

MID -1 Examinations, September -2018

Course: B.Tech, Branch-ECE, Year & Sem – II & I Sem, Section - B

Subject: **SSP – EC304ES**

Duration: 60 mints, Max Marks: 10

Name of The Faculty : **Mr.P.KIRAN KUMAR**

Q.No	Sub Q. No	Questions	Marks	Level of Bloom Taxonomy	CO
1	a	Discuss how an unknown function $f(t)$ can be expressed using infinite mutually orthogonal functions.	2.5	Understand	1
	b	Determine whether the following system $y(t)=t^2 x(t-1)$ is time-varying or time-invariant	2.5	Apply	2
2	a	With regard to Fourier series representation, justify(PROOVE) the statement that functions with half-wave symmetry have only odd harmonics	2.5	Remember	1
	b	Find the Fourier transform of signal $x(t)=e^{-a t }$	2.5	Apply	4
3	a	write the conditions for existence of Fourier series	2.5	Remember	1
	b	Find the Fourier transform of signal $\text{Cos}(\omega t) u(t)$	2.5	Apply	4
4	a	Determine the final value of $F(s) = \frac{6s^2+8s+5}{s(2s^2+6s+5)}$	2.5	Apply	4
	b	state and prove the frequency shifting property of Laplace transform	2.5	Remember & Understand	4

