

CPSC 217: Extra midterm review questions

Multiple choice questions

1. The UNIX command _____ could be used to see the contents of a file.
 - a. cd
 - b. ls
 - c. more
 - d. see
 - e. None of the above commands would allow you to view a file.
2. Which of the following are examples of storage devices that allow for the reading *and* writing of information?
 - a. A hard drive
 - b. A floppy disk
 - c. A CD-ROM drive
 - d. (a) & (b)
 - e. All of the above
3. Which of the following lists correctly ranks these devices from *fastest to slowest* in terms of access time?
 - a. Processor, Hard drive, RAM
 - b. Processor, RAM, Hard drive
 - c. Hard drive, Processor, RAM
 - d. Hard drive, RAM, Processor
 - e. RAM, Hard drive, Processor
4. Which of the following is an example of a solid state storage device?
 - a. A magnetic hard drive
 - b. A DVD-RW drive
 - c. A USB flash drive
 - d. More than one of the above answers is true
 - e. None of the above
5. What would be reasonable CPU clock speed for a new computer that you would buy today?
 - a. 1 Hz
 - b. 4.0 Hz
 - c. 233 MHz
 - d. 3 GHz
 - e. 1 THz

6. _____ is volatile in the storage of information (lasts so long as power is provided)
- Magnetic storage
 - Optical storage
 - RAM
 - Solid state storage devices
 - None of the above
7. If you were passing through a strong magnetic field which of the following storage devices may have its data corrupted?
- A floppy disk
 - A CD-RW
 - DVD+R
 - DVD-RW
 - More than one of the above answers is true
8. What would be a reasonable amount of RAM that you would expect in a new computer that you would buy today?
- 1 Byte
 - 1 Kilobyte
 - 1 Megabyte
 - 1 Gigabyte
 - 10 Terabytes
9. In terms of a Python program which of the following is true about the variable 'num' in the program below?
- ```
num = 3.14
```
- num is a floating point variable
  - num is an integer variable
  - num is a real number variable
  - num is a string variable
  - The type of information associated with variable num cannot be determined solely from the above program
10. If the number 111777 were entered by a user using a 4 digit mantissa what number would actually be stored?
- 1
  - 1117
  - 1777
  - 111777
  - 777111

11. \_\_\_\_\_ is a reasonable maximum optical drive capacity for a new computer that you would buy today.
- 1 Bit
  - 1 Byte
  - 1 MB
  - 100 MB
  - None of the above
12. The \_\_\_\_\_ is the piece of hardware in which most of the other hardware is inserted into.
- CPU
  - Hard drive
  - Motherboard
  - RAM
  - Storage
13. What will be the output of the following program?
- ```
name = input ("Type in your name: ")
print("Name:", name)
```
- Name name
 - Name: name
 - Name: James Tam
 - Name: James Bond
 - None of the above selections correctly and completely characterize the output
14. Which operator is used for finding the remainder of a division operation?
- *
 - %
 - exp()
 - exponent()
 - None of the above

How many times will the loops in Question 15 - 17 execute

15.

```
i = 1
while (i <= 7):
    print(i)
    j = 11
```

- 9
- 10
- 11
- This loop will never execute
- This is an endless loop

16.

```
for i in range (0, 13, 3):  
    print (i)
```

- a. 4
- b. 5
- c. 6
- d. 13
- e. 14

17.

```
i = 1  
while (i < 7):  
    print(i)  
    i = i + 1
```

- a. 0
- b. 1
- c. 6
- d. 7
- e. This is an endless loop

Short answer questions

Question 1:

In the space provided you are to specify the output of the following program.

```
print("t\t\\\n")
```

```
print('...')
```

<< **Start answer space** >>

Question 2:

What's the output of the following program?

```
x = "sheen"
```

```
y = 51
```

```
z = 1/3
```

```
print("%d\nd\t%s" %(-7,"miley"))
```

```
print("\%6s\'-4%-3d%.2f" %(x,y,z))
```

<< **Write your answer here** >>

Question 3:

Evaluate the following logic expression being sure to show all the intermediate results.
NOT ((True AND False) OR (NOT (True OR True)))

Question 4:

Canada employs a 'progressive tax' system (primary source: <http://www.cra-arc.gc.ca/tx/ndvdl/fq/txrts-eng.html>). The following is a modification of the actual tax system. If \$10,822 or less then you pay no income tax. Income over \$10,822 up to and including 43,561 is taxed at 15%. For income more than \$43,561, but not more than \$87,123, the tax rate is 22%. For income more than \$87,123, but not more than \$135,054, the tax rate is 26%. For income is more than \$135,054, the tax rate is 29%. For the purposes of this question a person will only be classified into one of the above tax brackets e.g., a person earning \$100,000 pays a 26% tax rate. Modify the program below so that it calculates and displays: the amount of tax owed and income after taxes have been deducted.

```
grossIncome = 0
taxesOwed = 0
incomeAfterTaxes = 0
grossIncome = int(input("Enter your yearly income: "))
<< Write your answer here >>
```

<< End of answer space >>

```
incomeAfterTaxes = grossIncome - taxesOwed
print("Gross income %d" %grossIncome)
print("<Less tax %d>" %taxesOwed)
print("Income after taxes %d" %incomeAfterTaxes)
```

Question 5:

(From the University of Calgary calendar 2012 - 2013 Page 338). The prerequisites for CPSC 331 are the following: “One of Computer Science 219, 233, 235 [JT: the calendar includes Computer Engineering 339 but for simplicity you can exclude it from this question] and one of Mathematics 217 or 273”. Modify the following program so that the message “pre-requisites met” appears if the student has taken the appropriate course and the message and the message pre-requisites not met” otherwise. You can assume that the course information will come in as a string: Computer Science courses will be abbreviated as CPSC, math courses abbreviated as MATH. The format will be as follows <Course name><Space><Course number> e.g. CPSC 231

```
cpscCourseTaken = input("What Computer course have you taken: ")
mathCourseTaken = input("What Math course have you taken: ")
```

<< Write your answer here >>

<< End of answer space >>