



Exam of chemistry of pesticides analysis

Answer the following questions

The first question (20 degrees)

1- Define each of the following : (5 degrees)

- Maximum Residue Limit (MRL).
- Acceptable Daily Intake (ADI) .

2- Summarize the critical for methods of pesticide analysis. (5 degrees)

3- Describe how to obtain samples from ( water – air – soil ) to determinate their residue of pesticides. (5 degrees)

4- Write on :( properties of Acetone and Acetonitril solvents ) (5 degrees)

The second question (20 degrees)

Give reasons :

1- In general glass containers with aluminium covers are preferred to keep sample analysis . (4 degrees)

2- Physical and chemical properties of pesticide should be appreciated before determining their residues . (4 degrees)

3- Re- distillation of the solvents must be done before using for extraction. (4 degrees)

4- Carrier gas should be inert . (4 degrees)

5- The temperature of injection room should be higher than temperature of column in GLC instrument . (4 degrees)

The third question (20 degrees)

Write short notes on :

1- Extraction efficiency ( spike recovery rate ). (5 degrees)

2- Oxidation and saponification as methods of chemical clean up . (5 degrees)

3- Steam distillation as method of physical clean up (5 degrees)

4- Draw the GLC and explain its theoretical principals . (5 degrees)

GOOD LUCK