

### Technically Qualified Manpower in Computerised Electronics

2406. SHRI ANANTA PRASAD SETHI:  
Will the PRIME MINISTER be pleased to  
state :

(a) the number of technically qualified  
manpower in the fields of computerised  
electronics which is available at present in  
the country ;

(b) the details regarding the targets  
required for technically qualified manpower  
in this field during the Seventh Five Year  
Plan ; and

(c) the steps taken to make it available  
through training to the personnel in this  
field ?

THE MINISTER OF STATE IN THE  
MINISTRY OF SCIENCE AND  
TECHNOLOGY AND IN THE DEPART-  
MENTS OF OCEAN DEVELOPMENT,  
ATOMIC ENERGY, ELECTRONICS AND  
SPACE (SHRI SHIVRAJ V. PATIL) :  
(a) The estimated number of technically  
qualified manpower available in the field of  
computers with Degree/Diploma in computer  
discipline is 3,000. In addition, there are  
about 2000 people who have learnt  
computers as part of their curriculum in  
other disciplines.

(b) The estimated targets required for  
technically qualified manpower in this field  
during the Seventh Five Year Plan are :

1) Ph.D	:	450
2) M. Tech.	:	6000
3) B. Tech.	:	6000
4) Master in computer Applications (MCA)	:	8000
5) Diploma in Computer Applications (DCA)	:	30000
6) Diploma in Computer Engineering (DCE)	:	3000
7) Certificate Courses	:	30000

(c) A Statement is given below.

#### Statement

*Steps taken to meet the requirement of  
computer manpower during 7th Five  
Year Plan*

The estimated requirements of computer  
manpower during 1985—90 and the output  
from the existing programmes is as under :

	Ph. D.	M. Tech.	B. Tech.	MCA	DCA	DCE	Vocational Courses.
Estimated requirements.	450	6000	6000	8000	30000	3000	30000
Output from existing programmes.	60	1300	3100	1800	7000	400	2700

In order to reduce the gap of availability  
of manpower, Department of Electronics has  
initiated a number of programmes jointly  
with UGC/Ministry of Human Resource  
Development and Directorate General of  
Employment and Training. The main  
programmes are as under :

(i) *1 Yr. Post Graduate Diploma in Computer  
Applications (DCA)*

This programme is being carried out  
jointly with University Grants Commission.  
Already 32 Universities have been covered  
under this Programme.

**(ii) One & Half year Post Polytechnic Diploma in Computer Applications (DCA) :**

This programme is being carried out jointly with Ministry of Human Resource Development. The programme has so far been initiated in 25 polytechnics. Another nine polytechnics are being considered to be covered under this programme.

**(iii) One & Half Years Post Graduate Diploma in Computer Applications in Hindi Medium:**

So far 8 centres have been supported for this programme.

**(iv) B. Tech :**

So far nearly 25 centres are conducting B. Tech degree course in computers. Another 3 centres have been supported this year.

**(v) M. Tech :**

12 centres are already conducting M. Tech programme in computers.

**(vi) 3 Yrs. Post Graduate Master in Computer Applications (MCA) :**

This programme is jointly supported by Department of Electronics and University Grants Commission/Ministry of Human Resource Development. 20 centres have already been covered under this programme.

**(vii) Vocational Courses :**

This programme at the level of ITI (Industrial Training Institute), provides one year/six months courses in the application of computers. This is a joint programme with DGET. Already 13 institutes have been covered and another 7 are being added under this programme.

In addition to the above, DOE has supported programmes for continuing education, diploma in computer engineering maintenance and teachers training courses.

The above programmes will be expanded to more centres in the coming years.

Any plan to expand the education base for computers is faced with two major constraints namely (i) shortage of teachers and (ii) long gestation period of training. In view of this, it may not be possible to meet fully the requirements especially at doctorate and higher engineering level.

An important element of the strategy of the Department of Electronics is to increase the faculty base which will have multiplier effect on the output of computer educated personnel. Further a number of schemes for in-service training, evening courses and short-term courses are being planned. Use of audio-visual techniques, computer aided instructions and television network for imparting training in the areas of computers is also being examined. Department of Electronics is also considering participation of public and private sector organisations, large industrial houses etc in meeting part of the requirement especially at the lower level of computer education.

Education in general and technical education in particular being mostly the responsibility of State Governments and to some extent that of the Union Ministries of Human Resource Development and Labour, Department of Electronics discussed the above programmes with the States, Union Territory administrations and the concerned Union Ministries of HRD and Labour in a meeting called by Department of Electronics on November 14, 1985. At this meeting the State Governments and Union Territories were requested to draw up crash programmes for meeting the gaps in requirement of computer educated personnel. While the centre could provide them expert advice and guidelines for planning, implementation etc., the State Governments and Union Territories were requested to arrange their own financial resources except for some seed money from the Centre.

**SC/ST Students in Sainik Schools**

**2407. SHRI AMARSINH RATHAWA :**

**SHRI CHINTAMANI JENA :**

Will the Minister of DEFENCE be pleased to state :

(a) the number of Sainik Schools in the country and the number of students in each school ;