CBSE NET DECEMBER 2011 PAPER II

The number of nodes in a complete binary tree of height h (with roots at level 0) is equal to

(A) $2^0+2^1+.....+2^h$

(B) $2^0+2^1+.....+2^{h-1}$

(C) $2^0+2^1+.....+2^{h+1}$

(D) $2^1+.....+2^{h+1}$

Ans:-A

Explanation:-
A complete binary tree have 0 or 2 child per parent. So, count the number of nodes in each level, starting with the root, assuming that each level has the maximum number of nodes.

$n=1+2+4+....2^{h-1}+2^h$

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