

KFUPM - COMPUTER ENGINEERING DEPARTMENT

COE-543 – Mobile Computing and Wireless Networks

Student Name:

Student Number:

1) (20 points) Textbook problem 2.11 but for channel B.

Plot the corresponding multipath intensity profile specifying clearly the x - and y -axes.

2) (20 points) In reference to the paper explained in class, answer the following questions:

- a) The paper makes a clear distinction between “delay time τ ” and “time”. Specify this distinction and define these terms as they are used in the paper. Give an example showing the usage of these terms.
- b) The author introduces the concept of duality on page 97 of the paper (and also in Fig. 1, Fig. 6, and Fig. 7). Explain briefly how is the mechanism that leads to fast fading in the time domain DUAL to the mechanism that causes frequency selectivity in the frequency domain.
- c) Fig. 8.c in paper shows that a channel that is classified as flat fading channel can still exhibit frequency selectivity.