Lab quiz 9

1. Is the series $\sum_{n=1}^{\infty} \frac{2n^3-6}{5n^7+3n^4-2}$

   (A) Convergent

   (B) Divergent

2. Is the series $\sum_{n=1}^{\infty} \left(\sqrt{n} - \sqrt{n-1}\right)^n$

(A) Convergent

(B) Divergent

3. Is the series $\sum_{n=1}^{\infty} \frac{2n+\sqrt{n}}{n^3+3\sqrt{n}}$

(A) Convergent

(B) Divergent

4. Is the series $\sum_{n=1}^{\infty} \frac{\left(1+\frac{2}{n}\right)^{n^2}}{e^n}$

(A) Convergent

(B) Divergent

5. Which of the following series is convergent?

(A) $\sum_{n=1}^{\infty}[2+(-1)^n]$

(B) $\sum_{n=1}^{\infty}\frac{n^n}{n+1}$

(C) $\sum_{n=1}^{\infty}\frac{2^n}{(n+1)!}$

(D) $\sum_{n=1}^{\infty}\frac{\sqrt{n}}{n+1}$

(E) $\sum_{n=1}^{\infty}\frac{2^{3n+1}}{7^n}$

(F) No option is correct or more than one options are correct