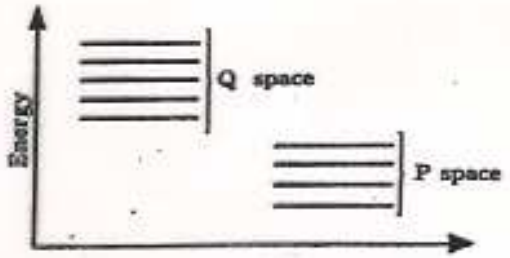

Fig. 10. Energy splitting of Q and P spaces.

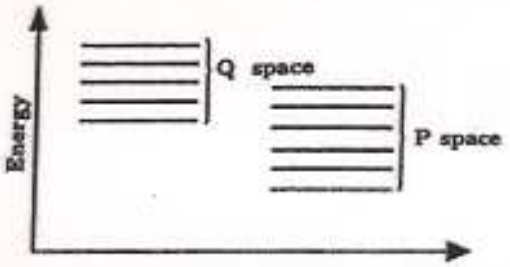

Fig. 11. Overlap of the Q and P spaces in the energy.

Problem Intruder States
i.e. shell model assumption in core plus valence nucleons

In all known spectra of nuclei exist states (intruder states) of different structure intruding into the spectrum (e.g. ^{16}O a 4p-2h state)