## Practice Questions of Lecture 23 to 24

**Q.1:** Find the horizontal and vertical asymptotes of the graph of $f(x)=\dfrac{2x+1}{x^3-1}$.

**Q.2:** Discuss the asymptote of following rational function:

$$g(x)=\frac{x^2+\frac{1}{2}x}{3x+2}.$$

**Q.3:** Find the slant asymptote of the function $f(x)=\dfrac{3x^3+x^2+5}{2-x^2}$.

**Q.4:** Find the asymptote of the curve $r\sin\theta=3\cos 2\theta$.

**Q.5:** Find the absolute maximum and absolute minimum values of $f(x)=x^3-3x^2-9x$ on the interval [-2, 4] and determine where these values occur.