

# Wireless Multimedia System

## Quiz 3 (15 min) 2008

Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

### Exercise Topic: Cellular System (GoS/QoS)

Number of Channels C	Capacity (Erlangs) for GOS			
	= 0.01	= 0.005	= 0.002	= 0.001
2	0.153	0.105	0.065	0.046
4	0.869	0.701	0.535	0.439
5	1.36	1.13	0.900	0.762
10	4.46	3.96	3.43	3.09
20	12.0	11.1	10.1	9.41
24	15.3	14.2	13.0	12.2
40	29.0	27.3	25.7	24.5
70	56.1	53.7	51.0	49.2
100	84.1	80.9	77.4	75.2

#### Problem 2

How many users can be supported for 1% blocking probability for the following number of trunked channels in a blocked calls cleared system? (A) 2, (b) 5, (c) 10, (d) 20, (e) 100. Assume each user generate 0.1 Erlangs of traffic.