

BSDS QUIZ 2

Date: 21st February, 2025

True or False (justify your answer):

- (1) The series $\sum_{n=1}^{\infty} \frac{n^2}{2^n}$ converges.
- (2) The series $\sum_{n=1}^{\infty} \frac{1}{\sqrt{n(n+1)}}$ converges.
- (3) The series $\sum_{n=1}^{\infty} \frac{(1000)^n}{n!}$ converges.
- (4) The series $\sum_{n=1}^{\infty} \frac{(-1)^{\frac{n(n-1)}{2}}}{2^n}$ converges.