RSA

5. (a) What is Random process? State and Explain first and second order statics of Random process. **10**

(b) Explain power spectral density. Find the power spectral density of a WSS process with auto correlation function $R(\tau) = e^{-\alpha\tau^2}$ **10**

6. (a) State and prove the chapman-Kolmogorov equation. **10**

(b) Write short notes on following special distributions. **10**

(i) Poisson distribution (ii) Gaussian distribution

(iii) Uniform distribution.

7. (a) Find the characteristic function of poison distribution and hence find the values of first four Central Moments. **10**

(b) Describe the sequence of Random variables. **5**

(c) State and Explain Chebyshev Inequality. **5**
