

COL202: Discrete Mathematical Structures. I semester, 2017-18.

Quiz 12

19 November 2017

Maximum Marks: 4

Name	Ent. No.
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Important: Keep your answer within the box. Anything written outside the box will be treated as rough work. Do your rough work on the free space on the flip side of this sheet.

Q 1. Give a counting argument (in words) to prove that

$$\sum_{r=0}^n \binom{n}{r} \binom{2n}{n-r} = \binom{3n}{n}.$$