

Q29 • A set is open iff its complement is closed set. option (a)

Q31

let $f(x) = C$ (constant)

$f'(x) = 0$

option (a)

Q32

option (b)

Q33

$\sum \frac{1}{n}$ is divergent by p-test

option (a)

Q34

$1 + n + n^2 + \dots$

$\sum n^n$

use ratio test

$\lim_{n \rightarrow \infty} \left| \frac{n^{n+1}}{n^n} \right| = \lim_{n \rightarrow \infty} n < 1$ for convergent

$n \geq 1$ for divergent

option (a)

Q36

option (c)