Question 2

Positive deviation from ideal behaviour takes place because
of   *(2003S)*
(a)   Molecular interaction between atoms and $PV/nRT > 1$
(b)   Molecular interaction between atoms and $PV/nRT < 1$
(c)   Finite size of atoms and $PV/nRT > 1$
(d)   Finite size of atoms and $PV/nRT < 1$

(c)   For positive deviation: $PV = nRT + nPb$

$$\Rightarrow \frac{PV}{nRT} = 1 + \frac{Pb}{RT}$$

Thus, the factor nPb is responsible for increasing the
PV value, above ideal value. b is actually the effective
volume of molecule. So, it is the finite size of molecules
that leads to the origin of b and hence positive deviation
at high pressure.