Rulebook for Certificate Course in Software Testing (CCST)

Admission rulebook for the candidates aspiring to join C-DAC, ACTS Certificate Course in Software Testing

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Certificate Course in Software Testing

1. Preamble

This RULE BOOK is a guide for the aspiring candidates with graduation in Science or Engineering stream to join the Certificate Course in Software Testing. It provides the details of the courses, how to apply, process of admission, selection criteria, entrance examination and its syllabus, documentations, fees, and placements.

C-DAC has designed and curated the curriculum for the software testing domains to imbibe technical skills in aspiring candidates through these courses to become experts in the IT domain.

2. About Certificate Course in Software Testing

The details of the course syllabus and objectives, educational eligibility are provided in the Annexure A.

The course requires the candidates to dedicate 6-8 hours per day for six days a week to cover the 720 hours in about six months in physical classroom and lab sessions. At the end of the course, students meeting 85% attendance and other criteria will be eligible to appear in the C-DAC's Course End Examination (CEE). Students successful in the examination will receive a C-DAC certificate.

2.1 Benefits

The selected candidates will benefit with the following:

1. Candidate will get adequate knowledge and exposure in Software Testing domain that provides solid foundations for testing, quality assurance, and security of Software Systems.
2. Candidates' active participation and completion of the Certificate course successfully will provide them with the gateway and an edge in the Testing domain to perform better in the C-DAC's Campus Placement Program (CCPP) of February 2026.

3. Who can apply for the Certificate Course in Software Testing domain?

Candidates must hold a the following degree from recognized University

1. Bachelor of Computer Application OR
2. BSc in Computer Science, IT, Electronics OR
3. Graduate in Engineering or Technology (10+2+4 or 10+3+3 years) OR
4. MSc/MS (10+2+3+2 years) in Computer Science, IT, Electronics. OR
5. MCA, MCM, OR
6. Post Graduate Degree in Physics / Mathematics / Statistics

1. The candidate must have secured 60% or above in the qualifying degree. The percentage should be as per marks obtained in the university exams and to be entered as per the university norms.

2. There is no age restriction for admission to C-DAC's Certificate course. Candidates who

have appeared for the final examination of their qualifying degree in 2025 and awaiting university examination results will be considered for admission to the Software Testing course. Policies / Rules of C-DAC ACTS regarding admission process, course delivery, and additional terms and conditions given in Annexure 'D' shall apply.

4. Training Centres and Seat Capacity

The C-DAC Certificate Course in Software Testing course will be conducted at training centres mentioned in the table below:

S.No	Name of Training Centre	City	Intake Capacity
1	ACTS, C-DAC	Pune	60
2	Astric-CoE	Patna	30
3	Bytes Softech	New Delhi	30
4	Career Foresight	Patna	30
5	Netcom	Jaipur	30
6	Soft Polynomials	Nagpur	30

5. Course Fees

The course fees for C-DAC Certificate Course in Software Testing is INR 72,000/- (Rupees Seventy Two thousand only) per candidate plus Goods and Service Tax currently @ 18% as applicable by Government of India.

6. Admission Process to Certificate Course

6.1. Application Process

a. Instructions for applicants wishing to apply to Certificate Course in Software Testing

Eligible candidates who wish to apply for Certificate Course in Software Testing course of ACTS, C-DAC, must apply using the registration link on the website. The candidate must follow the steps given to complete the application as follows.

1. Candidate must first complete the registration by providing the contact details.
2. Candidate must have selected appropriate degree, discipline, and passing marks, in the application form.
3. Thereafter, candidate needs to upload the photograph (latest) and provide the preferences of city to take the entrance. Annexure F provides the list of for Cities to choose from for the candidates to attend the Exam.
4. The candidate needs to pay a fee of INR 1000/- for the entrance examination. This fee is nonrefundable. After filling the online application form, the examination fee must be paid online. It can be paid using netbanking, UPI, and credit/debit cards through the payment gateway that will be opened upon clicking the 'Online' option of the 'Make Payment' step on the main menu of the application. Candidates are advised to follow the instructions/steps given on the payment gateway, and also print/save the transaction details for their records.

6.2. Admit Card

Candidates can download their admit card from C-DAC's website during the dates mentioned for downloading the admit card under Important Dates in the Annexure D. The venue, date and time of entrance will be communicated to the candidates on the admit card. Instructions for appearing in entrance exam will also be given on the admit card. Candidates must appear for entrance exam on the date and time at the venue specified on the admit card. If the candidate is absent or arrives late for entrance examination, no further chance will be given to candidate.

No candidate will be permitted to appear for entrance examination without a valid admit card. The admit card along with a photo identity proof must be presented to the Examination officials/invigilators for verification at the time of the test.

6.3. C-DAC's Entrance Test (CET)

Stage I: Computerised C-DAC's Entrance Test (CET):
C-DAC's Entrance Test (CET) will be conducted in computerised mode physically at C-DAC's test centres on **August 24, 2025.** Candidates who clear the CET will only be considered for admission to C-DAC's Certificate Course in Software Testing course of upcoming batch on the basis of their CET rank.
CET will be of two hours' duration. The medium of CET is English.
Each question will have four choices as possible answers of which only one will be correct. There will be +3 (plus three) marks for each correct answer, -1 (minus one) for each wrong answer, and 0 (zero) marks for each un-attempted question.

6.4. CET Ranking

Candidates will be provided ranks based on their performances in CET. The CET rank will be published in the student's login area.

6.5. Online interview (Stage II)

Shortlisted candidates will be notified of the date and time for their online interviews. Candidates selected in Stage II will receive an offer letter. The offer letter and bank loan letter will be issued to the students who wish to opt for an educational loan.

6.6. Payment of the Course Fees

The candidates must confirm the seat allocated during the Admission Process to C-DAC Certificate Course in Software Testing course by depositing the fees of INR 72,000/- Plus GST as per timeline mentioned in Important dates (Annexure C). The Course fee must be paid online. It can be paid using netbanking, UPI, and credit/debit cards through the payment gateway that will be opened upon clicking the 'Pay' button. Candidates are advised to follow the instructions/steps given on the payment gateway, and also print/save the transaction details for their records. If the candidates do not deposit the course fees on the date mentioned then the seat will be allotted to the waitlisted candidates as per the schedule mentioned in the important date.

6.7. Document Verification

The candidates allocated Certificate Course in Software Testing course through CET must undergo a document verification process physically conducted at respective training centres. The candidate must produce clear photocopies along with original documents of their government-provided Identity proof, caste, and educational certifications during the physical document verification process. Candidates who qualify after document verification will be registered for Certificate course. Candidates should ensure that they meet the eligibility criteria of the course for which they are applying. It shall be incumbent upon candidates to prove they meet the prescribed eligibility criteria at the time of taking admission at ACTS training centre. Issuance of Admit Card and/or CET rank does not automatically entitle a candidate to admission. **In case a candidate is found to be non-eligible during any stage of the admission process or course delivery, the admission will be cancelled with immediate effect.**

7. Certificate Course in Software Testing Training

The candidates will join the C-DAC ACTS Pune to pursue the Certificate Course in Software Testing training as per the scheduled commencement on **September 18, 2025**.

The students have to attend the Certificate course physically at the ACTS training centre and must mark their attendance regularly with a minimum of 85% attendance to take the maximum benefit of the theory and practical sessions conducted by the training centre. The student must inform the Course Coordinator for any absence without fail. Students must adhere to general decorum, rules, do's and don'ts, and any prescribed rules and regulation by C-DAC from time to time. The students must make their own arrangements of stay and food during their stay.

8. C-DAC Course End Examination (CEE)

The C-DAC Certificate Course in Software Testing students on completion of the training and having a minimum of 85% attendance will be allowed to attend the C-DAC's Course End Examination (CEE) as per the schedule. The CEE results will be declared for all the students and certificates will be issued to the students successful in the examination. Policies/Rules of C-DAC ACTS in this regard shall apply.

9. C-DAC Campus Placement Programme (CPP)

Students who qualify the CEE and successfully complete the Certificate course will be allowed to participate in the C-DAC Campus Placement Programme (CPP). Policies/Rules of C-DAC ACTS in this regard shall apply.

10. Refund Policy

The course fee is refunded to the students if the students wish to withdraw from the admission process. The students have to submit the withdrawal form with the reason for withdrawing from the CCST course and approval from the parents / guardians. The form has to be submitted in ORIGINAL to the Course Coordinator. The fees will be refunded to the student's bank account as provided in the withdrawal form. The 50% of the course fees will be refunded to students who withdraw within 30 days of the course commencement. No fees will be refunded after 30 days of the start of the course.

Annexure A: Certificate Course in Software Testing course details

Course Focus:

A Certificate Course in Software Testing primarily aims to equip students with the essential skills and knowledge to assess and validate software applications. This ensures that they meet the required standards for functionality, reliability, and performance. They will gain hands-on experience with industry-standard testing tools like Selenium and frameworks, understand testing methodologies and life cycles, and apply best practices for performance, and usability testing.

Educational Eligibility Criteria:

The candidate with any one of the following educational qualification mentioned below and meet the passing percentage in qualifying degree:

1. Bachelor of Computer Application OR
2. BSc in Computer Science, IT, Electronics OR
3. Graduate in Engineering or Technology (10+2+4 or 10+3+3 years) OR
4. MSc/MS (10+2+3+2 years) in Computer Science, IT, Electronics. OR
5. MCA, MCM, OR
6. Post Graduate Degree in Physics / Mathematics / Statistics

The candidate must have secured 60% or above in the qualifying degree. The degree must be from recognized University.

Pre-requisites:

The candidate should have sound knowledge of Fundamentals of Programming, C programming, and basics of Linux.

Admission Process:

Admission will be through C-DAC CET.

Course Modules:

Sr. No.	Name of the Module	No. of Hours
1.	Operating System and Software Engineering Concepts	60
2.	Programming Concepts	120
3.	Fundamentals of Testing	90
4.	Mobile and Desktop Testing	60
5.	Automation Testing Frameworks	120
6.	Selenium: Basics and Beyond	60
7.	Software Quality Assurance and Latest Industry Trends	60
8.	Aptitude and Effective Communication	90
8.	Project	90
Total Hours		**720**

Course Contents:

Operating System and Software Engineering Concepts (60 Hrs)

Concepts of Operating Systems:
Introduction to OS, Introduction to Linux, Shell Scripting - Basic Commands, Loops, Functions, Working with directories, Curl Commands, Process Management.

Software Development Methodologies:
Software Engineering, Software Testing Life Cycle (STLC), STLC Phases, Software Development Life Cycle (SDLC), Software Engineering Models, Requirements Engineering, Object Oriented Analysis and Design, Source Code Review and Best Practices, Agile development model, Agile Terminologies, Tools for Agile Development, Coding Conventions, Client Server and MVC Model, Introduction to Micro Services Architecture, API Fundamentals.

Programming Concepts (120 Hrs)

Database Commands: DDL, DML, DCL, ACID properties, Transactions, Stored procedures, Triggers.

Python:
Setup with Python, Variable & Types, Python Operators, Conditional Statements and Loops, List and Tuples, Dictionaries and Sets, Modules and Functions in Python, Object Oriented Programming (OOP), Packages in Python (numpy and pandas), Database integration in Python.

Java:
Introduction to Java, JVM Architecture, Primitive Data Types, Conditional Statements and Loops, Object Oriented Programming Concepts, Interfaces, Arrays, Types of Classes, Wrapper Classes and String Class, Exception Handling, Object Class, Packages, Introduction to Collections, JDBC, Writing JUnit Test Cases.

Web Technologies:
Basics of HTML and CSS, Introduction to JS, Data Types, Operators, Conditional Statements, Loops, Array, Objects, Functions, DOM manipulation, xPath and CSS Selectors, Inspecting Web Elements, Introduction to Test Framework, Introduction to TS, ES6 features with TypeScript, Classes, Namespaces and modules, Interfaces, Generics, Decorators, Integration with libraries.

Fundamentals of Testing (90 Hrs)
Introduction to Testing, Need of Testing, Categories of Testing, Functional Testing (Smoke Testing, Unit Testing, System Testing, Integration Testing, Sanity Testing, Regression Testing, Globalization and Localization Testing and User Acceptance Testing), Non-Functional Testing (Compatibility Testing, Performance Testing,

Security Testing, Usability Testing, Scalability Testing and Ad-Hoc Testing), Challenges in Testing, Testing Terminologies (Bug v/s Defect, Severity, Priority, Defect Life Cycle, Verification and Validation, Assertion and Checkpoint), Components of Testing - Test Plans, Test Case Design and Test Documentation, Need of Automation, Code Review and Static Code Analysis.

Introduction to DevOps and CI/CD:
Introduction to Git, Task Tracking and Ticketing System, Introduction to CI/CD, Containerization and Orchestration.

Mobile and Desktop Testing (60 Hrs)
Introduction to Mobile Testing, Types of Mobile Testing, Appium (Features, Internal Architecture, Touch Actions and Gestures, Web Application Testing, Appium on iOS), Basics of TestNG and TestNG Framework, Introduction to Cucumber, POM Framework.
Introduction to Desktop Testing, Types of Desktop Testing, UI Testing and Performance Testing Tools.

Automation Testing Frameworks (120 Hrs)
Automation Basics, Categories of Automation Testing (Data-Driven, Keyword-Driven, Hybrid and BDD), Introduction to Selenium, Selenium Web Driver and Page Factory, Introduction to Performance Testing using Apache JMeter, DB Testing, API Testing using Postman and Swagger and Curl, NodeJS Assertion using Chai and Mocha, Cross Browser Testing, Basics of Security Testing (Terminologies and Compliance Testing), Test Management with TestLink, Code Quality Analysis using SonarQube, Understanding Memory Profiling using OWASP.
Implementation of CI/CD with Docker, Jenkins and Kubernetes.

Selenium: Basics and Beyond (60 Hrs)
Develop Full-Stack Test Automation Framework, Implement Data Driven Test Framework, Page Object Model, Automating Test cases with Selenium, Selenium WebDriver Techniques (Introduction, Create Selenese Commands, Add interactions, Runners, Libraries for logging , reporting and failed test re-runs, use Record/Playback Tools, repurpose Selenium tests to be load and Performance tests, repurpose Selenium tests to be production service monitors, analyze the Selenium test logged results to identify functional issues and performance bottlenecks, Debugging selenium tests, using Selenium in Agile Software Development, Run Selenium, Capturing JS console errors), Parallel Testing- Introduction to Selenium RC and Selenium Grid, Selenium and Database Integration, CI/CD Integration using Selenium.

Software Quality Assurance and Latest Industry Trends (60 Hrs)
Software Quality Assurance:
Introduction to SQA, Elements, Activities, QA v/s QC, Introduction to QMS.

Latest Industry Trends:
Cloud Based Testing, Introduction to Large Language Model (LLM), Retrieval-Augmented Generation (RAG), Shift Left and Shift Right Strategies, Introduction to GenAI and its applications in QA, Prompt Engineering for Testers, Agentic Workflow, Low Code No Code Tools.

Aptitude & Effective Communication((90 Hrs)
Aptitude (40 Hrs)
Percentage, Profit & Loss, Ratio & Proportion, Average, Mixture & Allegation, Simple Interest & Compound Interest, Number Systems, Series, Cyclicity & Remainders, Data Interpretation, Syllogism, Coding & Decoding, Blood Relations, Seating Arrangements (Linear & Circular), Ages, Puzzles, Time, Speed & Distance, Trains, Boats & Streams, Time & Work, Wages (Man days), Pipes & Cisterns, Clocks, Permutations & Combinations, Probability, Calendar

Effective Communication(50 Hrs)
Fundamentals of Communication, The Art of Communication, Personality Development, English Grammar, Correct Usage of English, Common mistakes in English Communication, Listening Skills, Reading Skills, Writing Skills, Public Speaking, Presentation Skills, Group Discussions, Interpersonal skills, Personal Interviews

Project (90 Hrs)
Phase 1: Requirement Gathering, Project ideas and Designing execution plan
Phase 2: Mini Project on Manual Testing after completion of half course.
Phase 3: Major Project on Automation Testing at course end.
*Each Module includes a related case study to study real world scenarios and develop critical thinking ability skills.

Annexure B: Syllabus of CET

S.No	Topics	Sub Topics
1.	General English	Reading Comprehension, Spell Checking and Sentence Correction, Synonyms and Antonyms, Idioms and Phrases, One Word Substitution, Fill in Blanks (Conjunction, Preposition, Tenses, etc), Rearrangement of sentences and Para Jumbles, Spotting errors, Direct and Indirect Speech.
2.	Quantitative Aptitude	Divisibility rules, Number properties (Even, Odd, Prime, Composite, etc.), LCM (Least Common Multiple) and HCF (Highest Common Factor), Powers and roots, Fractions and Decimals, Average, Percentage, Ratio and Proportion, Probability, Simple and Compound Interest, Profit and Loss, Time and Work, Speed, Time and Distance, Sequence and Series, Permutations and Combinations, Mixture and Allegation, Pipes and Cisterns, Clocks and Calendar.
3.	Computer Basics	Basic Computer Organization, Software and it's types, Decimal to Binary System Conversion, Boolean Algebra and Logic Circuits, Operating System Basics (Types, Functions, Process Table and Control Block, States of process, Process Scheduling) , Processor and memory, Secondary Storage, Computer Networking (Types, Network Topology, Internet), Computer Security Basics (virus, malware, worms)
4.	Programming Fundamentals	Algorithm and Flowchart, Language Processors, Data Types, Conditional Statements, Control Flow Statements, Pseudo Codes .

General Book to refer:
General English:
- Any High School Grammar Book (e.g. Wren & Martin)

Quantitative Aptitude
- Quantitative Aptitude Fully Solved (R. S. Aggrawal) Quantitative Aptitude (M Tyara)

Computer Fundamentals
- Operating System Principles (Silberschatz, Galvin, Gagne) Data Communication & Networking (Forouzan)
- Operating System Principles By Silberschatz, Galvin, Gagne

Stage II: Online Interviews: Students will be evaluated on basis of following parameters:
- Communication Skills
- Willingness for the course
- Aptitude skills
- Fundamentals of Computers

Annexure C: Important Dates

No.	Event	Date
a	Beginning of Online Registration and Application for CCST CET	25 July, 2025
b	**Closing of Online CCST CET Registration & Application**	**21 August, 2025** **5:00 PM (Thursday)**
c	Downloading of CCST CET Admit Cards	22 August, 2025 (Friday)
d	**CCST C-DAC's Entrance Test (CET) at the Test Centres**	**24 August, 2025**
e	Announcement of CCST CET Ranks and List for Stage II (Online interviews)	29 August, 2025
f	Stage II: Online interview	01-02 September, 2025
g	Issue of the Offer letter and bank loan letters	04 September, 2025
h	**Payment of the Course Fees (Rs. 72,000 +GST) for candidates**	04 to 14 September, 2025
I	**The waitlisted candidates list released on candidates' login**	15 September, 2025
j	**Payment of the Course Fees (Rs. 72,000 + GST) for waitlisted candidates**	15 & 16 September, 2025
k	Registration of Students for Document Verification	17 September, 2025 (Wednesday)
l	**Start of Certificate Course in Software Testing**	**18 September, 2025 (Thursday)**
m	**End of Certificate Course in Software Testing**	**24 January, 2026**

Annexure D: Additional Terms & Conditions

(a) Candidate agrees that the information provided by them during application/ admission/ course through forms, emails, or other means are correct. Candidate/ student allows C-DAC to use the information provided by them for its own purposes, to the extent allowed by applicable laws, and contact them for communication through notification on its websites, emails, or SMS.

(b) The city preferences for CET will be taken into consideration for allotting test centres, C-DAC may allot any city or centre for operational and practical reasons at its own discretion.

(c) Candidate/student agrees to provide reasonable additional information including, but not limited to, identification, fingerprint, audio / video surveillance, etc. for conduction or proctoring of physical or online examination for admission or course progression.

(d) C-DAC reserves the right to modify or cancel any parts of the Admission Rule-book, processes and results including, but not limited to, exams, mode of exams, question papers, announced dates, courses, syllabus, cities, centres, intake capacities, ranks, seat allocation, candidatures, admissions, etc. as it deems fit, partly or wholly, at any stage without assigning any reasons thereof.

(e) Application to the courses by candidates and/or admission in any of the courses by students shall indicate their acceptance of all Terms & Conditions, Conduct Rules, Dos & Don'ts, etc. as may be prescribed by C-DAC from time to time. C-DAC shall have the right to impose appropriate disciplinary and other penalties for violation of prescribed terms and rules, including cancellation of candidature, admission, placements, and/or award of certificate.

(f) In case a candidate is found to be non-eligible during any stage of the admission process or course delivery, his/her admission will stand cancelled with immediate effect and he/she will be subjected to the forfeiture of the caution deposit.

(g) Use of any unfair means, coercion, inducement, violent, indecent, disorderly, threatening, or offensive behaviour or language by way of gesture, voice, writing, symbols, etc. shall constitute ground for suspension/expulsion from CET and/or course, or debarment from joining/attending C-DAC examination(s) and/or course(s) in future. Decision of C-DAC in this regard shall be final and binding. Such students may be subjected to the forfeiture of the caution deposit.

(h) All communication from candidates must be made only to the email addresses and phone numbers given in relevant sections of this Admission Rule-book. **Sending emails or phone calling or messaging directly to officials of C-DAC or ATCs is prohibited.**

(i) All decisions of C-DAC with regards to the admission provisions, processes and results shall be final and binding on all candidates/students.

Annexure E: Flowchart

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              ┌────────────────────────────────────┐
              │  Registration & Application Form    │
              │  filling for CET (C-DAC's Entrance  │
              │  Test)                              │
              └────────────────────────────────────┘
                                 │
                                 ▼
                         ◇ Stage-I CET ◇ ──── No ────┐
                         ◇  Qualified  ◇              │
                                 │                     │
                                Yes                    │
                                 ▼                     ▼
                    ◇ Stage II – Interview ◇ ── No ──► ┌──────────────────────┐
                    ◇      Qualified       ◇           │ Disqualify for       │
                                 │                     │ Certificate Course   │
                                Yes                    └──────────────────────┘
                                 ▼                     ▲
                       ◇ Payment of ◇ ──── No ─────────┤
                       ◇ Course Fees ◇                 │
                                 │                     │
                                Yes                    │
                                 ▼                     │
              ┌────────────────────────────┐          │
              │  Document Verification      │          │
              │  Complete                   │          │
              └────────────────────────────┘          │
                                 │                     │
                                 ▼                     │
              ┌────────────────────────────┐          │
              │  Certificate Course         │          │
              │  Conduction                 │          │
              └────────────────────────────┘          │
                                 │                     │
                                 ▼                     │
                       ◇ Attendance ◇ ──── No ─────────┘
                       ◇   > 85%    ◇
                                 │
                                Yes
                                 ▼
              ┌────────────────────────────┐
              │  C-DAC Course End           │
              │  Examination (CEE)          │
              └────────────────────────────┘
                                 │
                                 ▼
              ┌────────────────────────────┐
              │ C-DAC Campus Placement      │
              │ Programme                   │
              └────────────────────────────┘
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                              ( End )
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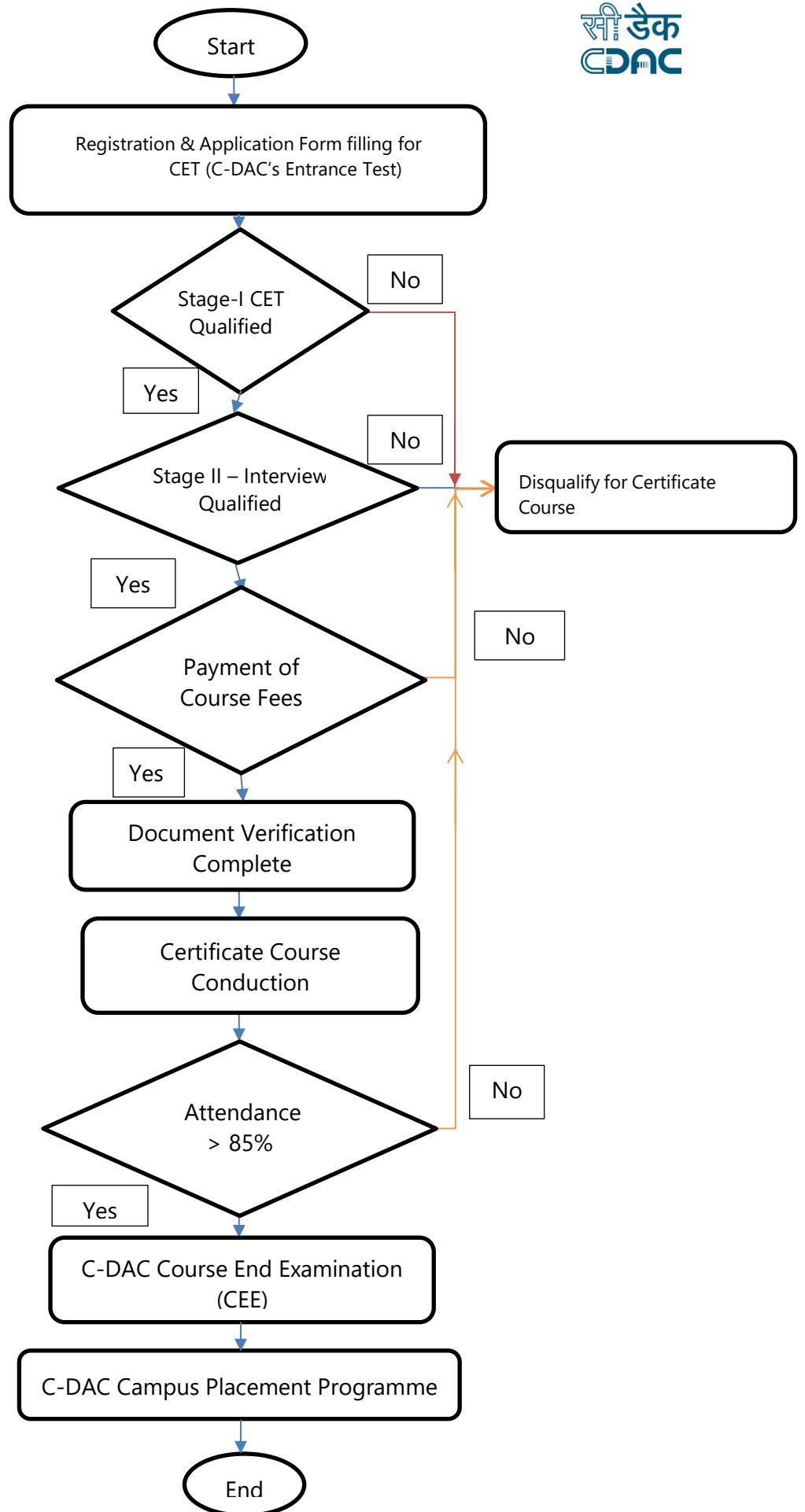
Annexure F: Exam Cities

The cities where the exam will be conducted is as follows:

- Indore
- Jaipur
- Nagpur
- New Delhi
- Pune
- Patna

The Centre will be allocated to students for the CET as per availability. If the Centre is full, then the alternate Centre will be assigned to the candidates for CET.