**S.NO: 22N1- UCS** **Course Code: BXK/BKK**

**A.D.M.COLLEGE FOR WOMEN, NAGAPATTINAM**

(AUTONOMOUS)

**B.Sc Computer Science/BCA Degree Examination**

V Semester – **November** – 2022

**CC XI – OPERATING SYSTEMS**

**Time: 3 hours** **Maximum Marks: 75**

**Section –A** **10X2=20**

Answer **ALL** the Questions

1. What do you mean by Kernel?
2. List the components of a computer system.
3. Compare and contrast single-threaded and multi-threaded process.
4. Which scheduling algorithm is called elevator algorithm? Define it with example.
5. What is the use of dynamic loading?
6. Why mobile operating systems such as iOS and Android do not support swapping?
7. What problems could occur if a system allowed a file system to be mounted simultaneously at more than one location?
8. List the various disk-scheduling algorithms?
9. Write a c program for buffer-overflow condition.
10. List the software and hardware objects in domain of protection.

**Section–B** **5X5=25**

Answer **ALL** the Questions

11. a) Discuss any two OS responsible activities in connection with disk Management.

**(or)**

b) Elaborate on VMware functionality in detail with example.

12. a) Explain the process of Process Control Block(PCB) in detail.

**(or)**

b) Explain the deadlock situation arising necessary conditions in a system.

13. a) Briefly explain how Swapping of two processes using a disk as a backing store.

**(or)**

b) Describe how windows operating system implements virtual memory.

14. a) Elaborate on basic file operations.

**(or)**

b) Discuss the data structures for swapping on Linux systems with example.

15. a) How to implement access matrix effectively? Explain.

**(or)**

b) Explain the four levels of security measures that are required for protecting a system.

**Section –C** **3 X 10 = 30**

Answer any **THREE** Questions

16. Explain modern general-purpose computer system with neat sketch.
17. Define CPU scheduling and explain any two of its algorithms in detail.
18. Explore some of the most common techniques for structuring the page table.
19. Describe the most common schemes for defining the logical structure of a directory.
20. Describe the two general categories of network-oriented operating systems.

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