

Concepts to Know for Quizzes and Practicals

1. What is heat fixing, how do you do it and why is it necessary?
2. Why do you have to air dry your smears before you heat fix?
3. Know the simple stain, Gram stain, acid fast stain: what is each used for, what stains/reagents are used for each, know how to do each procedure and understand each procedure.
4. Know that you can prepare a smear from a liquid culture and stain it to determine if the culture is contaminated. Know what to look for if it is contaminated.
5. What does iodine do in the gram staining process?
6. Know why gram positive and negative organisms stain the way they do (know about their cell wall structure and why Gram positive organisms maintain the Crystal Violet Iodine complex)
7. Know the reagents used for the Gram stain and what each does.
8. What is a mordant and a counterstain?
9. For what two diseases is acid-fast staining of paramount importance?
10. What is special about the cell wall of an acid fast positive organism?
11. Know why acid fast cells have to be stained with a special stain.
12. Know the reagents for the acid fast stain and what each does.
13. What two genera of bacteria produce endospores?
14. Why do bacteria produce endospores (under what conditions)?
15. What is special about endospores?
16. What reagents are used to do the endospore stain and what does each reagent do? Understand how the spore stain works.
17. How do you do the spore stain?
18. What are some of the diseases that are caused by sporulating bacteria?

Stuff To Identify for Practicals

1. Identify Gram positive cocci and rods and Gram negative rods.
2. Identify Acid fast positive and negative bacteria.
3. Identify sporulating bacteria.

Skills for Skills Test

1. Know how to do a simple stain, Gram, and acid fast stain.
2. Know how to prepare an A+ smear.
 - a. Proper density of cells on the slide
 - b. Cells spread out enough and not clumpy
 - c. Marking where your smear is located
 - d. Labeling your slide
 - e. Heat fixing it properly
3. Be able to focus stained slides under oil immersion.