**Reg. No. \_\_\_\_\_\_\_\_**

**Karunya University**

**(Karunya Institute of Technology and Sciences)**

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

**Supplementary Examination - June 2011**

**Subject Title: UNIX ARCHITECTURE Time: 3 hours**

**Subject Code: 09CS206 Maximum Marks: 100**

#### **Answer ALL questions**

**PART – A (10 x 1 = 10 MARKS)**

1. The Unix operating system was first developed in \_\_\_\_\_\_\_\_\_\_ language.

2. A Unix \_\_\_\_\_\_\_\_\_ is the core or key component of the operating system.

3. What does inode store?

4. Write the syntax for lseek system call.

5. What are signals?

6. What is a process?

7. Write the Syntax for ioctl.

8. What are the three input modes for terminals in Unix?

9. How is network communication done?

10. Mention the powerful tool for process tracing.

**PART – B (5 x 3 = 15 MARKS)**

11. What is the difference between user mode and kernel mode?

12. Define super block.

13. Define process groups.

14. What is the process of swapping out?

15. Write about the system calls used for IPC.

**PART – C (5 x 15 = 75 MARKS)**

16. a. Explain in detail about UNIX System Architecture. (9)

b. Briefly explain about UNIX System Structure. (6)

(OR)

17. Explain in detail about Unix system concepts.

18. Explain in detail about the structure of regular file.

(OR)

19. a. Briefly explain file creation concepts. (6)

b. Write short notes on File locking and Record Locking. (9)

20. Describe the state transition that a process undergoes during its lifetime.

(OR)

21. Discuss the context of a process in detail.

22. Write short notes on a. Allocation of swap space. (9)

b. Swapping processes out. (6)

(OR)

23. a. Explain briefly the concepts involved in driver interface. (8)

b. Write short notes on terminal drivers. (7)

24. Explain the concepts in system V IPC.

(OR)

25. How is network communication done in unix operating system.