**ASSIGNMENT IV**

**PART A**

* 1. **What is the need of equalization?**
  2. **Define adaptive equalizer.**
  3. **State the principle of diversity**
  4. **Write a short note on i) linear equalizers ii) non-linear equalizers**
  5. **Write the advantages of LMS algorithm.**
  6. **Write the functions of diversity.**
  7. **Differentiate between Macrodiversity and Microdiversity.**
  8. **List out the four types of Combining Methods.**

**PART B**

* + 1. **Briefly explain about linear equalizers.**
    2. **With a neat block diagram (i) explain the principle of Macrodiversity**

**(ii)Explain the operation of an adaptive equalizer at the receiver side**

* + 1. **Explain LMS algorithm in detail.**
    2. **Discuss the performance of a RAKE receiver with a neat diagram.**