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Question Paper Code: 52931

M.E. DEGREE EXAMINATION, DECEMBER 2015

Elective

Computer Science and Engineering

15PCS504 - OPEN SOURCE SYSTEMS AND NETWORKING

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

- _____ which points to a segment containing global and static data
(a) CS (b) SS (c) DS (d) None of these
- Slab allocator was first introduced in the _____ kernel.
(a) Solaris (b) Sun (c) Microsoft (d) Oracle
- _____ can be used to bridge the differences in Windows, Mac OS and UNIX file systems.
(a) Device driver (b) Virtual file system
(c) Block device driver (d) None of these
- To connect to a network, a computer uses a _____.
(a) Internet (b) Modem
(c) Network interface card (d) Browser
- IPV4 uses _____ addresses.
(a) 32 bit (b) 64 bit (c) 128 bit (d) 256 bit

PART - B (5 x 3 = 15 Marks)

6. What is the difference between Interrupts and Exceptions?
7. List out the various states of processes.
8. Define block device drivers.
9. Give the importance of bridging.
10. Write down the advanced features of routing.

PART - C (5 x 16 = 80 Marks)

11. (a) Explain in detail about the various types of addresses in memory addressing. (16)

Or

- (b) Discuss about clock and timer circuits in briefly. (16)

12. (a) Describe about process address space in detail. (16)

Or

- (b) (i) How to generate a signal? Explain. (8)

- (ii) Write down the foundational aspects of the role of signals. (8)

13. (a) Discuss on I/O architecture and device drivers in virtual file system. (16)

Or

- (b) Give a detailed note on implementation aspects of files and devices in virtual file system. (16)

14. (a) (i) List out the goals of NIC. (8)

- (ii) Discuss on spanning tree protocol briefly. (8)

Or

- (b) (i) Briefly explain about the overview of system initialization. (8)

- (ii) What are the reasons for bottom half handlers? Discuss. (8)

15. (a) Explain about the packet structure of Internet Protocol Version 4 (IPV4). (16)

Or

- (b) Briefly explain about the various components of routing. (16)