

Scheme of Valuation/Answer Key			
(Scheme of evaluation (marks in brackets) and answers of problems/key)			
APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY			
V SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018			
Course Code: CS307			
Course Name: DATA COMMUNICATION			
Max. Marks: 100		Duration: 3 Hours	
PART A			
<i>Answer all questions, each carries 3 marks.</i>			Marks
1		Amplitude, Frequency and phase. Explanation with figure 1 mark each.	(3)
2		Loss Propagation-1 mark Justification- 2 marks	(3)
3	a)	Explanation-1.5 marks Figure-1.5 marks	(3)
4		Explanation – 3 marks	(3)
PART B			
<i>Answer any two full questions, each carries 9 marks.</i>			
5	a)	Explanation -4 marks	(4)
	b)	Capacity- 2.5 Signalling level- 2.5	(5)
6	a)	Each with (Explanation-1, fig-1) 2 marks.	(6)
	b)	Thermal noise – 3 marks	(3)
7	a)	Explanation -3.5 marks Diagram-2.5 marks	(6)
	b)	Attenuated signal power – 3 marks	(3)
PART C			
<i>Answer all questions, each carries 3 marks.</i>			
8		Explanation-3 marks	(3)
9		1 mark each	(3)

10		Name the multiplexing technique – 1 mark Explanation -2 marks	(3)
11		Explanation-3 marks	(3)
PART D			
<i>Answer any two full questions, each carries 9 marks..</i>			
12	a)	Advantage-1 Differential Manchester –Explanation-1, figure -1	(3)
	b)	Explanation-3 Figures-3	(6)
13	a)	Explanation-5 Figures-2	(7)
	b)	Explanation-2 marks	(2)
14	a)	Necessity-2 Explanation -3.5 marks Figure-1.5 marks	(7)
	b)	Sampling rate -2 marks	(2)
PART-E			
<i>Answer any two full questions, each carries 9 marks.</i>			
15	a)	Explanation – 2.5 marks Fig-2.5	(5)
	b)	Two types of errors. 1 mark for each with example.	(2)
	c)	1 mark for each	(3)
16	a)	Definition – 2 Pairwise hamming distance- 3 Minimum hamming distance - 1	(6)
	b)	Minimum hamming distance – 2 marks Explanation – 2marks	(4)
17	a)	i-6marks ii-4 marks	(10)
18	a)	Explanation-6 marks Figures- 4 marks	(10)
19	a)	Comparison - 4	(4)
	b)	Explanation-3 Fig-3	(6)
20	a)	Expalnation-5 marks Figure – 5 marks	(10)