Name Removed

Wireless & Mobile Networking

Homework 7

**P11.1**

The word is repeated 5 times to improve reliability of the message since the reverse control channel is using a slotted ALOHA system.

**P11.2**

The TSMI is used as an alias for the ISMI in order to be more secure (by protecting the user’s permanent ISMI from possible theft).

**P12.4**

Area\_total = 10,000,000 m^2

Area\_AP = 50,000 m^2

Num\_APs = Area\_total/Area\_AP

= 10,000,000 / 50,000

= 200 APs

**P12.9**

The number of supported users depends on the brand/specs of the AP. Many can support anywhere between 115 and 250 users. However, around 20 users is recommended.

If the number actually hits the maximum, users who aren’t using the AP at the time may be disconnected and then reconnected when they request access again or new users will just be denied access. If the number of users does not hit the true maximum (i.e. the maximum is more ‘flexible’ and just recommended), the access point may allow them to connect, but the service will be very slow/laggy for all users. In that case, connections to other APs may be attempted in order to speed up users’ service.