Examination Feedback for EEE6224 – Mobile Networks and Physical Layer Protocols
Spring Semester 2015-16

Feedback for EEE6224 Session: 2015-2016

Feedback: Please write simple statements about how well students addressed the exam paper in general and each individual question in particular including common problems/mistakes and areas of concern in the boxes provided below. Increase row height if necessary.

General Comments:

Written paper average about right.

Question 1:

Well answered question but least popular.
(a) Most coped well with the book work, but some failed to recognise that at pole capacity the load factor equals unity.
(b) Straightforward calculation if previous derivations understood.
(c) This tested previous understanding, since the ratio equals the load factor, just another way of looking at it.

Question 2:

Average a little on the low side.
(a) Most answered this correctly by rearranging the power density formula.
(b) Simple trigonometry and geometry caused unexpected problems here. Some confused angle from vertical with angle form horizontal, and some thought there were 100° in a right angle.
(c) Simple calculation.
(d) Not everyone could remember the formula for SAR.
(e) The idea was to use the value of E^2 directly in SAR equation.
(f) Some sensible answers here.

Question 3:

Lowest question average.
(a) Marks awarded for identifying correct burst types and structures, and different CCCH's.
(b) Most gave a representative sequence.
(c) Poorly answered. The instantaneous bit rate is just the GSM FSK rate of 1/(bit period) ~ 271kbps. The average RACH is (no of RACH data bits)/frame period, since only **one** RA timeslot burst per frame.
(d) Main thing is CB is point -> multipoint (BTS -> MS), not ack'd by MS. SMS is point -> point (MS<->MS) and ack'd.

Question 4:

Best answered question and most popular.
(a) A little confusion with uplink and downlink modulation.
(b) A few got the QPSK bit rate wrong. Some didn't realise in part (vi) that the DPCH data occupancy was 70% not 30%.

Question 5:

Question_6:

Question_7:

Question_8: