OR

- Q12) a) Explain basic structure of Linux file system with diagram. [5]
b) Explain the following terms. [6]
i) Linux Kernel
ii) Virtual file system in Linux

