

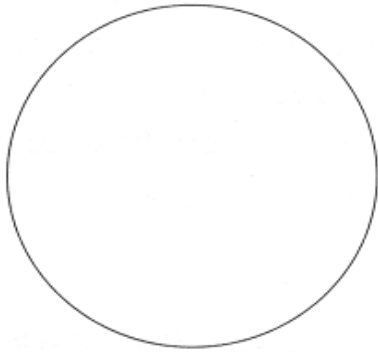
Names: _____

Datum Sheet for Labs 6 & 7 Analysis of the RNA Content of Yeast Cells

Lab 12

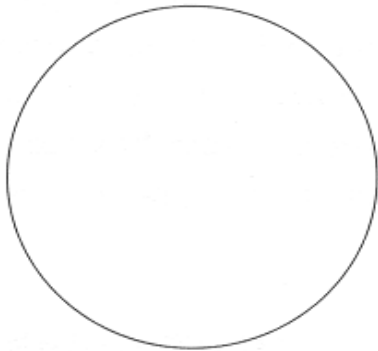
A. Include drawings of both types of yeast cells as observed under bright-field (BF) optics. Size of cells should be given in ocular units to be converted to micrometers based on Lab 2. **Put the values in the area beside the circles along with any added information you obtained by using the different microscope adjustments.** (6 points)

Size of 10 cells in OM Units



type of cell _____

Size of 10 cells in OM Units



type of cell _____

D. Calculate the total cell count in yeasts/ml in the overnight YPD culture using a hemocytometer. **Record your final value here.** (4 points)

Hemocytometer Total Cell Count _____ Yeasts/mL

- F. Determine the turbidity or optical density of the overnight yeast culture. Using Figure 6.7 or 6.8 in Lab 6, estimate the number of yeast cells/ml in your overnight culture. **Record your final value here.** (4 points)

Turbidity Total Cell Count _____ Yeasts/mL

Lab 13

- A. Calculate the viable cells/ml by counting visible colonies from your agar plates. **Show your calculations here.** (4 points)

Viable Cell Count _____ Yeasts/mL

- C. Determine the RNA content of the PCA extract of *S. cerevisiae* prepared in the first part of this lab. (4 points)

Total Volume of PCA Extract _____

Total RNA content (ug) in PCA Extract _____

- D. Determine the amount of RNA per yeast cell. Use the cell counts you obtained using the hemocytometer for these calculations. Show your calculations here. (4 points)

RNA/yeast cell _____

- E. Attach to this datum sheet a graph for your RNA standard curve. (2 points)

- F. How do the sizes of the RNAs you observed compare with the yeast ribosomal RNAs described in the introduction to lab 6? (2 points)