

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

**LOK SABHA
UNSTARRED QUESTION NO.502**

TO BE ANSWERED ON WEDNESDAY, FEBRUARY 06, 2019

HUMAN SPACE MISSION

502. SHRI T. RADHAKRISHNAN:

SHRI S. RAJENDRAN:

SHRI S.R. VIJAYAKUMAR:

SHRI GAJANAN KIRTIKAR:

KUNWAR HARIBANSH SINGH:

SHRI SUDHEER GUPTA:

Will the PRIME MINISTER be pleased to state:

- (a) the present status of India's flagship human space mission programme – Gaganyaan;**
- (b) whether the Indian Space Research Organisation (ISRO) has announced to send Indian astronauts to space;**
- (c) if so, the details thereof and the number of astronauts shortlisted for this purpose and the total funds required for the project;**
- (d) whether ISRO has undertaken the development of critical technologies relevant for manned space mission and if so, the details thereof; and**
- (e) the other programmes announced by ISRO for the current year?**

ANSWER

**MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG &
PENSIONS AND IN THE PRIME MINISTER'S OFFICE**

(DR. JITENDRA SINGH):

- (a) After the approval of Gaganyaan Programme by the Government of India:**
- (i) A new centre in ISRO, namely Human Space Flight Centre (HSFC) has been formed to carry out the activities for human spaceflight demonstration. Gaganyaan programme is made a part of HSFC.**
 - (ii) The Gaganyaan programme team has been constituted.**
 - (iii) System concept review of various systems for Gaganyaan is nearing completion. Design verification for human rating of GSLV-MkIII is completed and external configuration of crew module is finalized.**
- (b) Gaganyaan programme envisages sending a maximum of three Indian astronauts to space.**
- (c) The astronaut selection procedure is being finalized and thereafter astronauts will be shortlisted. Total fund approved for Gaganyaan programme is within ₹ 10000 crores.**
- (d) Yes, ISRO undertook the development of critical technologies before formal programme approval such as Crew Module (CM) systems, Environmental Control & Life Support System (ECLSS), and Crew Escape System (CES). The Crew module configuration was flight tested in the experimental mission of GSLV MkIII on December 18, 2014 and, the re-entry characteristics and the recovery of the Crew Module were successfully demonstrated. Pad Abort Test was carried out successfully on July 5, 2018 to demonstrate the Crew Escape System during any exigency at launch pad.**
- (e) Remote Sensing, Communication and Science satellites will be the other programmes of ISRO in the current year.**
