# GOVERNMENT OF INDIA MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY LOK SABHA

### UNSTARRED QUESTION No. 1883 TO BE ANSWERED ON 30/07/2021

#### NATIONAL MISSION ON QUANTUM COMPUTING

## 1883. SHRI RANJEETSINGH HINDURAO NAIK NIMBALKAR: SHRI P.P. CHAUDHARY: SHRI ARJUN LAL MEENA:

Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री be pleased to state:

- (a) the objectives, features and the goals set under the National Mission on Quantum Computing (NMQC) announced by the Government in 2020;
- (b) whether the NMQC is being implemented in Public-Private-Partnership (PPP) mode and if so, the names and details of the private sector partners identified and engaged for the said purpose;
- (c) whether individuals, corporates or any other organizations have been engaged as consultants for the NMQC and if so, the details of such contracts entered into and the specifications therefor; and
- (d) the total amount of funds allocated, disbursed and utilized for the NMQC for the FY 2020-21, along with the outcome of utilization of the said budgetary allocation?

#### ANSWER

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

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

(a) Government announced the National Mission on Quantum Technologies & Applications (NM-QTA) in 2020. Following were the objectives and goals of NM-QTA:

- i. Major Objectives and features:
  - 1. To promote research & development
- 2. To develop and demonstrate Quantum Computers, Quantum Communication, Quantum Key Distribution (QKD) and Quantum Devices.
- 3. To promote human resource development, strengthening international collaborative research and nurture innovation and startups.

#### ii. Goals:

To develop a 50-qubit quantum processor, development of new algorithms for quantum simulators and small scale quantum information processors and writing software implementations of the same, Satellite based QKD link with a range of about 1000 km, Superconducting single photon detectors, High temperature photonic memory, High sensitivity atomic and Nitrogen Vacancy based magnetometers and quantum technologies based on novel quantum materials.

- (b) While the Mission implementation plan had defined the modalities for Public Private Partnership (PPP) mode, identification of private sector partners has not been carried out as the Mission has not been approved.
- (c) No Sir.
- (d) In FY 2020-21, no funds were allocated, disbursed or utilized under NM-QTA.

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