## GOVERNMENT OF INDIA DEPARTMENT OF SPACE

#### **LOK SABHA**

# UNSTARRED QUESTION NO. 1138 TO BE ANSWERED ON WEDNESDAY, FEBRUARY 08, 2023

#### INSTITUTIONS FOR SPACE SCIENCE

### 1138. SHRI RAMESH BIDHURI:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government has taken any steps for development of space science, space research and satellite technology in the country;
- (b) if so, the details thereof;
- (c) Whether any new institution has been established for space science in the country;
- (d) if so, the details thereof; and
- (e) the details of achievements space science during the last five years?

#### **ANSWER**

MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND IN THE PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH):

\*\*\*

(a) & (b)

Yes, the Government has taken various steps for the development of space science, space research and satellite technology in the country through:

- i. Realization of planetary and astronomy missions namely Chandrayaan-1 & 2, AstroSat, Mars Orbiter Mission providing space platforms for carrying out scientific observations.
- ii. Data from the aforementioned missions are available for scientific community through Indian Space Science Data Centre portal.
- iii. Upcoming missions like Aditya-L1, XPoSat, Chandrayaan-3 for further scientific research.
- iv. Ground facilities for carrying out optical observations of planets and stars.
- v. Providing funding support in devising space science curriculum and sensor / payload development at universities as well as research institutes for promotion of space science research.
- vi. Development of technologies for deep space missions, in-situ scientific experiments, sensors and soft landings.

(c), (d) & (e)

The details of achievements of space science, during the last five years, are as follows:

i. Planetary missions have provided scientific insights of the surface, sub-surface and exo-sphere of the Moon, including detection of

- water molecules on the lunar surface, elemental mapping of the lunar exosphere and physics of the solar flares.
- ii. The AstroSat mission has solved the mystery of a cosmic source which is bright in both infrared and Ultraviolet, providing better understanding of various astrophysical processes through simultaneous multi-wavelength observations.

AstroSat data has resulted in the publication of more than 750 articles and 12 Ph.D theses.

iii. Discovery of an exo-planet located at a distance of 750 light years through optical observations.

\*\*\*