## King Fahd University for Petroleum and Minerals Department of Mathematics & Statistics

Term 131 Math 102 (09)

Quiz#6 (8.4)

Family Name:

S.r#

Q1. Expand the following quotient by partial fractions (Don't evaluate the coefficients)

$$\frac{x^7 + 2x^4 + 2x + 6}{(x-2)^2(x^2-1)(x^2+2)^2(x^2+2x+2)}$$

Q2. If 
$$\frac{f(x)}{g(x)} = \frac{1}{x+1} + \frac{2}{(x-1)^2} + \frac{x+2}{x^2+4} + \frac{x}{(x^2+4)^2}$$
, Evaluate  $\int \frac{f(x)}{g(x)} dx$ 

Q3. Expand the quotient by partial fractions...

$$\frac{x^2 + 2x}{x^4 - 1}$$