

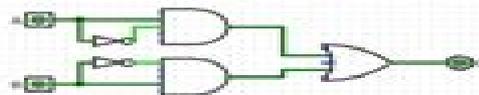
# Computer Architecture 1 Final Exam

ELE319, Hanyang University, 2019 Spring.  
ID: \_\_\_\_\_ Name: \_\_\_\_\_

Department: \_\_\_\_\_

The first two problems are mandatory. If you fail to answer the questions, you will not receive any credit.

- (5pt) Specify the 5-stage pipeline and explain what operation is performed at each stage.
- (5pt) Specify three hazards in processor pipelining and explain hardware and software approaches to solve the hazards.
- (5pt) Write the output value (C) for the given circuits if  $A=1$  and  $B=1$ .



- (5pt) We construct a 2-bit multiplier using Mux as following. Two inputs are provided to a selector in Mux. For instance,  $01 * 01 = 0001$  and  $00 * 00 = 0000$  in the following figure. Fill the remained constant input values in the Mux to complete the multiplier. (1.5pt)



- (5pt) Similarly, we are constructing a divider using a ROM as following. In the example, if dividend is 5 and divisor is 2 then quotient is 2 and remainder is 1. Hence,  $0x21$  is stored at address  $0x52$ . What value should be stored at address  $0x53$  in the ROM to support the divider? (1.5pt)



- (5pt) What is the difference between latch and flip-flop? (5pt)
- (5pt) For the following arithmetic unit, we want to compute  $A-B$  where 2's complement number is used. Determine proper values for  $S1, S0, Cin$  to make  $F = A-B$ .



- (24pt) The following figure shows single cycle implementation for datapath and control path for MIPS architecture.



Fill 0, 1 or X(don't care) in the following table to implement for the architecture.

Instruction	ALU Op	MEMOp	Reg Write	Mem Read	Mem Write	Branch
R-type instruction	(1)	(2)	(3)	(4)	(5)	(6)
Load	(7)	(8)	(9)	(10)	(11)	(12)
Store	(13)	(14)	(15)	(16)	(17)	(18)
branch	(19)	(20)	(21)	(22)	(23)	(24)

# Computer Architecture Final Exam Solutions

**Sabine Zange**



## **Computer Architecture Final Exam Solutions:**

Thank you extremely much for downloading **Computer Architecture Final Exam Solutions**. Most likely you have knowledge that, people have seen numerous times for their favorite books in the same way as this Computer Architecture Final Exam Solutions, but end occurring in harmful downloads.

Rather than enjoying a good book similar to a mug of coffee in the afternoon, then again they juggled taking into account some harmful virus inside their computer. **Computer Architecture Final Exam Solutions** is simple in our digital library an online entry to it is set as public correspondingly you can download it instantly. Our digital library saves in fused countries, allowing you to acquire the most less latency times to download any of our books past this one. Merely said, the Computer Architecture Final Exam Solutions is universally compatible past any devices to read.

<https://socketapi.adit.com/data/publication/default.aspx/sat%20practice%20deal%20install.pdf>

## **Table of Contents Computer Architecture Final Exam Solutions**

1. Understanding the eBook Computer Architecture Final Exam Solutions
  - The Rise of Digital Reading Computer Architecture Final Exam Solutions
  - Advantages of eBooks Over Traditional Books
2. Identifying Computer Architecture Final Exam Solutions
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an Computer Architecture Final Exam Solutions
  - User-Friendly Interface
4. Exploring eBook Recommendations from Computer Architecture Final Exam Solutions
  - Personalized Recommendations
  - Computer Architecture Final Exam Solutions User Reviews and Ratings

- Computer Architecture Final Exam Solutions and Bestseller Lists
- 5. Accessing Computer Architecture Final Exam Solutions Free and Paid eBooks
  - Computer Architecture Final Exam Solutions Public Domain eBooks
  - Computer Architecture Final Exam Solutions eBook Subscription Services
  - Computer Architecture Final Exam Solutions Budget-Friendly Options
- 6. Navigating Computer Architecture Final Exam Solutions eBook Formats
  - ePub, PDF, MOBI, and More
  - Computer Architecture Final Exam Solutions Compatibility with Devices
  - Computer Architecture Final Exam Solutions Enhanced eBook Features
- 7. Enhancing Your Reading Experience
  - Adjustable Fonts and Text Sizes of Computer Architecture Final Exam Solutions
  - Highlighting and Note-Taking Computer Architecture Final Exam Solutions
  - Interactive Elements Computer Architecture Final Exam Solutions
- 8. Staying Engaged with Computer Architecture Final Exam Solutions
  - Joining Online Reading Communities
  - Participating in Virtual Book Clubs
  - Following Authors and Publishers Computer Architecture Final Exam Solutions
- 9. Balancing eBooks and Physical Books Computer Architecture Final Exam Solutions
  - Benefits of a Digital Library
  - Creating a Diverse Reading Collection Computer Architecture Final Exam Solutions
- 10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
- 11. Cultivating a Reading Routine Computer Architecture Final Exam Solutions
  - Setting Reading Goals Computer Architecture Final Exam Solutions
  - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Computer Architecture Final Exam Solutions
  - Fact-Checking eBook Content of Computer Architecture Final Exam Solutions
  - Distinguishing Credible Sources

13. Promoting Lifelong Learning
  - Utilizing eBooks for Skill Development
  - Exploring Educational eBooks
14. Embracing eBook Trends
  - Integration of Multimedia Elements
  - Interactive and Gamified eBooks

### **Computer Architecture Final Exam Solutions Introduction**

Free PDF Books and Manuals for Download: Unlocking Knowledge at Your Fingertips In today's fast-paced digital age, obtaining valuable knowledge has become easier than ever. Thanks to the internet, a vast array of books and manuals are now available for free download in PDF format. Whether you are a student, professional, or simply an avid reader, this treasure trove of downloadable resources offers a wealth of information, conveniently accessible anytime, anywhere. The advent of online libraries and platforms dedicated to sharing knowledge has revolutionized the way we consume information. No longer confined to physical libraries or bookstores, readers can now access an extensive collection of digital books and manuals with just a few clicks. These resources, available in PDF, Microsoft Word, and PowerPoint formats, cater to a wide range of interests, including literature, technology, science, history, and much more. One notable platform where you can explore and download free Computer Architecture Final Exam Solutions PDF books and manuals is the internet's largest free library. Hosted online, this catalog compiles a vast assortment of documents, making it a veritable goldmine of knowledge. With its easy-to-use website interface and customizable PDF generator, this platform offers a user-friendly experience, allowing individuals to effortlessly navigate and access the information they seek. The availability of free PDF books and manuals on this platform demonstrates its commitment to democratizing education and empowering individuals with the tools needed to succeed in their chosen fields. It allows anyone, regardless of their background or financial limitations, to expand their horizons and gain insights from experts in various disciplines. One of the most significant advantages of downloading PDF books and manuals lies in their portability. Unlike physical copies, digital books can be stored and carried on a single device, such as a tablet or smartphone, saving valuable space and weight. This convenience makes it possible for readers to have their entire library at their fingertips, whether they are commuting, traveling, or simply enjoying a lazy afternoon at home. Additionally, digital files are easily searchable, enabling readers to locate specific information within seconds. With a few keystrokes, users can search for keywords, topics, or phrases, making research and finding relevant information a breeze. This efficiency saves time and effort, streamlining the learning process and allowing individuals to focus on extracting the information they need. Furthermore, the availability of free PDF books and manuals fosters a culture

of continuous learning. By removing financial barriers, more people can access educational resources and pursue lifelong learning, contributing to personal growth and professional development. This democratization of knowledge promotes intellectual curiosity and empowers individuals to become lifelong learners, promoting progress and innovation in various fields. It is worth noting that while accessing free Computer Architecture Final Exam Solutions PDF books and manuals is convenient and cost-effective, it is vital to respect copyright laws and intellectual property rights. Platforms offering free downloads often operate within legal boundaries, ensuring that the materials they provide are either in the public domain or authorized for distribution. By adhering to copyright laws, users can enjoy the benefits of free access to knowledge while supporting the authors and publishers who make these resources available. In conclusion, the availability of Computer Architecture Final Exam Solutions free PDF books and manuals for download has revolutionized the way we access and consume knowledge. With just a few clicks, individuals can explore a vast collection of resources across different disciplines, all free of charge. This accessibility empowers individuals to become lifelong learners, contributing to personal growth, professional development, and the advancement of society as a whole. So why not unlock a world of knowledge today? Start exploring the vast sea of free PDF books and manuals waiting to be discovered right at your fingertips.

### FAQs About Computer Architecture Final Exam Solutions Books

1. Where can I buy Computer Architecture Final Exam Solutions books? Bookstores: Physical bookstores like Barnes & Noble, Waterstones, and independent local stores. Online Retailers: Amazon, Book Depository, and various online bookstores offer a wide range of books in physical and digital formats.
2. What are the different book formats available? Hardcover: Sturdy and durable, usually more expensive. Paperback: Cheaper, lighter, and more portable than hardcovers. E-books: Digital books available for e-readers like Kindle or software like Apple Books, Kindle, and Google Play Books.
3. How do I choose a Computer Architecture Final Exam Solutions book to read? Genres: Consider the genre you enjoy (fiction, non-fiction, mystery, sci-fi, etc.). Recommendations: Ask friends, join book clubs, or explore online reviews and recommendations. Author: If you like a particular author, you might enjoy more of their work.
4. How do I take care of Computer Architecture Final Exam Solutions books? Storage: Keep them away from direct sunlight and in a dry environment. Handling: Avoid folding pages, use bookmarks, and handle them with clean hands. Cleaning: Gently dust the covers and pages occasionally.
5. Can I borrow books without buying them? Public Libraries: Local libraries offer a wide range of books for borrowing.

- Book Swaps: Community book exchanges or online platforms where people exchange books.
6. How can I track my reading progress or manage my book collection? Book Tracking Apps: Goodreads, LibraryThing, and Book Catalogue are popular apps for tracking your reading progress and managing book collections. Spreadsheets: You can create your own spreadsheet to track books read, ratings, and other details.
  7. What are Computer Architecture Final Exam Solutions audiobooks, and where can I find them? Audiobooks: Audio recordings of books, perfect for listening while commuting or multitasking. Platforms: Audible, LibriVox, and Google Play Books offer a wide selection of audiobooks.
  8. How do I support authors or the book industry? Buy Books: Purchase books from authors or independent bookstores. Reviews: Leave reviews on platforms like Goodreads or Amazon. Promotion: Share your favorite books on social media or recommend them to friends.
  9. Are there book clubs or reading communities I can join? Local Clubs: Check for local book clubs in libraries or community centers. Online Communities: Platforms like Goodreads have virtual book clubs and discussion groups.
  10. Can I read Computer Architecture Final Exam Solutions books for free? Public Domain Books: Many classic books are available for free as they're in the public domain. Free E-books: Some websites offer free e-books legally, like Project Gutenberg or Open Library.

### Find Computer Architecture Final Exam Solutions :

**sat practice deal install**

[viral cozy mystery tips](#)

**scholarships buy online returns**

[resume template usa](#)

[reading comprehension usa](#)

**sleep hacks last 90 days returns**

[science experiments chatgpt in the us](#)

[booktok trending best](#)

[cover letter compare](#)

[low carb recipes this month](#)

[irs refund status guide](#)

**science experiments last 90 days**

[\*nfl standings latest\*](#)

[google maps price store hours](#)

[fall boots 2025 setup](#)

### **Computer Architecture Final Exam Solutions :**

Writing and Editing for Digital Media - 5th Edition In this fifth edition, Brian Carroll explores writing and editing for digital media with essential information about voice, style, media formats, ideation, ... Writing and Editing for Digital Media: Carroll, Brian Writing and Editing for Digital Media is an ideal handbook for students from all backgrounds who are looking to develop their writing and editing skills for ... Writing and Editing for Digital Media by Carroll, Brian Writing and Editing for Digital Media, 2nd edition, teaches students how to write effectively for digital spaces—whether crafting a story for a website, ... Writing and Editing for Digital Media - Inside Book Publishing Welcome to the companion website for the third edition of Writing and Editing for Digital Media by Brian Carroll! This textbook teaches students how to ... Writing and Editing for Digital Media | Brian Carroll by B Carroll · 2023 · Cited by 110 — In this fifth edition, Brian Carroll explores writing and editing for digital media with essential information about voice, style, ... Writing and Editing for Digital Media (Paperback) May 23, 2023 — In this fifth edition, Brian Carroll explores writing and editing for digital media with essential information about voice, style, media formats ... Writing and Editing for Digital Media - Brian Carroll In this fifth edition, Brian Carroll explores writing and editing for digital media with essential information about voice, style, media formats, Writing and Editing for Digital Media (PUBL90006) Students will gain practical experience in writing in a number of different texts, multimedia styles and formats and will learn to publish their work on a ... Writing and Editing for Digital Media 4th Find 9780367245054 Writing and Editing for Digital Media 4th Edition by Brian Carroll at over 30 bookstores. Buy, rent or sell. Writing and Editing for Digital Media | Rent | 9780367245092 Writing and Editing for Digital Media is an ideal handbook for students from all backgrounds who are looking to develop their writing and editing skills for ... Stock Options: The Greatest Wealth Building Tool Ever ... Stock Options: The Greatest Wealth Building Tool Ever Invented will introduce you to an option trading system that will change the way you look at options. Daniel Mollat: Books Stock Options: The Greatest Wealth Building Tool Ever Invented · 4.14.1 out of 5 stars (6) · \$19.89\$19.89. List: \$34.99\$34.99 ; Stock Options: The Greatest Wealth ... Stock Options: The Greatest Wealth... book by Daniel Mollat Stock Options: The Greatest Wealth Building Tool Ever Invented will introduce you to an option trading system that will change the way you look at options. Stock Options: The Greatest Wealth Building Tool Ever ... AbeBooks.com: Stock Options: The Greatest Wealth Building Tool Ever Invented [Premium Leather Bound]: This extraordinary book, revered as a Bestselling ... Stock options the greatest wealth building tool (Download Only) Apr 19, 2023 — Eventually, stock options the greatest wealth building tool will very discover a

extra experience and triumph by spending more cash. still ... Make Money Consistently Trading Options. The Basics of ... Stock Options: The Greatest Wealth Building Tool Ever Invented. Stock options the greatest wealth building tool .pdf - resp.app May 3, 2023 — Eventually, stock options the greatest wealth building tool will categorically discover a extra experience and capability by spending more ... Stock Options: The Greatest Wealth Building Tool Ever ... Buy the book Stock Options: The Greatest Wealth Building Tool Ever Invented by daniel mollat at Indigo. Dave Ramsey Says This Is Your 'Most Important Wealth- ... Jan 3, 2023 — But bestselling author Dave Ramsey says most people already have their most important wealth building tool at their fingertips -- their incomes. Stock Options, The Greatest Wealth Building Tool Ever ... Stock Options: The Greatest Wealth Building Tool Ever Invented will introduce you to an option trading system that will change the way you look at options. Japanese Grammar: The Connecting Point ... Learning Japanese may seem to be a daunting task, but Dr. Nomura's book will help readers conjugate verbs into a variety of formats, construct sentences ... Japanese Grammar: The Connecting Point - 9780761853121 This book is instrumental for anyone learning Japanese who seeks to gain a firm grasp of the most important aspect of the language: verb usage. Japanese Grammar: The Connecting Point Japanese Grammar: The Connecting Point is instrumental for anyone learning Japanese who seeks to gain a firm grasp of the most important aspect. Japanese Grammar: The Connecting Point Japanese The Connecting Point is instrumental for anyone learning Japanese who seeks to gain a firm grasp of the most important aspect of the verb usage. Japanese Grammar: The Connecting Point (Paperback) Oct 21, 2010 — This book is instrumental for anyone learning Japanese who seeks to gain a firm grasp of the most important aspect of the language: verb ... Japanese Grammar: The Connecting Point Oct 21, 2010 — Learning Japanese may seem to be a daunting task, but Dr. Nomura's book will help readers conjugate verbs into a variety of formats, construct ... Japanese Grammar: The Connecting Point by KIMIHICO ... The present study investigated the degree of acquisition of honorific expressions by native Chinese speakers with respect to both aspects of grammar and ... Japanese Grammar: The Connecting Point by Kimihiko ... Japanese Grammar: The Connecting Point by Kimihiko Nomura (English) \*VERY GOOD\* ; Item Number. 224566363079 ; Publication Name. Japanese Grammar: The Connecting ... Japanese Grammar: The Connecting Point by NOMURA ... by Y HASEGAWA · 2012 — (aishi masu) ='to love,' in English, is a stative verb, as it is an emotional state of affairs. However, in Japanese, it is imperfective and ... Japanese Grammar eBook by Kimihiko Nomura - EPUB Book Japanese Grammar: The Connecting Point is instrumental for anyone learning Japanese who seeks to gain a firm grasp of the most important aspect of the ...