

MCA DEPARTMENT - (OPEN BOOK TEST)

Date- / /2025

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13	*CHORMARE PRERANA SANJAY	<i>Chormare</i>
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18	*JADHAV NISHA GUNDOPANT	<i>Jadhav</i>
19	KAKADE SIDDHESH VINIT	<i>Sakade</i>
20	*KALE SHRUTI SATISH	<i>AB</i>
21	*KAMAT SWATI SHRIKANT	<i>Swati</i>
22	KAMBALE SHREYASH RAJENDRA	<i>SRK</i>
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25	KHADRE JAY SANJAY	<i>JSK</i>
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27	*KHOT SAKSHI DATTATRAY	<i>Sakshi</i>
28	*KOKATE SANDHYA ARUN	<i>Sandhya</i>
29	KORADE SIDDHESH RAMAKANT	<i>Korade</i>
30	*KOTAMIRE POURNIMA UJWAL	<i>Pournima</i>
31	KUMBHAR SOURABH RAJESH	<i>SRK</i>
32	*KUMBIHAR POOJA MARUTI	<i>Pooja</i>
33	*LOKHANDE ASHLESHA ANANDA	<i>AB</i>

34	LOTAKE OM RAHUL	<u>Pran</u>
35	*MAGDUM JYOTI KUMAR	AB
36	MAHADIK SANGRAMSINH TATYASAHEB	AB
37	*MARALKAR PRATIKSHA VITTHAL	<u>Sachin</u>
38	NADAWADE PRASANNAJEET BHAGAVAN	P.B.N.
39	NIGADE SNEHAL RAMCHANDRA	<u>Spilgode</u>
40	*NILKANTH NIKITA NAMDEV	<u>Shilpa</u>
41	PATEL MUHAFIJ GOUSMAHAMAD	M.G.P.
42	PATHAN AAKIBMATIN FIROZKHAN	<u>A. J. Patil</u>
43	*PATIL SHIVALI SANDIP	<u>Shilpa</u>
44	*PATIL SHRAVANI MALGOUNDA	<u>Shilpa</u>
45	*PATIL SHREYA SHAMRAO	<u>Shilpa</u>
46	*PATIL VAISHNAVI VISHWAS	<u>Shilpa</u>
47	*PATIL VAISHNAVI BALIRAM	<u>Shilpa</u>
48	*PATIL ROHINI DATTATRAY	<u>Shilpa</u>
49	PRASAD VIVEK KALPNATH	V.K.P.
50	*SANGAR SHITAL RAVINDRA	<u>Shilpa</u>
51	*SHAIKH SUMAIYA AMAN	S.A.S.
52	SHELAKE PARTH PRABHAKAR	P.P.S.
53	*SHINDE ARATI ARUN	<u>Shinde</u>
54	SHIVASHARAN ADITYA RAMESH	<u>Shilpa</u>
55	*THOMBARE SHRUTI VILAS	<u>Shilpa</u>
56	*TUPE SHREYA MOHAN	<u>Shilpa</u>
57	*VADD SHWETA YASHVANT	<u>Shilpa</u>
58	*VARNE SAKSHI SUNIL	<u>Shilpa</u>
59	*WAINGADE SAMRUDDHI SANJAY	<u>Shilpa</u>
60	YADAV AISHWARYA SANJAY	<u>Shilpa</u>
61	*KHADE SHARVARI EKNATH	<u>Shilpa</u>

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HEAD

DEPARTMENT OF M. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
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Book Review

Rajdhani

DATE / /

Title - Modern Operating Systems

Author - Andrew S. Tanenbaum and Herbert Bos

Publication - 4th Edition, 2014

* Introduction -

Modern Operating Systems by Andrew S. Tanenbaum and Herbert Bos is a foundational textbook that offers deep exploration of the principles and working of operating systems.

Published by Pearson, this book combines technical detail with a clear narrative style making it a favorite among students and professionals alike. Its focus on both theoretical concepts and practical application sets it apart as a resource for understanding modern operating systems.

* Summary -

The book covers the fundamental concepts of operating systems while emphasizing modern trends and developments. It is divided into several comprehensive sections.

- Introduction and Overview -

Explains the history, purpose,

and types of operating systems.

- Processes and Threads -

Discusses process management, threading, inter-process communication and synchronization.

- Memory Management -

Covers paging, segmentation, virtual memory and advanced memory management techniques.

- File System and Storage -

Explores file system organization, storage devices, and RAID systems.

- Security and Protection -

Focuses on threats, authentication, cryptography and access control mechanisms.

- Distributed System -

Distributed operating systems - cloud computing and virtualization.

Key themes included the balance between theoretical underpinning and their real-world implementation in systems like Linux, Windows and MacOS.

* Analysis -

- Strengths -

Engaging Writing Style -

Tanenbaum's ability to explain complex topics with clarity and humor keeps the reader engaged.

Practical Insights -

Real-world examples and comparisons between operating systems make the book relevant and relatable.

Comprehensive Content -

The inclusion of advanced topics like virtualizations, security, and distributed systems ensures broad coverage.

Pedagogical Features -

Each chapter includes exercises, case studies, and summaries to reinforce learning.

- Weaknesses -

Depth in Certain Topics -

While the book is broad, some advanced topics such as real-time operating systems are covered less extensively compared to specialized

texts.

Outdated Examples -

In the 4th edition certain examples may not fully align with the latest advancements in operating systems.

The book effectively conveys its themes balancing theoretical concepts with practical insights. Its modular structure makes it easy to focus on specific areas of interest.

* Critique -

One of the book's standout features is its real-world focus. Tanenbaum integrates practical examples, such as the design and operation of UNIX, Linux and windows to help readers understand the practical implications of the concepts.

However the writing occasionally assumes a higher level of prior knowledge which might challenge beginners. Additionally the book lacks the depth of hands-on exercises found in other text such as operating systems. Three easy pieces by Remzi H. Arpaç-Dussau and andrea C. Arpaç-Dusseau.

Despite these minor shortcomings, modern operating system remains a top-tier resource for understanding both the foundation and modern advancement in the field.

* Conclusion -

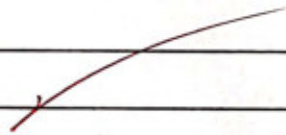
Modern operating system is a comprehensive and engaging textbook that bridges the gap between theory and practice. Its detailed coverage of core concepts and advanced topic makes it an invaluable resource for student and professionals in computer science. While beginners might need additional resources for deeper understanding this book offers a solid foundation for anyone aiming to master operating system. Highly recommended for those seeking a clear and practical approach to the subject.

Name : kartik kumar Bhasale

Class : MCA-I

Subject : Advance Concepts in Operation System.

Roll No. : 06.



1) The title of the book :

"Advance Concepts in Operating Systems".

The title of the book encapsulates the focus of the book, which delves into intricate topics of operating systems with an emphasis on distributed systems, multiprocessor systems & their advanced concepts.

2) Author:

The author of this book are "Mukesh Singhal and Niranjana G. shivaratri.". Both authors are renowned researchers and academicians in the field of computer science. Their extensive expertise in OS, distributed computing and Synchronization protocols gives the book academic credibility and technical depth.

3) Publication:

Publisher: McGraw Hill Education.

This book is a part of McGraw Hill's Computer Science series and has been widely adopted in academic institutions for post-graduate lvl coursework.

4) Introduction to the book:

In this book, it provides advance topic in OS, focus on distributed and multiprocessor systems. It bridges the gap between theory and practice, providing detail insights into the design and implementation of modern operating systems. Through a combination of theoretical frameworks and practical examples, the book lays the

solid foundation for designing distributed systems, emphasizing their challenges and solutions. It also discusses real-world implementations, help to us (reader) relate the theoretical concepts to actual applications.

5] Main theme and Premise :

The primary theme of the book revolves around advanced O.S. design and the complexities of distributed and multiprocessor systems. The book also addresses fault-tolerant systems, emphasizing reliability and security in real-world computing scenarios.

6] Overview of the Content :

The book is divided into several sections that comprehensively cover the following topics:

i) Introduction to Advance Operating Systems: A brief overview of traditional and Advance OS concepts.

ii) Distributed OS: In this book the key concepts in distributed computing, including communication, protocols, its file systems & synchronization algorithms.

iii) Multiprocessor OS: In this book author helps us for focus on multiprocessor scheduling, memory consistency and process synchronization in multiprocessor systems.

iv) Case studies: One of my interesting part to read this

book for the author gives us a case study part on real-world examples of distributed systems, including file systems, database systems & also provides architectures.

7] Character Development:

In metaphorical sense, the book develops the "character" of its readers by starting with foundational concepts and gradually moving to intricate algorithms and their implementations. By the end, reader are equipped to understand and design distributed operating systems and tackle challenges such as Synchronization & Fault tolerance.

8] Weakness:

- Complexity: The dense and technical content may overwhelm readers who lack a solid foundation in OS & Algs.
- Limited practical Examples: Although the case studies are helpful, more practical examples or exercises could have been included to enhance hands-on learning.
- Focus on Distributed Systems: While its strength, the heavy focus on distributed systems may limit its utility for readers interested in other advanced OS areas.

9] Conclusion :

"Advance Concepts in operating System" is specialized book tailored for those with a strong interest in distributed and multiprocessor systems. It excels in its rigorous treatment of advanced topics, offering both theoretical and practical insights.

However, it is best suited for readers with prior knowledge of basic operating system.

Its specialized focus and technical depth make a demanding read, best suited for those who have already have a strong grasp of basic operating systems concepts. For beginners, the book's dense materials & complex algorithms might pose a challenge.

10] Recommendations :

"The book is highly recommended for MCA students, particularly those studying advance operating systems, distributed computing, or preparing for research roles. It is equally valuable for professionals & researchers looking to strengthen their knowledge in these areas.

25/11/24

Name :- Shreya Mohan Tupe

Roll no :- 57

Rajdhani

DATE / /

Book Review

- Title :- Operating System
- Author :- Rohit Khurana
- Publication :- Operating system published by VIKAS publishing House PVT LTD at 2013.
- Introduction :- Rohit Khurana is the founder and CEO of IITL Education Solution Limited (ITLES) and has authored more than thirty-five best selling textbooks. ITLES is a part of the IITL group which has operations all over the world with a significant presence in education and IT-enabled services.
The topics covered include :
 - Organization of the computer system.
 - Communication between processes.
 - Threads and multithreading models.
 - Scheduling criteria and algorithms.
 - Synchronization among cooperating processes.
 - Deadlock situation.
 - Memory management
 - Virtual Memory
 - I/O system
 - disk scheduling algorithms
 - disk management.
 - Swap - Space management and RAID
 - File types, attributes and access methods
 - Managing files, directories and disc space.

• Summary :-

The book operating system is published at 2013 by Rohit khurana.

In operating system books there are 17 chapters.

1. Operating system chapter introduces operating system, its services, and structure. Also, it provides an insight into organization of computer system.
2. Process Management chapter deals essentially with the basic concepts of processes such as process scheduling, operations on processes and communication between process.
3. Threads chapter helps to understand the need and advantages of threads, various multithreading models as well as threading issues.
4. Scheduling chapter spells out the scheduling criteria and different types of scheduling algorithms.
5. Interprocess communication chapter throws light on several methods used for achieving synchronization among cooperating process.
6. Deadlock chapter describes the deadlock situation and the conditions that lead to deadlock.
7. Memory management chapter familiarises the reader with the diff. memory management strategies used for contiguous and non-contiguous memory.
8. Virtual memory chapter introduces the concept of virtual memory.
9. Input Output Management chapter discusses system I/O in detail, including the I/O system design, interfaces and functions.

10. Disks chapter explains disk scheduling algorithms, disk management, swap-space management and RAID.
11. File system chapter acquaints the readers with the basic concepts of files including file types, attributes and access methods.
12. File system Implementation chapter explores how the files and directories are implemented. The management of free space on the disk is explained as well.
13. Security chapter disseminates to the reader the need of security and protection in computer system.
14. Unix operating system chapter covers Unix operating system in detail including its development, structure, system calls and system administration.
15. Case Study : LINUX chapter presents an in depth examination of the Linux operating system. It describes how theoretical concepts of operating system relate to one another and to practice.
16. Case Study : Windows 2000 chapter expounds on implementation of various operating systems in Windows 2000 operating system.
17. Introduction to multiprocessor and Distributed operating system chapter sheds light on multiprocessor and distributed systems including their types, architecture and benefits.

- **Analysis :** The book caters to undergraduate students of most Indian universities, who would find the introductory and advanced discussions highly informative and enriching. Key features of books.
 - Crystal clear explanation of concepts through solved examples.
 - Relevant illustrations to facilitate understanding and retention.

- **Conclusion :**

An essential part of every computer system is the operating system, which provides a platform for the proper use of computer resources during the operation of a computer.

Therefore, it is my belief that the operating system must be understood by everyone who uses the computer.

This book is an insightful work elaborating on fundamentals as well as advanced topics in the discipline.

02/12/24