

- Q1. Do you know your program outcomes (POs)? State them all. 6
- Q2. Apply the Gamma & Beta functions to calculate: a) $\int_0^{\infty} e^{-x} x^{\frac{7}{2}} dx$, b) $\int_0^{\frac{\pi}{2}} \tan^{\frac{5}{2}} x dx$. 5
- Q3. Apply the Fubini's theorem to calculate: $\int_0^2 \int_x^1 (x-y)^{\frac{5}{2}} dy dx$. 4