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Reg.No:	
IXEE.INU.	

SIXTH SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, APRIL 2022

(CBCSS - UG)

CC19U BCS6 B12 / CC19U BCA6 B12 - OPERATING SYSTEMS

(Computer Science / Computer Application - Core Course)

(2019 Admission - Regular)

Time: 2.00 Hours Maximum: 60 Marks

Credit: 3

Part A (Short answer questions)

Answer all questions. Each question carries 2 marks.

- 1. Explain different types of OS.
- 2. Explain a thread. Write the benefits of multithreaded programming.
- 3. Describe critical section.
- 4. Explain file permissions in Linux.
- 5. Explain the use of cat command using an example.
- 6. Describe an example of a preemptive scheduling algorithm.
- 7. Explain starvation. How it can be resolved?
- 8. Explain a semaphore.
- 9. Distinguish Sequential and direct access methods.
- 10. Explain first fit, best fit and worst fit approaches in memory allocation citing merits and demerits.
- 11. Eplain swapping and its need.
- 12. Describe the term Authentication.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer all questions. Each question carries 5 marks.

- 13. Explain the working of POST operation.
- 14. Describe process States and importance of PCB in program execution.

- 15. Describe with suitable example conditional commands in shell scripts?
- 16. Describe a shell program to print even numbers between 0 and 100.
- 17. Illustarte the concept of compaction in detail.
- 18. Describe any two methods of page replacement in detail.
- 19. Describe the features and architecture of Android OS.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

- 20. Explain deadlock conditions and Banker's algorithm.
- 21. Make a short note round robin scheduling with an example? Explain the importance of time quantum.

 $(1 \times 10 = 10 \text{ Marks})$
