DEC | INSTITUTE

Factsheet for CBA® and CDAA®

Difference between CBA® & CDAA®, Level I & II, preparation, and exam tips

Version 1.5

ᴬUCL CBT	Frankfurt School Blockchain Center	NUS FinTech Lab School of Computing	POLIMI GRADUATE SCHOOL OF MANAGEMENT	INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY HYDERABAD	HSLU Lucerne University of Applied Sciences and Arts
University College London is #8 in the QS World Ranking	Top 3 Business School & no.1 for Blockchain in Germany	Top Blockchain University by CoinDesk and #6 in QS World Ranking	MIP is 8th in the Financial Times Online MBA Ranking	India's leading public institution on Blockchain research and innovation	Switzerland's oldest and best in class CAS Blockchain

Factsheet

CBA® Level 1 & 2 and CDAA® Level 1 & 2

Message from the DEC Institute

Well done on taking the first step towards becoming a DEC certified professional. Participating in lifelong learning demonstrates a commitment to professional excellence. The DEC Institute has created an ecosystem of institutions and leading industry players to help guide your personal development as you become a practitioner in the blockchain, digital assets and Web3 industry. Stay competitive in this fast-paced environment with our collection of professional learning courses and certifications.

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1. <u>Acknowledgement of Exam Syllabus & Parameters</u>

Before attempting the DEC Institute's exam,

1. I confirm that I have read the syllabus, know the exam's scope, and have prepared by studying the preparation material or learning this knowledge through practical experience.

2. I understand that the Level 1 exam consists of 75 questions to be completed in 60 minutes.

3. I acknowledge that each of the questions has three options, and only one of them is correct.

4. I understand that for each question, I should pick the best option (that is most accurate or correct) as some options may be partially correct.

5. I acknowledge that some questions use well-known abbreviations used in the blockchain industry and that as part of my preparation or work experience, I am expected to be familiar with these.

6. I understand that some questions may be made more complex by how they are written and worded. I should endeavour to read all the questions and options in detail not to make easy mistakes.

7. I understand that a good pace for answering exam questions is to spend approximately slightly less than one minute per question.

2. Exam Overview

The DEC Institute currently offers four types of exam, the CBA Level 1 & 2 and CDAA Level 1 & 2 (Level 2 exams to be released at beginning of Q1 2023). A summary of relevant information on these examinations is in the tables below.

	CBA® Level 1	CDAA® Level 1
Question Format	Multiple-Choice	Multiple Choice
Exam Duration	60 minutes	60 minutes
Number of Questions	75	75
Exam Results Availability	Emailed within 1 hour of finishing the exam online	Emailed within 1 hour of finishing the exam online
Pass level	75%	75%
Test attempts per order	2	2
Recommended Study Time	26-46 hours	27-47 hours

	CBA® Level 2	CDAA® Level 2
Question Format	Vignettes with Multiple-Choice	Vignettes with Multiple Choice
Exam Duration	90 minutes	90 minutes
Number of Questions	6 item sets with vignettes accompanied by 30 multiple choice questions	6 item sets with vignettes accompanied by 30 multiple choice questions
Exam Results Availability	Emailed within 1 hour of finishing the exam online	Emailed within 1 hour of finishing the exam online
Pass level	75%	75%
Test attempts per order	2	2
Recommended Study Time	Work in progress	Work in progress

3. Familiarising Yourself with the DEC Exam Topics

The DEC Institutes exam's curriculum focuses on a wide range of knowledge related to three topic areas of Technology, Business / Economics and Legal / Regulatory. The exams cover these topic areas with the following approximate weights:

	CBA® Level 1 & 2	**CDAA® Level 1 & 2**
Technology	45%	30%
Business & Economics	35%	40%
Legal & Regulatory	20%	30%

Within Level 1 the focus of the testing is mainly on learning objective prefixes of to know and to understand. In Level 2, the focus shifts to learning objective prefixes of to understand, to apply, to identify and to calculate.

4. Curriculum Topics across CBA® and CDAA®

Curriculum topics have been selected for the following two target candidates with different professional backgrounds. Please be aware that **CDAA®** Level 1 and **CBA®** Level 1 assessments differ only by about 30%, whereas Level 2 assessments differ by about 60%.

	CDAA®	**CBA®**
Professional background	For professionals with backgrounds in finance, banking, asset management, and trading.	For professionals with backgrounds in enterprise, healthcare, public services, utilities, and supply chain.

CDAA® curriculum topics

TECHNOLOGY
In this section, we explore 14 topics related to Blockchain History, Blockchain Principles, Consensus Mechanisms, Blockchain Architectures, Smart Contracts, Cryptocurrencies, Tokens, Blockchain Protocols, Wallets, Scalability, Interoperability, dApps, DAOs and Oracles.

BUSINESS & ECONOMICS
In this section, we explore 17 topics related to Blockchain and the Internet, Blockchain Ecosystem, Industry Investment, ICOs & IEOs for Capital Raising, Blockchain Economics, Blockchain and Token Investments, Tokenisation in Business, Digital Asset Business Models, dApps in Business, Blockchain Governance in Business and DAOs, Blockchain and Sustainability, Application Areas of Blockchain in Traditional Financial Services, Decentralised Finance (DeFi), Application Areas in Non-Financial Service Sectors, Application Areas of NFTs, Stablecoins and Central Bank Digital Currency (CBDC).

LEGAL & REGULATORY
In this section, we explore 9 topics related to Legal and Regulatory Treatment of Cryptoassets & Applications, Legal and Regulatory Treatment of Cryptoassets & Fundraising,

Regulatory and Legal Standing of Blockchain Technology, Legal Status of Smart Contracts, Challenges of Regulating DLT, Blockchain, Competition Law and Antitrust, Blockchain and Regtech, Regulatory and Legal Perspectives of DAOs, and Blockchain and Intellectual Property.

CBA® curriculum topics

TECHNOLOGY
In this section, we assess the understanding of 18 topics, including Blockchain History, Blockchain Principles, Databases vs Ledgers vs DLTs, Cryptography, Consensus Mechanisms, Blockchain Architectures, Blockchain Technology Stack, Smart Contracts, Cryptocurrencies, Tokens, Blockchain Protocols, Wallets, Privacy, Scalability, Interoperability, dApps, DAOs and Oracles.

BUSINESS & ECONOMICS
In this section, we explore 14 topics, including Blockchain and the Internet, Innovation, Disruption and Adoption Principles Applied to Blockchain, Blockchain Ecosystems, Blockchain Economics, Tokenisation in Business, dApps in Business, Blockchain Governance in Business and DAOs, Blockchain and Sustainability, Application Areas of Blockchain in Traditional Financial Services, Decentralised Finance (DeFi), Application Areas in Non-Financial Service Sectors, Application Areas of NFTs, Supply Chain and Self Sovereign Identity (SSI).

LEGAL & REGULATORY
In this section, we explore 7 topics, including Legal and Regulatory Treatment of Cryptoassets & Applications, Regulatory and Legal Standing of Blockchain Technology, Legal Status of Smart Contracts, Challenges of Regulating DLT, Blockchain, Competition Law and Antitrust, Blockchain and Regtech and Blockchain and GDPR / Other Data Regulations.

For greater detail, see all the topics tested by downloading the preparation material or by studying the complete syllabus provided after registration. The syllabus remains the same for both Level 1 and Level 2, but the testing shifts from recall of knowledge to application and understanding.

5. **Keeping the Curriculum Relevant and Rigorous**

The DEC Institute has consulted its Academic members and Industry Partners to create the examinations. This is to ensure that the foundation knowledge necessary to be a practitioner in the blockchain industry and the latest topics relevant today are covered. For more information on the various academic and industry members of the DEC Institute, please have a look at our website.

6. Understanding the Multiple-Choice Exam Question Format in Level 1

Each multiple-choice item on the DEC Institute's Level 1 exams consists of a question or a statement and three answer choices.

It is expected that you spend between 30 and 120 seconds per question on the exam. Some questions may require more time, and some less.

Two formats are used, which are:

1. Questions with three unique choices
2. Sentence completion with three unique choices

Exam questions focus on recall of knowledge and understanding. Example questions are in Appendix.

7. Understanding the Multiple-Choice Exam Question Format in Level 2

In the Level 2 exam there will be 6 item sets with vignettes accompanied by 30 multiples choice questions. Each multiple-choice question will reference a vignette and consists of a question or a statement and three answer choices.

It is expected that you spend between 10-20 minutes reading each vignette and answering the accompanying questions. Some item sets may require more time, and some less.

8. Exam Tips

1. Ensure you have gone through the syllabus and preparation material, incl. all mandatory readings, and are familiar with the topics you will be tested on.
2. Read each question and each of the options carefully. Some questions are designed to be more complicated based on how they are written – be particularly careful when picking your answers for these.
3. You have 60 minutes to complete the exam for Level 1 and 90 minutes for Level 2 – make use of your time! If you finish the exam with time to spare, make sure that you go back and check your answers.
4. Make use of the question-flagging system to go back and check any questions that you were not entirely sure about.
5. Always pick the most accurate option, as some options may be partially correct, but only one option is entirely correct.

9. How To Prepare

The DEC Institute offers preparation materials that consist of resources on each of the high-level topics of the exam. These resources are open-source academic papers, blog posts, industry reports, news pieces and videos that cover many elements of the knowledge tested.

We recommend that you follow the following steps to get prepared:

1. Please familiarise yourself with all the major topic and their relative topics, which can be found in the Appendix of the Syllabus document, available after registration.
2. Download the preparatory materials at https://www.decinstitute.org/shop-list.
3. Within each part of the preparatory materials guide, there are required materials to learn from and optional materials for each part of the syllabus. The examinations are composed of knowledge covered directly from the required materials. We still recommend reading selected optional materials as they will help broaden your knowledge of a particular syllabus area and may further help answer examination questions. Each syllabus area and resource in the preparatory materials also have a guide time for reading, viewing, and learning from that area. Please note that these are for reference, and you may require more or less time depending on your familiarity with the topic, reading speed, learning rate etc. We estimate that preparing for the CBA Level 1 or CDAA Level 1 examination will take approximately 27-46 hours.

Exam Topic Area	Number of Topic Areas in CDAA	Estimate Study Time (Required Material)
Technology	14	9 hours
Business & Economics	17	11 hours
Legal & Regulatory	9	7 hours
Total	**40**	**27 hours**

Table 1: Breakdown of CDAA topics and required time to study for syllabus components

Exam Topic Area	Number of Topic Areas in CBA	Estimate Study Time (Required Material)
Technology	18	12 hours
Business & Economics	14	9 hours
Legal & Regulatory	7	5 hours
Total	**39**	**26 hours**

Table 2: Breakdown of CBA topics and required time to study for syllabus components

Study Focus CDAA & CBA	Time
Required Study Material	26-27 hours
Optional Study Material	13 hours
Independent Self-Study & Research	6 hours
Total Study Time	**45-46 hours**

Table 3: Recommended allocation of time for the study of required, optional material and independent research

In Q1 2023 DEC will release a MOOC preparatory video course that will take approximately 12 hours to complete. This course has been created by all the academic and industry members of the DEC Institute with the specific purpose of preparing candidates for the exam. Furthermore, we will also be releasing question banks and mock exams for preparation.

10. Optional Courses From DEC Academic Members

For a broader understanding of the blockchain field, we recommend the courses offered by our academic members that usually go into depth on their technologies. Some recommended courses can be found in the table below and at https://www.decinstitute.org/. Please note that these courses have not been designed as preparatory courses for the DEC examinations but cover a broad array of the topics in the DEC exams and, indeed, are beneficial if one wishes to become a practitioner in industry.

Course provider	Course	Reference	Focus
Lucerne University for Applied Sciences and Arts – Information Technology	Certificate of Advanced Studies (CAS) – Blockchain (German)	https://www.decinstitute.org/event/cas/	**CBA®**
Lucerne University for Applied Sciences and Arts – Information Technology	Certificate of Advanced Studies (CAS) – Crypto Finance & Cryptocurrencies (German)	https://www.decinstitute.org/event/cas-crypto/	**CDAA®**
Frankfurt School of Finance & Management – Blockchain Center	Certified Blockchain Analyst (English)	https://www.decinstitute.org/event/certified-blockchain-expert/	**CBA®**
Frankfurt School of Finance & Management – Blockchain Center	Blockchain Masterclass (German)	https://www.decinstitute.org/event/blockchain-masterclass/	**CBA® CDAA®**
University College London – Centre for Blockchain Technology	Introduction to Blockchain and Distributed Ledger Technology (English)	https://www.decinstitute.org/event/introduction-to-blockchain-and-distributed-ledger-technology/	**CBA® CDAA®**

International Institute of Information Technology – Hyderabad	Advanced Certification Program in Blockchain and DLT (English)	https://www.decinstitute.org/event/advanced-certification-program-in-blockchain-and-dlt/	**CBA®**
Politico Di Milano Graduate School of Business	Online Certification Program for Blockchain Professionals (Italian)	https://www.decinstitute.org/event/online-certification-program-for-blockchain-professionals/	**CBA®** **CDAA®**

11. Misconduct & Anti-Cheating Declaration

Engaging in any misconduct whilst attempting this exam may lead to the voiding of your exam results and the termination of your ability to take DEC Institute exams in the future.

Exam misconduct is considered any conduct or activity that compromises or attempts to compromise the integrity, reputation, security or validity of the DEC Institute's exams. This includes conduct during registration and after that in the period before, during and after taking the DEC Institute's exams.

Misconduct includes, but is not limited to:

1. Giving or receiving assistance from others when completing the exams
2. Taking screenshots, photos or notes on the exam questions and answers when completing the exams
3. Sharing any details on the questions and answers of the exams with others
4. Taking part in the act of impersonation or other forms of cheating
5. Utilising unauthorised DEC Institute exam questions, with or without answers, when you are in the process of preparing for or completing the exam
6. Sharing or requesting others to share with DEC Institute exam content in any form
7. Using any form of mobile phone, camera, headset, tablet, computer, wearable device, photographic device or other devices that seek to give an advantage or to copy materials from the exam (except for the device on which you are taking the exam under exam conditions)
8. Utilising unauthorised DEC Institute materials that you know or have a reasonable basis violate the DEC Institutes copyright

9. Copying, distributing, reselling, or misusing any DEC Institute exam offer codes or discounts

10. Misrepresenting information at registration

11. Any other conduct that could be considered by the DEC Institute (at its sole discretion) to compromise the integrity, validity, reputation or security of the DEC Institute's exams or the DEC Institute.

12. **Example Questions**

To help you prepare for the exam, we offer 45 practice questions in our preparation material and a 20-minute mock exam, which you can access on our website. As you work through the syllabus and learning material, we recommend working through the practice questions. When you feel comfortable answering the practice questions, we recommend you take the mock exam on our website, which mimics the exam-day experience as closely as possible.

Practice questions are based on syllabus topics to help evaluate your topic-level strengths and weaknesses. All questions are in the same format as the questions on the actual exam. Below are 4 example questions, the answer key is in Appendix 2 of this document.

Q. Which of the following Ethereum token types supports non-fungible tokens?

A. ERC20

B. ERC721

C. ERC221

Q. Within the blockchain ecosystem, there are two types of exchanges: centralised exchanges and decentralised exchanges. Which one of the following statements correctly describes the differences between a centralised exchange and a decentralised exchange?

A. A centralised exchange always writes executed trades to a blockchain, whereas a decentralised exchange does not

B. A centralised exchange often uses market makers, whilst decentralised exchanges only use order books

C. A centralised exchange is order book based, whilst a decentralised exchange uses liquidity pools

Q. Central Bank Digital Currencies can:

A. Only operate on Distributed Ledger Technology

B. Only operate in some countries if the law is changed to accommodate them

C. Only operate successfully in a wholesale setting

Q. Consortia have been created in certain industries to facilitate blockchain adoption as they can potentially overcome the coopetition paradox. In the context of blockchain, the coopetition paradox refers to

A. The necessity to compete in an industry where there are strong cooperations

B. The necessity for cooperation to occur in an industry where there is intense competition

C. The fact that blockchain solutions can only be successfully implanted in industries if consortia are used

Appendix 2 – Example Question Answer Key

1. B

2. C

3. B

4. B

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