

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND IN THE DEPARTMENTS OF OCEAN DEVELOPMENT; ATOMIC ENERGY, SPACE AND ELECTRONICS (SHRI SHIVRAJ PATIL): (a) Laser research is being carried out in India for the past two decades in major institutions, such as, Bhabha Atomic Research Centre (BARC), National Laboratories of CSIR, Indian Institutes of Technology, Indian Institute of Science etc. Bhabha Atomic Research Centre has fabricated a laser capable of giving a million M.W. of pulsed power. The know-how of Carbon-dioxide laser has been transferred to a public sector undertaking. Several solid state lasers, Nitrogen lasers and Carbon-dioxide lasers have been supplied by BARC for scientific research to laboratories in India and abroad. CSIR laboratories have developed He-Ne Laser, Iodine Stabilised He-Ne Laser and Zeeman split stabilised laser. Laser research has been recognised by the Department of Science & Technology as a major thrust areas during the Sixth Five Year Plan. The Department has provided financial support for laser research and development in Universities, IITs. and other scientific laboratories. The research projects supported by DST include laser holography; laser systems for isotopic separation and study of atomic and molecular phenomena including spectroscopy; new laser systems for fluorescence studies and photo-chemical studies for application in chemistry, in biology; high resolution laser spectroscopy and multiphonon processes.

(b) and (c) Electronics Corporation of India Ltd., (ECIL), Hyderabad (a public sector undertaking) has marketed Helium-Neon Gas Lasers for several years. Another public sector undertaking viz. Central Electronics Limited (CEL) has also produced and supplied to users, primarily in research laboratories, nitrogen lasers and pumped tuneable dye lasers,

CO₂ lasers. The CEL is engaged in the development of Argon ion lasers, and CO₂ lasers for application in material processing in industry and in medicine. Some of the important industrial applications are for precision material processing, such as, welding, cutting, drilling etc. BARC has supplied to a private sector firm a laser capable of precision welding and BARC also undertakes precision cutting of brittle plastic for nuclear detectors. Standardisation and calibration of length and frequency using Zeeman split and Iodine stabilised lasers provide important support to industry.

Setting up of electronic units

352. SHRI VITHALRAO MADHAV-RAO JADHAV: Will the PRIME MINISTER be pleased to state:

(a) whether Government propose to set up electronic industrial units in various parts of the country; and

(b) if so, what are the priorities fixed for the setting up of these units?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND IN THE DEPARTMENTS OF OCEAN DEVELOPMENT; ATOMIC ENERGY, SPACE AND ELECTRONICS (SHRI SHIVRAJ PATIL): (a) Electronic Industrial Units have been/are being set up in various parts of the country.

(b) Government is drawing up Seventh Plan for electronics in the country and is modifying its policy so as to encourage private industry to play an important role in setting up industries in this field. Several State Governments have also set up State Electronic Development Corporations and would also be seeking participation of private industry to form joint sector companies with 10 to 26% equity holding or to set up these in state sector. Central Government will set up units to take care of strategic and critical requirements of electronic industries and of areas not being taken care of by the above two sectors.