**Syllabus of Bacterial Physiology**

First week/ Lec 1- Bacterial cell: Structure and Function

Second week/ Lec 2-Microbial Nutrition

\*Third week / Lec 3-Uptake of Nutrients (transport mechanisms)

Fourth week / Lec 4-Microbial Growth

Fifth week / Lec 5 -Influence of Environmental Factors on Growth :Solutes and Water Activity, pH, Temperature , Oxygen concentration , Radiation.

Sixth week / Exam

\*Seventh week / Lec 6-Metabolism ;Energy ,Oxidation-Reduction Reactions ,Electron Carriers

Eighth week / Lec 7-Energy Release and Conservation

\*Ninth & tenth week / Lec 8 & 9- Catabolism of Carbohydrates ,Proteins and Lipids

\*Eleventh week / Lec 10- Anabolism (Biosynthesis) ;Synthesis of Sugars, Polysaccharides, Synthesis of Amino Acids ,synthesis of Purines, Pyrimidines, Nucleotides and Lipid synthesis

Twelfth / Exam