

B and W shells by Bharat Electronics Ltd. to meet the growing demands of the industry;

(b) if so, the estimated cost of this expansion programme and how it is to be met;

(c) whether technical know-how and equipment will be required to be imported to implement the expansion programme; and

(d) if so, the details thereof ?

THE MINISTER OF STATE IN THE DEPARTMENT OF DEFENCE PRODUCTION AND SUPPLIES IN THE MINISTRY OF DEFENCE (SHRI CHINTAMANI PANIGRAHI) : (a) BEL has referred a proposal to the Government for increasing the annual capacity of manufacture of Black and White glass bulbs at its Talaja unit from 1 million to 2.2 million bulbs of 20" size or 4.3 million bulbs of 14" size (exclusively), or a capacity in between these two figures for a product-mix of both 20" and 14" size. Decision has not yet been taken on this proposal.

(b) The estimated cost of this expansion is about Rs. 18 crores, inclusive of foreign exchange of Rs. 12.82 crores. BEL has proposed that the expenditure be met through internal accruals of the company and borrowings from financial institutions.

(c) and (d). No import of technical know-how is involved in the proposal, but equipment would require to be imported.

#### Production of Alcohol from Casava Plant Starch

1178. SHRI Y.S. MAHAJAN : Will the PRIME MINISTER be pleased to state :

(a) whether scientists of the Regional Research Laboratory, Trivandrum have developed a process by which alcohol can be continuously produced from casava plant starch;

(b) if so, how the quality and cost of production of alcohol by this process compares with the production of alcohol from molasses; and

(c) whether large scale production of alcohol is possible from the casava plant starch or any other cheaper raw materials ?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI K.R. NARAYANAN) : (a) A process, by which alcohol can be produced continuously from casava plant starch as raw material, is under development at Regional Research Laboratory (RRL), Trivandrum.

(b) Related parameters on quality and cost of production with the process are under evaluation.

(c) Large scale production trials are required to establish economic viability of the process.

#### Joint Venture of BEL with Samtel India

1179. SHRI Y.S. MAHAJAN :

SHRI SHARAD DIGHE :

SHRI MULLAPPALLY RAMACHANDRAN :

PROF. MADHU DANDAVATE :

SHRI VIJAY N. PATIL :

SHRI INDRAJIT GUPTA :

Will the Minister of DEFENCE be pleased to state :

(a) whether the Bharat Electronics Ltd. has entered into a collaboration agreement with Samtel India and Corning Glass Works of USA for a joint venture for the Talaja glass shell project in Maharashtra;

(b) if so, the terms and conditions of the joint venture;

(c) the financial arrangement for financing the project and how much foreign exchange will be required and how it will be met;

(d) whether the agreement provides for export of products or these will be meant for use in the country; and

(e) if so, the percentage of exports and who will arrange for the exports ?

THE MINISTER OF STATE IN THE DEPARTMENT OF DEFENCE PRODUCTION AND SUPPLIES IN THE MINISTRY OF DEFENCE (SHRI CHINTAMANI