

MCB 2010 Quiz Terms and Definitions

Chapter 4

1. **peptidoglycan** - major component of bacterial cell walls
2. **mycolic acid** - component of Mycobacterial cell walls
3. **Gram-positive bacteria** - bacteria that have a thick layer of peptidoglycan composing their cell walls
4. **Gram-negative bacteria** - bacteria that have a thin layer of peptidoglycan, and an outer membrane, composing their cell walls
5. **Plasma Membrane** - a phospholipid bilayer that regulates passage of substances in and out of the cell
6. **Hypertonic environment** - environment where there is more solute outside the cell than inside the cell
7. **Hypotonic environment** - environment where there is less solute outside the cell than inside the cell
8. **endospore** - dormant form of a cell that can resist harsh environmental conditions
9. **Phospholipid bilayer** - the major structural makeup of cell membranes
10. **Ribosome** - organelle where protein synthesis takes place

Chapter 9

1. **Taxonomy** – the science of classifying organisms
2. **Phylogeny** – the evolutionary relationship between species
3. **bacterial strain** – genetically different cells within a species
4. **enzyme** – biological catalysts which speeds up chemical reactions
5. **antiserum** – a blood derived fluid containing antibodies
6. **antigen** – anything that elicits an immune response
7. **agglutination** – clumping of cells
8. **Electrophoresis** – method of separating different size pieces of DNA or protein

Chapter 6

1. **Facultative anaerobe** – microbe that can grow by using oxygen and can grow in the absence of oxygen
2. **Obligate anaerobe** – microbe that grows only in the absence of oxygen, and will die in its presence
3. **Microaerophile** – microbe that grows in an environment with less oxygen as is usually found in air
4. **Inoculum** – the micro-organisms used to inoculate a medium
5. **Agar** – a complex polysaccharide used as a solidifying agent in culture media
6. **Capnophile** – microbe that grows best in an environment of 5% to 10% carbon dioxide
7. **Selective Media** – media that inhibits the growth of certain microbes and allows the growth of others
8. **Differential Media** – media that differentiates between different microbe types
9. **Generation time** – the amount of time it takes for the population to double in number

Chapter 7

1. **Asepsis** – without contamination
2. **Bacteriostasis** – when the growth of a microbe is inhibited
3. **Autoclave** – device that uses high temperature and high pressure to sterilize microbes
4. **Pasteurization** – method that uses high heat for a short period of time to reduce spoilage microbes and pathogens
5. **Thermotolerant** – resistant to heat
6. **Desiccation** – the removal of all water
7. **At the molecular level, how does radiation kill microbes?** – it damages proteins and nucleic acids
8. **What is the disk-diffusion method?** – method of evaluating a disinfectant by measuring a microbial zone of inhibition
9. **What's the difference between a disinfectant and antiseptic?** – a disinfectant is used on non-living objects, an antiseptic is used on living tissue
10. **In general, which is more resistant to antimicrobials: Gram positive or Gram negative microbes?** – Gram negative microbes

Chapter 15

1. **Broad-spectrum antibiotic** – an antibiotic that inhibits the growth of Gram negative and Gram positive bacteria
2. **Superinfection** – the growth of a pathogen that has developed resistance to an anti-microbial drug being used; and growth of an opportunistic pathogen
3. **VRE** – Vancomycin Resistant Enterococci
4. **Protease inhibitor** – an anti-viral drug that inhibits viral proteases
5. **Interferon** – an anti-viral or anti-bacterial drug
6. **Kirby-Bauer Test** – a disk diffusion test to evaluate bacterial resistance/susceptibility to antibiotics
7. **List 2 mechanisms of antibiotic resistance** –
 - a. ejects drug from cell
 - b. prevents penetration of drug into cell
 - c. enzymatic destruction of drug
8. **Synergism** – when two drugs used together are more effective than either one used alone

Chapter 11

1. **Etiology** – the cause of a disease
2. **mutualism** – a relationship between two or more organisms in which each organism benefits from the other
3. **normal microbiota** - the permanent resident micro-organisms that live in or on a host
4. **Probiotics** – living microbes inoculated into a host and intended to exert a beneficial effect
5. **Syndrome** – a specific set of signs and symptoms that accompany a disease
6. **Communicable disease** – a disease that can be spread from one host to another
7. **Incidence** – the number of new cases that occurs in a population during a specified time period; may be an indication of the rate of spread of the disease
8. **Latent disease** – disease in which there are no signs or symptoms
9. **Septicemia** – growth of microbes in the blood
10. **Reservoir of infection** – the species that are the continual source of infection