AP Biology Final Exam – Fall 2016
Mr. Sprague

Topics	Hillis Chapters 1–14, Chapter 41, and Appendix B (statistics)
Required Calculator	Four-function with square root (no scientific or graphing calculators allowed)

Section I — **Friday, January 20, 2017**

Reading Time	10 minutes (to read the questions and plan your answers)
Writing Time	1 hour and 20 minutes
Number of Questions	2 essay questions and 6 short free response questions
Percent of Exam Grade	50% (25% essay questions and 25% short questions)
Writing Instrument	Pen with black or dark blue ink
Suggested Writing Time	22 minutes per essay and 6 minutes per short question

Section II — **Monday, January 23, 2017**

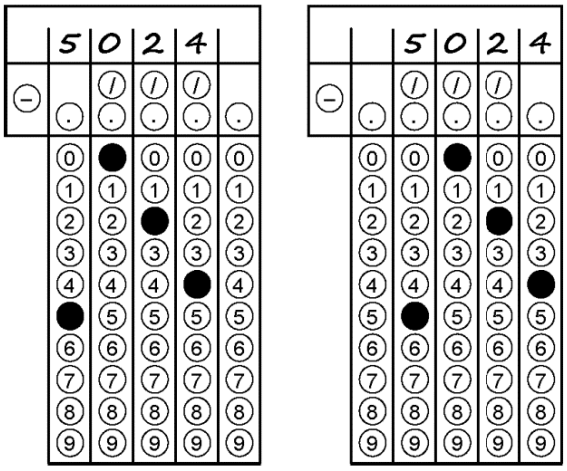
Time	45 minutes
Number of Questions	27 multiple choice questions and 3 grid-in mathematics questions
Percent of Exam Grade	50%
Writing Instrument	Pencil required

Concepts to Review since Exam 5 (Hillis chapters 12, 13, 14):

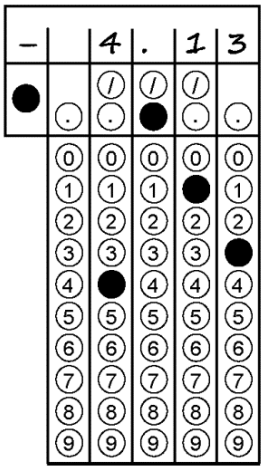
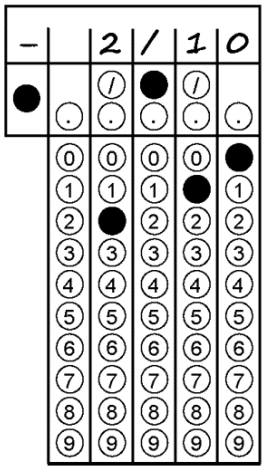
- Biotechnology and Evolutionary-Developmental Biology
  - Understand stand the terms *recombinant DNA* and *restriction enzyme* and those they are used in labs.
  - Be able to describe the processes of *gene sequencing*, *genetic engineering*, *cloning*, and *gel electrophoresis*.
  - Be able to interpret data and diagrams of bacterial transformation experiments.
  - Be able to discuss the benefits to society and concerns about genetic technology.
  - Be able to explain how changes in gene expression leads to *cell differentiation*.
  - Be able to explain how the spatial location of cells influences gene expression.
  - Be able to explain the role of developmental genes in evolutionary history.

Sample Answer Sheet for Grid-In Questions:

Integer answer: 5024
(either position is correct)



Decimal answer
−4.13



Fraction answer: −2/10
(does not have
to be reduced)