

## Bi/CNS/NB 150 Final Examination

Due: Friday, Dec. 11, at 4:30 pm

**You may not read past this cover page before beginning this timed exam.**

- The exam covers all lectures and readings and emphasizes material after Oct. 26.
- The exam accounts for 30% of your final grade (7.5% per question).
- Choose only FOUR of the five questions in the exam and indicate them clearly.
- The number of pages is provided for each question. “End of question X” at the bottom of a page indicates the final page for that question.
- The exam has a total of 22 pages. Count the pages before you begin.
- 4 hours are permitted for completion of the exam. Use the first 30 minutes to calmly read the exam and choose which four questions you will answer. Use the remaining 3.5 hours to answer these questions.
- If you pass 4 hours, you may place a thick line across the page, complete the exam below that line, and indicate how much time you used beyond 4 hours. Credit may be given for answers completed past 4 hours.
  
- You may only refer to lecture slides, your notes, this year’s problem sets, and the Kandel textbook (including the digital version) to complete the exam.
- You may not use the Internet while taking the exam, but you may use a computer.
- You may not collaborate or discuss questions or answers with anybody before the exam’s due date.
  
- If you think you need to make further assumptions to answer a question, you can provide those assumptions and the reasons for them with the answer. However, no further information should be necessary to answer any questions correctly.
- Include your name and the page number on every page.
- Use a separate page for each question.
- Use complete, grammatically correct sentences.
- Submit with this cover page.
  
- Type all your answers. Scan or photograph answers that cannot be typed (drawings).
- If you prefer, you may write your answers by hand within the allotted 4 hours, and then type them up exactly as you wrote them by hand afterwards (with no time limit).
- E-mail to the head TA ([jcolas@caltech.edu](mailto:jcolas@caltech.edu)). You may not submit a hard copy as before.
- Note that late submissions will not be accepted without prior approval.

Name:

Time and date submitted:

Total pages (including cover page):

Time spent completing exam: