**CFL Coursework 2**  [john.pham@kcl.ac.uk](mailto:john.pham@kcl.ac.uk) (1629417)

**Question 1:** See code from line 218.

**Question 2:**

*mkeps*([*c*1,*c*2,...,*cn*]) = No definition required as RANGE(…) would never match the empty string.

*mkeps*(*r+*) = Stars([mkeps(r)]) (There must be at least one occurrence of r in the list)

*mkeps*(*r?*) = Empty

*mkeps*(*r{n}*) = if (n == 0) Stars([]) else Stars([mkeps(r)1, … , mkeps(r)n])

*inj*([*c*1,*c*2,...,*cn*]) *c Empty =* Char(c)

*inj*(*r+*) *c* Sequ(v1, Stars(vs)) = Stars(inj(r, c, v1)::vs)

*inj*(*r?*) *c* Right(v) = Right(inj(r, c, v))

*inj*(*r{n}*) *c* Sequ(v1, Stars(vs)) = Stars(inj(r, c, v1)::vs)

See code from line 255 for tests.

**Question 3:**

See code from line 258 for tests.