

Q. Compare between ^{123}I , ^{131}I , ^{125}I ? Thyrokin

Ans

^{123}I (is the best) ^{131}I ^{125}I

① Cost v. expensive cheap cheap

② $t_{1/2}$ 13 hr 8 days 60 days

③ Radiation one type 2 types 2 types

④ Decay equation $^{123}\text{I} \rightarrow ^{123}\text{Te} + \gamma$ $^{131}\text{I} \rightarrow ^{131}\text{I} + \beta^- + \bar{\nu}$ $^{125}\text{I} \rightarrow ?$
 - Scanning thyroid gland - Scanning thyroid gland
 - Hypert thyroidism - Hypert thyroidism
 - Thyroid cancer - Thyroid cancer

⑤ Clinical uses) 197 203)