The Nephron

I. Number each circle to label the parts of the nephron. Color each part.

____ 1. Proximal Convoluted Tubule
____ 2. Distal Convoluted Tubule
____ 3. Collecting Duct
____ 4. Ascending limb of Henle
____ 5. Loop of Henle
____ 6. Descending limb of Henle
____ 7. Peritubular Capillaries
____ 8. Juxtaglomerular apparatus
____ 9. Afferent Arteriole
____ 10. Efferent Arteriole
____ 11. Bowman’s Capsule
____ 12. Glomerulus

II. Match the functions with the structures - Place the letter of the functional description below next to the number of the structure above that best matches. (Use each only once.)

a. Tubular region responsible for active and passive resorption of desired plasma components.
b. Tubular region responsible for active secretion, adjusting pH, and sodium/potassium balances.
c. Main tube that receives filtrate/urine from many nephrons.
d. Part of Henle’s tube impermeable to water which actively transports sodium into the medulla.
e. Region of greatest osmolarity.
f. Part of Henle’s loop permeable to sodium and water helping to create increasing salinity downwards.
g. Capillary network responsible for recovering peritubular fluid.
h. Apparatus responsible for monitoring product by sensing, e.g., pressure and tonicity.
i. Vessel that brings “dirty” unfiltered blood to the nephron.
j. Vessel which removes “clean” filtered blood from the nephron.
k. Cup that collects plasma filtrate.
l. Capillary cluster in Bowman’s capsule from whence filtrate is separated from blood.