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YILDIZ TECHNICAL UNIVERSITY

FACULTY OF ELECTRICAL-ELECTRONICS

DEPARTMENT OF BIOMEDICAL ENGINEERING

BIOSENSORS - MIDTERM I QUESTIONS-

1. **(20 points)** What are the performance factors of a biosensor? Give a brief explanation for the each factor.
2. **(20 points)** How a whole cell can be used as a biosensor? Please discuss using an example.
3. **(20 points)** What is aptamer? and what are the advantageous/disadvantageous of using aptamers as a recognition element in biosensor?
4. **(20 points)** Compare the natural receptors with the synthetic receptors (MIP).
5. **(20 points)** Why do we need artificial lipid bilayers in drug discovery applications? Discuss.