Shannon's Pheorem 3000 Channel Capacity C Shannon's precond theorem) 10 1000 the Positive Statement bright & CYIXO I .M Shannon's Theorem on channel capacity state that "when the vate of information transmission Rt & C, shen snew exists a coding feehnique which enables toransmission ouer a Channel with as small a probability of exect as possible, men in sue présence of noise in disadvantage: Wood size is in "Illnaho est sled This shearem indicates that for Rt & C, trion of information is achieved their withour evens, even in the presence of noise. This is analogous to amp. modulation with 'm' as the mod index dyined as ration of peak value of modulating Voltage to peak value of carrier voltage. A long as m 21, trion of modulated signal is possible without errors. But when was

m>1, trion is possible, but there will be ever introduced due to over-modulation and there uelle le loss of information. Negative statement Is sulffre REDECAT then reliable trion of information is notes possible without every thus when RESC then the exerce cannot be controlled by any goding technique and the probability of eres of receiving the correct message week there B'iog according to unival limit of pristing of noise that south from sammed flute of many source which pour Ausmal and short moise, and moise tends to have a haurian distribution. Hod. a demod fociningue or designed with principle objection of hing offices of noussian moise, us of more Bandlimiled (n while government > channel of whomebor < (3) -2(A) = x111) H