Micro HS Lecture

Study Guide for Exam 2

* Review all Powerpoints
* Know the information discussed on transcription and translation. What are differences seen in prokaryotic and eukaryotic cells?
* Review process of DNA replication as seen in the powerpoint
* Be familiar with the Ames test
* What is the difference between a disinfectant and an antiseptic?
  + What is a heavy metal, surfactant, halogen, alchohol, aldehyde, oxidizing agent?
* What are bacterial plasmids?
* What are the sizes of ribosomes in prokaryotic and eukaryotic cells?
* Review how to do a dilution
* What is beta hemolysis, gamma, alpha?
* What is microbial growth?
* What is generation time?
* What is bacteriostatic?
* What is a microbicidal agent?
* What temperature and time is required for sterilization in the autoclave?
* What is a psychrophile, mesophile, thermophile?
* What is lyophilization?
* What is pasteurization?
* Remember that to get a bacteria to grow, you have to provide optimal pH, temp and maintain osmotic pressure (right salinity)
* What are trace elements?
* Know the differences between photoheterotroph, chemoheterotroph, photoautotroph, chemoautotroph
* What does it mean to be facultative? Obligate?
* What are direct methods for measuring microbial growth?
* Remember that when measuring microbial growth it’s 2n x # of original cells (where n=# of doubling times)
* What is conjugation?
* What is selective media? Differential?
* What is transduction?
* What is transformation? Do cells have to be “competent” in order to be transformed?
* What is the lac operon? The tryptophan operon?
* What does UV light do to DNA?