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Sample Final Exam, 100 Points, Three pages of notes allowed
Winter 2013
Indicate the proper behavior for the given code segment and mark the appropriate letter in the space provided on the left hand side of the page. If you wish to completely explain your reasoning for your selections, we will consider them when we grade. Each correct answer is worth 10 points, for a total of 20 points.

| 1. | Which of these four lists are displayed by the following Python program ```[3,4,2,6,9,8,7] [3,2,4,5,8,7,9] [2,3,4,6,7,8,9] [9,8,7,6,4,3,2] List A List B List C List D def swapItems(item1,item2): return (item2,item1) def organizeList(tList): for i in (range(len(tList)-1)): if tList[i] > tList[i+1] : (tList[i],tList[i+1])=swapItems(tList[i],tList[i+1]) return tList aList = [3,4,2,6,9,8,7] print(organizeList(aList))``` <br> A. List A <br> B. List B <br> C. List C <br> D. List D |
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|  | Given the following Python program: ```courseList={} totalEnrollment=0 courseCnt = int(input("Course Count ")) for i in range(courseCnt): courseNum=input("Course ") enrollment=int(input("Enrollment ")) totalEnrollment = totalEnrollment + enrollment courseList[courseNum] = enrollment avgEnrollment = totalEnrollment/courseCnt print("Average enrollment is ",avgEnrollment) for course in courseList: if courseList[course] > avgEnrollment: print(course)``` <br> what does it do? <br> A. Lists all courses taught on Tuesdays <br> B. Lists the average enrollment in each course <br> C. Displays those courses with above average enrollment <br> D. Shows who is teaching more than a single class |

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| Select the program version that correctly implements the problem description. In the example output, bold characters represent user input. Assume that all program versions are syntactically correct, though these programs versions may experience runtime errors. |  |
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| - 3 . | Problem Description: The program will allow the user to enter two numbers, it prints them, and then it prints them in the opposite order. ```enter first item 10 enter second item 34 I'll turn 10 and 34 into 34 and 10``` <br> Program Version A. <br> item1 = input("enter first item ") <br> item2 = input("enter second item ") <br> print("I'll turn ",item1," and ",item2," into") <br> hold $=$ item1 <br> item1 = item2 <br> item2 = hold <br> print(item1," and ",item2) <br> Program Version B. <br> def swapItems(item1,item2): <br> return (item2,item1) <br> item1 = input("enter first item ") <br> item2 = input("enter second item ") <br> print("I'll turn ",item1," and ",item2," into") <br> (item1,item2) = swapItems(item1,item2) <br> print(item1," and ",item2) <br> Program Version C. <br> item1 = input("enter first item ") <br> item2 = input("enter second item ") <br> print("I'll turn ",item1," and ",item2," into") <br> print (item2," and ",item1) <br> Select D. if either all of these correctly implement the problem or none of them do |

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| For the following multiple choice questions, select the best answer |  |
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| - 4. | Given the following Python program, what is the output if I enter 100? $\begin{aligned} & \text { bill }=\text { input }() \\ & \text { total }=\text { bill }+ \text { bill } \\ & \text { print(total) } \end{aligned}$ <br> A. 200 <br> B. 100100 <br> C. 0 <br> D. Nothing, I will get an error |
| _ 5 . | A function $\qquad$ information through parameters and $\qquad$ information through the return statement <br> A. compares/modifies <br> B. receives/returns <br> C. floats/symbolizes <br> D. none of the above |
| - 6. | Before you use a text file within a Python program you must first: <br> A. close it <br> B. open it <br> C. bless it <br> D. invert it |
| - 7 . | The following program contains: <br> total=0 <br> while True: <br> total $=0$ <br> total=1045 <br> A. a function <br> B. an infinite loop <br> C. explanatory comments <br> D. a decalibrated do-hickey |

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