THAPAR INSTITUTE OF ENGINEERING AND TECHNOLOGY, PATIALA
Department of Electronics and Communication Engineering
UEC310 – Information and Communication Theory

TUTORIAL - 9

Q1	Consider the following statements:
	
	 (i) The Sun rise in the east and set in the west
	 (ii) Tiger Attacks villagers near forest area.
	 (iii) There will be less rain in New Delhi in this rainy season
	 (iv) Man bites a dog
	 (v) Dog bites a man.
	 (vi) The Thar desert will receive heavy rainfall in this rainy season
	 (vii) Indian athletes will win more than 50 gold medals in next Olympic games.
	 (viii) Indian cricket team will win next world cup.
	 Categorized these statements in three category:
	  (a) Highly probable event (Probability is 1 or close to 1)
	  (b) Rarest event (Highly uncertain, probability close to 0)
	  (c) Probable events (probability between 0 and 1)
	 Also write six more events which come in these categories.

Q2	In question-1, how much information is contained in every statement?
Q3.	Consider the following events with their probability: <table><tr><td>Events</td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td></tr><tr><td>Probability</td><td>0.2</td><td>0.5</td><td>0.7</td><td>0.1</td><td>0.3</td><td>0.8</td></tr></table> Determine the information contained in each event
Q4	Why logarithm function is used to measure information in an event? Also write different properties of information