

SKILLS TEST III – GRAM STAIN UNKNOWN

The name of the student performing this skills test must be placed at the top of the second page. *Submissions having no name shall not be scored.*

Procedure

Students shall review and use the BIOL 3702L Standard Practices regarding the labeling, incubation, and disposal of materials.

- 1) Each student should obtain an 18-24-hour broth tube or agar slant culture containing an unknown bacterium. The specimen shall be numbered. Immediately upon receiving the unknown record the specimen's code number on the attached answer sheet. Also, record the number on the unknown sign-in sheet provided by the laboratory instructor.

Note: Students who forget to record the unknown number on their answer sheet and need to recover it from the laboratory instructor shall have one (1) point will be deducted from their final score for this Skills Test.

- 2) Using appropriate technique, determine if your unknown is Gram-positive or Gram-negative and whether it is a coccus or a rod. Check the appropriate boxes on the attached answer sheet. In addition, make a drawing from your microscopic observations in the space provided on the answer sheet. Be sure to include the magnification of your drawing.

Note: To assist you in making a correct observation, you will be provided cultures of *Escherichia coli* and *Staphylococcus aureus* that you should use as controls for your Gram stain technique. The former is a Gram-negative rod and the latter is a Gram-positive coccus.

- 3) Submit your completed answer sheet to your laboratory instructor by the deadline imposed. Late submissions will not be accepted and a score of "0" shall be recorded.

Note: Because the Gram stain can vary with older cultures, students are advised to immediately make smears of their unknown and heat fix them. Preparing multiple heat-fixed smears that also contain the control organisms is advisable. These heat-fixed smears can be stored in slide containers until processed for staining. *However, do not store or transport outside the laboratory any smears that have not been heat-fixed.*

In addition, should a student wish to keep their finished Gram stain slides, they can be stored and transported in slide containers.

Student Name: _____

SKILLS TEST REPORT SHEET: GRAM STAIN UNKNOWN

Unknown Number: _____

Gram Stain Reaction: (check the appropriate box)

E. coli control: Positive Negative

S. aureus control: Positive Negative

Unknown bacterium: Positive Negative

Cell Morphology:

Bacillus

Coccus

Drawing:

Magnification _____

