

UNIVERSITI MALAYSIA PAHANG
PROCESS CHEMISTRY AND PHARMA ENGINEERING

QUIZ 1



NAME : _____

MATRIC NO : _____

1. List four (4) process variables.

(4 marks)

- i. _____
- ii. _____
- iii. _____
- iv. _____

2. Define flow rate.

(1 mark)

3. The mass flow rate of *n*-heptane ($\rho = 0.659 \text{ g/cm}^3$) in a pipe is 7.99 g/s. Determine the volumetric flow rate of the *n*-heptane.

(2 marks)

4. A 0.53-molar aqueous solution of sulfuric acid flows into a process unit at a rate of 1.30 m³/min. The specific gravity of the solution is 1.03.

a. Calculate the mass concentration of H₂SO₄ in kg/m³

(3 marks)