There are 3 sections in a question paper and each section contains 5 questions. A candidate has to answer a total of 5 questions, choosing at least one question from each section. Then the number of ways, in which the candidate can choose the questions, is :

a. 2250
b. 2255
c. 3000
d. 1500

Answer:a. 2250

Explanation: Combinations can be (1,1,3),(1,3,1),(3,1,1),(2,2,1),(2,1,2),(1,2,2).

No. of ways=$({}^5C_1\,{}^5C_1\,{}^5C_3)*3+({}^5C_2\,{}^5C_2\,{}^5C_1)*3$

=750+1500

=2250