

① Three boys and two girls stand in a queue. The probability that the number of boys ahead of every girl is at least one more than the number of girls ahead of her, is

- (A)  $\frac{1}{2}$       (B)  $\frac{1}{3}$       (C)  $\frac{2}{3}$       (D)  $\frac{3}{4}$

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- Total ways of arranging =  $5! = 120$

①  $\begin{array}{cccccc} & & & & & G \\ & & & & & G \\ - & - & - & - & - & - \\ & & & & & B \end{array} \left. \begin{array}{l} \\ \\ \\ \\ \\ \end{array} \right\} 2 \cdot 4! = 48$

②  $\begin{array}{cccccc} & & & & & G \\ & & & & & G \\ - & - & - & G & G & B \end{array} \left. \begin{array}{l} \\ \\ \\ \\ \\ \end{array} \right\} 2! \cdot 3! = 12$

Favourable way are  $120 - 48 - 12 = 60 = (12|A)9$

$$P = \frac{60}{120} = \frac{1}{2} \quad (50|A)9$$