

The Open University of Sri Lanka

B.Sc/B.Ed Degree programme

Pure Mathematics – Level 04

PEU4301- Real Analysis II

Open Book Test (OBT)- 2024/2025



Date: 08.02.2025

Time: 04.00 p.m. – 05.00 p.m.

Answer All Questions.

1. Let A be the set $(-\infty, 1) \cup (2, 4) \cup 5 \cup (8, \infty)$.

Find the limit points and isolated points if any. Justify your answer.

2. (a) Let $f(x) = 2x^2, x \in [-1, \infty)$.

Show that $\lim_{x \rightarrow 1} f(x) = 2$.

- (b) Let $g(x) = 2x^2 - 1, x \in [-1, \infty)$. Find $\lim_{x \rightarrow 1} g(x)$.
