

Planning and Quality Assurance Affairs

Form (A)

Course Specifications

General Information

Course name Practical Biochemistry

Course number BIOL2110

Faculty

Department

Course type Major Needs

Course level

Credit hours (theoretical) 0

Credit hours (practical)

Course Prerequisites

Course Objectives

- To qualitatively determination of carbohydrates; Molishs, Anthrone, Fehling, Benedicts, Barfoeds Tests.
 Osazones, Seliwanoffs, Ketonic, Sucrose, Iodine, Muccic Tests.
- 2 To Qualitative determination of protein; Combustion Of Protein, Biuret, Denaturation By Heat And Extreme pH, Precipitation By Heavy Metals, Precipitation By Acidic Reagents.
- To qualitatively determination of amino acids; Solubility Of Amino Acids And Proteins, Ninhydrine, Xanthoprotic, Millons, Glycoxylic, Paulys, Ehrlishs Tests
- 4 Qualitative determination of lipids; Solubility Of Fatty Acids, Oils And Fat, Sudan Black, Acrolein, Dustan, Test For Unsaturation, Libreman, Salkowski, Copper Acetate Tests.
- 5 Spectrophotometric method of analysis and beer's law, Determination of unknown con. Of KMno4 solution using standard curve method
- 6 Quantitative determination of blood glucose, Triglycerides, Cholesterol and HDL-Cholesterol in human serum by enzymatic method

Course Contents

- 1 To qualitatively determination of carbohydrates; Molishs, Anthrone, Fehling, Benedicts, Barfoeds Tests.

 Osazones, Seliwanoffs, Ketonic, Sucrose, Iodine, Muccic Tests.
- 2 To qualitatively determination of amino acids; Solubility Of Amino Acids And Proteins, Ninhydrine, Xanthoprotic, Millons, Glycoxylic, Paulys, Ehrlishs Tests
- 3 To Qualitative determination of protein; Combustion Of Protein, Biuret, Denaturation By Heat And Extreme pH, Precipitation By Heavy Metals, Precipitation By Acidic Reagents
- 4 Qualitative determination of lipids; Solubility Of Fatty Acids, Oils And Fat, Sudan Black, Acrolein, Dustan, Test For Unsaturation, Libreman, Salkowski, Copper Acetate Tests
- 5 Spectrophotometric method of analysis and beer's law, and determine the unknown con. of KMno4 solution using standard curve method
- Determination of blood glucose, Triglycerides, Cholesterol and HDL-Cholesterol in human serum by enzymatic method

Teaching and Learning Methods

1 - weakly practical training

Students Assessment

| Assessment Method | <u>TIME</u> | <u>MARKS</u> |
|-------------------|-------------|--------------|
| Midterm exam | 60minutes | 20 |
| Practical part | 30minute | 30 |
| Final exam | 60minutes | 50 |

Books and References

| Recommended books | Plummer, D, (1995), An introduction to practical biochemistry, third edition, McGraw-HILL |
|-------------------|---|
| | book company maidenhead Berkshire: England |