## भारत सरकार/Government of India परमाणु ऊर्जा विभाग/Department of Atomic Energy विकिरण एवं आइसोटोप प्रौद्योगिकी बोर्ड/Board of Radiation & Isotope Technology

विआप्रौबोबीएआरसी वाशी कॉम्प्लेक्स/ BRIT/BARC Vashi Complex, सेक्टर-20/Sector-20, वाशी/Vashi, नवी मुंबई/NAVI MUMBAI - 400 703.

सं/Ref: विआप्रौबो/BRIT/सत/Vig/संसद/Parl/2022/24

January 27, 2022

Sub: Lok Sabha Unstarred Question Diary No. 624 for 02.02.2022.

उपरोक्त विषय पर पऊवि के दिनांक 27.01.2022 के ई-मेल की संदर्भ लें। Reference is invited to DAE email dated 27.01.2022 on the captioned subject.

विआप्रौबोर्ड से संबंधित अपेक्षित जानकारी इस प्रकर है। The requisite information in respect of BRIT is as follows:

	Question	Reply
(a)	Whether Cyclotron is used for the production of Radio Isotope which is used for diagnostic and treatment of cancer, if so, the type of cancer in which this Radio Isotope is used;	Yes. The Cyclotron is used for the production of Radio Isotope used for diagnostic and treatment of cancers.  The application of some radioisotopes produced in Cyclone 30 are given below:  (i) Flourine-18 radioisotope is used for diagnosis, staging, and monitoring treatment of cancers, particularly in Hodgkin's disease, non- Hodgkin lymphoma, colorectal cancer, melanoma, bone cancer, lung cancer etc.  (ii) Gallium-68 radioisotope based radiopharmaceuticals like <sup>68</sup> Ga-DOTATATE is used for neuro-endocrine tumor and breast cancer diagnosis and <sup>68</sup> Ga-PSMA for prostate cancers diagnosis.  (iii) Gallium-67 radioisotope based radiopharmaceutical like <sup>67</sup> Ga-Citrate is used for diagnosis of cancers, soft tissue tumor imaging.  (iv) Thallium-201 radioisotope is used for myocardial perfusion imaging(MPI) for the diagnosis and localization of myocardial infraction.  (v)Palladium-103 radioisotope is used for prostate cancer therapy.
(b)	Whether the Cyclone-30, the biggest Cyclotron for medical use facility in the country is operational now;	Yes. The 30MeV Medical Cyclotron (Cyclone-30) at VECC is operational now.
(c)	If, so the cost incurred in the research and construction of it?	The cost incurred for the Medical cyclotron facility up to 31.12.2021 is 228.98Cr.

यह मुख्य कार्यकारी, विआप्रौबोर्ड के अनुमोदन से जारी किया जाता है I This is issued with the approval of Chief Executive, BRIT.

संलग्न/Enclosure : यथोपरी/a.a.

(श्रीमती शीला मोहन/Smt. Sheela Mohan)

मुख्य प्रशासनिक अधिकारी/Chief Administrative Officer Tel. No. 022-2788 7007

अवर सचिव/Under Secretary, आर एंड डी - I अनुभाग/R&D-I Section, पऊवि/DAE, अणुशक्ति भवन/Anushakti Bhavan, छ.शि.म. मार्ग/C.S.M. Marg, मुंबई - 1/Mumbai – 1.

Copy to : Under Secretary, I&M Section, DAE.