



ERIC L. ADAMS
Mayor

DEPARTMENT OF CITYWIDE ADMINISTRATIVE SERVICES
BUREAU OF EXAMINATIONS

DAWN M. PINNOCK
Commissioner

NOTICE OF EXAMINATION

COMPUTER SYSTEMS MANAGER Exam No. 4035

(For Agencies Under the Jurisdiction of the Commissioner, DCAS Only)

WHEN TO APPLY: From: March 6, 2024

APPLICATION FEE: \$68.00

To: March 26, 2024

If you choose to pay the application fee with a credit/debit/gift card, you will be charged a service fee of 2.00% of the payment amount. This service fee is nonrefundable.

**YOU ARE RESPONSIBLE FOR READING THIS ENTIRE NOTICE
BEFORE YOU SUBMIT YOUR APPLICATION.**

WHAT THE JOB INVOLVES:

Computer Systems Managers, under varying levels of managerial or executive direction, with varying degrees of latitude for independent initiative, judgment, and decision making, perform difficult and responsible professional managerial work in the planning, organizing, and controlling of the overall activities of a major Information Technology (IT) facility. In an agency with an IT activity of a sufficient size, complexity, and/or volume, Computer Systems Managers manage the day-to-day activities of a large computer operation, serve as principal assistants to an IT manager, head one or more units responsible for a major operating function, and/or act as immediate deputies to the head of a very large IT operation. Computer System Managers may also lead a very large IT program overseeing all major components of that program, head a development of a complex computer system, and/or serve as a head of the whole IT department.

All positions combine significant policy input and program impact at an agency-wide level with direct control over all the resources necessary to operate an IT function including applications development, systems development, data communications and networking, database administration, network administration, data processing, user services, as well as staff budgeting and procurement. All Computer Systems Managers perform related work and in the temporary absence of the supervisor, may assume the duties of that position.

Special Working Conditions:

Computer Systems Managers may be required to work various shifts including nights, Saturdays, Sundays, and holidays.

(This is a brief description of what you might do in this position and does not include all the duties of this position.)

THE SALARY:

Salaries will be commensurate with the level of responsibility of the managerial assignment and will be consistent with the Managerial Pay Plan.

HOW TO QUALIFY:

You are responsible for determining whether or not you meet the education and experience requirements for this examination prior to submitting your application. If you are found "Not Qualified," your application fee will not be refunded and you will not receive a score.

You will not receive credit for education which you obtain after June 30, 2024 or experience which you obtain after the end of the Application Period (March 26, 2024).

EDUCATION AND EXPERIENCE REQUIREMENTS:

1. A master's degree in computer science from an accredited college or university **and** three (3) years of progressively more responsible, full-time, satisfactory experience in Information Technology (IT) including applications development, systems development, data communications and networking, database administration, data processing, or user services. At least eighteen (18) months of this experience must have been in an administrative, managerial or executive capacity in the areas of applications development, systems development, data communications and networking, database administration, data processing, or in the supervision of staff performing these duties; **or**

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2. A baccalaureate degree from an accredited college or university **and** four (4) years of progressively more responsible, full-time, satisfactory experience as described in "1" above; **or**
3. A four-year high school diploma or its educational equivalent, **and** six (6) years of progressively more responsible, full-time, satisfactory experience as described in "1" above; **or**
4. A satisfactory combination of education and experience equivalent to "1", "2" or "3" above. However, all candidates must have at least a four-year high school diploma or its educational equivalent **and** must possess at least three (3) years of experience as described in "1" above, including the eighteen (18) months of administrative, managerial, executive or supervisory experience as described in "1" above.

In the absence of a baccalaureate degree, undergraduate credits may be substituted for a maximum of two (2) years of the required experience in IT on the basis of 30 semester credits for six (6) months of the required experience. Graduate credits in computer science may be substituted for a maximum of one (1) year of the required experience in IT on the basis of 30 graduate semester credits in computer science for one (1) year of the required IT experience. However, undergraduate and/or graduate credits may not be substituted for the eighteen (18) months of experience in an administrative, managerial, executive, or supervisory capacity as described in "1" above.

Experience in an **administrative capacity** must include, but is not limited to, responsibilities such as: monitoring an IT budget; reviewing and approving IT procurement and invoice payments; reviewing and approving contracts with vendors; monitoring and approving IT projects; setting standards and best practices; risk evaluation (e.g., security, reputational, operational); organizational development; chairing or participating in IT Governance and Advisory committees; and/or overseeing vendor relationship management.

Experience in a **managerial capacity** must include, but is not limited to, responsibilities such as: strategic planning for an office/division; creating and implementing policies; setting standards and best practices; defining and documenting project scope; root cause analysis with recommendations; collaborating with other managers and executives to define the future state of an IT program; and/or forecasting.

Experience in an **executive capacity** must include, but is not limited to, responsibilities such as: managing multiple groups, areas and/or divisions; formulating the organization's IT strategy/governance; formulating the organization's IT architectural strategy; developing, setting and enforcing the organization's IT policies; and/or developing the organization's IT budget.

Experience in the **supervision of staff** must include, but is not limited to, responsibilities such as: assigning work to staff; monitoring the performance of staff; reviewing the work of staff; training, mentoring and coaching staff; evaluating staff; disciplining staff; writing and administering performance evaluations to staff; and approving time and leave for staff.

The following types of experience are **not acceptable**: superficial use of preprogrammed software without complex programming, design, implementation or management of the product; use of a word processing package; use of a hand held calculator; data entry; operation of data processing hardware or consoles.

The education requirement must be met by June 30, 2024. The experience requirement must be met by the last day of the Application Period (March 26, 2024).

The high school diploma or its educational equivalent must be approved by a State's Department of Education or a recognized accrediting organization. The college or university must be accredited by regional, national, professional, or specialized agencies recognized as accrediting bodies by the U.S. Secretary of Education and by the Council for Higher Education Accreditation (CHEA).

If you were educated outside the United States, you must have your foreign education evaluated to determine its equivalence to education obtained in the United States. This is required only if you need credit for your foreign education in this examination. For more information see the Foreign Education Evaluation Guide in the Required Information section.

During the Education and Experience Exam (EEE), you may answer questions about your experience. If your experience was on a part-time basis working less than 35 hours per week, you will need to convert your part-time experience to full-time experience using the formula below. Once you have determined your full-time experience equivalent, use this amount to answer questions about your experience.

$(\text{number of hours worked per week}/35) \times (\text{number of months worked})$

For example, if you worked at a job for 21 hours per week for 12 months, you would make the following calculation: $21/35 \times 12 = 7.2$ months.

You have until midnight Eastern time on the last day of the Application Period (March 26, 2024) to clearly specify in detail all of your relevant education and experience and Final Submit your Education and Experience Exam in the Online Application System (OASys). Once you Final Submit your Education and Experience Exam in OASys, you will not be permitted to submit new or additional information on your Education and Experience Exam online.

If you do not Final Submit your Education and Experience Exam in OASys by midnight Eastern time on the last day of the Application Period (March 26, 2024), your examination will be considered incomplete, you will not receive a score, you will not be invited to subsequent portions of this examination (if applicable), and your application fee will not be refunded.

You will not receive credit for education which you obtain after June 30, 2024 or experience which you obtain after the end of the Application Period (March 26, 2024).

Residency Requirement Advisory:

City residency is not required for this title.

English Requirement:

You must be able to understand and be understood in English.

Proof of Identity:

Under the Immigration Reform and Control Act of 1986, you must be able to prove your identity and your right to obtain employment in the United States prior to employment with an agency under the jurisdiction of the Commissioner, Department of Citywide Administrative Services.

HOW TO APPLY:

If you believe you meet the requirements in the "How to Qualify" section, apply using the Online Application System (OASys) at www.nyc.gov/examsforjobs. Follow the onscreen application instructions for electronically submitting your application, payment, and completing any required information. A unique and valid email address is required to apply online. Several internet service providers, including but not limited to Google, Yahoo!, AOL, Outlook.com, and Mail.com offer free email addresses. **All new OASys accounts require verification before a candidate can apply to ensure the accuracy of candidate information. Verification is instantaneous for most accounts and you will receive a confirmation email with instructions to activate your account. For any account creation issues, you will receive onscreen prompts to contact DCAS. This review may require up to two (2) business days to be reviewed and resolved. Please keep this information and the application period deadline in mind when creating your account.**

The following methods of payment are acceptable: major credit card, bank card associated with a bank account, or a prepaid debit card with a credit card logo which you may purchase online or at various retail outlets. If you are receiving or participating in certain forms of public assistance/benefits/programs, or are a veteran, you may qualify to have the application fee waived. For more information on eligibility for a fee waiver and documentation requirements visit the Fee Waiver FAQ on the Online Application System at: <https://a856-exams.nyc.gov/OASysWeb/faqs>. **Effective January 2020, the Online Application System is no longer supported on Windows 7 or earlier versions of Windows operating systems.**

You may come to the DCAS Computer-based Testing & Application Centers to apply for this examination online. However, you must schedule a customer service appointment prior to your visit. Due to the COVID-19 pandemic, DCAS no longer permits walk-ins at DCAS sites.

The centers will be open Monday through Friday from 9:00 AM to 5:00 PM:

Manhattan

2 Lafayette Street
17th Floor
New York, NY 10007

Brooklyn

210 Joralemon Street
4th Floor
Brooklyn, NY 11201

Queens

118-35 Queens Boulevard
5th Floor
Forest Hills, NY 11375

Staten Island

135 Canal Street
3rd Floor
Staten Island, NY 10304

Bronx

1932 Arthur Avenue
2nd Floor
Bronx, NY 10457

To schedule a customer service appointment through OASys for an exam-related or eligible list-related inquiry, find **Exam #1889**, click **Apply**, and follow the instructions provided to reserve your appointment location, date, and time.

You must complete the entire application by midnight, Eastern Time, of the last day of the application period (March 26, 2024). If you have questions about applying for this examination, you may contact DCAS at OASys@dcas.nyc.gov.

Special Circumstances Guide: This guide is located on the DCAS website at https://www1.nyc.gov/assets/dcas/downloads/pdf/employment/pdf_c_special_circumstances_guide.pdf and available at the DCAS Computer-based Testing & Application Centers. This guide gives important information about claiming Veterans' or Legacy credit, and notifying DCAS of a change in your mailing address. Follow all instructions on the Special Circumstances Guide that pertain to you when you complete your "Application for Examination."

REQUIRED INFORMATION:

- 1. Application for Examination:** Follow the online instructions, including those relating to the payment of fee and, if applicable, those found in the Special Circumstances Guide.
- 2. Education and Experience Exam:** Fill out all the required sections displayed onscreen (if applicable). You will have until midnight Eastern time on the last day of the Application Period (March 26, 2024) to clearly specify in detail all of your relevant education and experience on your Education and Experience Exam and submit it in the Online Application System (OASys).

If you do not Final Submit your Education and Experience Exam in OASys by midnight Eastern time on the last day of the Application Period (March 26, 2024), your examination will be considered incomplete, you will not receive a score, you will not be invited to subsequent portions of this examination (if applicable), and your application fee will not be refunded.

- 3. Foreign Education Evaluation Guide (Required only if you need credit for your foreign education to meet the education and experience requirements):** If you were educated outside the United States, you must have your foreign education evaluated to determine its equivalence to education obtained in the United States. The services that are approved to make this evaluation are listed on the Foreign Education Evaluation Guide which is located on the DCAS website at <https://www1.nyc.gov/assets/dcas/downloads/pdf/employment/foreigneducation.pdf>. When you contact the evaluation service, ask for a "**document-by-document**" (**general**) evaluation of your foreign education. **However**, if you intend to claim graduate credits in computer science, as stated under "4" in the "How to Qualify" section on page 1, ask for a "**course-by-course**" evaluation (which includes a "document-by-document" evaluation). You must have one of these services submit its evaluation of your foreign education directly to the Department of Citywide Administrative Services no later than eight weeks from the last day of the Application Period (March 26, 2024).

THE TEST:

Your score will be determined by an Education and Experience Exam. You will receive a score of 70 points for meeting the education and experience requirements listed above. After these requirements are met, you will receive additional credit up to a maximum of 100 points on the following basis:

If you have satisfactory full-time experience in an administrative, managerial, or executive capacity in the areas of computer applications programming, systems programming, computer systems development, data telecommunications, database administration, or planning of data processing, or in the supervision of staff performing these duties for:	You will receive up to:
At least 1 year but less than 2 years	6 points
At least 2 years but less than 3 years	12 points
At least 3 years but less than 4 years	18 points
At least 4 years but less than 5 years	24 points
5 or more years	30 points

During the Education and Experience Exam (EEE), you may answer questions about your experience. If your experience was on a part-time basis working less than 35 hours per week, you will need to convert your part-time experience to full-time experience using the formula below. Once you have determined your full-time experience equivalent, use this amount to answer questions about your experience.

$(\text{number of hours worked per week}/35) \times (\text{number of months worked})$

For example, if you worked at a job for 21 hours per week for 12 months, you would make the following calculation: $21/35 \times 12 = 7.2$ months.

You must clearly specify in detail all of your relevant education and experience on your Education and Experience Exam and submit it by the end of the Application Period. You will not receive credit for experience which you obtain after the end of the Application Period.

Experience used to meet the minimum requirements cannot be used to gain additional credit.

You have until midnight Eastern time on the last day of the Application Period (March 26, 2024) to clearly specify in detail all of your relevant education and experience and Final Submit your Education and Experience Exam in the Online Application System (OASys). Once you Final Submit your Education and Experience Exam in OASys, you will not be permitted to submit new or additional information online.

If you do not Final Submit your Education and Experience Exam in OASys by midnight Eastern time on the last day of the Application Period (March 26, 2024), your examination will be considered incomplete, you will not receive a score, you will not be invited to subsequent portions of this examination (if applicable), and your application fee will not be refunded.

Experience must be obtained by the last day of the Application Period (March 26, 2024).**CHANGE OF MAILING ADDRESS, EMAIL ADDRESS, AND/OR TELEPHONE NUMBER:**

It is critical that you promptly notify DCAS of any change to your mailing address, email address and/or phone number. If we do not have your correct mailing address, email address and/or phone number, you will not receive information about your exam(s), consideration for appointment and/or important information that may require a response by a specified deadline. If you need to update your Mailing Address, Email Address, and/or Telephone Number, read below:

- City Employees - update this information in NYCAPS Employee Self-Service (ESS) at www.nyc.gov/ess
- All Others - update this information on your Profile page in the Online Application System (OASys) by logging into your OASys account and navigating to your Dashboard, then your Profile tab at www.nyc.gov/examsforjobs
- Submit a written request by email at OASys@dcas.nyc.gov, by fax (646) 500-7190, or by regular mail: DCAS, 1 Centre Street, 14th Floor, New York, NY 10007. Your written request must include your full name, social security number, exam title(s), exam number(s), previous mailing and/or email address, and your new mailing and/or email address, and/or new telephone number.

CHANGE OF NAME AND/OR SOCIAL SECURITY NUMBER:

Use the Data Correction Form and follow all instructions for changing your name and/or social security number with DCAS. The following link will provide you with the DCAS Data Correction Form: <https://www1.nyc.gov/assets/dcas/downloads/pdf/employment/dp148a.pdf>

THE TEST RESULTS:

If you pass the Education and Experience Exam, your name will be placed in final score order on an eligible list, you will be given a list number, and you will be notified by email of your test results. The eligible list determines the order by which candidates will be considered for appointment. If you meet all requirements and conditions, you will be considered for appointment if your name is reached on the eligible list. Once a list has been established, it will typically remain active for four years. To learn more about the civil service system go to: <https://www1.nyc.gov/site/dcas/employment/civil-service-system.page>.

If you believe that your test part was rated incorrectly, you may submit an appeal of your score to DCAS, Committee on Manifest Errors, through the Online Application System (OASys). Your appeal must give specific reasons why your score should be higher. Your appeal may result in a higher or lower rating.

To access the appeal portal of OASys, please log into your OASys account at www.nyc.gov/examsforjobs and use the following steps:

1. Navigate to the Dashboard for the Appeals tab.
2. Click the NEW APPEAL button to create and submit your appeal.
3. Select the exam from the Exam drop-down list, and
4. Select the exam part from the Exam Part drop-down list.
5. Select the reason for your appeal from the Appeal Reason drop-down list (if applicable).
6. Enter the details of your appeal by providing specific reasons why your score should be higher.

ADDITIONAL INFORMATION:

Selective Certification for Certifications, Special Education, and/or Special Experience: If you have the certifications, education, and/or experience listed below, you may be considered for appointment to positions requiring these certifications, education, and/or experience through a process called Selective Certification. If you qualify for Selective Certification, you may be given preferred consideration for positions requiring these certifications, education, and/or experience. If you wish to apply for this Selective Certification, follow the onscreen instructions when completing the Education and Experience Exam to indicate your interest in such Selective Certification and Final Submit it in the Online Application System (OASys). Your certifications, education, and/or experience will be checked by the appointing agency at the time of appointment. The certifications must be maintained for the duration of your employment.

1. **Agile Product Owner Experience (APO):** At least two (2) years of satisfactory, full-time product owner experience as a servant leader for agile teams implementing packaged or custom built applications, systems, major system components, or integrations between multiple applications or system components; including deployment to, or provisioning of physical, virtual or cloud-based hosting, AND at least two (2) years of satisfactory, full-time experience managing products using the Agile Scrum software development methodology including product backlog management, ensuring product value, and driving stakeholders & customers AND at least two (2) years of satisfactory, full-time experience with Application Lifecycle Management (ALM) tools (e.g., Azure DevOps, Jira, and/or Microfocus ALM/Quality Center).
2. **Agile Scrum Master Experience (ASM):** At least two (2) years of satisfactory, full-time scrum master experience as a servant leader for agile teams implementing packaged or custom built applications, systems, major system components, or integrations between multiple applications or system components; including deployment to, or provisioning of, physical, virtual or cloud-based hosting, and at least two (2) years of satisfactory, full-time experience implementing Scrum to lead teams using the Agile Scrum software development methodology by conducting daily scrum meetings as the scrum master with complex delivery teams, and at least two (2) years of satisfactory, full-time experience with Application Lifecycle Management (ALM) tools (e.g., Azure DevOps, Jira, and/or Microfocus ALM/Quality Center).
3. **API Development (API):** At least two (2) years of satisfactory, full-time experience in the design, development, implementation, maintenance, and enhancement of Application Program Interfaces (APIs). The experience should include, but is not limited to the following frameworks, tools, and languages: SOA, SOAP, REST, XML, Java, .NET, TDD - Test-driven Development, Git, Subversion, CVS, Eclipse, Apache Xerces, Tomcat, Jboss, Oracle WebLogic, DOM, Python (e.g., flask, Django), and Unix.
4. **Artificial Intelligence (AI) / Machine Learning (ML) Certification (AIM):** A valid certification in Artificial Intelligence (AI) /Machine Learning (ML) from providers such as Coursera, Microsoft, or accredited universities.
5. **Artificial Intelligence / Machine Learning (AI/ML) Engineering (AIL):** At least two (2) years of satisfactory, full-time experience in design, development, implementation, maintenance, and enhancement of machine learning systems. The experience should include, but is not limited to: Large Language Models, Deep Learning, Python, JavaScript, OpenAI, OpenAI API, ChatGPT, Google Bard and AWS Bedrock.
6. **Automation Experience (841):** At least two (2) years of satisfactory, full-time experience in Automating Windows-based, browser-based, and terminal-based applications, time-consuming and repetitive processes by using a mix of approaches like UI, API, and database automations **AND/OR** experience with the Windows desktop environment, scripting languages, Power Automate cloud and desktop flows, AI Builder, Process Advisor, and Microsoft Dataverse; experience with copilot, including copilot features in Power Platform, Dynamics 365 Copilot, and Microsoft 365 Copilot.
7. **Business Analysis (BNA):** At least two (2) years of satisfactory, full-time experience employing User-Centered Analysis techniques (interviews, direct observations, requirement work sessions, etc.) in a variety of systems development life cycle (SDLC) methodologies, including Agile methodologies (e.g., Scrum, Kanban, Scrumban, etc.), with experience including eliciting business needs, defining requirements packages for IT applications, and at least two (2) years leading a team of business analysts, and/or developing and formalizing standards, guidelines, and good practices for business analysis.
8. **Certified Information Security Manager Certification (400):** A valid certification as a Certified Information Security Manager (CISM) from the Information Systems Audit and Control Association (ISACA).
9. **Certified Information Systems Security Professional Certification (413):** A valid certification as a Certified Information Systems Security Professional (CISSP) issued by the (ISC)².
10. **Cisco Certified Network Associate Certification (15C):** A valid certification as a Cisco Certified Network Associate (CCNA).
11. **Cloud Architecture (CAH):** At least two (2) years of satisfactory, full-time experience in the design, development and support working to design highly scalable, flexible, and resilient cloud architectures (IaaS, PaaS, SaaS), automation, orchestration, cost frameworks, and public/private/hybrid cloud.
12. **CompTIA A+ Certification (A+C):** A valid CompTIA A+ Certification issued by CompTIA.
13. **CompTIA Security+ Certification (230):** A valid certification as a CompTIA Security+.

14. **Cyber Security and/or Vulnerability Management Experience (221):** At least two (2) years of satisfactory, full-time experience in Cyber Security and/or Vulnerability Management.
15. **Data Science (DAC):** At least two (2) years of satisfactory, full-time experience in cleaning, analyzing, modeling, predicting, and visualization of data from a variety of sources (SQL and No-SQL databases, files, geospatial formats, open data) using methods such as machine learning, deep learning, reinforcement learning, supervised and unsupervised learning, time-series analysis, genetic algorithms, and/or clustering and dimensionality reduction. The experience should include but is not limited to using tools such as Python (NumPy, SciPy, pandas, scikit-learn, matplotlib, Keras), R, Hadoop, Spark and TensorFlow.
16. **Database Management Systems Certification (219):** A valid professional certification in one or more database management systems (e.g., Oracle 11g, Microsoft SQL Server, IBM DB2, Sybase, MySQL).
17. **DevOps Engineer (22E):** At least two (2) years of satisfactory, full-time experience in the design, development, implementation, maintenance, and enhancement of DevOps tools including, but not limited to: Azure DevOps, Jenkins, JFrog, Ansible, CHEF, AWS, Azure, Linux, Bash, Shell Scripting, Python, and CI/CD pipelines.
18. **Front-End Development (FED):** At least two (2) years of satisfactory, full-time experience in HTML, HTML5, CSS, CSS3, JavaScript, ARIA, Enterprise Content Management Systems, Photo/Graphics Editing Software, and knowledge of Accessibility standards (WCAG level A and AA). Examples include, but are not limited to, AngularJS, React, AJAX, XML, JSON and/or responsive web development.
19. **Geospatial Application Development (112):** At least five (5) years of satisfactory, full-time experience in the design, development, implementation, maintenance, or enhancement of responsive web or mobile geospatial and/or mapping applications and/or services. Examples include, but are not limited to: ESRI, Oracle Spatial, PostGIS, Open Geo Suite, Google, Mapbox, CartoDB, Java, JavaScript, and Python
20. **Geospatial Systems Administration (11G):** At least five (5) years of satisfactory, full-time experience in: Geospatial Systems Architecture, Geospatial Data Architecture, Geospatial Application Development, Geospatial Application Development Management, Geospatial Database Administration, Geospatial Map Server Administration, or Geospatial Systems Administration.
21. **Incident Command Structure Certification (382):** A valid Incident Command Structure (ICS) certification such as FEMA's Professional Development Series certificate or an IS-100.C, IS-200.C, IS-700.B or IS-800.D certificate.
22. **Informatica Intelligent Cloud Service (IIC):** At least two (2) years of satisfactory, full-time experience with Informatica Intelligent Cloud Service (IICS) processes with CAI, CDI, Mass Ingestion, and Informatica Secure Agents.
23. **Information Security Engineering (39K):** At least five (5) years of satisfactory, full-time experience in systems security analysis and implementation, security engineering, design assurance, testing, software security engineering, program design, configuration management, integration and testing of Information security products and techniques, and testing and validating security measures active on security infrastructure devices for the protection of computer systems, networks, and information systems.
24. **Information Technology Infrastructure Library Foundation Certification (39E):** A valid Information Technology Infrastructure Library (ITIL) Foundation certification from Axelos.
25. **IT Architecture (39R):** At least five (5) years of satisfactory, full-time hands-on IT architecture experience, three (3) years of which must have been in one or more of the following areas: 1) navigating complex political/organizational environments while addressing business needs and delivering effective solutions; 2) architecting complex solutions that meet functional needs while addressing key architectural goals (e.g., interoperability, scalability, security, extensibility, and robustness); 3) designing, integrating, and delivering complex information technology solutions that support architectural design.
26. **IT Management and Leadership Experience (39U):** At least two (2) years of satisfactory, full-time experience in IT Management and Leadership.
27. **IT Program Management (42E):** At least five (5) years of satisfactory, full-time IT project management experience implementing packaged or custom-built applications, systems, major system components, or integrations between multiple applications or system components; provisioning of physical, virtual, or cloud-based hosting; implementing Scrum to manage projects using the Agile software development methodology by conducting daily Scrum meetings as the Scrum master with multi-disciplinary teams (e.g., Business Analysts, Developers, Server Engineers, Network Engineers, Security Engineers, Quality Assurance Testers, and/or Support Engineers) and managing programs consisting of multiple, related IT projects including direct management of project manager employees and/or consultants; utilizing technologies such as, but not limited to, HTML5, Java, Spring, .Net, Oracle, SQL server, MQ, Web Services, ETL, and specific product stacks such as Oracle WebLogic, JBOSS, Azure, AWS Elastic Beanstalk, Docker, OBIEE, Informatica, Socrata, Documentum, Law Manager, MS Dynamics CRM, MS SharePoint, and mobile technologies such as iOS and Android development. Must have experience with project management, project portfolio management and IT Service Management tools including, but not limited to, MS Project, CA Clarity, and BMC Remedy.
28. **IT Project Management (42B):** At least two (2) years of satisfactory, full-time IT project management experience implementing packaged or custom built applications, systems, major system components, or integrations between multiple applications or system components; including deployment to, or provisioning of, physical, virtual, or cloud-based hosting; at least two (2) years of satisfactory, full-time experience managing multi-disciplinary teams including Business Analysts, Developers, Server Engineers, Network Engineers, Security Engineers, Quality Assurance Testers, and Support Engineers in a matrixed environment; and at least two (2) years of satisfactory, full-time experience with project management, project portfolio management, and IT Service Management tools such as MS Project, CA Clarity, and BMC Remedy. Acceptable application development projects include enterprise-class technologies such as but not limited to: HTML5, Java, Spring, .Net, Oracle, SQL server, MQ, Web Services, ETL, and specific product stacks such as Oracle WebLogic, JBOSS, Azure, AWS Elastic Beanstalk, Docker, OBIEE, Informatica, Socrata, Documentum, Law Manager, MS Dynamics CRM, MS SharePoint, and mobile technologies such as IOS and Android development.
29. **IT Service Management Experience (TME):** At least two (2) years of satisfactory, full-time experience in IT Service Management.
30. **Microsoft 365 Fundamentals Certification/Credential(s) (MFC):** A valid certification based on role of position and specific skill base, showcasing proficiency in Microsoft 365.
31. **Microsoft Azure Certification (ACM):** A valid Microsoft Azure Certification from Microsoft.

32. **Microsoft Certified Solutions Expert Certification (MCE):** A valid certification as a Microsoft Certified Solutions Expert (MCSE) from Microsoft.
33. **Microsoft Dynamics 365 Development (MDD):** At least two (2) years of satisfactory, full-time experience in the analysis, design, development, implementation, and maintenance of MS Dynamics 365 applications, including model driven and canvas applications.
34. **Microsoft Dynamics Certification (474):** A valid Microsoft Dynamics certification (e.g., Microsoft Certified: Dynamics Fundamentals (CRM) certification) issued by Microsoft.
35. **Microsoft Office 365 Administrator (OFF):** A valid Microsoft Office 365 Administrator Certification and at least two (2) years of satisfactory, full-time experience in evaluating, planning, migrating, deploying, and managing Microsoft 365 services such as email, SharePoint, MS Teams, OneDrive, and associated Policies.
36. **Microsoft Power Apps + Dynamics 365 Developer Associate Certification (MPA):** A valid certification as a Microsoft Certified Power Apps + Dynamics 365 Developer Associate issued by Microsoft.
37. **Microsoft Power Automate RPA Developer Associate Certification (MDA):** A valid certification as a Microsoft Certified Power Automate RPA Developer Associate issued by Microsoft.
38. **Microsoft Power Platform Developer Associate Certification (MPP):** A valid certification as a Microsoft Certified Power Platform Developer Associate issued by Microsoft.
39. **Microsoft Power Platform Development Experience (MPD):** At least two (2) years of satisfactory, full-time experience in the analysis, design, development, implementation, and maintenance of Microsoft Power Platform applications; in understanding of authentication, security, and application lifecycle management (ALM) practices for the Microsoft Power Platform. Additionally, background experience should include development experience using JavaScript, JSON, TypeScript, C#, HTML, RESTful Web APIs, and Microsoft Azure.
40. **Mobile Device Management System Administration (MMD):** At least two (2) years of satisfactory, full-time experience in configuring, securing, and administering enterprise Mobile Device Management systems utilizing industry standard systems such as VMWare Workspace ONE, Microsoft Intune, ManageEngine Mobile Device Manager Plus or SOTI MobiControl, proven experience in integrating MDM systems with enterprise security and collaborations systems, and expert level knowledge of Microsoft Windows, Android and/or Apple iOS operating systems as well as experience in managing secure app deployment and maintenance.
41. **MS SharePoint Development (476):** At least two (2) years of satisfactory, full-time experience in the analysis, design, implementation, maintenance, customization, and enhancement of SharePoint applications.
42. **Oracle Database Administration (580):** At least three (3) years of satisfactory, full-time experience in an Oracle database administrator role, including but not limited to: cloud and on-premises database performance testing, troubleshooting, fixing data corruption, performing backup and disaster recovery, reviewing logs, establishing and responding to automated monitoring, performance tuning; configuring and maintaining different types of replications, and managing distributed databases.
43. **PMI Project Management Professional Certification (58V):** A valid certification as a Project Management Professional (PMP) issued by the Project Management Institute (PMI).
44. **Product Design (PDE):** At least two (2) years of satisfactory, full-time experience building digital products that fulfill user needs and functional objectives.
45. **Product Management (PRX):** At least two (2) years of satisfactory, full-time experience developing and managing digital products from conception to launch.
46. **Product Management Lead (PML):** At least five (5) years of satisfactory, full-time experience developing and managing digital products from conception to launch.
47. **Professional Product Owner Certification (POP):** A valid certification as a Professional Product Owner (PSPO) as issued by Scrum.org.
48. **Professional Scrum Master Certification (633):** A valid certification as a Professional Scrum Master (PSM) as issued by Scrum.org.
49. **Public Safety IT (599):** At least two (2) years of satisfactory, full-time experience in Public Safety technology.
50. **Red Hat Certified Systems Administrator (603):** A current (within the past 3 years) valid certification with at least two (2) years of satisfactory, full-time administrator experience **OR** a certification older than three (3) years with at least three (3) years of satisfactory, full-time hands on experience including managing, configuration, and deploying Linux environments.
51. **Robotics Process Automation Certification (RPA):** A valid certification in Robotics Process Automation (RPA) from providers including, but not limited to, UiPath, IBM, Microsoft.
52. **Salesforce Administrator (65A):** A valid certification as a Salesforce Administrator.
53. **Salesforce Certified Platform Developer I Certification (66P):** A valid certification as a Salesforce Certified Platform Developer I from Salesforce.
54. **Salesforce Platform Developer II (66Q):** A valid certification as a Salesforce Platform Developer II.
55. **Senior DevOps Engineer (SDE):** At least two (2) years of satisfactory, full-time experience in design, development, implementation, maintenance, and enhancement of CI/CD pipelines. The experience should include, but is not limited to: Azure DevOps, Git, GitHub.com, YAML, Jenkins, Java/.NET/Python/JS, Terraform.
56. **Senior Java Developer (SJD):** At least two (2) years of satisfactory, full-time experience in design, development, implementation, maintenance, and enhancement of java applications. The experience should include, but is not limited to: Java, Spring, SpringBoot, Hibernate, Containerization, Docker, Postgres, MySQL, Microsoft SQL Server, Oracle DB, JavaScript, HTML, CSS, CI/CD, Linux.
57. **Senior JavaScript Developer (SSD):** At least four (4) years of satisfactory, full-time experience in design, development, implementation, maintenance, and enhancement of JavaScript applications and Progressive Web Apps (PWA). The experience should include but is not limited to: ReactJS/React-Native, AngularJS, VueJS, NodeJS, database interactions with SQL and NoSQL, designing and implementing RESTful APIs, version control using Git and collaborative coding workflows, build and deployment tools with Webpack and CI/CD pipelines, and testing frameworks and methodologies for JavaScript applications.
58. **Senior PL/SQL Developer (SPD):** At least four (4) years of satisfactory, full-time experience in design, development, implementation, maintenance, and enhancement of Oracle Apex applications. Must have proficiency in writing efficient and scalable JavaScript code required as well as strong proficiency in backend database design and development with Oracle 11g/12c or higher including creating packages, procedures, functions, materialized views and complex SQL queries. Additionally, must have experience with optimizing SQL queries for performance and implementing robust error handling mechanisms; practical experience in implementing triggers, and REST APIs; knowledge of security measures within PL/SQL, including role management and encryption. Must be able to

collaborate with DevOps and Server administrators to investigate and troubleshoot errors.

59. **ServiceNow Development (61M):** At least two (2) years of satisfactory, full-time experience in analysis, design, development, implementation, and maintenance of ServiceNow-based applications and environments.
60. **Software Architecture Professional Certification (61Q):** A valid Software Architecture Professional certification from Software Engineering Institute (SEI).
61. **Software Development Management (SMD):** At least two (2) years of satisfactory, full-time experience in managing the teams working on developing and supporting software development of web applications. The experience should include, but is not limited to: Java, Spring, SpringBoot, Hibernate, Containerization, Docker, Postgres, MySQL, Microsoft SQL Server, Oracle DB, JavaScript, HTML, CSS, CI/CD, Linux, Cloud (AWS/Azure/GCP).
62. **Software Quality Assurance Testing (66Z):** At least two (2) years of satisfactory, full-time experience in at least one of the following areas: 1) Performing functional testing tasks for applications with browser-based user interfaces and web services (API), ETL, or designing for mobile devices including, but not limited to, analyzing business requirements for completeness and testability, designing requirements-based test cases, executing test cases, and registering, reporting and tracking defects using Application Lifecycle Management (ALM) tools (e.g. Azure DevOps, Jira, or ALM/Quality Center) as well as the test management system; handling test data and test results in various locations or formats like files systems, relational databases (using SQL), flat files, JSON, XML, CSV, Excel files; 2) Automating functional test cases for applications with browser-based user interfaces, API-based applications (e.g., SOAP or REST API), or applications designed for mobile devices, using open source test automation tools (e.g., Selenium IDE, Selenium WebDriver, Playwright) in Java, JavaScript, or Python and/or using mobile-based automation tools such as Appium, Android Studio, or Xcode, following test automation methods like recording/parametrization/play back, descriptive programming, or manual coding; and/or 3) Conducting performance testing activities such as analyzing application functionality and architecture, script creation, execution, analysis and reporting of results, troubleshooting application performance issues, and deep diagnostics using LoadRunner and/or Performance Center for applications with a browser-based user interface or API.
63. **Solution Architecture (626):** At least five (5) years of satisfactory, full-time hands-on architectural experience in complex information technology assessments and implementations, such as experience in architecting complex large-scale systems incorporating packaged and custom applications. The experience must include knowledge of application architectures, enterprise architecture, release methodologies, project management, infrastructure support, production support, client/server applications, internet and intranet applications, operating systems (Solaris, Windows, etc.), database platforms (Oracle, Microsoft, IBM, etc.), desktop platforms, mobile platforms, web platforms, application frameworks (Java, .NET, etc.), content managers, portal products, application integration, SOA, and development methodologies and environments.
64. **Solutions Design Management (627):** At least five (5) years of satisfactory, full-time experience implementing off-the-shelf (COTS) applications for business areas like Customer Relationship Management (CRM) and Business Intelligence (BI). Experience must include leading a team of solution designers and analysts performing solutions design work; defining high-level design principles and approaches for the team; setting the agenda for the quality of solutions design work; mentoring and managing design resources to support the delivery of software solutions to time, budget and quality targets; monitoring and maintaining standards and practices as design methodologies and industry best-practices evolve; collaborating with the project team and key stakeholders to ensure design work is consistent with organization and project goals, strategy and roadmaps; and managing relationships with other teams and personnel.
65. **Storage Engineering (SAN):** At least two (2) years of satisfactory, full-time experience in Storage Area Network design, configuration, and administration, including technical knowledge of major storage platforms and switches, and OS environments including Windows, UNIX, and Linux.
66. **Systems Security Certified Practitioner (SSCP) Certification (412):** A valid certification as a Systems Security Certified Practitioner (SSCP) from (ISC)².
67. **Technical Software Quality Assurance (722):** At least two (2) years of satisfactory, full-time experience as a user interface functional tester writing object-oriented code for automated processing of files in various formats like flat files and .csv; XML, JSON file format and concept; programmatically handling and parsing XML, JSON files for the purpose of automated testing; testing data transformation processes for large amounts of data using ETL tools including Informatica; handling manually and programmatically testing for various integration protocols (e.g., SOAP and REST web services, FTP, MQ); and querying databases using complex SQL queries. Experience must include working with OLAP systems (e.g., OBIEE), reporting engine development tasks, execution of prebuilt and ad-hoc queries, and testing various reporting objects.
68. **Telecommunication/VOIP (725):** At least two (2) years of satisfactory, full-time experience in managing and overseeing the design, development, installation, configuration, integration, management, support, and/or enhancement of Voice-Over-IP System.
69. **The Open Group Certification (727):** A valid certification as an Open Group Architecture Framework (TOGAF) or Certified Architect (CA) from The Open Group.
70. **User Experience Design Management (730):** At least five (5) years of satisfactory, full-time experience in User Experience Design Management, including software interaction design, visual design, front-end coding, and Agile/Waterfall methodologies using communication and visual design software (e.g., Figma, Adobe Creative Cloud, Microsoft Office, Apple productivity applications). This experience should include at least four (4) years of managing UX or visual design resources, leading design teams, establishing design direction for large-scale projects, and creating institutional standards for design and development. All candidates must provide a design portfolio demonstrating their skills in visual design, working within branding guidelines, and designing for complex technology projects or a UX portfolio showing interaction design for complex web applications.
71. **User Experience Interaction (731):** At least two (2) years of satisfactory, full-time experience in software interaction design, covering various aspects such as complex transactional software, responsive web design, UI design, prototyping, user testing, knowledge of accessibility standards, and front-end coding. Proficiency in design tools like Figma, Adobe Creative Suite, and coding languages like HTML5, CSS3, JS, and JQuery is required. Additionally, candidates should be familiar with human-centered design methodologies, both Agile and Waterfall software, and generative AI development. A design portfolio showcasing their skills is mandatory for all candidates.
72. **User Interface/User Experience Design (UIE):** At least two (2) years of satisfactory, full-time experience in User Interface/User Experience Design, encompassing visual and UI design, accessibility, user research, prototyping, and proficiency in design software such as Figma, Adobe Creative Suite, etc. Additionally, candidates should be familiar with human-centered design

methodologies, both Agile and Waterfall, and generative AI software development. A design portfolio showcasing their skills is mandatory for all candidates.

73. **User Research (URE):** At least two (2) years of satisfactory, full-time experience conducting user research.
74. **Web Accessibility Management (WAM):** At least two (2) years of satisfactory, full-time experience conducting manual and automated accessibility reviews against WCAG guidelines, for websites, web applications, mobile applications, and other. Knowledge in using assistive technologies like JAWS, NVDA, Voiceover and other assistive technologies, and experience using testing tools (WAVE, aXe, Microsoft Insights, Color Contrast Analyzer) is required. Knowledge of the Rehabilitation Act of 1973 and ADA guidelines is required. Knowledge of how HTML, CSS & ARIA-attributes work together and the ability to provide recommendations/guidance to fix accessibility issues is required.
75. **Web Application Development Management (782):** At least five (5) years of satisfactory, full-time experience managing a web applications development team. The experience must include, but is not limited to, solution/application architecture, iterative and Agile development methodologies, resource hiring and management, and establishing development guidelines and standards.
76. **Web Design (WDE):** At least two (2) years of satisfactory, full-time experience in web design, photo and graphics editing, user experience design, user interaction design, and information architecture design, at least one (1) year of this experience must be in responsive web design, knowledge of and experience in designing to accessibility standards (WCAG level A and AA), HTML5, and CSS3.

The above Selective Certification requirements may be met at anytime during the duration of the list. If you meet this requirement at some future date, please submit a request by email to: LMACustomerService@dcas.nyc.gov, or by mail to: DCAS Bureau of Examinations - Exam Development Group, 1 Centre Street, 14th Floor, New York, NY 10007. Please include the examination title and number, your full name, OASys Profile ID number, and the selective certification(s) you are requesting in your correspondence.

Application Receipt:

You will be emailed a receipt immediately after you have applied for the examination. If you do not receive this receipt, check "Junk", "Trash", or "Spam" folders for the primary email linked to your Online Application System (OASys) account. If you are unable to locate the email, you can view a summary of the notification email to you on your OASys Dashboard, then Notifications. If you are still unable to find the email, please email DCAS via the Contact feature available in OASys with a description of the issue and include the exam number and your profile number located on your Profile page. While on your Profile page, check that the email addresses you provided are correct and/or updated.

Promotion Test: A promotion examination for this title is being held for eligible employees. The names appearing on the promotion list will be considered first in filling vacancies.

PENALTY FOR MISREPRESENTATION:

Any intentional misrepresentation on the application or examination may result in disqualification, even after appointment, and may result in criminal prosecution.

The General Examination Regulations of the Department of Citywide Administrative Services (DCAS) apply to this examination and are part of this Notice of Examination. They are posted at nyc.gov/dcas and copies are available at the DCAS Computer-based Testing & Application Centers.

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