

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 4561
ANSWERED ON 20/08/2025**

QUANTUM COMPUTING

4561. DR. RABINDRA NARAYAN BEHERA:

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) the present status of working on Quantum Computing in the Government sector in light of the fact that the world is moving fast on Quantum Computing and this is a phase shift from present generation computing to next generation computing and leading countries in the World are working more and more on Quantum Computing;**
- (b) the details of the Government plan for Quantum Computing;**
- (c) the details of the agencies working on Quantum computing in the country both in Government and Private sector; and**
- (d) the time by which the country would be eReadyness for Quantum Computing?**

ANSWER

**MINISTER OF STATE (INDEPENDENT CHARGE) OF THE
MINISTRY OF SCIENCE AND TECHNOLOGY AND EARTH SCIENCES
(DR. JITENDRA SINGH)**

विज्ञान और प्रौद्योगिकी तथा पृथ्वी विज्ञान मंत्रालय के राज्य मंत्री (स्वतंत्र प्रभार)
(डॉ. जितेंद्र सिंह)

(a) to (c): The Department of Science and Technology (DST), Government of India is implementing the National Quantum Mission (NQM) with an outlay of ₹6003.65 crore for a period of eight years. Under the Mission, four Thematic Hubs (T-Hubs) are established in financial year 2024-25, each focusing on a specific domain of quantum technologies—namely Quantum Computing, Quantum Communication, Quantum Sensing & Metrology, and Quantum Materials & Devices. The Quantum Computing T-Hub is set up at the Indian Institute of Science (IISc), Bengaluru, comprising six Technical Groups involving 30 researchers and 21 institutions across India, from both the government and private sectors. Under the technology vertical of Quantum Computing, DST has supported research projects aimed at building indigenous capabilities in various platforms such as superconducting qubits -Tata Institute of Fundamental Research (TIFR),

Mumbai, neutral atoms -Raman Research Institute, Bengaluru, trapped ions-Indian Institute of Science Education & Research, Pune, semiconducting qubits-Indian Institute of Technology, Bombay, and photonic technology -Indian Institute of Science, Bengaluru. These projects address core challenges such as qubit design and control, error correction, and scaling, fostering homegrown solutions and driving innovation in this emerging field. Under the Quantum Enabled Science & Technology programme of DST, TIFR Mumbai has characterized a 3-qubit system in 2D architecture and 4-qubit system in 3D architecture. DST has also supported three startups in the area of Quantum Computing. One of these startups has developed a Quantum Computer with 25-Qubit Quantum Processor based on Superconducting Qubit technology. The detailed list of agencies working on Quantum Computing in the Government and Private Sectors is placed at Annexure I.

TIFR Mumbai, Department of Atomic Energy in collaboration with Defense Research and Development Organization has carried out end to end testing of a 6-qubit quantum computer featuring an indigenous Quantum Processor Unit.

(d) The Government of India approved NQM for a period of eight years. However, the implementation of NQM broadly has three timelines, i.e. 3 years, 5 years and 8 years. Key deliverable of the mission in the area of Quantum Computing includes development of intermediate scale quantum computers with 20-50 physical qubits, 50-100 physical qubits and 50-1000 physical qubits in 3 years, 5 years and 8 years, respectively. DST has launched a Call for Proposals to support research in quantum algorithms to unlock the potential of quantum computing by enabling practical, scalable, and impactful algorithmic solutions. DST has also issued a rolling call for supporting startups in the area of Quantum Computing.

List of Agencies working on Quantum Computing

S. No.	Institutions	Government/ Private
1.	Indian Institute of Technology, Kanpur	Government
2.	Indian Institute of Technology, Roorkee	Government
3.	Indian Institute of Technology, Ropar	Government
4.	Indian Institute of Technology, Delhi	Government
5.	Indian Institute of Technology, Guwahati	Government
6.	Indian Institute of Technology, Patna	Government
7.	Indian Institute of Technology, Bombay	Government
8.	Indian Institute of Technology, Madras	Government
9.	Indian Institute of Technology, Indore	Government
10.	Society for Electronic Transactions and Security, Chennai	Government
11.	Centre for Development of Advanced Computing, Bangalore	Government
12.	Raman Research Institute, Bengaluru	Government
13.	Indian Institute of Science Education and Research, Pune	Government
14.	National Institute of Science Education and Research, Bhubaneswar	Government
15.	Indian Institute of Science, Bangalore	Government
16.	Tata Institute of Fundamental Research, Mumbai	Government
17.	Tata Institute of Fundamental Research, Hyderabad	Government
18.	Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru	Government
19.	Indian Institute of Science Education and Research, Thiruvananthapuram	Government
20.	Birla Institute of Technology and Science Pilani, Hyderabad Campus	Private
21.	Jaypee Institute of Information Technology, Noida	Private
22.	QPil India Pvt. Ltd.	Private
23.	Dimira Technologies Pvt. Ltd.	Private
24.	Prenishq Pvt. Ltd.	Private