PROBABILITY THEORY AND STOCHASTIC PROCESS
(ECE)

14	a) Explain Moments about the Origin and Moments about the Mean. b) For the uniformly distributed Random Variable X, Determine i) Moment generating function ii) Mean and Variance	5M 5M	2	L2
15	a) Define and explain joint distribution function of two random variables X and Y b) State properties of joint probability density function	5M 5M	3	L2
	OR			
16	Define conditional distribution and density function of two Random variables X and Y.	10M	3	L2
17	Define autocorrelation function of a random process. Write properties of auto correlation function of a WSS process and prove any three of them.	10M	4	L2
	OR			
18	State and prove properties of cross correlation function.	10M	4	L2
19	Derive the relation between PSDs of input and output random process of an LTI system.	10M	5	L2
	OR			
20	Explain about cross power spectrum density and its properties with proofs	10M	5	L2