

(b) About 140 units have been approved for the manufacture of computers including mini/micro processor based systems both in the organised and small scale sectors.

(c) The total annual production of computers during the year 1983 has been about Rs. 78 crores.

#### Development of Solar Industrial Process Heater

549. SHRI K. LAKKAPPA : Will the PRIME MINISTER be pleased to state :

(a) whether the scientists of the National Physical Laboratory have recently developed a solar industrial process heater ;

(b) if so, the main features of the solar industrial process heater ; and

(c) to what extent and in what way the solar industrial process heaters would be conducive for industries ?

THE MINISTER OF STATE IN THE DEPARTMENTS OF SCIENCE AND TECHNOLOGY, ATOMIC ENERGY, SPACE, ELECTRONICS AND OCEAN DEVELOPMENT (SHRI SHIVRAJ V. PATIL) : (a) Yes, Sir.

(b) The main features of the solar industrial process heater are :

(i) The heater has been designed to provide peak 10 KW (in the form of heat) for industrial process heat application at working temperature in the range of 150-200°C.

(ii) It has a self tracking system to track the sun.

(c) The solar heater designed by National Physical Laboratory (NPL) will be able to supplement heating of water by conventional heaters using oil, gas, coal

or electricity and will lead to savings in such non-renewable sources of energy.

#### Foreign Collaboration for National Silicon Facility

550 PROF. RUP CHAND PAL : Will the PRIME MINISTER be pleased to state :

(a) whether Department of Electronics have decided to collaborate with Dow Corning Chemicals of US for the 200 tonnes National Silicon facility ; and

(b) if so, the details thereof ?

THE DEPUTY MINISTER IN THE DEPARTMENT OF ELECTRONICS AND IN THE MINISTRY OF FOOD AND CIVIL SUPPLIES (DR. M. S. SANJEEVI RAO) : (a) and (b) Yes, Sir. The Department of Electronics has concluded a technical collaboration agreement with M/s Hemlock Semiconductor Corporation, Michigan, USA a subsidiary of Dow Corning Corporation Michigan, USA for the 200-tonne/annum capacity polysilicon plant of the National Silicon Facility. The collaboration agreement is to run for a period of 8 years. It involves *inter-alia* supply by Hemlock of process know-how and basic engineering Detailed engineering of the plant, procurement and installation of equipment and all activities relating to construction of technical buildings, setting up of utilities etc., to be done by the central public sector company Engineers India Limited. Approximately 70% of the process plant equipment is to be produced indigenously.

#### Manufacture of Multiple Printed Circuit Board Connectors, etc.

551. PROF. RUP CHAND PAL :

Will the PRIME MINISTER be pleased to state :

(a) whether the country is self-sufficient in the manufacture of multiple printed circuit board connectors, cradle