KFUPM – Department of Mathematics and Statistics – Term 132 MATH 102 QUIZ # 4 Code 1 (Duration = 20 minutes)

| NAME: | ID: | Section: |
|-----------------------|-----|----------|
| | | |
| Exercise 1 (5 points) | | |

Write
$$\frac{x+1}{x^3 - x^2 + x - 1}$$
 in partial fractions.

Exercise 2 (5 points)

Determine whether the improper integral $\int_2^\infty \frac{x+1}{x^3-x^2+x-1} dx$ is convergent or divergent.

KFUPM – Department of Mathematics and Statistics – Term 132 MATH 102 QUIZ # 4 Code 2 (Duration = 20 minutes)

| NAME: | ID: | Section: |
|---|-----|----------|
| | | |
| | | |
| Exercise 1 (5 points) | | |
| x-1 | | |
| Write $\frac{1}{3}$ in partial fraction | is. | |
| $x^{-} + x^{-} + x + 1$ | | |

Exercise 2 (5points)

Determine whether the improper integral $\int_4^\infty \frac{x-1}{x^3+x^2+x+1} dx$ is convergent or divergent