

Screened-in Candidates with Institute Fellowship (PHD IT Regular)

Sr. No.	Application ID	Name
1	623098871008	Anil Anil Lokare
2	623073971002	Sandeep Kumar Rao
3	623099671007	Leetesh Meena
4	623080081001	Kamal .
5	623061871007	Shaswata Kirtania
6	623011871002	Prashant Kumar Choudhary
7	623051081008	Rahul Kumar
8	623071771007	Mayukh Chakravorty
9	623027971001	Shivani Tripathi
10	623064081003	Ilina Sinha
11	623093081005	Mohan Bharath Bommisetty
12	623083081004	Harshvardhan Kumar
13	623074081004	Rishikesh Rishikesh
14	623076671002	Siddhant Khanna
15	623069871006	Sachin Sahu
16	623010081003	Suraj Kumar
17	623005771004	Deeksha Tripathi
18	623016771006	Arkabrato Chakraborty
19	623039971004	Shubham Pandey
20	623009871009	Arindam Ghosh
21	623070971008	Arkaprabha Basu
22	623095671003	Noopur Srivastava
23	623081871009	Iqra Mir
24	623004081006	Reenu Rajpoot
25	623020081004	Pranjali Singh
26	623035671006	Neeraj Baghel
27	623073081003	Ashok Yadav
28	623075871003	Durgesh Nandani
29	623098671006	Mangesh Tulshiram Matke

Screened-in Candidates without Institute Fellowship (PHD IT Regular)

Sr. No.	Application ID	Name
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1	623062081001	Amit Kumar Singh
2	623007671005	Venkataraman Kandaswamy
3	623033081008	Pramod Prakash
4	623063971001	Shashikant Sharma
5	623023771004	Anshu Singh
6	623084871003	Richa Kesharwani
7	623094771003	Ritesh Chandra
8	623033871006	Aswin P
9	623067771003	Rajeev Kumar Tripathi
10	623063081002	Harsh Vazirani
11	623048971004	Kumkum Dubey
12	623050871005	Nitu Kumari
13	623060081008	Som Banerjee
14	623007771006	Anupam Jain
15	623034081009	Sonal Agarwal
16	623078871006	Arpan Kumar
17	623046771009	Swati Saha
18	623023081007	Sujata Kumari
19	623025971008	Shwetank Anand
20	623037671008	Amit Kumar Singh
21	623054081002	Siva Nanda
22	623097771006	Mamta Kumari
23	623003081005	Bibek Sutradhar
24	623032871005	Rohit Kumar
25	623024081008	Rashika Bagri
26	623063771008	Sanjay Kumar Sonkar

Note:

- Date of written test /programming test (online) is scheduled on 17th July, 2021 (11.00 AM onwards).
- Test link shall be sent before the test to the candidate email ID.
- The candidate will require a stable internet connection, a working camera, pen and rough paper.
- The institute will not be responsible if a candidate cannot take the test due to a lack of stable internet.
- You will not be allowed to collaborate with friends, family members etc. during the test.
- If during the test or during the interview, at any point, it is discovered by the committee that portion of answer were taken by any un-authorized sources or were solved in collaboration with anyone the application shall be rejected outright.

Syllabus of Programming and theory Test

- **Discrete Mathematics:** Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Groups. Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions.
- **Computer Organization and Architecture** Machine instructions and addressing modes. ALU, data-path and control unit. Instruction pipelining. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode)
- **Programming and Data Structures** Programming in C. Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs.
- **Algorithms** Searching, sorting,
- **Theory of Computation** Regular expressions and finite automata. Context-free grammars and push-down automata. Regular and context-free languages, pumping lemma. Turing machines and undecidability.
- **Compiler Design** Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation.
- **Operating System** Processes, threads, inter-process communication, concurrency and synchronization. Deadlock. CPU scheduling. Memory management and virtual memory. File systems.
- **Databases** ER-model. Relational model: relational algebra, tuple calculus, SQL. Integrity constraints, normal forms. File organization, indexing (e.g., B and B+ trees). Transactions and concurrency control.
- **Computer Networks** Concept of layering. LAN technologies (Ethernet). Flow and error control techniques, switching. IPv4/IPv6, routers and routing algorithms (distance vector, link state). TCP/UDP and sockets, congestion control. Application layer protocols (DNS, SMTP, POP, FTP, HTTP). Basics of Wi-Fi. Network security: authentication, basics of public key and private key cryptography, digital signatures and certificates, firewalls