Calculations

① Serum creatinine (mg/dl)

$$= \frac{OD_U - OD_B}{OD_S - OD_B} \times \text{conc. of std (mg/ml)} \times \text{vol. of std (ml)} \times \frac{100}{\text{vol. of serum (ml) from 5 ml protein free filtrate}}$$

$$= \frac{OD_U - OD_B}{OD_S - OD_B} \times 0.003 \times 5 \times \frac{100}{0.5}$$

← While making protein free filtrate, in 10 ml total quantity 1 ml is serum and in procedure part we take 5 ml of protein free filtrate so volume of serum is 0.5 ml.

$$= \frac{OD_U - OD_B}{OD_S - OD_B} \times 3$$ ← (mg/dl) **A**

② Urine creatinine (mg/dl)

$$= \frac{OD_U - OD_B}{OD_S - OD_B} \times \text{conc. of std (mg/ml)} \times \text{vol. of std (ml)} \times \frac{100}{\text{vol. of diluted urine}}$$

← Urine is diluted 1:100 $\bar{c}$ distilled H_2O

$$= \frac{OD_U - OD_B}{OD_S - OD_B} \times \frac{0.01 \times 3 \times 100}{0.03}$$

$$\frac{OD_U - OD_B}{OD_S - OD_B} \times 100$$ ← (mg/dl) **B**

③ Urine creatinine (mg/24 hours) **C**

$$= \frac{\text{urine creatinine (mg/dl)} \times \text{vol. of urine excreted/24 hours}}{100}$$

④ Urine creatinine (g/m/day) **D**

$$= \frac{\text{urine creatinine (mg/24 hours)}}{1000}$$

⑤ Creatinine coefficient (mg/kg/day)

It is the 'mg' of creatinine excreted in urine by per "kg" of body wt. per "day."

$$\frac{\text{urine creatinine (mg/24 hours) c}}{60 \text{ kg}}$$

← As this is neither your urine nor serum so students can take average 60 kg of body weight.